Educational Horizons

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"Man's mind cannot grasp the causes of events in their completeness, but the desire to find those causes is implanted in man's soul. And without considering the multiplicity and complexity of the conditions any one of which taken separately may seem to be the cause, he snatches at the first approximation to a cause that seems to him intelligible and says: 'This is the cause!'" -- Leo Tolstoy -- Chapter 1, Book XIII of *War and Peace*

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This book – and really many of my other works as well – is for my wife, Maureen, who has generously provided an array of environmental conditions -- including emotional support -- that have helped to enable me to carry out research and writing amidst the difficulties of life.

Introduction

To date, I have written forty, or so, books. For a variety of reasons, the present work might be my last one.

Among other things, none of us knows when the word "Time" might be uttered in conjunction with one's life. As if participating in some SAT-like test, when the fateful word is said, one will be required to stop in mid-sentence, turn in one's test booklet along with an accompanying number-2 pencil to the monitors and, then, exit from the room.

Fortunate is the individual who is afforded the opportunities to give written expression to what flows through his or her being over the years … and I have been one of those fortunate ones. However, I am well aware of the fact that the grains of sand that mark the time still left to me are quickly disappearing from the container of my life … and this realization has had an essential role to play in shaping the structure of this book.

I have a few remaining creative projects awaiting my attention on my unofficial 'Bucket List'. Those entries might, or might not, be completed, but they are not likely to be even remotely as time-consuming as the present book has been and continues to be.

More than six years ago I finished writing the book (*Beyond Democracy*), and almost immediately began undertaking research for the current work. Some 65-80 books, numerous articles, a variety of DVDs, and a great deal of reflection later, I am ready to try to fill up white space with black lettering – hopefully in a coherent, constructive, and insightful manner.

Beyond Democracy explored areas of: history, legal philosophy, political science, psychology, constitutional law, and economics. The present book critically reflects on issues involving education.

I envisioned the two works – *Beyond Democracy* and *Educational Horizons* -- to be complementary to one another. I suppose the readers, if any, of the two works will have to make their own judgments on the matter.

In the foregoing paragraph I said "readers, if any". I do not use the phrase advisedly because there is a very real possibility that no one might bother to read what I have written.

The foregoing possibility is not as ominous as it first appears to be. I am a writer, not an author.

Authors write for an audience. Writers, on the other hand, do what they do irrespective of whether or not there is, or will be, an audience to engage their efforts.

Don't get me wrong (and notice that in saying this I am acknowledging a hope that someone will be reading my words), I am happy when people buy my books. Over the years, I have sold thousands of books in a variety of countries, but some books have succeeded better in this respect than other literary creations of mine have done, and some of those 'successful' books even have ended up on library shelves in a number of countries, including several prestigious universities.

However, there are some exemplars of my literary progeny that lead relatively neglected lives. It is like in those movies where the hero or heroine has written a book and is approached by a member of the audience after a lecture, and the latter individual indicates how much he or she liked one or another book written by the hero/heroine and the latter says with an ironic smile: "So, you are the one."

A few years ago, I saw the film documentary: *Stone Reader* by Mark Moskowitz. The film delved into the somewhat strange case of an American writer, Don Mossman, who had written a novel entitled: *The Stones of Summer*.

For a number of reasons (e.g., the publisher went bankrupt shortly after the book came out, there had been very little marketing for the book, and the writer suffered a nervous breakdown at some point following the release of his work), very few people ever purchased the book. The aforementioned movie contained interviews with a variety of people who had read it and thought very highly of the book.

My wife saw the movie with me and, as a result, was inspired to buy the book. However, although she is an avid reader (and every year at Christmas I buy her a gaggle of books that constitute part of her reading list for the following year), she never was able to get very far with the Mossman novel.

In any event and for whatever reason, there might be many reasons why a book never goes anywhere. An independent bookseller

in downtown Bangor, Maine has, on several occasions, been kind enough to display works of mine in his bookstore but has told me on each occasion that unless the book gets reviewed via one means or another, the chances of anyone purchasing my books are slim to none.

While some individuals seem to have the knack to induce others to become interested in what they are doing, I have never been one of those people … though, from time to time, I have tried to accomplish this but with almost invariably null results. Since I publish my own books and because there is no money in the budget to market them, the works tend to get tossed about by the cosmic winds … like some lonely seed that lands on fertile or barren soil as fate decides the matter.

During my research for the current book, I repeatedly was amazed by the number of individuals in the history of science and mathematics who discovered or created something of a very remarkable nature only to have their discovery/creation be ignored by fellow scientists and mathematicians for years, if not decades. I am not sure that what I have to say in this book can be considered to be all that remarkable, but it is strangely comforting to realize that even a very good work can go unnoticed for considerable periods of time.

Ultimately, however, even if no one were to read this book (or some of my other works), I am at peace with such a possibility. My writing is one of the ways that I try to bear witness to the truth … at least to whatever extent I have succeeded in accurately grasping some limited facet of reality's complexity, depth and vastness.

Howling at the moon, so to speak, through my written words is a sort of modulated primal scream. It is my way of giving expression to an essential dimension of the facticity of my existence.

When faced with a choice between, on the one hand, never managing to have written something or, on the other hand, having managed to write something that no one will ever read, I would always select the latter option. Of course, the best of all possible worlds would be to write something, have it read, and for that piece of writing to have a salutary effect of some kind for those who have encountered it, but I am prepared to live with just being able to write something that I have wanted to write, and the present book is something that I have wanted to write for some time.

Quite independently of whether, or not, someone else reads what I have to say, I have benefitted from every book that has bubbled to the surface from the deep reflective pools within me out of which those creations originate. Writing helps to organize and clarify my thinking, and, then, there is also the amazing experience of seeing ideas and insights emerge during the course of writing that I had not anticipated prior to their appearance in my surface consciousness … as if 'something' is teaching me as I go along.

Approximately eighteen years ago, I wrote a book that eventually (after several naming sessions) was given the title: *Evolution and the Origin of Life*. The work encompassed (through a fictionalized court case somewhat akin to *Inherit the Wind*) a critical overview of the arguments that were directed toward providing an account of pre-biotic or chemical theories concerning the origin of life.

I sent out copies of the book to a variety of people. Some of those individuals were inclined toward some version of Creationist theology, and some of those recipients were proponents of evolutionary theory.

Neither of the two sides appeared to be interested in what I had to say on the matter. Stated in a slightly different manner, if the individuals I sent the book to did have an interest, that interest was not sufficiently great to induce them to enter into some sort of dialogue with me.

I do recall a conversation with a professor of anthropology from the University of Toronto that took place several years prior to the release of the aforementioned book on evolution. The exchange occurred during a recess that had been called with respect to a meeting about textbook bias that was being held under the auspices of the Ministry of Education for the Province of Ontario.

The professor – I was a graduate student in educational theory at the time – was incensed at, and full of sarcastic contempt for, the idea that anyone (namely, yours truly) could be so ill informed and scientifically backward as to question the truth of evolutionary theory. I was not advancing a Creationist position during the conversation, but, rather, I had a lot of questions concerning an array of lacunae in the evolutionary position with respect to the issue of the origin of life on Earth.

The professor refused to listen to anything that I had to say. He was open-minded, objective, and empirically oriented in a way that all too many professors have been that I have encountered over the years (both as a student and as one of their colleagues) ... which is to say: not at all.

Be that as it may, I subsequently decided to add my two cents worth in relation to the great debate on evolutionary theory, and the result was the book: *The Origin of Life*. The book was rooted in considerable research on the subject, and in the process I read, among other works: Watson's *Molecular Biology of the Gene*, Lehninger's *Principles of Biochemistry*, as well as textbooks on cell biology, cell physiology, developmental biology, membrane functioning, as well as a wide variety of technical research on evolutionary theory.

Upon completion of *The Origin of Life*, I anticipated writing a sequel to that work within a reasonably short period of time ... and even intimated as much in an earlier version of the foregoing book's introduction. However, other projects and issues took priority, and, therefore, quite a few years passed by -- approximately nineteen years' worth -- before I could find an opportunity to even begin to pursue the possibility that had been envisioned so many years before.

By the time the foregoing window of opportunity opened up, the original idea for a sequel to the book on evolution became reconfigured in my mind. Although an updated engagement of the evolutionary issue continued to form part of the intended project, I wanted to expand things in a way that also would include forays into methodology, psychology, neurobiology, quantum physics, string theory, relativity (both special and general), cosmology, mathematics, philosophy, and education.

I always have been interested in searching for the truth ... whatever the nature of such truth might be. Unfortunately, many people seem to feel there is an unbridgeable chasm between science and spirituality and that the two are involved in some sort of zero-sum game in which one or the other is the winner while the remaining side loses.

To be sure, there are certain kinds of theological perspectives that do not fare well when critically examined in the light of various evidential considerations. Consequently, those individuals who have

tied their intellectual fate to theologies that appear to be untenable when filtered through the light of scientific evidence often tend to feel threatened by, and antagonistic toward, the presence of science.

Nevertheless, I never felt that evolutionary theory, quantum physics, modern cosmology, or psychology constituted direct threats to the idea of God's existence. Instead, I entertained the possibility that the discoveries of scientists were inducements to re-think what I thought or believed I knew concerning the nature of my relationship to the Ground of Being.

Quite frankly, if one were so inclined (which I am not, and the series of volumes that give expression to my writing is a testament to that fact), one could accept the vast majority of the basic tenets of modern science as true descriptions of the nature of reality and not encounter anything that demonstrated, or even remotely indicated, that God didn't exist. One might have to rework one's ideas about God's relationship to the universe or what the nature of the laws were through which God operated, but there was nothing in science or mathematics that couldn't be reconciled (and done so relatively easily) with a broader, richer, more nuanced understanding of the notion of an on-going Divine presence with respect to the manner in which the physical and biological universe is manifested in everyday life.

On the other hand, one also could critically examine the tenets of science and mathematics (which the current book does) and ask whether, or not, the best way to engage life should be limited to science and mathematics. Napoleon was once reported to have observed that there was nothing in a book on physics written by Laplace that mentioned the Author of the universe that was being described (the universe, that is, not the Author) by Laplace in the book at issue, and the scientist is reported to have said: "I have no need of that hypothesis", but, perhaps, Laplace was operating out of an extremely impoverished and distorted hermeneutical framework when he said what he did.

For example, however impressive Laplace's book on physics might have been, nothing in that book explained how life, reason, consciousness, intelligence, creativity, or language were possible, and, yet, all of these qualities helped make the writing of his book a reality. Therefore, at the very least, Laplace might be considered to have been

a tad premature in concluding that he had no need for a hypothesis concerning Divinity with respect to the workings of the universe.

Furthermore, offering a description of something is not necessarily the same thing as providing an explanation for the phenomenon being described. Laplace could describe a variety of physical dynamics with a fair degree of accuracy, and, as a result, he could solve numerous problems in physics, as well as make reliable calculations concerning different phenomena.

Yet, Laplace had absolutely no explanation for what made any of the capabilities underlying his problem-solving and reliable calculations possible. Furthermore, Laplace could not explain why the universe was the way it was, but, instead, he was limited to describing the surface dynamics of only certain aspects of physical reality.

For instance, he could mathematically capture the effects of gravity. However, he had no idea (nor did Newton) what gravity actually was … only that it appeared to operate in accordance with a certain kind of regularity that could be described through mathematics.

Since the nineteenth century, scientists and mathematicians have added considerable detail that, in a variety of ways, both altered and deepened their understanding of such descriptions. Yet, there are still many, many unanswered questions concerning why the phenomena of the universe have the properties and qualities they do.

Given the foregoing, one is led to the following problem: How should one proceed? Are science and mathematics the best way forward, or should one entertain some other possibility, and, if so, what would the latter possibility entail?

In 1959, C.P. Snow, a chemist and novelist, delivered the Rede Lecture at Cambridge University. The first portion of his presentation addressed the idea of 'two cultures' and how those cultures seemed to be at loggerheads with one another in Western society and, as a result, were impeding the chances of making progress with respect to solving a variety of problems in the world.

The term: 'two cultures' alluded to the different kinds of social, intellectual, historical, and behavioral values that led to the rise, respectively, of the sciences and the humanities. Among other things,

each culture seemed disgruntled with the 'fact' that individuals who were members of a given culture were largely illiterate concerning the nature of the culture to which they did not belong.

Scientists didn't appear to know much about the humanities, and proponents of the humanities didn't appear to understand much about the nature of science. When they talked with one another, their words seemed to tumble, unheeded, into the great darkness that surrounded and separated them.

I tend to believe the only culture that is worthy of being pursued is that which is dedicated to pursuing the truth. Neither scientists nor advocates of the humanities necessarily have priority when it comes to the issue of truth or the nature of reality … although each set of individuals might have important (but far from exhaustive or definitive) contributions to make with respect to such an endeavor.

When I was an undergraduate at Harvard back in the mid-to-late 1960s, I wrote a thesis and was required to orally defend it. During these latter proceedings, a member of the examination committee noted that he didn't see much of current research reflected in my thesis, and he was right since I didn't feel that current research in my field (which was psychology) reflected much of reality … although there were bits and pieces here and there that I considered to be of interest and value.

In other words, the criticism being advanced by my examiner appeared to be that I wasn't a true card-carrying member of the culture of psychology, and, apparently, this was in some way troubling to, or disconcerting for, that person. I encountered the same sort of mindset later on during graduate school (in two different programs at two different universities) and, as a result, spent sixteen years in exile before discovering a way -- and a set of people – that would permit me to tangentially touch down long enough in such a culture to be able to obtain a doctorate.

While I certainly can't claim that I have cornered the market on truth, the search for truth has always been close to my heart and mind. At different points in my life, the nature of the search was shaped and colored by my interests at the time.

For example, early on, I engaged things through religious filters. Then, over time, I tried on scientific, philosophical, psychological, political, and mystical glasses ... each pair of lenses filtering reality through its own unique qualities.

Despite various differences among the foregoing sorts of filters, all were framed by the same kinds of questions: Who am I? What is the purpose, if any, of life? What is the nature of reality? What is the good, or the just, or the moral? What makes reason, consciousness, intelligence, creativity, language, and life possible? What methods should I employ to seek the truth? How should I proceed in the face of incomplete and/or uncertain information?

When one is young, the future seems to be a matter of limitless possibilities. One feels confident that one has enough time within which to arrive at reliable answers for all one's questions, but funny things happen on the way to the forum of final destinations.

Now, here I am, some five decades later, and I still am embroiled in the same questions, problems, and issues noted previously with no guarantee that I am any closer to the truth than I was all those many years ago. One major difference between then and the present, however, is that I strongly suspect that I don't have much longer to come up with an answer for the problem of reality ... the endless horizons of youth have been telescoped down to the ramshackle room of old age whose surrounding walls are moving relentlessly inward.

In some ways my situation reminds me of the television show *Jeopardy*. More specifically, after the contestants have gone through several rounds of providing answers in the form of questions, toward the end of the show the participants are confronted with the challenge of the 'Final Jeopardy' phase of the program.

During this facet of things, the contestants are given one last question by their host, Alex Trebek. The former individuals can bet as little or as much as they like from the funds they have available to them for having correctly answered questions raised in the earlier part of the program.

The three participants contemplate their respective financial situations and reflect, in silence, on the answer that is to be given in response to the '*Final Jeopardy*' question. If a person bets a lot and is

wrong, then, depending on what other contestants do, he or she likely will not be the individual who will get to appear on the next edition of *Jeopardy* to defend her or his title. On the other hand, if an individual bets a little or a lot and gives a correct answer to the '*Final Jeopardy*' question, then – and, again, depending on what other contestants do -- that person might come out on top and get to participate in a future show ... maybe even face off against a computer somewhere down the road.

The fact of the matter is: Whether we like it or not, we are all engaged in our own version of *Final Jeopardy*. The question for all of us is: What is the nature of reality? The bet we are placing is doled out in the denominations of our lives, and the period we spend contemplating our response – with or without the accompanying *Final Jeopardy* music -- represents the time we have left on this Earth to form an answer.

Of course, the existential challenge with which we all are faced is a lot more complex than the sorts of categorized factual questions that are asked by Alex Trebek. Consequently, it might be a little cumbersome for any of us – per program rules – to state our answer in the form of a question, and, therefore, perhaps the rules of the real life form of *Final Jeopardy* should be relaxed a little to permit contestants to write, in declarative form, as little or as much as they like in responding to the *Final Jeopardy* challenge.

This book (and the other volumes in the series) represents, in a sense, my response to the aforementioned *Final Jeopardy* question – namely, what is the nature of reality? I have no idea whether the answer I am giving is right or wrong, but I am fully committed to the answer being expressed, and in that sense I am betting my life that the answer being stated herein is correct ... more or less.

Now, Alex Trebek is a pretty smart guy and has studied philosophy during his years of attending university in Canada. However, I'm not sure that he has been supplied by the 'powers that be' with the official answer to the foregoing *Final Jeopardy* question.

However, at the risk of mixing metaphors, I have it on good authority that the following words of Ed McMahon have been heard reverberating in and around us as we contemplate the nature of our answers to the *Final Jeopardy* question:

"I hold in my hand the envelopes. As a child of four can plainly see, these envelopes have been hermetically sealed. They've been kept in a #2 mayonnaise jar on Funk and Wagnall's back porch since noon today. *No one* knows the contents of these envelopes, but you, in your borderline divine and mystical way, will ascertain the answers having never before seen the questions."

The Great Carnac supplied many questions to many answers. Our task is to supply one answer to one question.

Will the answer I offer match the one to which reality gives expression? Will the answer you give in response to the Final Jeopardy question reflect the nature of reality?

Some people might wish to claim that the whole Jeopardy analogy is irrelevant. In other words, irrespective of whether, or not, a person decides to answer the foregoing existential dilemma, there are no actual consequences with respect to how – or if – we respond to the *Final Jeopardy* question.

For example, such individuals might say none of us is in any actual jeopardy to lose opportunities in relation to participating on future shows. Or, no one is going to come along after the fact and be able to authoritatively inform a person that the answer she or he has offered is correct (or not). Or, irrespective of whether one is correct or incorrect, nothing follows from it ... we give our answers (or refrain from doing so) and that is the end of the matter.

Now, the foregoing sorts of considerations might, or might not, be correct. In a sense, they are the kinds of answers that some individuals might give in response to the *Final Jeopardy* challenge ... but that is all they are: Responses to the *Final Jeopardy* question.

They don't settle anything but are themselves in need of settlement. Furthermore, the people who give the foregoing kinds of answers are betting their lives that they are correct with respect to such matters.

Even if one were to suppose that this Earthly life is all there is to existence, the *Final Jeopardy* challenge remains relevant. How a person responds to the reality problem tends to shape his or her life, and, therefore, the manner in which such an individual spends her or his:

Time, money, resources, and talents will be affected by how that person engages the *Final Jeopardy* challenge.

None of us knows when "Time" will be called in conjunction with our lives. Every moment of our existence is, in effect, spent in *Final Jeopardy*, and every moment of our lives – whether, or not, we are cognizant of this -- is confronted with the problem posed by the Final Jeopardy question: What is the nature of reality?

Moreover, irrespective of how one might feel about all of this, one is, nonetheless, required to give an answer to that question. This is so even if that answer – like those contestants on *Jeopardy* who do not answer the final question because they don't want to risk whatever funds they have -- is not to issue any formal response.

I have a preliminary – and, at this point, a fairly general -- hypothesis concerning how to go about answering the *Final Jeopardy* question. More specifically, as valuable as science and mathematics are, I do not believe they can provide an adequate response to the *Final Jeopardy* challenge with which we all are faced.

This is not to say that science and mathematics couldn't form part of any such answer. Rather, the foregoing claim is, in part, a way of alluding to the fact that science and mathematics are committed to the long game – that is, the process of searching for the truth over a period of decades, centuries, if not millennia.

Furthermore, the depictions of reality that science and mathematics provide tend to change on a fairly regular basis. This is not necessarily a bad thing … especially if that changing understanding is able to describe different facets of reality with increasing accuracy.

Nonetheless, the average, current lifespan of a human being in the United States is 75 years, or so (a figure that varies in relation to such factors as: geographical location, gender, socioeconomic status, and so on). The truths that science and mathematics might discover 50 years from now will be of absolutely no assistance to the individual faced with the '*Final Jeopardy*' issue now – especially if those future "truths" change again another fifty years on further down the road of progress … life demands its answer in the present, not in the future.

However, there is an additional set of reasons for why I do not believe that science and mathematics should form the essence of a

person's approach to addressing the challenge posed by the existential counterpart to '*Final Jeopardy*'. Just like many theologians, some scientists and mathematicians often cannot distinguish between their theories and reality … not because the former necessarily reflects the latter but because there often tends to be all manner of interpretation that permeates those theories and weaves available "facts" into an understanding or filtering system that might not serve truth very well.

In fact, surprisingly, there seems to be a great deal of "magical thinking" in the mental processes that some scientists and mathematicians exhibit. In other words, there appears to be a tendency among some scientists and mathematicians to suppose that because they think that something is the case, therefore, this means that this is the way reality is, and, consequently, it is the way they want the rest of humanity to understand the nature of reality … and they will go to considerable lengths to control political decisions, media presentations, academic programs, and the distribution of resources in order to serve their approach to things.

Quantum theory, special and general relativity, evolution, neurobiology, cosmology, and mathematics all – each in its own way -- suffer from the foregoing sort of malady. I believe that scientists and mathematicians can describe a great many phenomenal aspects of the universe with considerable accuracy, but I also believe that scientists and mathematicians actually understand, or are able to fully explain, much less than what they seem to suppose is the case.

Terms such as: randomness, infinity, space, time, dimensionality, evolution, field, energy, redshifts, mass, virtual particles, gravity, and so on are thrown around as if the individuals uttering them knew what they are talking about. However, I don't believe such people necessarily understand what they are saying … even as they seek to convince other people that they do.

Much of what follows is a critique of the modern, scientific worldview, along with some commentary directed toward philosophy and education. During the process of exploring various facets of methodology, evolution, neurobiology, psychology, quantum physics, string theory, special relativity, general relativity, thermodynamics, cosmology, mathematics, philosophy, and education, I try to preserve what I consider to be of value in such areas while simultaneously

attempting to point out what I believe are many of the problems and questions that permeate those same areas.

Along the way I seek to provide an overview of what I think a plausible and defensible response to the *Final Jeopardy* challenge might look like. That response includes science and mathematics, but it also goes beyond those pursuits in a variety of ways.

Beginning in the late 1950s, I have had a tendency – unplanned though it might have been – to focus on issues of science and mathematics from time to time. Usually, and for whatever reasons, those forays almost invariably have occurred during the last three or four years of a given decade, with an occasional overlap, here and there, that might have extended into the first part of the following decade.

Since I might not make it to the latter part of the present decade, I have jumped the gun somewhat and decided to put forth -- before the mid-point of the current ten-year period -- what might well be my final kick of the can concerning such matters. However, even if I were to live to the end of this decade -- and perhaps beyond -- I am not sure that I would have the energy, health, or command of faculties to undertake another go around in relation to science and mathematics … so, carpe diem.

Should any actual readers decide to engage this book, I hope that engagement provides you with as many ideas to constructively reflect upon as the process has that encompassed my research and entailed the writing of this book. Whether you find yourself in full agreement, partial agreement, or substantial disagreement with the contents of this book, I hope that your answer to the *Final Jeopardy* challenge will serve your pursuit of the truth well in both the present and as well as in conjunction with your sojourn into the Big Sleep … perchance to dream.

Chapter 1: Educational Entrée

Appetizer

Some people think that one of the reasons why schools are failing is because children are sent to school, supposedly, to prepare them for the real world. Unfortunately, schools are not changing as fast as the real world is changing, and, therefore, according to some individuals, this disparity is creating problems for both children and society.

The foregoing difficulty is exacerbated by the fact that many educational administrators and teachers hold views concerning the nature of the real world that differ from one another in a multiplicity of ways. Obviously, this leads to a rather important question -- namely: What is the nature of the real world for which children should be prepared?

Some individuals believe the notion of educational purpose gives expression to the historical age in which it was designed – i.e., industrial age -- and, as a result, schooling has become a medium for assisting children to acquire the sort of training that would enable them to be able take their place in the work force. Based on the foregoing considerations, education becomes a process that revolves about the mass production of workers and reflects an industrial age mentality in which the lives of children are considered to be little more than resources to be developed for industry and commerce.

The foregoing approach to schooling places a heavy emphasis on inducing children to become responsive to receiving, and following, instructions. Students are rewarded in accordance with the degree to which they submit to the process of being controlled by the school or its authorities, and developing the right kind of submissive orientation, is considered to constitute a fundamental component in any form of training or schooling.

However, various individuals have noted that in today's business world, those workers who: Can think in creative ways, are able to communicate their ideas to others in an effective manner, as well as be able to harmoniously collaborate with fellow workers are considered to be the kinds of employees for which many businesses today are searching, and, yet, the foregoing qualities tend not to arise within the

context of a schooling process that encourages students to learn how to become passive and follow orders.

Despite a shift of emphasis in the foregoing notion of purpose (from fixed ways of serving the interests of business/industry to creative ways of doing so), the underlying intent of schooling being outlined above is to serve the economy. In other words, irrespective of its precise form, the central idea of schooling seems to be one of developing students to become a future resource for business, commerce and industry, even though there is a notable absence in such an approach concerning any sort of defensible rationale for why students should allow themselves to be processed in a way that is intended to serve the interests of commerce, business, and industry rather than to serve their own needs.

There also is a significant cultural contradiction that often is woven throughout the process of schooling. As pointed out earlier, the physical and mental lives of American children tend to be tightly controlled when attending school. However, modern business is placing an increasingly higher premium on the capacity of employees to be able to organize and manage their own time.

The two foregoing orientations are at odds with one another. On the one hand, in many schools, children are being conditioned to operate without any sense of control or autonomy over their lives, while, on the other hand, many modern businesses expect their employees to know how to work autonomously.

Furthermore, if students are encouraged in school to learn how to organize and manage their own lives – as many businesses would like – this tends to put individuals on a collision course with the institutions of government that, more often than not, prefer that people not learn how to organize and manage their own lives, or think for themselves. Citizens who become capable of organizing and managing their own lives tend to obviate the need for the institutions of government since the latter institutions are committed to their own ideas about how citizens should go about organizing and managing their lives.

Quite a few educators and cognitive scientists believe that autonomy is an innate emotional and psychological need. Yet, most forms of schooling today seek to suppress the foregoing tendency, and,

as a result, an array of students – some much more quickly than others – begin to withdraw – emotionally, socially, intellectually, and/or physically -- from school.

Depending on the choices one makes, each of the foregoing considerations has the potential to take education (and students) in very different directions. For example, there is a considerable difference between, on the one hand, helping children to develop a sense of control and freedom so that they can become valuable assets to business, and, on the other hand, providing opportunities to children so that children are able to develop a sense of autonomy and control with respect to their own lives quite independently of the needs and interests of the business world.

Certainly, being able to earn a living is an important consideration. However, this facet of things need not – and, in fact, should not -- be the only consideration that shapes the learning process.

Some individuals believe schooling is plagued with issues involving superficial modalities of learning that are functions of a virtually endless set of variations on the theme of rote memorization that are devoid of any real understanding concerning what is being memorized. In addition, the forms of superficial learning to which the foregoing individuals are alluding usually are connected to generic frameworks of knowledge that are pre-defined on the basis of what someone considers – often on the basis of arbitrary and artificial modes of reasoning – to be important for all children to memorize.

Exams are usually used to test how much of the foregoing kinds of required learning have been stored in memory. Unfortunately, quite frequently, once exams have been administered, much of what has been "learned" tends to be promptly forgotten, and, as a result, this indicates that the process of "learning" – such as it is – is superficial, if not non-existent … in other words, genuine modes of understanding and insight have not been established in the minds of children with respect to that kind of learning material.

The foregoing considerations lead to a number of questions. For example, what constitutes authentic learning? What topics and issues should students come to understand? What are the criteria for determining what those topics and issues should be? How does one justify the use of those sorts of criteria with respect to the issue of

drawing a distinction between authentic and inauthentic forms of education, and how should one go about determining whether, or not, a student understands whatever is considered to be authentic in nature (e.g., are examinations the best way of doing this or should the modality of probing understanding be more nuanced and complex?)?

There are still other kinds of problems that haunt the process of schooling. For example, children are expected to conform to the protocols for a standardized system of schooling in which each child is required to learn the same kinds of information and skills by means of the same methods as everyone else. Yet, as the sciences underlying individual differences have established for quite some time, children tend to vary with respect to one another in a multiplicity of ways.

Let's consider the issue of different learning styles for a moment. Various individuals tend to rely on certain senses to engage various kinds of subject matter (e.g., some are visually attuned, while others learn best by listening, and still others learn best when they are able to have a hands on approach to a given issue or subject area).

Furthermore, different children often require different sets of resources and conditions to assist the learning process. Thus, some individuals like to work on their own, whereas other children learn best when they are able to collaborate with various individuals during the learning process, or when they have the opportunity to enter into a mentoring relationship with another student.

There also are various dimensions involving the realm of biological rhythms that swirl about the issue of learning style. For instance, some children learn better in the morning (sometimes these individuals are referred to as "doves"), while other individuals are more attentive and ready to learn in the afternoon or later in the day (these people are sometimes referred to as "larks").

The previous groups of individuals have different learning styles, different rhythms of learning, different interests, different emotional needs, and different methods of coping with things. The foregoing situation points in the direction of the following question: How does one go about removing standardized formats from the classroom and replacing them with educational processes that reflect the realities of individual differences?

Some educators talk about the need to induce students to follow their passions (that of the student) in order to become fulfilled in life. Yet, there is much in the world of schooling, business, and government that is designed to impose constraints upon, and place obstacles in the way of, those who strive to pursue their passions, for, once again, government, school, and the business world usually are interested in harvesting students for purposes that tend to be antithetical to a student's interests, abilities, needs, and circumstances.

Finally, in many, if not most, American school systems, children are subject to being lectured to for more than five hours a day. Lecturing works on the premise that information must be force-fed into student containers if it is to be learned, and, therefore, most schooling treats children as passive participants rather than active collaborators or inveterate explorers.

Lecturing also tends to give little consideration to the previously noted reality that students learn at different rates, in different ways, and for different reasons. When this occurs, lecturing becomes a function of the idea that one size is supposed to fit all.

In addition, lecturing often gives expression to a methodology that seeks to control that to which children are exposed. Under such circumstances, lecturing tends to undermine the kinds of autonomy and limit the sorts of choices that might help put children in a position to be able to successfully grow their souls.

<u>Soup De Jour - John Holt</u>

When atomic weapons were dropped on Japan, Holt believed the world was facing a very serious crisis. He went in search of ways to bring about an all-encompassing sort of peace ... a form of government that embraced a set of rules and laws that would facilitate peace on Earth.

To pursue the foregoing purposes, in 1946 Holt became a member of the United World Federalists following his release from the Navy. He spent six years with that organization before disengaging from it.

At the time of his resignation, he indicated that he was as committed as ever to the idea of world government. However, he had begun to develop deep reservations concerning the methods that were being employed by the United World Federalists.

During the year that followed his withdrawal from the United World Federalists, he traveled about in Europe. When he returned from his journey, he spent time with his sister and her family in New Mexico, and during this visit, he found out about the Colorado Rocky Mountain School.

He started teaching at that school in 1953. In the beginning, his approach to teaching was a fairly conventional one in the sense that he accepted the idea of a standardized curriculum as being the right way to go about educating children, and he also believed in notions such as: Assigning homework, maintaining high standards, testing, grading, and so on.

However, within a fairly short period of time, he discovered that most of what he was teaching was not being retained. He discovered that although many of the kids in his class had attended fairly good public and private schools previously, most of them didn't know how to multiply and divide, and, in addition, he realized that his own style of teaching was not really enabling his students to learn.

At a certain point, he began to realize there was a problematic connection between compulsory schooling and learning. More specifically, one couldn't compel another person's learning through fear and force without running into problems of one kind or another since whenever compulsion was present, fear and other maladies that interfered with learning also tended to be present.

Another factor adversely affecting learning at The Colorado Rocky Mountain School involved the issue of praise. Founders of the school believed that students should be seduced into learning through the use of praise and approval rather than cajoled into learning through some sort of system of academic punishment.

However, Holt came to believe that the foregoing sort of approach had turned students into "praise junkies" in which they were more, or less, addicted to a need for a constant influx of approval and praise. Furthermore, he noticed that when they didn't receive their fix of approval, they would exhibit withdrawal-like symptoms and develop a sense of fear about the possibility of being denied such approval in the future.

Over a period of time, Holt began to look beyond the horizons of The Colorado Rocky Mountain School and began to pay attention to an array of events and historical trends that were related to the issue of education in general and not just restricted to issues that concerned only the school at which he taught. Among other things, he noticed that once every five years, or so, *Time*, *Newsweek,* or some other publication would release coverage concerning the nature of the educational crisis that was supposedly engulfing the schools of America.

For example, in 1946 a substantial controversy had arisen in many parts of the United States concerning the nature and value of progressive education. One facet of that controversy involved the firing of a famous progressive educator, Willard Goslin, who was a superintendant in Pasadena.

According to the criticism being voiced, progressive education was not helping children to learn. Therefore, critics were demanding that schools should return to teaching the basics.

Then, a decade later, Sputnik was launched. An alarm was rung about the lack of competency in students with respect to math and science, so a new commission -- headed by James Conant, president of Harvard University – was formed.

Among other things, Conant's report recommends that little schools need to be eliminated or consolidated and that big schools should be established. These large schools will contain modern science

labs that will enable the country to get back on track with respect to the learning of science.

In addition, the National Defense Education Act was passed. Changes in the process of education were being made because Americans – or, at least, some of them -- had become concerned about the Soviet challenge, and they believed that by returning to basics in some sense of the word, the interests of America could be defended.

Despite the trend in consolidating schools that followed from the report issued by the commission that had been headed by Conant, and notwithstanding the changes and money that were introduced into education as a result of the National Defense Education Act, schools and students continued to fail to become proficient with respect to math and science as well as a variety of other subjects. As a result, the School Mathematics Study Group -- headed by a professor at Yale University -- came into existence, and hundreds of millions of dollars were spent to improve mathematical instruction.

Holt notes that near the end of the 1960s Charles Silberman wrote *Crisis in the Classroom: The Remaking of American Education*. The book once again sounded a clarion cry concerning a need to take students back to basics, and, consequently, students should be assisted to develop competencies in all the right areas.

There was another call for a return to basics that took place in the early 1970s. Approximately, ten years later, in 1983, a report was released that was entitled: *A Nation at Risk?*.

The study was researched and written under the auspices of the National Commission on Excellence in Education. T.H. Bell, the Secretary of Education under President Reagan, commissioned the study.

Holt agreed with the general conclusion of the aforementioned report, namely, that schools were in terrible shape. However, he felt that the recommendations issued by that commission, as well as many other similar studies, were based on problematic assumptions about the nature of children and/or the purpose of education.

Holt came to realize that the "back to basics" idea has been regularly turning up like a proverbial bad penny. Yet, whenever the

notion of a back-to-basics program re-enters the picture, then many people act as if the notion is new and revolutionary.

According to Holt, there has never been a golden age when education was being done "correctly" … whatever that might mean. Consequently, he maintained that trying to guide the process of schooling back to the practices of such a time was a misguided approach to education.

One criticism of schools that is often heard in conjunction with any kind of back to basics movement has to do with the notion that schools are not sufficiently rigorous. However, Holt believes the reason why few, if any, of those sorts of critiques concerning the schooling process have led to improvements in education is because the people who voice those opinions usually don't have any insight into what the central problems in education actually entail.

Holt believed that one of the primary reasons why back-to-basics movements fail is that they consistently underestimate the capacity of children to learn because the individuals in charge of those movements lack insight into the nature of a child's cognitive capabilities. Holt maintained that children come into the world with extraordinary curiosity and are inherently equipped – quite independently of local school boards -- with considerable cognitive resources that enable them to learn new things.

Holt believes that children often act like scientists. More specifically, in order to try to make sense of the world that confronts them, they go about engaging the world in a fairly methodical manner.

Unfortunately, beginning at a very early age – usually coinciding with the start of school – Holt claims that adults (in the form of teachers, administrators and educators) begin to interfere with the capacity of children to learn. Adults believe that adults should be the ones who teach children how and what to learn, and this process of placing constraints on what, why, when, where, and how information is learned interferes with the dynamics of the process that a child needs to go through in order to be able to learn.

According to Holt, one of the false assumptions on which schooling is predicated is that learning is always the product of teaching. For Holt, learning is not a passive process but is rooted in an inherent

curiosity about, and love for, exploring the world and life, and, therefore, learning is not a process in which some informational substance or material called "learning" or "knowledge" is poured into an empty receptacle known as a "student".

Kids, Holt believes, can't be motivated from outside. Rewards and threats are not conducive to enhancing motivation levels within children.

There are a small percentage of children – the 'A' kids -- that learn how to play the school game of reward and punishment, and Holt notes that he, himself, was that sort of child. However, he also points out that he lost his innate sense of curiosity during the process of obtaining good grades and wasn't able to recover from this condition until he got out in the world and away from school.

Rather than engendering learning, Holt maintains that the process of schooling: Compromises, delimits, and undermines the confidence, independence, competence, and curiosity of children. Within a very short time, children are turned from curious, passionate learners into apathetic, indifferent, passive, resentful observers.

Holt wrote *How Children Fail* on the basis of his experiences with a high-powered, exclusive, private elementary school in Cambridge, Massachusetts. The students who attended that school did not come from disadvantaged homes but were from upscale backgrounds.

Nonetheless, on the basis of his experiences, he concluded that schools are places where children go to learn how to become stupid. The transformation into stupid individuals comes as a result of other people – i.e., adults -- trying to control the way in which children go about learning.

Holt believes that schools should give expression to an environment where children will be allowed to continue to go about learning in a way that is most productive for them. He feels schools should be willing to provide children with access to whatever resources are needed to develop and enhance the latter individuals' natural talents for learning with which they come into the world.

However, adults should not impose any pre-conceived ideas as to how those resources are to be used. Instead, children should be helped

to make use of such resources to create the sort of curriculum that best reflects the needs and abilities of students.

Holt is familiar with a number of concrete examples involving home schooling that approach things in the foregoing manner. He also knows of a few public and private schools that have succeeded in establishing the kinds of programs that he is advocating.

Children should be admitted to the world. They should be part of the world in which their parents live

They should be permitted to go and talk with adults – not just teachers -- about a variety of issues. Their concerns, ideas, and questions should be listened to and treated with the same respect as adults believe their own concerns, ideas, and questions should be treated.

When children express interest in a given issue of topic, they should be assisted to develop their understanding of whatever that issue might be. They should be provided with the resources that are necessary to deepen and strengthen that interest.

Problematic educational and developmental ramifications arise, Holt feels, when children are not permitted to pursue their innate capacity for learning. Among other things, they become less informed and less insightful concerning the nature of the world in which they live.

Holt feels that one of the reasons why reading competency has declined among students is because more and more time is being spent on learning a variety of reading instructions that have little, or nothing, to do with the skill of reading. Consequently, less and less time is being spent on reading per se.

He notes how Bruno Bettelheim once pointed out that every year the word count in school readers gets smaller and smaller, and, therefore, the books become duller and duller. As a result, children become less and less interested in learning how to read.

Holt indicates that a variety of teachers have run informal experiments in which a lot of interesting books were made available to children and, then, the kids were given plenty of time to read those books without any requirements – such as testing – being imposed on them with respect to that material. Invariably, reading scores took a

sharp turn upward for the classrooms where the foregoing scenario was pursued.

When children are not constantly subjected to punishment, humiliation, embarrassment, and excessive testing within an educational setting, they tend to do well. They make substantial gains in reading skills within a very short period of time.

Holt backs up the foregoing point by referring to the work of George Dennison, James Herndon, Daniel Fader, and others who all have written about the value of approaching things in the foregoing manner. For instance, Daniel Fader at the University of Michigan wrote a book called *Hooked on Books* (He has since come out with the next generation of this book titled: *The New Hooked on Books*).

According to Fader, children should be given the opportunity to read without being tested or without all kinds of conditions being placed on the reading process. Fader contends that if one establishes the foregoing sorts of conditions, then their reading competency will improve significantly.

George Dennison wrote *Lives of Children* -- which Holt considers to be one or the most important books on education that he has ever encountered. Dennison's book describes a little, private school in New York City that is attended by poor kids -- made up, in roughly equal numbers, of black, Hispanic, and white kids -- many of whom had been either kicked out of their previous schools for engaging in problem behavior or who were considered to be incapable of being educated.

Yet, for less money per pupil than was being spent by many of the schools in New York at the time, the private school being described by Dennison turned around the lives of those children. The children became more successful learners than anyone thought possible.

However, the commission members who were associated with the aforementioned governmental report (*A Nation at Risk?)* did not contact individuals like George Dennison when they were researching their report. Instead, those sorts of commissions usually insist on putting forth models that are little more than systems of controlling the process of learning so that it serves the interests of those who have vested interests of one kind or another in the process of schooling.

Holt maintains that schools are like the old story about the thief Procrustes, son of Poseidon, who would kidnap travelers during their travels between Athens and Eleusis and, then, place them on a bed. If the captured individual were too short for the bed, then, Procrustes would stretch those individuals until they fit his bed, but if individuals were too long for that bed, then, he would cut off the excess body parts so that those individuals would conform to the dimensions of his bed.

Students who are kidnapped by a school system are akin to the victims of Procrustes. They are measured against a 'one size fits all' mentality and subjected to whatever tortures are necessary to ensure that the students fit into the system of schooling.

Holt admits there is a certain experimental quality to the educational process as he envisions it, and he also acknowledges that when those experiments don't work out, students are disadvantaged. However, he contends that students already are being disadvantaged in substantial ways when they are subjected to all of the artificial and arbitrary policies that are dreamed up by educational theorists.

In addition, Holt claims that even if certain educational experiments are unsuccessful, nevertheless, his way of approaching things offers something that traditional forms of education usually do not. More specifically, rather that handing control over to some bureaucrat who rarely, if ever, steps into a classroom to determine what impact his, her, or their policies are having on children, the individuals – namely, teachers and students – who are the ones who are most directly affected by those sorts of experiments will also be the ones who are controlling what takes place, and, therefore, they will be able to make whatever adjustments are deemed necessary in the light of what has been learned about the learning process.

For Holt, all of life is an experiment. He believes the only experiments that will ever improve the quality of education are those that are performed by teachers and students in their own classrooms, and teachers should be committed to helping students to find ways of successfully coping with the experimental nature of life both within, and outside of, the classroom.

Holt believes the single most destructive idea in the realm of education is that children won't learn unless they are forced to do so.

The second most destructive idea is that children won't know what to do unless they are taught how to do it.

He feels that as long as we operate out of the kind of mind-set that has been outlined in the previous paragraph, then, no matter how many governmental commissions are established, the results of that research are not going to be able to resolve the real nature of the educational crisis that confronts America. Furthermore, even when people follow the recommendations that are issued by various government commissions, Holt maintains that the problems in schools do not disappear and, quite frequently, become worse.

Schools have continued to be bad before, during, and following the years in which all of the foregoing reports and books were issued that gave emphasis to the idea that schools needed to return to teaching basics. There are a variety of reasons why schools have continued to encounter problems despite repeated attempts to return to "basics".

For example, according to Holt, every one of the back-to-basics movements alluded to earlier ended up curtailing, usurping, and undermining the autonomy and authority of classroom teachers. For the most part, teachers have become like supervisors on an assembly line in which student learning is managed in accordance with the requirements of a program of mass production that is intended to serve the overlords of industry, banking, and government, while policy decisions concerning those programs tend to be made by people who have no interest in helping students or teachers operate within an atmosphere where the conditions of sovereignty are respected (see Appendix A).

Schooling is operated as if it were a "quasi-industrial process". So-called educators and educational policy makers design a product (student learning), together with the methods that are intended to permit such a production process to be done effectively and efficiently (i.e., schooling), and, then, the people in charge call upon teachers to supervise the foregoing process in a manner that will generate outcomes (students) who have been molded in accordance with the industrial plan for education.

Holt indicates that he has known hundreds of good teachers – teachers who were able to teach kids who other teachers said couldn't learn -- who have quit teaching. These were individuals who were able

to induce success where previously there only had been failure, and these were the individuals who actually were already doing many of the things that were just being only vaguely suggested in many of the various reports on education.

The reason why many of these individuals quit teaching had nothing to do with money. They quit because they were not permitted to have control of their own classroom.

Those teachers were always being instructed about what books they could use or what curriculum plan they had to follow. They were consistently entangled in a dense forest of rules, regulations and official policies.

Holt feels that the best way to learn how to teach is by teaching. Just as the best way to learn how to swim is by swimming and the best way to learn how to play baseball is by playing baseball, so too, the best way to learn how to teach is by actively participating in that process.

Holt indicates that he never had any educational training. He feels this was a beneficial, if fortuitous, turn of events.

He went into teaching with the understanding that he didn't really know anything about how to be a teacher. Consequently, he paid attention to his relationship with students and tried to figure out what worked and what didn't work.

Holt often has been asked about what makes a good teacher. He began by stipulating that the most important person in the learning process is the learner, and, then, he went on to stipulate that the second most important individual in the learning process is the teacher

However, a teacher is not merely someone who fills up empty receptacles with learning. Rather, a teacher is much more akin to a gardener who focuses on creating conditions that are conducive to the growth of plants.

If provided with the right kind of conditions, plants will be able to grow on their own. Similarly, students will be able to learn on their own if they are provided with the appropriate conditions in which learning, or growth, can take place.

The teacher creates an environment that is, in part, physical in nature. In other words, the teacher provides whatever books, tools, instruments, materials, and resources are considered to be necessary for learning to be able to take place.

However, the environment being created by the teacher also must be cultivated in other ways as well. These contributions include emotional, spiritual, social, moral, and intellectual components as well, and Holt considers the challenge of being able to effectively organize all of the foregoing components to be a very complex and subtle process.

One of the complexities and subtleties of the educational process has to do with the issue of freedom. Holt thinks that many teachers and educations considered the idea of freedom to be a way of inducing students to do what the teachers and educators had wanted the students to do from the very beginning.

In other words, the teachers and educators wanted students to: Complete homework, adhere to the curriculum, do well on tests, and so on. As such, teachers and educators considered the idea of "freedom" to be a technique that would enable all of their standard goals to be accomplished.

Supposedly, at least for some teachers and educators, the technique of freedom involved letting kids wear blue jeans, run around the classroom, write on the walls, and so on, until, sooner or later, the kids settled down and at that point would begin – or, so, the theory went -- to do what the teachers wanted them to do from the very beginning. However, Holt maintains that children are quite shrewd when it comes to seeing through the foregoing sort of game.

Children have the capacity to differentiate between, on the one hand, those individuals who are exhibiting sincere trust and, on the other hand, individuals who display an insincere or false sense of trust concerning the learning capabilities of children. Holt feels fairly certain that very few teachers or educators ever really trusted kids as individuals who possessed an inherent capacity to go about learning in a serious manner.

Holt feels there are entirely too many administrators who occupy the school system. They are a substantial part of the reason why

education has become so expensive, and, according to Holt, administrators also are precisely the sorts of individuals who are most likely to be resistant to, or inclined to undermine, attempts to establish a set of conditions that are conducive to the cultivation of student learning.

Unfortunately, administrators control a great deal of what occurs within any given educational systems. Their jobs depend on establishing and maintaining a sphere of influence that controls what takes place in the classroom, and, therefore, they often have a conflict of interest with respect to resolving problems if those modes of resolution (e.g., permitting teachers to be in charge of their own classrooms) were to undermine or adversely affect the parameters of the administrator's sphere of influence.

Holt believes that if one were able to bring about just two changes in school systems, learning would improve. The first change involves making schools much smaller than they are, and the second change would be to fire 9/10ths of the non-teaching employees.

As far as the size of schools are concerned, Holt feels that schools with enrollments of 200 students are about as large as schools should get, both in conjunction with elementary schools as well as high schools. Although he taught in a private high school in Boston that had an enrollment of about 100 students, nonetheless, that school offered a wider range of courses at a higher level of rigor than almost any public school with which he is familiar.

Holt doesn't believe the point he is trying to make applies only to private schools like the one in Boston at which he taught. For instance, he knows of a woman who taught in a one-room school in New Jersey and wrote a book about her experience entitled: *My Country School Diary*, and he comments there are many schools much larger than the woman's one-room school that have not been able to offer what she was able to provide her students on a fraction of the budget of the larger schools.

According to Holt, the model for a school – in terms of size – should be closer to that of the family and not the factory. Unfortunately, modern schooling has adopted the factory model, and continues to treat children as if they are raw materials that should be subjected to a form of mass production.

He has learned that many parents who home school their kids tend to agree with him. However, they constitute a skewed sample of individuals who already are inclined to engage their children along the sorts of lines that are being advocated by Holt.

Unfortunately, most adults who have regulatory control of the educational process think that children won't do anything good unless they are compelled to do so. Adults who think in this way don't believe that children have an innate capacity to be autonomous, self-motivated learners.

Holt notes that Charles Silberman and his crew of researchers visited schools all across the country. Based on their experiences, Silberman reported in his book, *Crisis in the Classroom*, that many adults within the educational process tend to display an appalling incivility toward children.

Generally speaking, Holt believes human beings have a facility for learning that for which they have a need and for which they can see there is a connection with lived life. They are not very good at learning things that someone tells them to learn because they might need to know those sorts of things some time in the future.

Holt points out that during the 1920s someone had to be very intelligent to be a good machinist. Such an individual might not have read many books, but they had to know a variety of things in order to make the kind of quality decisions that were considered to be those of a good machinist.

Holt believes that the demands made on most people in the work place have declined over the last 60 years. This is due to the impact that automation has had on industry, and, in the process, the quality of work has become degraded.

Holt mentions the work of Niall Brennan, from Australia, who -- not too long after the end of World War II -- wrote a book entitled: *The Making of a Moron*. Holt considers the book to be one of the most important books ever written and further comments that like many important books Brennan's work has largely disappeared from public awareness.

Brennan's book explores certain aspects of life in Australia toward the beginning of the Second World War when all of the men were

drafted and sent off to fight on behalf of the Commonwealth. The relative absence of capable workers in Australia left various industries scrambling to find individuals who were available to enter the work force in order to fill the jobs that previously had been performed by the people that had been drafted.

The aforementioned book talks about a particular children's home whose young occupants had serious intellectual disabilities. In the vernacular of the day, many of the children in that home would be classified as "morons" -- that is, individuals who were considered to be trainable but not capable of being educated.

The person running the home wondered if some of the manufacturing plants in the city where he lived might have an interest in employing some of the kids in his home. A few factories were receptive to the idea.

As a result, a number of the children were sent to those companies. Not too much later, the factories reported back that the kids were among the best employees the companies had ever had.

The foregoing facts suggest that the skills and abilities that someone needs in order to be able to work in factories encompass a fairly limited set of requirements. Furthermore, on the basis of Brennan's book, Holt believes that all of the talk about the need to acquire the skills that are needed to be able to work in high-tech industries is largely hype.

Holt indicates that similar sorts of things were discovered in the United States once it entered the Second World War and needed workers to replace the men who had gone off to fight the war. Women and individuals from the rural parts of the country – many of whom might never have had anything to do with tools -- went into the cities and were trained to do jobs (such as manufacturing planes and tanks) that, previously, had been done by men.

The companies didn't send their newly acquired, untrained employees to schools. Instead, the manufacturing plants paired those neophyte individuals with veteran, older workers who possessed this or that skill – for example, welding – and the latter individuals were instructed to train the newcomers, and, in less than a year, an entire industrial work force had been created through the foregoing process.

Increasingly, today, many companies have discovered they can move their companies to third-world countries and, within a fairly short period of time, have been able to train illiterate peasants to perform jobs that previously had been done by relatively highly educated Americans. As a result, Holt argues that the idea that schools need to teach all manner of subjects in order to prepare students for the modern world of commerce and industry is nonsense.

Holt disagrees with a *Newsweek* cover story entitled: "Saving Our Schools" that claims most parents desperately want schools to improve. He believes the vast majority of parents want schools to serve as a place where children can go to enable parents to go about their own lives, and, as such, school constitutes a form of preventative detention in which children will be restrained from having the opportunity to get into trouble.

In addition, he feels most parents are not interested in whether, or not, their kids learn how to read or become proficient at math. Most parents want their children to learn how to be silent while the latter individuals do what they are told.

School is largely a grading and labeling factory. A few kids are given A's and are considered good students, while the rest are considered to be losers.

As long as the primary occupation of schools is to serve as a place of preventative detention, or a means of grading and labeling people, or a place to learn how to become acclimated to boredom, powerlessness, apathy, alienation, and control, then, there will be little time or effort available for helping children actually be able to get on with the business of learning about their own potential, capabilities, and passions. In fact, real learning is incompatible with the aforementioned three basic foci of most school systems.

According to Holt, school, in the modern sense, is about 150 years old. Prior to that, schools were fairly rare, involved just a few students, and attendance was neither compulsory nor extended for a protracted length of time.

Holt believes that the idea of school conceived as a total learning institution that is compulsory in nature first arose in Prussia. In other

words, the idea of schooling is, in many respects, a 19th century invention and institution.

Holt maintains that schools did exist in the colonies. However, they were fairly limited in scope.

They involved a certain amount of Bible study. In addition, they taught reading and writing.

Most Americans did not send their children to school in colonial times. Yet, despite this, most Americans were literate.

According to Holt, part of the mythology of schooling is that the institution of schooling generated literacy. However, Holt contends that literacy existed prior to the advent of schooling, and, in fact, society in general was considerably more literate than currently is the case.

During colonial times, the printed word was important to adults. This focus was passed on to the children, and children, by virtue of their natural skill in learning, easily learned what their parents were doing.

One of Holt's foundational educational precepts arose in response to what he believed adults had done to children -- often with the best of intentions. More specifically, Holt believed that over the last several hundred years, educators have been preoccupied with creating an "institution of modern childhood" that was to be managed by child specialists of one kind or another who went intent on removing children from the adult world where, prior to the emergence of the foregoing institution, children had been ensconced.

Before the advent of the institution of modern childhood, children were exposed to the full range of what it meant to be an adult. This extended from: Birth and death, to: Courtship, marriage, work, religion, war, aging, illness, and so on.

Children observed what was taking place in the world of adults. In addition, according to their abilities and interests, they also actively participated in that world.

As a result, they learned about being an adult by both observing and participating in the world of adults. On the basis of such participation, they became useful, respected members of society.

Now, the model for children has changed. They are contained and constrained by a fenced-in area of institutionalized childhood that separates them from the world of adults.

Holt's approach to education is to try to find ways of deconstructing the fence – consisting of various laws and social customs – that adults have constructed around children. He wants to use education to re-integrate children into the world of adults by giving them the opportunity to learn about life in natural ways.

Holt moved to Boston in 1957. His first book –- *How Children Fail* –- based on his teaching experience was published in 1964, and it rocketed him into public awareness.

By 1968 -- four years after Holt's aforementioned first book was published and had become a commercial as well as a critical success -- Holt was considered to be one of the foremost proponents of school reform in his era. He often spent as many as four days a week traveling about, giving talks, and exploring educational issues with a variety of individuals all over America.

Initially, Holt felt he was establishing ties with a lot of people who shared his ideas about education and, therefore, constituted individuals who might also be open to implementing those ideas. However, within a few years, his point of view was encountering a great deal of resistance and opposition as events and people's priorities began to move in political, cultural, and educational directions that were different from his.

Holt opposed the Vietnam War. He also was a staunch advocate of the civil rights movement.

In both instances, he was supporting positions that placed him at odds with many academics and officials in universities and college. For a variety of reasons, Holt stopped teaching in universities and during 1970 founded the organization Holt Associates.

His organization emerged at a time when yet another back-to-basics tidal wave was inundating the country. Consequently, his organization came into existence during a time when the idea of free schools was considered to be an anathema to many educators.

Holt has often been asked why the "free school" notion failed. He felt there were many reasons for this including the fact that the

movement – if one can call it that -- never represented more than 1% of educators and, therefore, never really had an opportunity to become established as a way of engaging education.

He said many people believed the 1960s were a time when radical education was in vogue throughout the United States. He argues that this is a complete myth.

During the foregoing period of time Holt indicated he had traveled throughout America and rarely encountered schools that were pursuing education in a manner that was even remotely close to the way in which Holt believed things should be done. Based on his experience, he was of the opinion that not many teachers or educators actually had been able to grasp what he was saying about children with respect to the way they learn – that is, children are, inherently, "eager and skillful learners."

Holt was once asked by a friend of his in Washington, D.C. to sit on a jury that was to be given the responsibility for awarding grant money to various programs involving alternatives in education. The government agency running this program had sent out circulars to approximately 20,000 school systems across America inviting submissions concerning innovative educational projects in K through 12 classrooms that the government would be prepared to subsidize -- by amounts of up to $5 million, or more, dollars – if the program voted to fund any given submission.

Out of more than 20,000 districts to which the circulars had been sent, there were only about 400 school systems that responded to the invitation. Moreover, of the 400 applications, only 40-50 of those proposals seemed worthy of even being considered for a planning grant of $10,000 to enable them to become eligible for more financial support, and Holt notes that the foregoing program was taking place during a period in American history that was supposed to be awash with revolutionary ideas about education.

According to Holt and other members of the jury responsible for making decisions, of the aforementioned 40-50 proposals that were given planning grants, only about a dozen of the subsequent proposals seemed worthy of further consideration when they were completed. After three days of deliberations, the jury decided to fund just two of the proposals.

 The jury indicated that a third proposal might be worthy of being further subsidized if a few minor modifications were made. According to Holt, those modifications were made and, as a result, a third proposal became eligible for additional funding.

Holt was familiar with some of the individuals in just one of the participating school systems – located in Berkeley -- whose proposal had been accepted. This is because he had friends who were teaching in that area.

He later inquired of his teacher-friends who had been working in innovative and alternative schools whether, or not, their work had benefitted by the federal money awarded to that area, and they answered in the negative. His friends informed Holt that the district had taken the money and set up a very large administrative network that paid its constituents large salaries.

Holt's friends informed him that, prior to receiving grant money, the school system had, more or less, left them alone. Now, however, his friends were being required to write all manner of reports about what was going on and were required to send that material off to the highly paid administrators.

Holt didn't indicate what happened in conjunction with the other two proposals concerning alternative forms of education that were judged to be worthy of being funded. However, the one about which he did have some knowledge seemed to have become lost in a web of newly created administrative positions that appeared to be more interested in entangling teachers in the process of writing reports rather than helping them to engage students in alternative ways of learning.

Holt maintains that everything he learned that he considers to be educationally worthwhile was acquired independently of school. As a result, rather than being preoccupied with the notion of alternative schools, he began to explore the idea of alternatives to school, and wrote about this in his 1976 book: *Instead of Education*.

One year later, Holt released the first issue of his magazine: *Growing Without School*ing He thought of the publication as a vehicle for talking about issues of change … not just with respect to political ideas but, also, in conjunction with the whole of life, and for Holt,

change – whether collective or individual -- was a process that took time.

In 1981 he released the book: *Teach Your Own*. This developed the idea of home schooling as an alternative to public or private schooling.

In 1983, Holt revised his earlier book: *How Children Learn* (originally written in 1967). In this book, Holt wrote that he considered children to be a more important asset to society than any natural resource such as oil, uranium, or any other material.

He also stipulated that little children love life, and this love is reflected in how they spend their boundless energy to explore the many facets of life. This deep love is at the heart of their ability to learn about life, and he maintained that it is love -- rather than tricks, techniques, and methods – that form the core of all real learning, and, consequently, education is about finding ways to let children grow through that love of life and letting their innate curiosity concerning life learn how to take flight.

Holt knew that many parents and educational experts were not likely to agree with what he said because they were (and continue to be) afraid of giving people freedom. He says that his friend Edgar Friedenberg (who wrote: *The Vanishing Adolescent* in 1959 and *Coming of Age In America* in 1965) refers to them as "control freaks".

"Control freaks" are individuals who believe that unless they are conceiving of, planning, managing, and overseeing what is taking place, then, nothing of value will occur. And, in point of fact, according to Holt, it is precisely because of their managing, controlling, planning, testing, and overseeing that nothing is accomplished.

Learning is an active process that can only be conducted by a learner. Consequently, educational controllers add nothing to the process of learning except interference.

Learners are seeking to make sense of their world. They also are trying to find a way to acquire competency as well as be considered to be of value to that world.

Let us assume, for the moment, that Holt is right about a number of things. For example, let's assume with Holt that children have a tremendous, inherent capacity for learning and that this capacity often

operates in a way that is similar to how scientists go about their own work ... that is, methodically, rigorously, and with seriousness of purpose.

Let us also assume with Holt that children are attempting to make sense of life and that effective forms of learning are intended to assist children to make sense of life in increasingly better, heuristically valuable ways. Along with Holt, let us further assume that the role of the teacher is to help establish the conditions that will enable children to realize their potential for learning and, in the process, come to make sense of life.

Finally, let us assume, as Holt does, that children should not be removed from the world of adults but, instead, should be permitted to carry out their inquiries concerning life in the real world rather than at artificial and arbitrary institutions known as schools. Let's de-school society and provide children with the opportunity to make sense of life not through alternative forms of schooling but through establishing various modalities of learning that constitute alternatives to the schooling process.

Even if one stipulated to the truth of all of the foregoing assumptions, one still would be left with a number of problems. For instance, is merely trying to make sense of life sufficient for the needs of human beings, or do human beings need something more than a sense of meaning in their lives can provide ... such as the truth?

During the introduction to each of the previous volumes of the current series of books, I have indicated that the *Final Jeopardy* challenge involves trying – within the confines of the time one has available to one (that is, one's life) -- to provide the best possible answer one can in conjunction with one question in particular. That question is as follows: What is the truth concerning the nature of one's relationship with Being?

If truth exists, then, making sense of the world (i.e., establishing a framework of meaning) will not necessarily be sufficient for human needs. One requires a framework of meaning that reflects the nature of truth and permits one to eliminate other hermeneutical and epistemological candidates from consideration.

Obviously, if truth exists, then, it can be pursued through one of two, broad, possible ways. Either there are one or more purposes inherent in the nature of things (including the nature of one's relationship with Being), or, there are no purposes entailed by the nature of the universe, and truth becomes a process of just trying to describe and explain the way reality works, and in terms of the latter perspective, purpose becomes a function of whatever choices a person makes concerning her, his, or their reasons and motivations for applying one's understanding concerning the nature of truth about one's relationship with Being in one hermeneutical direction rather than another.

In either of the two foregoing scenarios, one is confronted by various questions. Among other things, one would like to know what the criteria are that will permit one to distinguish that which is true from what is not true, and what justifies the use of those criteria?

Holt claims – and I agree with him on this – that as long as adults do not unduly interfere with or undermine the innate capabilities of children in relation to learning, then children tend to manifest a love for life, and this is the engine that drives their desire to learn about life and the world. Consequently, given such a capacity, one might have some expectation that love (if it is truly love and not some sort of infatuation) has a duty of care not only to the nature of reality but, as well, to itself to learn the truth about the nature of love's relationship with Being … which includes, among other things, questions about what makes the capacity for life, love and learning possible. This aspect of things raises, in turn, issues concerning the epistemological quality of the methods through which individuals – whether children, the generality of adults, or scientists – engage life and seek to learn about it.

If the role of a teacher is to create the sort of social, emotional, intellectual, political, spiritual, and physical environment that will be most conducive to assisting children to realize their inherent potential for learning, then, a teacher must have a working knowledge of the array of forces that are capable of affecting – both positively and negatively -- a person's attempt to discover the truth about the nature of one's relationship with Being. Moreover, if the foregoing search is to take place among adults rather than in schools (and I don't necessarily

have any deep reservations about such a possibility), then, children must be able to invent, discover, or learn strategies and methods that are rooted in processes of critical reflection that would enable children to work their way toward being able to differentiate between the constructive things that adults (including teachers) have to offer as well as the problematic and destructive possibilities associated with various aspects of adult life (including the life of teachers).

What are the conditions that a teacher must try to help establish in order to provide children with the sort of opportunity through which the foregoing sorts of learning activities might be able to take place? Some of the conditions that are important to the teacher-student relationship that are touched upon by Holt are: (1) Trusting the innate capacity of children to learn; (2) providing students and teachers with the degrees of freedom and kinds of resources that are necessary to nurture that innate capacity; as well as (3) treating education as an experimental process that should be controlled by the primary participants – students and teachers – rather than by administrators or other so-called educators who are removed from the actual dynamics of the experimental process.

However, there is much more to the issue of creating conditions that are conducive to learning than are indicated above, and, indeed, Holt's written works give expression to many other considerations besides what has been noted in the last paragraph. My own suggestions concerning the conditions of learning (involving principles of sovereignty, qualities of a teacher, and an array of epistemological considerations) are set forth in appendices A, B, C, and D toward the end of this book that are located prior to the Bibliography.

Irrespective of whether, or not, someone believes in God, and irrespective of however a person might conceive of God if such a belief exists, the task of life remains the same. That task involves making a decision about whether, or not, to seek the truth concerning the nature of one's relationship with Being, and this task is present irrespective of whether one acknowledges its presence or not.

The decision one makes with respect to the foregoing issue constitutes one's response to the *Final Jeopardy* challenge. Furthermore, education – irrespective of whether it is pursued through school or independently of such an institutional medium – is a

process that is intended to optimize a person's opportunity to engage the *Final Jeopardy* challenge, and the optimization of that process depends on the character of the conditions of sovereignty (Appendix A), qualities of a teacher (Appendix B), and epistemological considerations (Appendices C and D) that frame the educational process.

One engages experience through an if-then modality or perspective, and, then, modifies that perspective – if necessary -- in the light of what is learned (which requires critical reflection) when one proceeds with the understanding that an "if" is connected to a "then" in a particular way (See Appendices C and D). If a teacher possesses the right kind of qualities (Appendix B), then that individual could play a constructive role in assisting an individual to navigate through the epistemological or hermeneutical currents and hazards of life that are entailed by the process of critical reflection as it engages the *Final Jeopardy* challenge.

Finally, to whatever extent conditions of sovereignty are in effect (see Appendix A) when an individual makes a decision concerning whether, or not, to seek the truth concerning the nature of one's relationship with Being, then, to that extent, a person is free to make such a decision in the absence of external forces of undue influence. Nevertheless, conditions of sovereignty, no matter how well established, cannot free a person from the potentially damaging effects of internal hermeneutical, conceptual and emotional sources of distortion and disruption in relation to the *Final Jeopardy* challenge

The *Final Jeopardy* challenge is about engaging the most fundamental question concerning the nature of life that one can have and do so in a manner that provides one with the best opportunity to put forth a response to that quest in a way that leads an individual to the most intimate degree of resonance with the truth concerning the nature of things as one is capable. The task of education is to assist people to become competent and resilient, if not facile, with respect to rigorously engaging the aforementioned challenge.

Although Holt might use a term like "autonomy" rather than the term that I prefer – namely, sovereignty – I agree with him that to a considerable degree, the autonomy or sovereignty of <u>both</u> students and teachers has been usurped by a variety of forces that, for different

reasons, have sought to ensure that the process of education will not be permitted to serve the sovereign interests of either individuals or society. As a result, both students and teachers have lost control of the learning process.

Chapter 2: <u>Developmental Potential</u>

The debate between nature and nurture has been going on for some time. Over the last 30 years, or so, that debate has come to be colored, to varying degrees, in hues of plasticity (i.e., the ability to change as a function of experience) and fixed potentials (the degrees of freedom – or absence thereof -- inherent in genetic givens).

Irrespective of the precise character of, and extent to which, an array of environmental influences might be considered to have in conjunction with human development, the ability of the environment to affect the way maturation unfolds depends on the capacity of an organism to be receptive to those sorts of influences. Without the capacity to change – that is, without the presence of some degree of plasticity – an organism will tend to manifest a set of predetermined properties that are relatively fixed and somewhat independent of what is transpiring in the environment.

Moreover, a growing body of experimental research indicates that the foregoing dimension of developmental plasticity cannot be reduced to merely being a function of a human being's receptivity to environmental influences. In addition, plasticity is about the capacity of human beings to be able to chart their own course through an array of environmental and biological currents that flow through their lives.

A natural question to ask with respect to the foregoing considerations is this: If we accept as given that human beings have a capacity for some degree of plasticity, what makes that capacity possible? The modern answer to the previous question tends to be clothed in the language of evolutionary theory, but as will be discussed in somewhat greater detail throughout the remainder of this chapter, approaching the issue of plasticity in such a fashion tends to entail a variety of conceptual problems (and for a more expansive critical exploration concerning the theory of evolution, please read my book: *Evolution Unredacted*).

Alison Gopnik, a psychologist who specializes in developmental issues – as well as related philosophical questions -- concerning the processes of cognition, maintains that one of the most consistent aspects of being human – both individually and collectively – is our ability to change. She is interested in exploring the human capacity for change without having to resort to some form of – to use her word –

"mysticism", and one of the way she seeks to accomplish her stated intention is to orient the process of development within an evolutionary context.

However, filtering the foregoing kind of an exploratory process through the lenses of evolutionary theory might be just as obfuscating as trying to engage those issues through some sort of mystical set of lenses. Furthermore, I'm not entirely sure that Dr. Gopnik knows what she is saying when she dismisses the notion of mysticism in such an off-the-cuff manner.

Rejecting mysticism is one thing. Being able to provide defensible reasons for doing so might be quite another matter.

In any event, Professor Gopnik claims that: "The great evolutionary advantage of human beings is their ability to escape from the constraints of evolution."

One wonders what constraints she is alluding to. Moreover, even given those kinds of constraints, one wonders – in terms of a step-by-step process -- how the capacity for escaping the constraints that evolution supposedly placed on human beings came into existence.

Dr. Gopnik contends that human beings are able to learn from their environment, and, in addition, human beings are capable of imagining contexts that are different from the environments that, currently, might be present and, as well, she believes that human beings are capable of translating the products of imagination into lived realities. However, she never explains the evolutionary details of how the capacities for learning and imagining came into being in the first place.

She claims that her books – *The Philosophical Baby* and the Scientist In The Crib – give expression to an account of how children are capable of acquiring minds that can change the world in a variety of ways. Nonetheless, rather than providing evidence to demonstrate that the foregoing sort of capacity is a function of evolutionary processes, she tends to assume that this is the case.

For example, according to Professor Gopnik, children and adults are different species of human beings. More specifically, she indicates that while both children and adults have minds and brains that are

quite complex and powerful, their respective cognitive capabilities tend to serve different evolutionary functions.

Dr Gopnik maintains that the evolutionary task of children is to learn and imagine, thereby, activating or realizing the capacity for plasticity that exists as a potential within human beings. On the other hand she believes that the evolutionary task of adults is to help nurture and protect the foregoing capacity.

Yet, she doesn't explain how children acquired the capacity to learn and imagine. Furthermore, she doesn't explain how adults acquired the capacity to help nurture and protect the foregoing sort of capability.

One could assume that the capacity of children to learn and imagine is a variation on previously established systems of learning and imagining that might have arisen in earlier species of hominids, just as one might assume that the capacity of adults to help nurture and protect the opportunity of children to learn and imagine is derived from the capacity of earlier species to nurture and protect their young. Nonetheless, such assumptions do nothing to actually provide a step-by-step account for how rudimentary forms of those kinds of abilities initially came into existence with respect to earlier species or explain how those sorts of abilities gradually became more complex and powerful in human beings.

Everything is assumed in that regard. Nothing is actually explained.

Dr. Gopnik contends that the brains of babies and young children who are less than five years old tend to exhibit a greater degree of neural connectivity than is present in the brains of adults. However, according to Professor Gopnik, as we progress in years, less used neural pathways become pruned, while neural pathways that are used more tend to persist.

None of the foregoing explains how, for example, awareness, reason, or understanding determines the significance of -- or, alternatively, is a function of -- any given neural pathway Moreover, there seems to be nothing present in the perspective of Professor Gopnik that accounts for how choices are made – or are possible -- that identify, or are generated by, the neural pathways that are to be used

in any given set of circumstances … that is, nothing is said about why certain pathways get selected for use while other pathways fall to the wayside.

Why do children hold on to some facets of learning that arise through experience, while rejecting or de-emphasizing others kinds of information that are impinging on the individual? The issue is not just a matter of whether neural pathways are used or discarded, but, rather, one needs to know what neural pathways signify and why some of those pathways are retained while others are jettisoned.

Why are children able to imagine some things, but not others? What factors shape the process of imagination?

Professor Gopnik contends that scientists have discovered certain prefrontal areas of the brain that are responsible for the human ability to reason in strategic ways and control how that reasoning will be applied to on-going events. This might, or might not, be true because what scientists have not discovered is how neurons, glial cells, neurotransmitters, electrical currents (in the form of action potentials), and so on are able to interact to generate, or give expression to, thought, imagination, awareness, or logic.

What scientists have discovered are different kinds of correlational relationships between the functioning of various facets of the prefrontal cortex and certain kinds of thinking, reasoning, and awareness. Whether that kind of neural functioning is actually causally responsible for the process of thinking, reasoning, understanding, imagining, awareness, and so on has not, yet, been demonstrated.

Part of the evidential basis for Dr. Gopnik's foregoing claim that scientists have discovered areas of the prefrontal cortex that are responsible for cognitive functions such as thinking, awareness, and reasoning is because when psychiatric patients in the 1950s experienced the pleasures of prefrontal lobotomies – surgical procedures that directly compromised and undermined the functioning of the prefrontal region – those patients were observed to exhibit deficits in their cognitive capabilities involving the ability to think, plan, make decisions, or reason effectively. However, one can compromise the functioning of a radio or television set by removing or damaging its components, but this does not prove that those

components are responsible for the content of the programming that is being given expression through that set.

According to Professor Gopnik, one of the primary functions of the prefrontal cortex region of the brain involves the process of inhibition. More specifically, when the prefrontal cortex operates in an inhibitory fashion, experience, thinking, and behavior are all constrained, framed, oriented, and filtered in certain ways that lend specific focus to cognitive activity. The foregoing perspective tends to raise the following question: What determines the nature of any given inhibitory process?

In other words, one can constrain, limit, frame, feature, filter, and orient experience in any number of ways. What establishes the criteria that will be used, selected, imposed, or chosen to shape the process of inhibition in one manner rather than another?

Does one choose the modes of inhibition that will be used to organize thinking? If so, what is the nature of the dynamic that will give expression to those kinds of choices, and how did the capacity underlying that dynamic come into being?

Are the aforementioned modalities of inhibition learned? If so, what are the properties in any situation that determine why a person learns one kind of inhibitory pathway rather than another in those situations, and how did the capacity for learning come into existence?

Alternatively, one could inquire into the role that emotions might play in determining the character of any given form of cognitive inhibition. If so, then one might question why a particular set of emotions (consisting, say, of fear and anger) rather than another combination of emotions (e.g., joy and love) come to influence the form that an instance of cognitive inhibition assumes in a given set of circumstances, and, in addition, one might wonder how the capacity for different kinds of emotion became possible.

Finally, one could wonder about the extent to which certain patterns of inhibition are imposed on an individual irrespective of how the latter person might wish to proceed. To what extent do conditions of undue influence (such as indoctrination, propaganda, coercion, or abuse) affect the selection of the inhibitory patterns that shape the way we reason, organize, and behave?

Dr. Gopnik contends that the prefrontal cortex is the most active region of the brain during childhood since the cognitive activities of children are constantly undergoing change as a result of processes involving inhibition, learning, play, and imagination. Consequently – and as one might anticipate -- the experiences that are being processed through one cognitive process or another across the years of childhood have a considerable impact on the character of the properties that characterize the adult mind.

The process of play – which was mentioned in passing above -- tends to have a prominent role in the lives of children. Yet, according to Professor Gopnik, play serves no specific purpose.

For example, she indicates that play offers little, or nothing, to help realize such evolutionary goals as procreating, eating, fighting, or escaping. Nonetheless, both childhood forms of play (imagination, fantasy, creativity, exploration) and its adult counterparts (art, literature, music, dance) seem to have considerable value in the lives of human beings.

Notwithstanding Professor Gopnik's foregoing perspective concerning evolutionary goals, nevertheless, strictly speaking, evolution has no goals. Even if one accepts the theory of evolution, capacities involving procreating, eating, fighting, or escape did not arise to serve an evolutionary purpose or goal, but, instead, the aforementioned capacities arose because they were the product of a series of random, chance events that led to the emergence of certain kinds of functionality that were compatible with – and, therefore, "selected" by -- prevailing environmental conditions.

Therefore, irrespective of whether, or not, one adopts an evolutionary perspective, the origins of play are as much a mystery as are the origins of the capacity to eat, fight, move, sense, and procreate. We do not know the step-by-step processes that led to the emergence of the foregoing capabilities and, consequently, we do not necessarily know what purposes – if any -- are served by the foregoing set of qualities.

All we know is that such qualities are present. The rest is speculation.

Professor Gopnik indicates that processes involving play, imagination, learning, and change are dependent on the presence of loving adults who are willing to provide youngsters with a protected environment within which the latter can engage learning, imagination, play, and change in a constructive fashion. Unfortunately, many children have to make their way through life without the support of presence of parental love, or do so despite the presence of a very sub-optimal form of love, and, presumably, this means that the character of learning, imagination, play, and change that occur during the childhood of those who grow up in the absence of love or under conditions of sub-optimal forms of love will reflect, in various ways, the relative absence of that kind of support.

According to Dr. Gopnik, human beings don't live in the real world. She describes the real world as being a function of what actually transpired at some point in the past, or gives expression to what really is taking place in the present, or will take place in the future.

Instead, Professor Gopnik believes that human beings live in an array of possible or contrafactual worlds – that is, worlds that are contrary to the actual nature of things. These worlds are a function of the expectations, dreams, beliefs, concerns, hypotheses, and speculations that people adopt or generate during the course of lived experience but that do not necessarily reflect the way the real world actually is.

The epistemological situation of human beings might not be as bifurcated as Dr, Gopnik seems to suppose is the case. In other words, human understanding does not have to be trapped within a realm of contrafactual possibilities forever separated from reality as it actually is.

To a certain extent, human beings live in a world that requires us to try to differentiate between the real and the possible. However inviting the realm of possibility and contrafactual notions might be and irrespective of whether, or not, we care to acknowledge the extent to which actuality is present in our lives, the real world impinges on us and continues to affect us in a variety of ways quite independently of what we might imagine, believe, dream, or hope.

One cannot explore what is possible unless one has some idea of what is real. Real possibilities are about the nature of the degrees of

freedom and constraints that exist as potentials within the fabric of reality, whereas false possibilities give expression to potentials that distort or ignore the nature of reality.

As a result, one of the primary epistemological tasks with which human beings are confronted is trying to figure out which of our ideas, beliefs, feelings, and so on are least -- or most -- reflective of (i.e., least or most capable of accounting for) what seems to be transpiring in the real world. When cognitive functioning is operating effectively, we tend to engage possibilities through an array of questions, tests, reflections, analyses, and so on in a process of critical engagement that explores possibilities and contrafactual conditionals in an attempt to distinguish the real from that which is not real.

In other words, we need to live in an interstitial world that seeks to establish bridges of understanding that link the possible and the actual in viable ways. Imagination, play, reasoning, belief, speculation, and so on have value to the extent that they offer tools for realizing effective epistemological and hermeneutical pathways between awareness and the real world.

Possible worlds, contrafactual conditionals, and hypotheses are engaged or, explored in order to generate experiences through which information can be gathered that – once properly vetted -- might help to shed light on the nature of our relationship with Being. The constraints (i.e., inhibitions) and degrees of freedom through which our cognitive processes operate are a function of the world that reality permits us to inhabit, and if reality had established a different set of capabilities, then, the way we engage experience would be different.

There is a direct line of communication between reality and human understanding. However, to borrow an idea from an artist who once indicated (and although Michelangelo is sometimes credited with having come up with the idea, the actual provenance of the following idea appears to be unknown) that a finished sculpture was the result of removing whatever did not belong, human beings have to be able to see what doesn't belong in the process of communication between reality and understanding and, then, proceed to eliminate whatever is considered to constitute unnecessary material.

"Affordance" is a term coined by the psychologist James J. Gibson (see: *The Senses Considered as Perceptual Systems*, 1966, and *The*

Ecological Approach to Visual Perception, 1979) to refer to the special character of the relationship between a given environment (i.e., reality) and perception (understanding/interpretation). Truth is an affordance of the environment, and the task of human beings is to learn how to identify the nature of the affordance of truth that is being offered to our perceptual faculties through reality.

Consciousness is the medium through which human beings become aware of the affordances that reality is extending to us. The capacity to understand is an affordance that intelligence extends to consciousness.

The theory of evolution doesn't provide a step-by-step account that explains how human beings – or other species – acquire the capacity to identify and grasp the significance of this or that affordance of reality. For the most part, such capacities are assumed to be a function of evolutionary forces that are not demonstrated -- in any sort of step-by-step fashion -- to have actually generated the capacities that are being assumed.

In any event, up until the last 2-3 decades, Professor Gopnik contends that the theories of psychologists such as Sigmund Freud and Jean Piaget dominated a great deal of the way many researchers thought about cognitive activity in children. According to that manner of thinking, children, for the most part, were believed to be immersed in a world that was tied to on-going sensation, and, therefore, largely preoccupied with the here and now.

Dr. Gopnik points out that the foregoing model concerning cognitive activity in children is contraindicated by a wealth of experimental data. She claims evidence has been accumulating for quite some time showing that even very young children exhibit a capacity to distinguish between what is real and what might be possible.

Consequently, young children are able to imagine a variety of possible scenarios in relation to the past, the present, and the future. In other words, young children are not stuck in the here and now as psychologists such as Piaget and Freud seemed to suppose.

In short, children provide ample evidence that they are capable of generating effective models, theories, and maps about how they

believe reality works. In addition, children are capable of imagining how the world might have been different in the past and could be different in the future.

According to Professor Gopnik, human beings tend to care as much about possible worlds as they care about the real world. Perhaps, however, her foregoing claim should be modulated somewhat in light of the considerable historical evidence that exists indicating the multiplicity of ways in which human beings often tend to care more about possible, imaginary, contrafactual worlds than they care about the real world.

Human beings are very susceptible to delusional thinking. In informational processing terms, human beings are often inclined to confuse or conflate noise with message.

As a result, human beings tend to eliminate the wrong kinds of materials during the epistemological activity of sculpting their conceptual models concerning the nature of reality. In the process of doing so, the affordance of truth being offered through the environment is lost, missed, or distorted.

Dr. Gopnik mentions, in passing, some of the research conducted by the Nobel Prize winning psychologist, Daniel Kahneman, concerning the way in which people cognitively engage certain kinds of circumstances. For example, in one experiment, subjects were asked to imagine a situation in which two people are both desperate to arrive at the airport in time to make their flights but, unfortunately, due to problems of one kind or another, are not able to board their respective planes before the latter take off, and, then, subjects are required to judge which of the two, foregoing, imaginary individuals might be most upset by the foregoing turn of events.

More specifically, one imaginary individual in the experimental setting arrives at the airport only to discover that his, her, or their flight left a half-hour earlier. A second, imaginary individual reaches the airport and discovers that the departure of his, her, or their plane was delayed by half an hour but, nevertheless, the person still misses being able to board the plane and is only able to watch the plane taxi down the runway before it takes off.

Both imaginary individuals have missed their flight. However, is one of the two characters in the aforementioned set of scenarios more likely than the other to feel greater unhappiness concerning their respective situations?

Many subjects in the experiment believe that the second individual – the one whose flight was delayed but who was only able to watch the plane take off – is likely to be most upset. Apparently, the fact that the flight was delayed and, yet, the person still missed the flight and only could watch helplessly as the plane lifted off the ground, tends to lead to feeling that things easily might have been other than the way they turned out and, as a result, such a possibility is perceived to be more vexing than if one had merely had not been able to arrive at the airport in time to catch one's flight.

Professor Gopnik claims that counterfactual thinking enables one to change the future. She maintains that counterfactual thinking serves an evolutionary purpose because it allows human beings to see the possibilities inherent in events and, as a result, provides us with opportunities to work toward realizing certain potentially advantageous possibilities rather than becoming entangled in problematic possibilities.

According to Dr. Gopnik, the evolutionary success of human beings is predicated on our ability to consider an array of possibilities. Such counterfactual thinking permits us to alter our circumstances and revise our plans for engaging those circumstances.

Having the capacity to engage in counterfactual thinking concerning possibility is one thing. Using that capacity in constructive and productive ways might be quite another matter.

Professor Gopnik feels that the ability to enter into counterfactual thinking about the past, along with the human tendency to be caught up in the emotions of "what might have been" -- such as is illustrated, somewhat, in the aforementioned Kahneman experiment -- is merely the price we have to pay for being in a position to be able to apply such counterfactual thinking to planning for the future. Nonetheless, there is no guarantee that the human capacity for counterfactual thinking will be used effectively in any given case.

For example, let's return to the aforementioned Kahneman experiment. Instead of asking about which of the two imaginary characters in the missed flight scenario might be likely to be most upset with the situation, let's inquire into which of the two imaginary individuals might be most likely to learn from their respective experiences and, as a result, change her, his, or their way of coping with those kinds of circumstances in the future.

Will the person who barely missed making his, her, or their flight due to the delayed departure of the scheduled flight be more, or less, likely to learn from that experience than the person who missed making the flight by half an hour? Will either of the two, imaginary individuals be more likely, or less likely, to alter the way they go about making arrangements to get to the airport in time to make their, her, or his flight in the future?

Obviously, we don't have enough information to be able to answer the foregoing questions with any degree of insight. People don't always learn from experience, and, moreover, people are not always prepared to alter the way they go about doing things if that process of alteration requires them to change the way they think about themselves or the world.

According to Dr. Gopnik's description of the Kahneman experiment, each of the characters was "desperate" to get to the airport. What prevented them from doing so?

Was the taxi driver incompetent? Was traffic to the airport unexpectedly slow?

Did the individuals fail to allow for an adequate amount of time to reach the airport in time for their respective flights? Were the two individuals entangled in circumstances that prevented them from being able to start their trip to the airport sufficiently early, and to what extent were those individuals responsible for those entanglements?

Irrespective of why a person was not able to get to the airport in time to catch a flight, one has a choice. One can accept what has happened and use that experience to help fashion a better coping strategy for dealing with future events, or one can become caught up

in the emotions of what might have been and leave oneself vulnerable to going through a similar experience yet again at some point later on.

There also are other ways of thinking about the missed plane scenario. What if the plane one missed crashes with the loss of life of all who were on board, or what if one were served a meal on board the plane that was contaminated and, as a result, one fell sick and died, or, what if the plane had been hijacked?

What if -- while making plans to catch another flight – one meets one's future spouse? Or, what if one makes an important business contact while waiting for the next flight to leave?

How is one to interpret the significance of having missed a given flight? What are the criteria that are to be used to evaluate the situation?

For example, the Persian mystic Hafiz once indicated that one should not worry about the outcome of events because the One Who is looking after your affairs is already busy looking after your affairs, and, consequently, worry adds nothing to a person's affair but worry. In a similar vein one might say that counterproductive, contrafactual thinking adds nothing to one's affair except counterproductive, contrafactual thinking.

We do not necessarily know what is in our best interests. We do not necessarily know what ramifications current events will have for our future.

Having the capacity to think in counterfactual ways does not indicate how such a capacity should be utilized. Counterfactual thinking might open up all manner of possibilities to consider, but such cognitive activity doesn't necessarily tell us which possibilities might be the best way through which to engage reality.

Professor Gopnik tends to filter the issue of counterfactual thinking through the lenses of what constitutes evolutionary success. Nevertheless, one might switch the focus of counterfactual thinking toward such a perspective and consider the possibility that success might be a function of considerations that are rooted in human potentials that are not evolutionary in nature.

In other words, our relationship with Being might not be a function of evolutionary processes. Perhaps our relationship with the

nature of Being might either transcend those evolutionary possibilities – whatever these might be -- or is independent of them.

There are many possibilities to consider. The challenge is to identify which of those possibilities – if any – best reflect the nature of reality.

Dr. Gopnik and her colleagues conducted a number of experiments that led to results indicating that somewhere between 15 and 18 months, babies tended to demonstrate a capacity to engage their environments through processes of counterfactual thinking in which different possibilities were explored and choices were made from among those possibilities that were capable of resolving various challenges, puzzles, or problems that were confronting the baby. What the foregoing experiments did not demonstrate was the precise character of the process through which a baby came to identify what possibility to select in order to solve a given problem.

A problem gives expression to a certain kind of relationship between an organism and the environment. Solving the problem requires the organism to be able to – as the previously mentioned psychologist James Gibson might say -- grasp the nature of the affordance present in the environment that allows the problem to be solved.

We tend to say that intelligence, in one sense, or another, is what permits an organism to grasp the nature of the environmental affordance that will solve a given problem. However, we know very little about what makes such a capacity possible or how that capacity works.

Professor Gopnik maintains that the foregoing sort of capacity arises through an evolutionary process. However, since she is not able to produce the set of step-by-step biological events that generates such a capacity (nor, at the present time, can anyone else successfully accomplish this), one has to look at her explanation as merely an exercise in counterfactual thinking in which the idea of evolution constitutes only one of the possibilities to consider [along with other possibilities such as, for example, panspermia (i.e., life on Earth originated from extra-terrestrial sources) or some modality of creationism in the search for the character of the affordance or

affordances present in reality that makes a capacity like intelligence possible.

According to anthropologists, the ability to make and use tools, as well as the ability to formulate plans for engaging various aspects of existence, played central roles in contributing to the evolutionary success of human beings. Making tools, using tools, and planning are all variations on an underlying theme of counterfactual thinking in which possibilities are generated, reflected upon, and, then, implemented in one way or another.

Yet, all too frequently human beings seem to be oblivious to the presence of possibilities that are capable of undermining our constructive use of tools and our ability to make plans. Human beings have reached a stage in their collective development in which tools (in the form of: (1) Nuclear, chemical, and biological weapons; as well in the form of (2) an array of commercial processes (e.g., fracking, GMOs, plastics, chemical manufacturing) that are destroying the environment and helping to bring about the possibility of a 6th extinction; as well as (3) in the form of various modalities of artificial intelligence that are capable of surveilling, controlling, oppressing, enslaving, marginalizing, and destroying human beings) have the potential to undo whatever anthropologists believe has been accomplished over thousands of years.

Problematic emotions such as: Greed, anger, hatred, jealousy, arrogance, fear, revenge, lust, and selfishness give expression to possibilities that are fully capable of affecting which tools are created and how they are used as well as what plans are pursued. The realm of counterfactual thinking is not always a matter of exploring constructive possibilities, for clearly there is considerable historical evidence to indicate that human beings are often engaged in exploring the dark side of counterfactual thinking.

Given the nature of the potential inherent in the dark side of human nature, then, perhaps, talking about the evolutionary success of human beings – as Dr. Gopnik appears inclined to do -- is a little premature. Moreover, we might want to keep in mind that, for one reason or another, 99 % of all species that have ever existed on Earth have become extinct and, unfortunately, human beings have more than enough character flaws to be able to push our species into the

extinction column should the wrong set of possibilities be engaged through our capacity for counterfactual thinking.

Professor Gopnik indicates that despite David's Hume belief that a person could never really know whether, or not, one event caused another event, many modern day philosophers have followed the lead of David Lewis and, as a result, tend to pursue the idea of causality with the understanding that there is a working relationship between causal knowledge and counterfactual thinking. More specifically, by varying the possibilities associated with a given set of events (i.e., exercises in counterfactual thinking), one often is able to develop an understanding about how those events might be causally related to one another.

In other words, one makes changes to a set of variables or makes changes in conjunction with a given set of circumstance, and, then, one observes what follows when those kinds of changes are introduced into that set of circumstances. On the basis of the foregoing considerations, one develops hypotheses that predict how things will unfold in the future as a result of one, or another, sort of change.

Even if one never actually pinpoints the ultimate nature of causality in any given set of circumstances, one often is able to gain insight into the nature of various conditions and properties that seem to be closely tied to the causal dynamics associated with a particular phenomenon. For example, the discoveries of quantum physics have enabled scientists to be able to predict the likelihood that certain kinds of events will occur under various sets of circumstances, and, therefore, scientists have acquired some degree of insight into the nature of the conditions and properties that are associated with causal events even if scientists don't fully understand the nature of the dynamics that are reflected – to some degree -- in the probabilities that have been calculated for those sorts of events.

Dr. Gopnik believes that counterfactual thinking depends on being able to grasp the nature of causal understanding. However, in light of what has been said during the last three paragraphs, one might be closer to the truth if one were to say that the nature of our causal understanding depends on the process of counterfactual thinking.

More specifically, whatever we understand about the causal dynamics of a given set of circumstances, that understanding often is

acquired through the process of counterfactual thinking. We consider possibilities and, then, try to determine how altering those possibilities will affect the way that set of circumstances will manifest itself.

By acting on the world of conceptual possibilities within us, we are able to change various aspects of external circumstances. As a result, we derive some direct degree of understanding concerning the nature of causality by observing how different circumstances are modulated through our thoughts and actions.

We might not know how various conceptual possibilities within us came into existence, or how and why those possibilities bubbled to the surface of consciousness when they did, or what makes consciousness possible, or why we choose to pursue one set of possibilities rather than another set of possibilities. Nonetheless, once the foregoing sorts of ideas do emerge, we can observe how some of those ideas are selected as a means of bringing about change in a given set of circumstances, and, therefore, experience gives expression to different kinds of affordances that provide opportunities to acquire insight into the nature of causation.

Professor Gopnik contends that counterfactual thinking is a deeply evolved part of human nature. However, she fails to provide the set of causal steps that demonstrate how the capacity for counterfactual thinking came into being and, then, evolved over time.

She does point out that Piaget's manner of exploring whether, or not, young children have grasped the concept of causality is somewhat flawed. Among other things, Piaget tended to ask children questions about causality that fell beyond the parameters of the sort of knowledge with which they were familiar.

For instance, Piaget would ask preschool children about the causal nature of physical events involving, say, the movement of clouds or why it got dark at night. For the most part, the foregoing kinds of questions required children to provide answers that depended on an understanding of the world that they hadn't, yet, acquired, and, therefore, the answers that were forthcoming from them in relation to Piaget's questions seemed to indicate that young children didn't possess a concept of causality or had confused ideas concerning the nature of causation.

Nevertheless, children as young as two years of age are able to offer reasonable, intelligent, and appropriate answers to questions about causality if one makes the effort to investigate issues about which children have some degree of familiarity. If, for example, one asks young children why someone would open the refrigerator, they are capable of giving a causal analysis of why events might have unfolded in the way they did.

The explanation they give might be correct or incorrect. However, based on their responses, there can be little doubt they have an understanding of the idea of causality and how its dynamics might work in various circumstances.

Professor Gopnik notes that the tendency of young children to ask "why" is intimately related to their attempt to develop an understanding concerning the nature of causality. They want to know why things are they way they are ... they want to know what causes various situations, processes, objects, phenomena, and experiences to have the properties that they do.

Some children are satisfied with the answers they receive in response to their why-queries. Other children are not so satisfied and continue to press for additional explanations.

In addition, the concept of causality can be seen playing an active role within the games of pretense in which children often engage. In other words, the process of pretending is regulated by an array of rules and reasons that give expression to, among other things, the woof and warp of the causal principles governing a given world of pretense.

The same is true with respect to the realm of fantasy. In other words, however strange such a realm might appear to be, fantasy operates in accordance with various rules and principles of causality that are understood, in an intimate manner, by the child.

One might even say that many of the conflicts between parents and children come down to competing theories of causality. Children filter the world through one set of causal premises, and adults filter events through an alternative set of causal premises, and the two perspectives often collide in a clash of cultures.

Children – just like adults -- generate theories concerning life, death, other people, the future, the past, family, friendship, technology, physical events, and so on. Just as is the case with adults, some of the theories that are generated by children might be right to varying degrees, while other theories are problematic or wrong to varying degrees.

According to Professor Gopnik, the process through which children generate theories is largely unconscious in nature. Notwithstanding the foregoing perspective, something within the child certainly is quite aware of the nature of various experiences and actively reflects on those experiences in order to try to understand their character and organize them into models and theories concerning the nature of reality.

The foregoing processes might take place outside of what we consider to be normal, waking consciousness and in that sense could be considered to be unconscious. Nonetheless, those processes – however and wherever they take place – seem to be activities that involve awareness, insight, intelligence, reason, judgment, and other cognitive capabilities (e.g., intuition).

Dr. Gopnik does not provide an account of how unconscious thinking takes place. She is not able to offer an explanation for how a set of unconscious processes is able to be aware of, reflect on, and generate various conceptual possibilities concerning the nature of a given experience or how that experience relates to other experiences – both actual and possible.

Furthermore, although Professor Gopnik believes the foregoing process of unconscious thinking is deeply rooted in evolutionary history, nevertheless, at no point during her two books – *Scientist in the Crib* and *The Philosophical Baby* -- does she offer an account that itemizes the set of step-by-step sequential, mutational events that would have made such a process of unconscious thinking possible. In short, she neither seems to understand how unconscious thinking is possible nor does she appear to understand how such a capacity came into being.

Indeed, how do the capacities arise that underwrite the ability of children – and adults – to make maps, models, and theories concerning the nature of experience or reality? How are we able to prune

experiences so that we are able to grasp the structural character of individual objects contained in the rivers of information along which we are traveling during life's journey?

Dr. Gopnik notes in passing that many animals – not just human beings – are capable of making mental maps that exhibit varying degrees of complexity, sophistication, and accuracy. Yet, as is the case with respect to human beings, despite her presumption that such abilities arose through evolutionary processes, she is not able to provide a step-by-step account concerning how animals acquired their capacity for generating those kinds of cognitive maps.

She does refer to some evidence indicating that the foregoing sorts of maps might reside within the hippocampus. For instance, when researchers remove the hippocampus from the brains of rats, then, the latter organisms lose their ability to navigate a maze.

Nevertheless, we can remove various components in a radio or television set that will prevent those devices from being able to give expression to the cognitive maps that are inherent in radio and television programs. However, this does not mean that those electronic components generate the programs that are no longer being manifested in the absence of the aforementioned electronic parts.

Even if one were to accept the idea that the hippocampus contains mental maps, we know almost nothing about how those cognitive maps operate to generate, organize, encode, and store information as a function of gene expression and cellular biochemistry. Furthermore, we know even less about how those sorts of genomic and cellular systems were made possible through the process of evolution ... if that is the means through which they actually came into being.

One can agree with Dr. Gopnik that cognitive maps are an effective medium through which to entertain different possibilities concerning the nature of reality. But, scientists like Professor Gopnik tend to blindly thrash about when it comes to being able to successfully navigate their way through explaining how such capabilities came into existence or how cellular activity and various modalities of gene expression make consciousness, reasoning, logic, understanding, memory, intelligence, counterfactual thinking, judgment, and so on possible.

We know that processes involving reasoning, insight, understanding, and logic are real phenomena, and we know the foregoing sorts of processes are present in children to varying degrees. Unfortunately, we just don't know much about the actual origins and dynamic properties of those phenomena.

Professor Gopnik mentions that -- based on the 1990s work of individuals such as Judea Pearl at UCLA and Clark Glymour at Carnegie Mellon University -- an area of research began to emerge that led to the development of mathematical techniques for describing a process of model building that enabled researchers to utilize counterfactual thinking to be able to accurately predict how various kinds of causal processes might unfold over time, and, therefore, opened up the possibility for intervening in, and altering, those dynamics to bring about alternative ways of engaging on-gong events. This area of research is known as 'causal graphic modeling' and has played a formative role in the development of certain facets of artificial intelligence.

Do human beings – and other animals -- operate through innate capacities rather than learned techniques involving various kinds of causal-graphic-like models that enable them to build cognitive maps of various dimensions of reality? Do human beings – and other animals – possess inherent systems of mathematics that enable human beings to generate mental maps in order to navigate through the events of everyday life, or are such mathematical systems learned?

If the foregoing kinds of systems are learned, how did human beings – and other animals – acquire the capacities that made learning possible? Furthermore, how did human beings acquire the capacities needed to be able to invent the sort of mathematical systems that could be learned?

If there are innate systems rooted in processes involving causal graphic modeling, how did those systems come into existence? If the answer is assumed to be evolutionary in nature, then, what were the set of step-by-step mutations that led to the formation of functional systems of causal graphic modeling, and how did the mathematical properties that characterize those systems come into being?

Human beings and animals (each through their respective modalities of cognition) might use analogs of causal graphic models to

solve problems involving causal inference and counterfactual thinking. Such analogs might be able to generate results that are equivalent to, or similar to, what can be accomplished through the use of causal graphic models, but the former are not necessarily rooted in mathematical considerations as causal graphic models are

Causal graphic models, themselves, might just be one of the products of an underlying capacity to be able to understand, have insight into, reason about, reflect on, organize, question, analyze, run through different counterfactual considerations concerning, and evaluate various experiential issues. Consequently, having a mathematical system that permits one to describe certain aspects of counterfactual thinking in conjunction with the process of causal inference is not necessarily the same thing as the capacity that makes such a system of description possible even though the two (i.e., the capacity to invent mathematical systems and the capacity to learn them) seem to be intimately related to one another.

Remarks similar to the foregoing can be made in relation to the computational theory of mind that dominates some of the thinking that takes place within cognitive science. In other words, the fact one can specify a set of computational steps or algorithm that is capable of describing and resolving certain problems does not necessarily mean that such an algorithm is, itself, the expression of a computational process within the mind since, among other things, we do not know how the individual steps (biochemically, evolutionarily, or otherwise) that make up a given algorithm were conceived or come into being.

In other words, are those steps the result of some set of mathematical computations? Moreover, if they are, what are the properties of those computations, and what were the specific mutations that led to the set of DNA sequences that made those mathematical computations possible?

Human beings are capable of generating all manner of algorithms or computational sequences. We just don't know how we are able to accomplish this.

Similarly, we can generate an indefinite number of causal graphical models. Nonetheless, we do not know how we are able to do so … that is, we do not know how we are able to conceptually generate

those kinds of possibilities or organize them in ways that accurately reflect various aspects of experience.

Insight and understanding orient awareness. Yet, we do not know what made those kinds of insights and understandings possible – either in terms of cognitive functioning or in terms of the origins of those functional capacities.

Dr. Gopnik points out that up until relatively recently many individuals were of the opinion that imagination and counterfactual thinking were in conflict with, or in opposition to, the process of knowing. In other words, many people were inclined to believe that knowledge was about things that were factual and true, whereas imagination and counterfactual thinking were about things that were not true or not factual, and, as a result, knowledge and imagination seemed to be at odds with one another.

However, a great deal of research – some of which is related in Dr. Gopnik's two books: *The Philosophical Baby* and *The Scientist in the Crib* – suggests that, on the one hand, imagination (together with counterfactual thinking) and, on the other hand, knowledge are intimately connected to one another. Indeed, according to Professor Gopnik, knowledge serves as the source of imagination's creative capacity because only when one understands how something is causally structured, does one become able to explore alternative possibilities concerning the causal relations that govern or are made possible through a given phenomenon.

While it might be true that understanding how something causally works could help one to leverage the processes of imagination and counterfactual thinking, nonetheless, there seem to be at least two kinds of capacities that are present in the foregoing which appear to be independent of one another. Both knowledge and imagination involve a capacity to grasp the character of the affordances present in some aspect of experience or the reality that makes experiences of such character possible, but the affordances in which knowledge is rooted reflect, to varying degrees, the actual character of what is being grasped, whereas the affordances to which imagination and counterfactual thinking are linked concern possibilities that might, or might not, be a function of the potential present in some facet of reality.

In many ways, we explore the possibilities of imagination or counterfactual thinking in order to try to struggle toward discovering the nature of the facts or truth that might be governing a given situation. We sort through the possibilities presented by imagination or counterfactual thinking (by means of processes that are not well-understood) and search for properties and features (by means of processes that are not well-understood) that appear to best reflect the structural character of a given object, event, dynamic, or phenomenon, and, as a result, help to establish knowledge or true understanding (by means of processes that are not well-understood) concerning whatever is being engaged or experienced.

Alternatively, however, we often use the process of imagination and counterfactual thinking to test the viability of a given understanding that we think might give expression to some form of knowledge. In other words, we test what we purport to know by using imagination and counterfactual thinking to vary relevant conditions in order to determine if our current understanding of the "facts" will permit us to predict where the foregoing kinds of changes will lead.

If our current understandings of a situation permit us to make accurate predictions concerning the dynamics of that set of circumstances, then, we tend to treat that understanding as possessing the capacity – to varying degrees -- to be able to reflect certain aspects of reality. If, on the other hand, our current understanding of a situation does not permit us to make accurate predictions concerning the behavior of a given set of circumstances, then, we tend to treat that understanding as being inconsistent, in some way, with the actual character of that set of circumstances.

Nonetheless, the capacity to grasp the nature of a given object, event, process, relationship, dynamic, and so on appears to be quite different than is the capacity to vary conditions in an array of ways in order to bring about, or explore, possible results. Determining what conditions to vary or how to vary them or envisioning where those variations might take one conceptually seems to involve a creative process of conceptual visualization that takes one beyond what is and into a realm of what might be.

Grasping the nature of what is seems to constitute a different way of orienting oneself to reality than grasping what might be does. The

process of knowledge seeks to <u>constrain</u> one's relationship with reality in determinate ways, whereas the process of imagination or counterfactual conditioning seeks to <u>expand</u> one's relationship with reality in unanticipated, surprising, interesting, and, possibly, aesthetically pleasing ways.

In addition, Imagination and counterfactual thinking don't have to be completely true or factual to have value (e.g., the world of literature). On the other hand, if a given understanding purports to capture the character or properties of some aspect of reality but does not accurately reflect the nature of that facet of reality (i.e., if the understanding does not give expression to actual knowledge), then, such an understanding tends to be problematic since the person harboring that kind of understanding is subject to delusional thinking (i.e., believes something that is not true or operates on the assumption that something is true which is not).

Professor Gopnik notes that Plato did not feel poets and playwrights had much, if anything, of value to offer to society. According to Plato, not only do poets and playwrights tend to give expression to a variety of false statements, but, as well, those kinds of individuals seek to induce other people to accept as true, that which is false.

One wonders about what the nature of the difference is between what Plato is trying to accomplish through his writings and teaching and what poets and playwrights are trying to accomplish through their own teachings and writings. Plato, of course, is assuming that he knows how to differentiate between the false and the true in ways that poets and playwrights are not able to do, but confidence in one's way of thinking (on either side of this divide) does not necessarily constitute evidence that one's way of thinking is correct.

If a person were to cast the foregoing difference of opinion in the language of today, such an individual might describe the hermeneutical struggle between, on the one hand, Plato, and, on the other hand, poets and playwrights as being about the issue of "fake news". The problem – then, as now – is, first, to figure out the nature of the criteria that determine what constitutes fake news, and, then, to apply those criteria in a critically rigorous fashion to the writings of Plato as well as the works of the poets and playwrights to whom he is

alluding in order to try to establish just who – if anyone – is guilty of being purveyors of the philosophical counterpart to "fake news".

Dr. Gopnik indicates that while a person might have little difficulty understanding why establishing the truth is important to enhancing one's chances of being able to survive in the world, she feels that most people might be less likely to understand why evolution could have wired human beings not only to be able to explore the realm of fiction and falsehood but, as well, to be inclined to do so under a variety of circumstances. However, the capacity to filter experience through fictional possibilities rather than through "facts" might actually be part and parcel of the process through which individuals seek to discover the truth.

In other words, at the beginning of one's epistemological exploration into the nature of some aspect of reality, one entertains a variety of possibilities. If a person, then, exercises due diligence, that individual tries to determine which of those possibilities are factual and which of them are counterfactual in nature.

In order to discover the truth of things, one has to entertain a variety of possibilities and treat them as if they might be true, and, then, a person uses his, her, or their capacity to conceptually vary those possibilities (i.e., employs one's capacity for counterfactual thinking) in ways that permit one to generate the sorts of experiences that will contain information that might help an individual to either confirm or reject those possibilities as being, respectively, true or false. Consequently, what, subsequently, might be discovered to be counterfactual or fictional in character begins its epistemological life as a legitimate candidate of uncertain potential.

Therefore, we don't always know whether the propositions being entertained are true or false. Irrespective of whether propositions are true or false, we often evaluate them in terms of the value that those ideas have for us in trying to discover the nature of our relationship to Being.

As such, counterfactual thinking is a heuristic process. In other words, counterfactual thinking (i.e., the process of critically reflecting on possibility ... that is, reflecting on things that are not necessarily true) helps an individual to struggle toward discovering various kinds of truths concerning the nature of reality by eliminating possibilities

that do not seem to reflect or are inconsistent, in some way, with the character of experience.

In terms of the imagery mentioned earlier, counterfactual thinking is a form of conceptual sculpting. It is a process that takes away what doesn't seem to belong in one's model of reality.

Sometimes, the foregoing process doesn't work well, and one's sculpted rendition of that which makes experience of a given character possible gives expression to a variety of epistemological deformities and missteps. On other occasions, counterfactual thinking helps to remove material that obscures the truths contained in one's version of reality.

Many young children (between the ages of 2 and 5) become engaged in a serious exploration of counterfactual thinking, possibility, and causality (especially in relation to developing theories of mind concerning why people do the things they do) through a world of imaginary companions. Marjorie Taylor, a psychologist, gathered data on the foregoing issue by asking children a series of questions concerning their experiences, if any, with imaginary companions

She found that 63 percent of the children she interviewed seemed to be involved -- or had, at some time, been involved -- with one, or more, imaginary companions. Moreover, the reliability of the foregoing sorts of reports were not only independently confirmed when Dr. Taylor interviewed the parents of those children and discovered that the descriptions of the parent's concerning their children's imaginary companions matched the descriptions given by the children, but, as well, the reliability of the children's descriptions were also confirmed by asking them various questions concerning imagery companions on a number of different occasions and receiving responses that were consistent with previously given answers concerning those matters.

One wonders about the 37 percent of the children who were interviewed that did not report having imaginary companions. Why do some children – a majority if Marjorie Taylor's research holds for children beyond her study – have imaginary companions while others do not?

Dr. Taylor's research indicates there were some small statistical differences between children who had imaginary companions and

children who did not have imaginary companions. For example, she discovered that imaginary companions were more likely to be found among normal children rather than children who were gifted in some manner or who were emotionally disturbed in some way.

Furthermore, children who spent a lot of time watching television or reading books were less likely to report having had imaginary companions than were children who spent less time reading books or watching television. In addition – and, perhaps, somewhat counterintuitively -- children who were extroverted were more likely to report having imaginary companions than were shy children.

However, Dr. Marjorie Taylor considers the presence of imaginary companions to be a sign of social competence rather than a psychological mechanism to compensate for shyness or loneliness. She found that children who have imaginary companions tend to be more adept than children who do not have imaginary companions when it comes to being able to predict how other people are likely to behave, feel, or think, and, in addition, children with imaginary companions appear to be more inclined to think about, and reflect upon, other people when the latter individuals are not present than are children who do not have imaginary companions.

Dr. Taylor also notes that the children who reported having fictional companions were well aware of the imaginary nature of their companions. In other words, those children could differentiate – at least as far as imaginary companions and actual people were concerned -- between what was real and what was not.

According to Professor Gopnik, imaginary companions most frequently occur between the ages of two and six. As she subsequently points out, this also happens to be the age range when children begin to develop causal theories concerning the manner in which beliefs, emotions, motivations, and values are woven into theories concerning the nature of the mind that are used to understand, predict, and influence the behavior of other people.

People act differently from one another because they have minds that are different from one another. While some children come to understand – at least to a degree -- the foregoing sorts of differences through reading books, and/or watching television, and/or observing people, the majority of children (63%) seem to explore -- in part –

differences in mental functioning through the realm of imaginary companions, and, as noted above, the latter sort of children (i.e., the ones with imaginary companions) seem to develop better coping skills in this respect than do children who do not have imaginary companions.

Counterfactual thinking – that is, the exploration of possibilities that are not necessarily true (such as might occur in conjunction with an imaginary companion) – constitutes a way of learning how to navigate one's way through various circumstances in order to better understand the degrees of freedom and constraint that might be present in those situations. Consequently, a child comes to develop – and, then, use – the foregoing kinds of understanding to organize various kinds of ways of engaging, and orienting oneself in relation to, different facets of life.

Following the foregoing considerations, Dr. Gopnik describes an experiment she conducted with 14-month old and 18-month old children. The children were presented with two bowls.

One bowl contained broccoli. The other bowl contained Goldfish crackers.

Both the 14-month and 18-month old children liked the crackers and disliked the broccoli. However, if the experimenter tasted a sample from each bowl but expressed dislike for the crackers while displaying approval of the broccoli, children from the two age groups responded differently.

More specifically, when the experimenter asked the children if they would give the experimenter something from either of the two bowls, the 14-month old children would offer the experimenter crackers, while the 18-month old children took into consideration what appeared to be the likes and dislikes of the experimenter and offered what the child thought the experimenter would like – namely, the broccoli – despite the child's own preference for the crackers. Clearly, at some point during the 4-month period between 14 and 18 months, the manner in which information is processed appears to have changed.

The younger children seemed to have difficulty considering any possibilities other than ones that were compatible with their own

sensibilities concerning likes and dislikes. On the other hand, the older children apparently had acquired the ability to understand that not all minds think alike and adjusted their behavior accordingly.

The older children were able to entertain the possibility that other people had likes and dislikes that were dissimilar from their own likes and dislikes. The younger children did not seem to have mastered the same kind of flexibility when it came to considering possibilities concerning crackers and broccoli.

However, one has difficulty knowing, for certain, what might actually have been taking place in the minds of 14-month old children. For instance, is it possible that younger children actually did consider the possibility that the experimenter might not perceive the world in the same way those children did but, nevertheless, decided to help the experimenter find his, her, or their way back to the 'right path' by offering the obviously more delicious cracker instead of the repugnant broccoli?

Or, perhaps, the younger children were testing whether, or not, the experimenter was really serious about preferring the broccoli to the cracker. In other words, rather than being concerned about what the experimenter actually wanted – even though the younger children could have been aware of that possibility -- the child might have been more interested in re-affirming her, his, or their own view of the world and wanted the experimenter to validate that view by accepting the cracker (the process of consensual validation often plays an important role among human beings).

Irrespective of what might, or might not, be taking place within the minds of 14-month old children in the foregoing experiment, one is confronted with the following question. What enables a child to begin to actively explore counterfactual thinking with respect to the possibilities associated with lived experience?

The previously mentioned findings of Dr. Taylor concerning imaginary companions indicate that, at a minimum, children between the ages of two and six have the ability to explore possibility and counterfactual thinking to various degrees. Furthermore, the experiments of Dr. Gopnik involving crackers and broccoli appear to push the foregoing minimum back another six months to the age of 18 months.

Is the capacity for counterfactual thinking present from the beginning (that is, at least from birth) but takes time (for example, 18 months) to begin to develop some degree of sophistication to enable a child to be able to engage different experiences and circumstances through the filters of possibility? If so, then, what is the nature of the dynamic or process through which children develop the foregoing sort of sophistication?

Or, does the capacity for counterfactual thinking only emerge at a certain point in development. If this were the case, then, what triggers the emergence of such a capacity at one point in time rather than another?

Furthermore, aside from the issue of when counterfactual thinking begins to manifest itself during development, one wonders what makes such a capacity possible. Is it innate or learned, and in either case, are the underlying dynamics a matter of – as Professor Gopnik supposes is the case -- evolutionarily caused gene sequences that are being expressed or is something else – something beyond chemistry and physics – involved?

Our difficulty in even conceiving what the latter sort of phenomena might entail is not necessarily an argument against the reality of such possibilities as much as it is an indication of the potential extent of our ignorance concerning that kind of topic or as much as it is an indication of the degree to which our biases and presuppositions limit and shape what can be understood. Like children, our ability to exercise counterfactual thinking is often limited by the degrees of freedom and constraints that are present in the conceptual or hermeneutical manner through which we tend to engage and understand a given subject.

Those who, for example, wish to reduce the capacity for counterfactual thinking down to being a function of physics, chemistry, and evolutionary processes are limited by the array of possibilities – physical, chemical, and evolutionary -- that can be entertained to account for such a capacity. If – as currently is the case -- the present state of physics, chemistry, and evolution is not capable of accounting for how consciousness, intelligence, reason, logic, insight, judgment, creativity, and so on are possible, then, one has to consider, at least, two alternatives.

One possibility is that there will have to be some reworking and expanding of the principles of physics, chemistry, and evolution that will be capable of accounting for such phenomena in a more rigorous fashion than is presently the case. Another possibility is one might have to begin to consider the possibility that such phenomena as intelligence, reasoning, logic, consciousness, and so on, might be much more subtle and elusive than physics, chemistry, and evolution – despite their respective degrees of sophistication – would seem to indicate.

To whatever extent physics, chemistry, and evolution might, or might not be, involved in phenomena such as: Consciousness, intelligence, reason, logic, understanding, interpretation, counterfactual thinking, creativity, and judgment, those phenomena do not appear to be a function of, or caused by, the dynamics of physics, chemistry, and evolution. In fact, we might be much closer to understanding what those phenomena are not than what they are.

Professor Gopnik indicates that children begin to learn techniques for exercising self-control between three and five years of age. To help lend support to the foregoing claim, she refers to some experiments during the 1960s that Walter Mischel, a psychologist, conducted with preschoolers.

More specifically, in the aforementioned experiments, young children were required to sit down near two chocolate chip cookies. In variations on the same sort of experimental design, the subjects were required to sit near two toys or two marshmallows rather than two chocolate chip cookies.

The children were told they would be permitted to have – depending on what was used in a given experimental setting -- both of the cookies, toys, or marshmallows if the children would be willing to wait for the experimenter to leave, and, then, return to the room a few minutes later. Once the experimenter left the room, the children were observed to go through a variety of behaviors (squirming, sitting on their hands, and shutting their eyes) that suggested they were trying to struggle against the desire to take whatever had been placed before them.

Many of the youngest children in the experiment (less than three years of age) were unable to successfully resist the temptation to eat a

cookie/marshmallow or pick up one of the toys while the experimenter was out of the room. Older children (between three and five), on the other hand, tended to exhibit better executive control.

Nevertheless, greater will power – to whatever extent it was present -- was not necessarily the primary reason why the older children were more successful than the younger children with respect to resisting temptation. Instead, the older children appeared to have developed better coping strategies for resisting temptation.

For example, the older children used humming and singing to distract themselves from the temptation that had been placed before them in the Mischel experiment. They had learned techniques to constrain and modulate what was going on within them.

According to Dr. Gopnik, the ability to entertain or consider different, possible ways of behaving and, then, use thought (in the form of coping strategies) to shape how one will act in a given set of circumstances is a powerful evolutionary mechanism. While one can agree that the foregoing process of counterfactual thinking is a powerful tool, the source of that capacity might not necessarily be a function of evolution … certainly, Professor Gopnik has not put forth any evidence to demonstrate the existence of a set of step-by-step evolutionary events that would have made such a capacity possible.

Development, learning, and education all seem to revolve about capacities that enable an individual to construct parallel and overlapping and interacting conceptual, emotional, social, causal, moral, and physical maps of existence. With respect to each of the foregoing realms of epistemological possibility, a person (whether young or old) is faced with the task of trying to differentiate between reality and non-reality through the use of contrafactual thinking processes that help an individual to identify what seems to enhance one's understanding of some given set of circumstances as well as to eliminate what does not seem to belong and, therefore, constitutes a source of distortion.

Moreover, counterfactual thinking processes enable children to acquire insight (both with respect to themselves and in relation to others) concerning the way in which different starting points, assumptions, beliefs, values, and understandings are likely to lead to different kinds of conclusions, perspectives, judgments, and behaviors.

In other words, counterfactual thinking processes tend to generate an array of possibilities for parsing reality and differentiating between what is factual and what is counterfactual.

Chapter 3: <u>Human Nature</u>

Steven Pinker, a cognitive psychologist, is someone who has explored the dynamics through which hereditary and environmental influences affect human development. While Professor Pinker has no wish to deny the idea that environmental factors often have substantial roles to play in shaping the lives of human beings, nonetheless, he also wants to argue against the idea that there is no such thing as human nature.

In other words, he would like to draw attention to the fact that human beings are not blank slates (that is, without any inherent structural and dynamic properties) upon which the environment imprints its messages. According to Dr. Pinker, heredity has a great deal to do with establishing the degrees of freedom and constraints that engage (and are engaged by) the environment and that, in turn, play off against one another and, thereby, help shape the process of development.

The doctrine of the Blank Slate maintains that <u>all</u> feelings, thoughts, and behaviors arise out of some combination of learning, experience, and socialization. The Blank Slate perspective maintains that differences among human beings are a function of variations in what is learned, experienced, or the manner in which we are socialized.

Professor Pinker contends that the 'Blank Slate' approach to mental functioning has assumed a status within modern intellectual life that is akin to being like a secular religion. As a result, many people believe that due to the allegedly blank character of human nature, we are malleable to an indefinitely great degree, and, as a result, the principles of the Blank Slate religious-like system often are used to impose all manner of social engineering projects and political interventions on the members of society.

However, rather than ignore the reality of human nature -- as he believes the Blank Slate model tends to do -- Professor Pinker wishes to promote a balanced and realistic portrait of human beings. Consequently, he would like to work toward bringing about a form of humanism that is biologically informed so that it reflects, and makes use of, the discoveries in evolution, genetics, and cognition that have emerged during the twentieth century.

Before beginning to delineate his own theoretical position in the pages of *The Blank Slate: The Modern Denial of Human Nature*, Dr. Pinker outlines several other notions with which he takes exception and that he feels often are allied with the Blank Slate perspective. One of the ideas to which he is referring concerns the belief that human beings, in their native state, are considered to be 'noble savages' who, supposedly, are predisposed toward being peaceful, selfless, and without cares, while the other idea to which Professor Pinker objects and that often is associated with the Doctrine of the Blank Slate involves the notion of a 'Ghost in the Machine' in which the mind (i.e., the Ghost) operates according to a non-material and non-physical set of dynamics that occur in conjunction with, but not as a result of, the physical/material processes to which the body (the Machine) gives expression.

Collectively, and independently, the three foregoing doctrines – that is, The Blank Slate, the Noble Savage, and the Ghost in the Machine -- seek to minimize, if not eliminate, the possibility that principles of biology might play formative roles in the development and behavior of human beings. According to the perspective of the foregoing conceptual triumvirate, learning was considered to be the result of the connections, associations, conditionings, and rewards that were associated with the stimuli impinging on human beings.

Using ideas drawn from anthropologists and sociologists such as: Franz Boas (1858-1942), Albert Kroeber (1876-1960), Emile Durkheim (1858 -1917), Ruth Benedict (1887 -1948), Margaret Mead (1901 – 1978), Leslie White (1900 – 1975), Ashley Montague (1905 – 1999), Clifford Geertz (1926-2006), and others, a model emerged in the late 19th century and gained influential ascendancy during the 20th century. The foregoing model largely ignored and de-emphasized the roles that instinct, heredity, as well as innate human nature played in human development and, instead, assigned primary developmental roles to the impact that society and culture had on individuals.

According to the above model, human beings were highly malleable and largely, if not entirely, the product of various social/cultural forces, practices, and institutions. Social facts were the progenitors of psychological phenomena rather than the latter being due to the idiosyncrasies of individual beliefs or mental states, and,

consequently, proponents of this model tended to argue that culture creates instinct instead of vice versa.

In other words, the anthropological-sociological model claimed that society and culture were natural laws unto themselves. Therefore, although social and cultural phenomena were independent of human beings, nonetheless, the dynamics of culture and society left their indelible shaping imprint on all who came within the sphere of influence of those laws.

However, running in parallel with the foregoing revolutions in anthropology and sociology was another revolution that also was rooted in the empiricist tradition of the Enlightenment. In the beginning, this alternative approach to empirical matters seemed to carry few implications concerning human nature, but its potential began to unfold toward the latter part of the 1900s.

More specifically, starting with Newton's unification of celestial and earthly dynamics, and, then, branching out through the contributions of individuals such as: William Harvey, John Dalton, Michael Faraday, James Maxwell, Charles Lyell, Friedrich Wöhler, Charles Darwin, Gregor Mendel, as well as James Watson and Francis Crick (if not Rosalind Franklin) – along with, of course, the contributions of many other individuals -- physics, chemistry, geology, biology, and evolution were woven into a set of natural laws that appeared to carry many implications for understanding – at least potentially – human nature.

For example, Professor Pinker notes that research in cognitive science led scientists to combine ideas concerning information, algorithms, recursion, and feedback to form a computational theory of mind. Supposedly, this theory permits scientists to be able to provide explanations for such mental phenomena as: Thinking, reasoning, knowing, believing, remembering, imagining, and intending that are not dependent on the activities of a mythical 'ghost in the machine'

According to Dr. Pinker, the process of computation gives expression to qualities of intelligence and rationality. In other words, computations consist of a sequence of transformation involving information that not only obey laws governing logic, mathematics, and causal relationships, but, as well, are capable of generating accurate

predictions concerning the nature of the dynamics that characterize various systems of behavior.

Nevertheless, irrespective of however helpful a computational theory of mind might be, what that theory does not actually explain are the origins of the capacities that exhibit intelligent and rational properties. Intelligence and rationality are not just a sequence of transformations but, instead, allude to an underlying set of capacities that are able to envision what transformations to perform on which information and in what order and under what circumstances and why.

The existence of a sequence of transformations involving information might indicate that intelligence and rationality are present in some way. Nonetheless, such sequences of transformations tend to be the product of intelligent and rational processes rather than the processes per se.

What were the dynamics that led to – i.e., envisioned and organized -- the emergence of a particular set of transformations, recursions, and feedback loops that give expression to a computation? Was this envisioning and organizing activity a computation of some kind, and, if so, what were the components of that computation and what governs the dynamics of those components?

Are the foregoing components biological in character? That is, are those components a function of, say, some combination of: Action potentials, neurotransmitter exchanges, and glial cell activities, and if so, what, precisely, is involved in such a process?

Or, are the causal agents that are responsible for the emergence of a certain sequence of transformations, recursions, and feedback loops due to some other set of non-biological processes? And, if this is the case, then what is the nature of those non-biological processes?

Professor Pinker claims that the computational theory of mind has the ability to explain how rationality and intelligence are able to arise out of a set of mindless, physical processes. However, at no point does he actually demonstrate how a mindless set of processes is able to generate rationality and intelligence.

Supposedly, according to Dr. Pinker, learning, knowing, creating, believing, imagination, and other cognitive phenomena are all forms of

information processing. Yet, the precise nature of the processing that makes learning, knowing, creating, imagining, believing, and so on possible are never really specified.

In other words, at no point in *The Blank Slate* does Professor Pinker demonstrate how a specific combination of neurotransmitters, action potentials, and glial dynamics produces consciousness, reason, logic, understanding, insight, imagination, memory, creativity, or intention. At most, correlations are introduced that are devoid of verifiable causal links.

Instead, what Professor Pinker is presenting is a description of sequences of transformations concerning information that are the result or outcome of processes of intelligence and rationality. Consequently, Dr. Pinker appears to be addressing the issues of intelligence and rationality at a meta-level ... that is, he seems to be engaging those issues in a way that is at least one, or more, steps removed from the actual dynamics of intelligence and rationality, and as such, he tries to leverage the presence of the underlying processes of intelligence and rationality without ever actually explaining how these capacities arise from mindless phenomena.

He claims that the computational theory of mind allows scientists to avoid having to rely on will-o'-the-wisp-like phenomena being responsible for the brain's cognitive activity. Yet, his computational perspective still appears to be entangled in as many mysteries (albeit somewhat different in nature) as plague the ghost in the machine approach to mental phenomena.

In passing, Dr. Pinker mentions the response of Gottfried Leibniz to the empiricist meme that 'nothing is in the intellect that was not first in the senses' – namely, "except the intellect itself". Obviously, something within us is capable of being aware of, learning about, reflecting on, analyzing, having insight into, interpreting, and remembering what is transpiring in relation to the sensory capabilities, but no one (neither the empiricists, nor the rationalists, nor the idealists, nor the proponents of the computational theory of mind) seems to know what makes any of the aforementioned sorts of hermeneutical and epistemological activity possible or how those capabilities came into being.

For example, consider language. Professor Pinker notes that the paradigm shift that emerged due to Noam Chomsky's notion of generative grammar (in which a finite set of syntactical rules is capable of being used to generate an indefinitely large number of sentences) appears to presuppose the existence of some kind of innate Universal Grammar that consists of a core set of principles from which different languages derive their individual ways of organizing syntactical possibilities.

However, Dr. Pinker points out that although there are 128 ways to arrange possible combinations of common forms of head (e.g., verbs or prepositions) and complement (e.g., noun phrases) syntactic structures, 95% of the world's languages exhibit just one of two possible forms of head-complement arrangements – namely, linguistic structures in which the head component comes first (such as in English) and forms in which the head element comes last (such as in Japanese). In fact, according to the research of Mark Baker, all of the roughly 6,000 languages that exist in the world give expression to the same underlying set of linguistic principles but are modulated in accordance with certain modes or parameters (e.g., the head-first or head-last arrangement) that are about ten in number.

No one knows how the principles that are inherent in the Universal Grammar came into being. No one knows how and why various syntactic parameters were introduced into different communities that were capable of modulating the Universal Grammar in certain directions rather than in other possible ways.

Furthermore, no one seems to know how children – without any instruction – are able to identify, as well as grasp, either, on the one hand, the aforementioned head-complement syntactic arrangements or, on the other hand, any of the ten parameters of modulation alluded to earlier that exist in the local languages to which they are exposed. During the learning of a language, there is a complex, dynamic dance that is transpiring between the child and the surrounding environment that tends to point beyond the notion that language is merely a matter of being exposed to, and learning, the right set of stimuli, and, moreover, no one knows how the underlying capabilities came into being that make such language learning possible.

According to Professor Pinker, the mind is a modular set of functions that interact with one another to generate thoughts, emotions, judgments, values, and behaviors. However, he does not provide a step-by-step account that explains how modular capabilities involving: Language, mathematics, spatial orientation, tool usage, creativity, and other modalities of intelligence came into being.

Furthermore, Dr. Pinker does not offer an account that explains how human beings are able to organize the way in which different modular components will be used to perceive, interpret, analyze, evaluate, or solve different kinds of problems. Although both of the following processes require intelligence, using a ready-made algorithm is not the same thing as being able to construct algorithms from scratch (that is, through a step by step process) in a manner that enables one to use the finished algorithm to generate functional solutions to life problems, and Professor Pinker does not offer any insight into how human beings are able to grasp a given situation sufficiently well to be able to generate algorithms that are capable of solving real-world problems.

In addition, Dr. Pinker does not explain how awareness is generated. Is it a modular process, or are different modalities of consciousness made possible through some other process?

How does one account for the fact that different kinds of intelligence appear to have access to forms of consciousness that enable those modes of intelligence to have the sort of awareness that is needed for cognitive activity to be able to give expression to intelligent activity even though the so-called normal, waking mind does not seem to be directly aware of the specific character of that activity. For instance, answers to various kinds of word puzzles and problems often seem to pop into waking consciousness rather than having been worked out in a visible manner on the screen of normal, waking consciousness, and one wonders (because Professor Pinker does not adequately answer such questions) what makes either normal, waking consciousness or deeper sorts of awareness associated with intelligent activity possible and one wonders how the two levels of consciousness communicate with, and understand, one another.

Professor Pinker claims there is an overwhelming amount of evidence indicating that all forms of cognition are a function of the

physiological dynamics that take place in and around the different cells of the brain. Yet, he isn't able to explain – in a step-by-step fashion -- how any given set of physiological events is able to generate intelligence, language, logic, awareness, understanding, specific emotions, creativity, or intention, and, consequently, there seems to be a rather sizable disconnect between what Professor Pinker claims and what he can actually demonstrate.

While it might be true, as Dr. Pinker states, that every thought, idea, belief, or feeling generates a set of various kinds of physiological signal, nonetheless, this does not demonstrate that such thoughts, ideas, beliefs, or feelings are caused by those physiological signals. Unless Professor Pinker can provide a detailed account that fully explicates how physiological events generate consciousness and other cognitive functions, he would seem to be open to the charge that he is confusing, if not conflating, correlation with causation.

The computational approach to cognition might be able to simulate – that is, generate similar solutions to problems – that are produced through innate (natural) forms of intelligence. Nonetheless, there is little or no evidence to indicate that innate forms of intelligence actually use various modalities of computation in order to understand, analyze, reflect on, evaluate experience.

According to Professor Pinker, a person ceases to exist when the brain dies. However, if the essence of a person were non-physical or non-material in nature (whatever that might involve), then how would Dr. Pinker prove that, in point of fact, a person does cease to exist if the brain dies since his perspective does not permit him to look for, or to be able to detect, what cannot be reduced down to his physical/material way of filtering experience.

Dr. Pinker might be right that a person disappears when the brain dies. However, his claim is rather circular in nature because it requires one to presuppose (i.e., he certainly cannot prove his assumption) that all Being is a function of material or physical phenomena anymore than a Tox-screen can demonstrate the non-existence of substances for which it has not been set up to detect.

Not only does Professor Pinker maintain that the person ceases to exist when brain functioning is no longer present, but, as well, he argues against the existence of a self that is, somehow, independent of

brain functioning. In an attempt to lend credibility to the foregoing position, he describes the transformation that occurred following a work-related accident involving a 19th century railroad worker by the name of Phineas Gage

More specifically, prior to the worker's accident, those who knew Gage considered him to be a sociable, pleasant, reliable, and well-motivated individual. However, when a metal rod he had been using to tamp down some explosive powder generated a spark that ignited the powder, the metal rod was forcibly propelled back through the ventromedial prefrontal cortex of his brain located just above his eyes and, as a result, seemed to bring about a variety of changes in his personality.

For example, although Gage had been considered to be a pleasant individual prior to the accident, after that event, he became rude, surly, and argumentative. Moreover, whereas prior to his accident, he was considered to be a reliable, motivated individual, following the accident he appeared to become shiftless and lacking in ambition.

According to Dr. Pinker, evidence exists indicating that the ventromedial prefrontal cortex is responsible for, among other things, reasoning about one's relationships with other human beings, and cognitive scientists such as Professor Pinker believe that the same region of the brain is responsible for not only an individual's ability to predict the consequences of one's actions, but that area also enables a person to identify courses of action that are consistent with one's purposes and intentions. From the perspective of Professor Pinker, when the metal tamping bar penetrated the ventromedial prefrontal cortex of Phineas Gage, the latter individual's capacity to reason in certain ways was disrupted.

Dr. Pinker contends that the ventromedial prefrontal cortex is responsible for the ability to be able to reason about other people, and, In addition, that area of the brain is thought to be responsible for forms of reasoning that can predict the consequences of one's actions as well as give expression to a capacity to identify actions that can help realize one's purposes or goals. However, he doesn't offer a step-by-step account that indicates just how the physiology of brain functioning generates the foregoing kinds of reasoning processes.

For example, he doesn't specify what the foregoing sorts of predictions are based on or how brain functioning (i.e., the activity of neurons, action potentials, glial cells, neurotransmitters, and so on) causes judgments and evaluations to be made in conjunction with the predictions that are allegedly emanating from the ventromedial prefrontal cortex. Furthermore, Professor Pinker doesn't indicate how processes involving brain physiology enable an individual to identify actions that are consistent with, and are capable of serving, an individual's goal.

Consequently, one is not really sure in just what way, and at what point (or points), the aforementioned tamping rod disrupted the process of reasoning. In addition, one is somewhat – if not entirely -- unclear about how any of the foregoing considerations undermine the notion of a self.

On the one hand, experiences impact awareness. On the other hand, intelligence, reflection, analysis, interpretation, and judgment impact the experiences that are manifested in awareness.

Experiences often lead to changes within us. These changes are sometimes due to the way the world imposes its presence on us, and, on other occasions, the foregoing sorts of changes are due to the way we respond to what is being imposed upon us by the world.

Were the changes in personality that took place in Phineas Gage following his accident a function of a condition that was imposed on him as a result of the destruction of brain matter that occurred when the tamping bar penetrated his skull? If so, just how did that damage affect functioning in the ventromedial prefrontal cortex of Phineas Gage?

Did the damage to his brain disrupt reasoning? If so, what was the precise character of the disruption process?

Did the damage to his brain make certain kinds of reasoning processes impossible? Did the brain damage leave reasoning intact but undermined his ability to act in accordance with reasoning?

One can damage the components of a television or radio set, and as a result, that damage will affect the proper functioning of those devices. Nevertheless, the dysfunctional character of those components has nothing to do with the quality and character of the

signals that are impinging on those electronic devices, and, similarly, damage to the brain could affect the capacity of that organ to receive or process signals without necessarily directly interfering with processes of reasoning that might – to varying degrees -- occur independently of brain functioning (i.e., reasoning might not be caused by brain functioning ... although brain functioning could experientially orient and color the process of reasoning in different ways.

If one were to consider the Gage injury from an alternative point of view, one might wonder to what extent – if any -- the changes in personality exhibited by Gage could have been the result either of (a) choices he made or (b) coping mechanisms he adopted as a way of engaging what had happened – and was happening -- to him. For instance, did he become rude, quarrelsome, and unsociable because specific pathways in the brain that normally processed signals concerning reasoning about sociability and pleasantness had been destroyed and no longer functioned, or did he become rude, quarrelsome, and unsociable because his normal way of interacting with other individuals had been compromised in some fashion, and the rudeness, quarrelsomeness, and diminished sociability were his way (maladaptive though those behaviors might have been) of trying to protect himself in, or trying to cope with, a perplexing set of conditions?

In other words, were the rudeness, quarrelsomeness, and lack of sociability displayed by Gage, the direct result of damage to the brain and, therefore, imposed on Gage as the new – though deformed – default position for interacting with others? Or, were those sorts of behaviors expressions of Gage's attempt to cope with a set of circumstances (maladaptive though those attempts might have been) that had thrown his life into disarray in a number of ways?

When we are sick, we often tend to be irritable. Did the sickness cause the irritability, or is the irritability a maladaptive response to not feeling good and not possessing the energy that is needed to successfully cope with life under trying circumstances?

 To be sure, having one's brain impaled by a tamping bar is likely to have some sort of problematic impact on one's ability to function in a normal way. However, until one knows exactly what the nature of that impact is, one can't be entirely sure whether changes in behavior

are a direct and automatic result of the damage caused by such an impact or whether those changes in behavior are a maladaptive coping response in relation to whatever damage actually has occurred.

Irrespective of whether the changes in behavior were the direct result of damage inflicted on the brain of Phineas Gage or, instead, were the result of maladaptive responses to his injured condition (or were due to some combination of the two foregoing possibilities), can one really conclude that the Gage example constitutes evidence that there is no self? Does the fact that the character and quality of behavior changes following an accident an indication that the self does not exist?

We experience things and change. We learn things and change.

What is changing? Has the self changed, or has the understanding changed through which the self engages, frames, and filters life?

Choices occur in conjunction with what is experienced. Choices take place in relation to what is learned?

What makes those choices? What determines the nature of those choices?

Isn't it possible that an entity that is referred to as the "self" (a phenomenon of which we all are aware and in relation to which we all have had experience) makes choices about what is experienced and learned? Isn't it possible that the self chooses how to change understanding in response to what is experienced and learned?

Therefore, just because understanding changes – that is, one's way of relating to, or one's way of being existentially oriented with respect to, what is taking place changes – this doesn't necessarily require us to conclude there could be no underlying self that is making choices concerning how one understands what is experienced and learned? In fact, the sense of self that most people have is one that seems to be deeply involved in undergoing changes (some of which are selected and some of which are imposed) throughout life.

If understanding changes – say, as a result of the ventromedial prefrontal cortex being impaled on a tamping bar – how does this automatically demonstrate there could be no self that is distinguishable from the changes in understanding that take place as a result of the way information can be processed due to damage to

various processing pathways? Does the fact that character traits can change (as was the case with Phineas Gage) demonstrate that the self is non-existent or do such changes merely demonstrate that the self is capable of undergoing various kinds of transitional states as a function of the impact that different forces of experience, learning, development, sickness, and injury have on the self and with respect to which the self makes choices?

Professor Pinker seeks to enhance his position (that began with a discussion of Phineas Gage) concerning the non-existence of the self when he engages in a brief examination concerning the split-brain research of Roger Sperry and Michael Gazzaniga. However, before critically reflecting on that discussion, Dr. Pinker makes a comment as he introduces this latter topic that should be addressed.

More specifically, he claims that the research of Gazzaniga and Sperry gives expression to some of the most compelling data available indicating that the notion of a "unified self" is illusory. Whatever the research to which Dr. Pinker is alluding does, or does not, show, there is nothing requiring that the self – if it exists as something independent of the physiological functions of the brain – must be unified.

As noted previously, the concept of 'self' tends to give expression to a capacity that is capable – to varying degrees -- of undergoing changes and transitions in state. The concept of 'self' seems to allude to a potential that encompasses certain degrees of freedom and constraints concerning the task of trying to navigate through the contingencies of life and participating, to some degree, in the changes that the self appears to be capable of undergoing during that process of navigation.

The self can be mistaken. The self can make problematic choices.

The self can make choices that are inconsistent with one another. The self can choose to engage life in a given way on one occasion and, then, subsequently, make choices that contradict, nullify, or modify the earlier choices.

The potential of the self might well enable that entity to seek a unified sense of self, and, possibly, to be able to realize that kind of a state if and when such a condition occurs. Nevertheless, the self does

not necessarily start out with a clear – or even unclear -- sense of being unified in one way or another.

Consequently, Dr. Pinker begins his discussion of the split-brain research of Sperry and Gazzaniga in a problematic manner. For, even if he were able to put forth evidence indicating that the aforementioned research is capable of demonstrating that a given sense of a unitary self might be illusory, this does not necessarily prove that there could be no underlying potential inherent in human existence that persists across time and through which an individual experiences a sense of self – unified or otherwise.

As the following discussion tries to establish, the research of Sperry and Gazzaniga might carry implications for a person's sense of self. Nevertheless, that research doesn't necessarily have much, if anything, to do with whether, or not, human beings have a dimension of self, or potential for self, that is related to, but different from, an individual's sense of self.

If the self exists – and I believe it does – it constitutes a capacity for orienting one existentially, hermeneutically, morally, socially, and epistemologically. However, one's sense of self is the result of choices that are made in conjunction with the foregoing capacity as different dimensions of that capacity engage what is being learned, experienced and critically reflected upon.

Notwithstanding the foregoing considerations, let's take a look at some of the split-brain research that explores what happens when certain things happen to the corpus callosum. The latter term refers to a collection of nerve fibers that link the left and right sides of the brain.

There are medical conditions (e.g., certain forms of epilepsy) that are treated by bisecting the corpus callosum. This procedure cuts off various kinds of communication or interaction between the two cerebral hemispheres.

When the foregoing operation takes place, then under certain conditions, various anomalous ways of processing information begin to manifest themselves in the individuals who undergo that surgical procedure. Roger Sperry (initially, but later on he worked in conjunction with Michael Gazzaniga) conducted research concerning the foregoing anomalies.

The two scientists discovered that following the foregoing surgical procedure and under certain conditions set up by the researchers (to be described shortly), clients tended to respond to stimuli differently depending on the cerebral hemisphere to which information was being sent. For example, if the word "Walk" is shown to the portion of a patient's visual field that communicates exclusively with the right hemisphere, a patient might begin to walk in some given direction, but if that person were subsequently asked why he, she, or they started walking on that occasion, the individual often would confabulate or invent some story (e.g., I wanted to get a drink) that purported to explain why the person had decided to start walking during the foregoing situation rather than indicate that the word "Walk' had been seen, and one was acting in accordance with that word or, perhaps, even indicating that the individual was not really sure why he, she, or they had begun to walk at a certain point in time.

In another experiment, different facets of a patient's visual fields were simultaneously targeted and exposed to images of a chicken and a snowstorm in such a way that the information involving the chicken would only be communicated to the individual's left hemisphere while the information concerning the snowstorm would be sent just to the right hemisphere. If the person, then, was asked to use her, his, or their left hand in order to identify the image among a set of possibilities (one of which was a chicken claw) that seemed to be most relevant to what had been seen earlier, the individual would select the chicken claw, but if the patient was asked to use his, her, or their right hand to identify the image among a set of images (one of which was a shovel) that seemed to be most relevant to what had been seen previously, the individual selected the shovel.

The left hand selected an image – namely, a chicken claw – that is relevant to the image of the chicken that was transmitted to the left hemisphere through the visual field. The right hand also selected an image – i.e., a shovel – that is relevant to the snowstorm image that had been communicated to the right hemisphere.

However, if a subject is asked why the image of the shovel was selected, the individual will give a confabulated response. For instance, the person might indicate that the shovel was necessary for cleaning up the shed in which the chicken was living.

Among those individuals who have undergone the split-brain research, a person's understanding is often affected by which hemisphere is dominant for handedness and/or language. Although statistics vary somewhat, as many as 93% of the general population seem to show left-hemisphere dominance in relation to language processing (e.g., among other things, Broca's and Wernicke's areas in the left hemisphere of most people tend to be up to three times as large as those areas are in the right cerebral hemisphere of those individuals).

Consequently, when subjects in the split-brain research are asked about why they selected the image of the shovel, their answer tends to reflect: (a) the likely presence of language dominance in the left-hemisphere and (b) the fact that the left-hemisphere also was the recipient of visual information involving a chicken. As a result, the understanding or interpretation concerning a subject's choice of the shovel image will be chicken-oriented rather than snowfall oriented.

Professor Pinker concludes that the foregoing series of experiments demonstrate that the conscious mind – which he equates with the self or soul – does not appear to have a complete understanding of what is taking place and, as a result, will often invent explanations for behaviors that are due to something other than the conscious mind. Furthermore, various dimensions of the individual will respond in different ways depending on the information that has been communicated to those facets of the individual and depending on the kinds of questions or requests that are made.

Therefore, according to Dr. Pinker, there is no one self. He believes the foregoing evidence indicates that not only does a multiplicity of selves exist, but, as well, that the conscious mind has a tendency to invent various kinds of narratives that allow it to assume responsibility for, and provide an explanation of, behaviors that are actually caused by something other than the conscious mind.

Whether, or not, one should identify the soul or self with the conscious mind, as Professor Pinker appears to be inclined to do, raises some interesting questions. For instance, practitioners of mysticism from a variety of spiritual traditions maintain that the nature of the soul or essential Self transcends the activities of the conscious mind, and, in fact, proponents of mysticism often indicate

that what is normally referred to as the conscious mind tends to obfuscate, if not compete with and attempt to dominate or control, the interests of the actual Self or soul.

Certainly, the tendency of the conscious mind to offer explanations that try to convey the impression that it is responsible for, and in control of, various behaviors -- such as occurs in split-brain research and even though evidence clearly indicates otherwise -- is consistent with the mystical teaching that the conscious mind is not necessarily an honest or reliable broker concerning experience. Split-brain research might have uncovered the existence of a variety of possible pretenders to the self or soul that – each, in its own way – seek to interpret and shape awareness or understanding, but the aforementioned research has not necessarily demonstrated that the idea of a soul or self is false … although such research does tend to indicate that the soul might be more complicated than many people – including Dr. Pinker – seem to suppose.

Under certain circumstances (e.g., split-brain research) the right hemisphere seems to make one kind of contribution toward helping to shape certain aspects of understanding. Moreover, under certain circumstances (e.g., split-brain research) the left hemisphere appears to offer another kind of contribution that is intended to help orient understanding with respect to certain aspects of experience, and, finally, the conscious mind introduces a further species of contribution that seeks to frame understanding in, yet, another manner.

Why should one suppose that what goes on in the left and right hemispheres or the conscious mind constitutes the sum total of what is possible with respect to consciousness? We all have had experiences in which insights, solutions, ideas, and various kinds of realization suddenly appear in waking consciousness that are not the product of thinking or reasoning that has taken place on the screen of normal consciousness and, yet, seem to give expression to intelligent, informed, logical, rational processes.

Apparently, there is a capacity (or capacities) within us that is (are) capable of generating intelligent responses to on-going issues that would seem to have to be aware of various aspects of experience in ways that normal, waking consciousness does not appear to be. Although the tendency of many scientists such as Professor Pinker is

to suppose that such dynamics are a function of brain activity in one, or both, of the cerebral hemispheres, nonetheless, at the present time, we do not necessarily know what makes the foregoing processes of the "conscious unconscious" possible.

The soul or self, therefore, is not necessarily a function of, or caused by, what goes on in the right hemisphere, the left hemisphere, or the conscious mind. In fact, one might want to reflect on whether, or not, chickens, snowstorms, chicken claws, and shovels – the kinds of topics that emerge in the split-brain research -- have any sort of actual relevance to the concerns of the soul or Self.

Even if one accepts the idea that anomalous sorts of information processing take place in split-brain subjects, just how does this demonstrate that the Self or soul does not exist? Are our modes of interacting with Being necessarily restricted by what transpires in the left hemisphere, the right hemisphere, or the conscious mind? Where – or what -- is the evidence demonstrating that we are necessarily limited to the foregoing modalities of engaging experience?

Is consciousness/awareness capable of being bifurcated and compartmentalized? The answer to the foregoing question is, obviously, "yes" because, if nothing else, the split-brain research demonstrates that, under different conditions and in various ways, consciousness/awareness is susceptible to being bifurcated and compartmentalized.

Nevertheless, mystics from a variety of spiritual traditions indicate that the faculties through which the mysteries of Being can be accessed are not dependent on, or tied to, normal modalities of reasoning, logic, analysis, interpretation, and so on, and, therefore, one isn't necessarily required to seek answers to the mysteries of Being by means of the activities of the right and left hemispheres or even through the activities of the conscious mind. Consequently, whatever the nature of the vulnerabilities to which two cerebral hemispheres and the conscious mind might be susceptible, this does not necessarily foreclose on – although it might create various problems for – the capacity of human beings to seek essential truths concerning the nature of our possible relationship with Being in ways that are not mediated – to whatever extent this is the case – by the two cerebral hemispheres or the conscious mind.

Cutting the nerve bundles that comprise the corpus callosum might affect communication between the two cerebral hemispheres, and, as a result, lead to a variety of anomalies in the way in which various kinds of information are processed under an array of conditions or in the way in which the conscious mind tries to make sense of what is taking place. However, no one – Including Roger Sperry, Michael Gazzaniga, or Steven Pinker -- has provided definitive evidence that demonstrates how cutting the corpus callosum eliminates, truncates, or suppresses the capacity of a human being to seek, and, possibly, realize, whatever mysteries might exist with respect to the nature of one's relationship with Being.

A set of challenges resides within the mystical path. One of those challenges involves the task of trying to discover the presence and nature of the real Self amidst all of the false selves with which the conscious mind is inclined to identify during various facets of the conscious mind's activities, and, therefore, split-brain research actually resonates with the mystical perspective rather than undermines it.

The left and right hemisphere can be sources of different kinds of information. Be careful … exercise due diligence!

The conscious mind has a tendency to confabulate and invent stories to explain what is going on. Be careful … critically reflect on what is taking place!

Consciousness can be bifurcated and give expression to forms of understanding that are shaped by the dynamics that are taking place within different cerebral hemispheres. Be careful … rigorously examine the provenance of any given conscious state in order to determine what forces are underwriting that state!

The foregoing cautions are relevant to the experiences of individuals who have undergone split-brain research. The foregoing warnings are also relevant to the experiences of individual who have not undergone split-brain research, but who are, nonetheless, vulnerable to various kinds of illusions and false notions of self.

Everyone – whether a split-brain subject or not -- encounters instances in which the conscious self makes up stories in an attempt to account for phenomena and events that exceed, or elude, the ability of

the conscious mind to understand. Spinning such stories – maladaptive though they might be -- is how the conscious mind tries to cope with various events that, among other things, are threatening to spin out of control and, as a result, those stories tend to allay anxieties that swirl about the many unknowns of life.

Professor Pinker believes that, in many cases, conceptual systems involving, for example, anthropology, sociology, philosophy, politics, and religion give expression to stories rooted in various fabrications of the conscious mind as it engages lived experience. Such fabrications often lead individuals to identify with different senses of self that are shaped by, and – to varying degrees – are dependent on, those sorts of fabrications.

However, Dr. Pinker never seems to consider the following possibility. Conceivably, (1) his own reductionistic ideas concerning the physical/material nature of reality, or (2) his belief that the 'self' or 'soul' does not exist, or (3) his idea that the person disappears when the brain dies, or (4) his presumption that human beings are a function of evolutionary events, or (5) his claim that consciousness, intelligence, reason, logic, creativity, and emotion are due to the physiological activities of the brain are all as susceptible to the tendency of the conscious self (i.e., his own) to fabricate stories or to be confused by the conflicting information arising in conjunction with the activities of his left and right cerebral hemispheres as are the perspectives that he seeks to criticize.

For example, according to Professor Pinker, damage to the frontal lobes of an individual can lead to aggressive behavior in the person to whom such damage occurs. Dr. Pinker says the reason why aggressive behavior takes place in the foregoing individual is because the normal ability of the frontal lobes to exert an inhibitory influence on the stria terminalis pathway that connects the hypothalamus and amygdala has been destroyed, blocked, undermined, or compromised as a result of the damage that was inflicted upon the frontal lobes.

At no point during the foregoing sorts of discussion in *The Blank Slate: The Modern Denial of Human Nature* does Dr. Pinker provide a detailed account of how the frontal lobe acquired the capacity to become aware of and identify the activities of the limbic system as well as to be able to learn how to inhibit the aggressive tendencies of that

system, as well as to be able to understand why such tendencies must be inhibited. Moreover, at no point during the aforementioned book does Professor Pinker offer a step-by-step account of the physiological dynamics that give expression to the foregoing processes of awareness, identification, learning, or inhibitory activity, and, In addition, Professor Pinker does not explain how the stria terminalis came to acquire the capacity to mediate the issue of aggressiveness with respect to the interaction of the amygdala and the hypothalamus.

How do we know that the narrative advanced by Dr. Pinker concerning the relationship of the frontal lobe, amygdala, hypothalamus, and stria terminalis is not just a story spun by his conscious mind in an attempt to explain phenomena that – at least at the present time – might exceed his ability to understand? The fact that damage to the frontal lobe is associated in some manner with activity in the stria terminalis and is also correlated with aggressive behavior in persons to whom this kind of damage happens doesn't demonstrate that awareness, identification, learning, understanding, and inhibitory behavior are a function of brain activity ... although the information cited by Professor Pinker does indicate that, to varying degrees, physiological functioning in the brain does seem to mirror, parallel, reflect, and is, in some unknown manner, related to the phenomenological events involving inhibition and lack of inhibition in conjunction with aggressive behavior.

To be sure, one can accept the claim of Dr. Pinker that, to a considerable extent, genes shape the character of the brain's gross anatomy. In other words, gene expression gives rise to the basic architectural plan of the brain involving the neurological location, shape, properties, development, and connections of an array of regions, fissures, nuclei, circuits, and pathways in the brain. However, even granting the foregoing points, one cannot, therefore, necessarily conclude that awareness, learning, memory, intelligence, reason, judgment, interpretation, and emotion are reducible to the neurological activities that are made possible through the manner in which genes give expression to the architectural dynamics of the brain.

Similarly, one can acknowledge the fact – and Professor Pinker notes this in passing -- that relatively recent studies involving identical and fraternal twins tend to demonstrate there are differences in the

way grey matter is distributed in the frontal lobes of human beings and that such differences are significantly correlated with differences in intelligence. Nevertheless, the foregoing concession does not force one to conclude that: Grey matter, the amount of grey matter, or the manner in which grey matter is distributed is necessarily responsible for generating the property of intelligence.

In order to justifiably claim that intelligence is a function of grey matter, one needs to show how the physiological processes occurring in and around grey matter generate intelligence. In other words, one must be able to show how: Interacting action potentials, dendritic branching, axonal dynamics, and the activity of neurotransmitters give expression to properties of awareness, insight, judgment, evaluation, analysis, understanding, reason, logic, creativity, and so on.

At the present time, neither Dr. Pinker nor any other scientist is capable of putting forth evidence that clearly gives expression to any of the foregoing possibilities. All the available evidence can show is the existence of correlations between brain activity and intelligence, but, as any basic course in statistics tends to remind one, correlation is not necessarily the same thing as causation.

For instance, the electronic components in a television or radio set – along with the distribution of those components within a set -- are significantly correlated with whatever degree of intelligence might be manifested in a given television or radio program. Nevertheless, the components, or their manner of distribution, do not cause the content of the foregoing programs even though those components and their distribution are needed for different programs, of variable intelligence, to be able to be manifested in a visible and audible form.

One can agree with Professor Pinker that such properties as scientific genius, intelligence, or aggressiveness might not be reducible to being a function of culture and learning even thought culture and learning often pass on a certain amount of color and orientation to the foregoing kinds of innate properties. Furthermore, one can agree with Dr. Pinker that there are dimensions of innate potential within human beings – and other life forms – that, to varying degrees, are capable of pushing back against, and acting on, both culture and the process of learning.

In short, one can agree with Professor Pinker that human beings are not blank slates upon which the environment writes is messages. Instead, human nature is something with which the environment (physical and social) interacts in variable ways, but, nonetheless, the ultimate character of human nature cannot necessarily be restricted to the degrees of freedom and constraints that are established through the activities of gene expression.

One could endorse the contention of Dr. Pinker that physical and social environments form a context within which gene expression takes place that, simultaneously, can affect, as well as be affected by, various aspects of those environments. However, acknowledging the foregoing point does not obviate the possibility that gene expression, itself, might form a context within which the choices of the Self take place that are capable of affecting, and being affected by, the dynamics of gene expression.

In short, one can agree that something called human nature exists and that while such a nature can be affected by the environment, that nature is not reducible to, or a strict function of, the environment Notwithstanding the foregoing point, nevertheless -- and contrary to the claims of Professor Pinker -- human nature might involve considerations (e.g., such as the Self or soul) that extend beyond the way in which gene expression manifests itself during maturation or development.

Professor Pinker indicates that the field of behavioral genetics explores the ways in which genes affect behavior. This seems to be an unobjectionable, if not interesting, pursuit.

However, he, then, goes on to argue that the capacities for thinking, feeling, and so on that distinguish human beings from animals are all a function of the DNA that is contained within the fertilized ovum of the mother. Unfortunately, none of the discussions that occur at various junctures throughout *The Blank Slate: The Modern Denial of Human Nature* is able to demonstrate that human potentials involving thinking, feeling, language, and so on are functionally – and entirely – dependent on the contents of our DNA.

Describing differences in behavior as being due to differences in genetic makeup, Dr. Pinker contends that small differences in genes can cause large differences in behavior. For instance, he notes that

although the genetic composition of bonobos and common chimps differ by only a few tenths of one percent, nonetheless, bonobos are among the least aggressive of mammals, while common chimps are among the most aggressive of mammals.

Furthermore, on the one hand, among bonobos, females are dominant, but in chimp society, males are dominant. In addition, bonobos engage in sexual activity for purposes of recreation, whereas common chimps engage in such activity solely for purposes of procreation.

The genetic differences between bonobos and common chimps might well be only a few tenths of one percent. This factor, however, does not prove that those differences are responsible for the aforementioned behavioral differences that distinguish bonobos and common chimps.

In order to prove that the foregoing sorts of genetic differences are responsible for the observed behavioral differences between bonobos and chimps, Professor Pinker would have to show that the few tenths of a percentage point that generically separate the two species were directly responsible for behavioral differences in sexual activity, aggressiveness, and male-female dominance among, respectively, bonobos and common chimps.

However, showing that genetic differences are correlated with differences in behavioral patterns does not really provide much to explain what makes different kinds of aggressiveness, dominance relationships, or sexual behavior possible. Moreover, even if Professor Pinker were able to show that the differences in genetic makeup coded for proteins that played some sort of role in the neurological circuitry and pathways that had something to do with sexual activity, dominance orientation, or aggressive behavior, this still is not enough.

One also must show precisely how those genetic differences bring about differences in behavior. He must demonstrate how differences in gene expression cause particular kinds of sexual, aggressive, or dominance behavior.

Seeking to strengthen his conceptual position, Professor Pinker notes that the best predictor for determining if a given person will be schizophrenic is whether, or not, there is an identical twin who suffers

from schizophrenia. Schizophrenia is strongly concordant among pairs of identical twins who have identical genetic sequences and operate within a largely overlapping set of environmental conditions, but the degree of concordance concerning schizophrenia falls off to a substantial degree when one considers pairs of fraternal twins who operate out of a largely overlapping set of environmental conditions but only hold in common half of their genes.

Despite the fact that the concordance of identical twins with respect to schizophrenia is very high, the concordance is not 100%. Among other things, there seem to be epigenetic factors – that is, nongenetic influences (such as choices made, experiences encountered and relationships established) – that are capable of affecting whether an individual's underlying susceptibility to schizophrenia will, or will not, become active.

Which aspect, or aspects, of the genetic makeup in various pairs of identical twins render them susceptible to the being schizophrenic? No one knows!

How does the aforementioned susceptibility give rise to the symptoms of schizophrenia? No one knows!

Are the genetic factors that render certain pairs of identical twins susceptible to schizophrenia, the same genetic factors that render a smaller number of fraternal twins susceptible to schizophrenia? No one knows!

Genetic factors seem to be implicated – in some unknown fashion -- in the occurrence of schizophrenia. Moreover, epigenetic factors (that is, nongenetic influences on gene expression) also appear to be implicated – in some unknown fashion – in the occurrence of schizophrenia.

Do the choices that people make affect whether, or not, certain kinds of genes are, or are not, expressed that might render one more, or less, susceptible to becoming schizophrenic? Possibly, but no one knows!

Are identical twins caught up in some form of – for example -- quantum entanglement such that when one of two identical twins succumbs – for whatever reason –- to schizophrenia, the property of entanglement serves as a tipping point that sets forces in motion that

drag the other individual into the same condition or state? If so, then, the high rate of concordance for schizophrenia among certain pairs of identical twins might not be, strictly speaking, a function of genetic makeup but, instead, could be due to the dynamics of entanglement.

Of course, quantum entanglement still might be a function of genetic makeup. Alternatively, genetic makeup might be a function of, or reflect to varying degrees, some sort of quantum entanglement phenomenon.

If quantum entanglement – whatever that might entail – is a function of genetic makeup, then, the high concordance of schizophrenia among certain pairs of identical twins could indicate that genes might play some role in a person's susceptibility to schizophrenia. On the other hand, if one of two identical twins begins to exhibit symptoms of schizophrenia, and this drags the other twin into a schizophrenic condition due to, say, processes of quantum entanglement, then, it becomes less clear as to just what role genes are playing in the onset of schizophrenia in the latter twin.

Being susceptible to schizophrenia is one thing. Being susceptible to the currents of quantum entanglement might be a very different kind of phenomenon.

The foregoing ideas might not be correct. However, given that there is so much we don't know about how the mind operates and given that the mind and the brain might be related but give expression to different kinds of phenomena, the foregoing possibilities cannot be automatically precluded from consideration.

Professor Pinker believes that genes play a crucial role in the onset of schizophrenia. However, he isn't able to say precisely what the nature of that role is or how genes cause susceptibility to schizophrenia or how patterns of gene expression constitute causal forces that are able to bring about the symptoms of schizophrenia.

He probably is right that genes affect behavior in some fashion (such as establishing parameters – that is, degrees of freedom and constraints for possible ranges of behavior). Nevertheless, although one might be willing to acknowledge that genes have some sort of modulating impact on behavior, Dr. Pinker has not been able to put forth the sort of definitive proof that would be capable of

demonstrating, in any direct fashion, how genes cause schizophrenic behavior or associated symptoms.

Dr. Pinker continues on delineating his perspective by stipulating that when one identifies a given gene as defective, one also is indicating that a non-defective version of that gene is necessary in order for a human being to operate properly. The problem is, however – as Professor Pinker acknowledges -- one doesn't necessarily know what the role or function of the non-defective gene might be and, instead, one only knows that the defective gene prevents that "normal" role or function – whatever it might be -- from taking place in an effective manner.

For example, Professor Pinker introduces the FoxP2 gene into his discussion in an attempt to lend some degree of specificity to the point he is trying to make. When the aforementioned gene contains a problematic nucleotide, it is implicated in a particular kind of language and speech disorder that occurs in certain people.

More specifically, research has established that all the members of a family being studied who exhibit a particular kind of speech and language disorder possess the defective gene. Furthermore, another person who also suffers from the disorder but is not a member of the foregoing family possesses the defective gene as well.

On the other hand, members of the same family who do not exhibit signs of the speech and language disorder were discovered not to possess the defective gene. In addition, individuals who were unrelated to the family and who were free of symptoms related to the speech and language disorder also did not possess the defective gene.

So, obviously, the defective gene in question would seem to have something to do with the speech and language disorder. Nonetheless, what the nature of that "something" is remains unclear.

The gene that is affected codes for a transcriptase. This kind of molecule has the capacity to activate various other genes.

The working theory is that the normal version of the defective gene is responsible for initiating am array of events that play various roles in helping to organize an aspect of development in the brain that affects speech and language behavior. However, no one is quite sure – at least up until the point in time when the research was conducted –

how the cascade of events that ensues from a transcriptase initiating further facets of gene expression actually organizes speech and language development or behavior.

Like electronic components and circuitry in a television or radio set, the non-defective version of the foregoing gene is necessary for "normal" functioning to be possible because it appears to play some role in language and speech functioning. Nevertheless, the presence of that gene does not necessarily cause certain kinds of language and speech behavior to occur any more than the components and circuitry in television and radio sets cause the content of the programs that those components and circuitry make visible and audible.

Familiarity with the properties of gene expression might be <u>necessary</u> for understanding and explaining certain aspects of behavior. However, contrary to the contention of Professor Pinker, grasping the nature of an organism's genetic makeup might not be <u>sufficient</u> to permit a person to fully and properly explicate an organism's behavior or accurately account for whatever phenomenology that might be present and associated with that sort of behavior.

Notwithstanding the foregoing considerations, Professor Pinker, maintains that if different genes are capable of making it more, or less, likely that a person will be: Introverted, happy, aggressive, shy, risk-aversive, open, conscientious, and so on, then this constitutes compelling evidence that the mind is not a Blank Slate at birth but something that can be affected by the presence or absence of certain kinds of genes. Unfortunately, at no point during the discussions that appear in *The Blank Slate: The Modern Denial of Human Nature* does Dr. Pinker demonstrate that genes are what make people more, or less likely, to exhibit certain kinds of behaviors.

One could agree with Dr. Pinker that people do seem to exhibit differences with respect to whether they are more or less likely, to exhibit certain kinds of properties and behaviors. One also could agree with Professor Pinker that genes do appear to have something to do with some of the differences that exist among people. Furthermore, one could agree with Dr. Pinker that many of the differences among people are not necessarily a function of environmental factors (physical or cultural) or what is learned.

Nonetheless, the source of the foregoing differences might not always be a function of genes. For instance, one might conceive of the Self or soul as a locus of manifestation for choices that are capable of leading to epigenetic differences in development, personality, and behavior, and, as such, the Self or soul gives expression to an innate capacity that both undermines the notion that human beings begin life as a blank slate as well as argues against the idea that human nature is nothing more than that which arises due to the structure of genetic makeup or the process of gene expression.

The Self or soul -- together with its capacity to choose, at least within certain limits or parameters that might be set by genes and environment -- could be a tertium quid or third dimension of the human being. As such, human nature is neither a strict function of either genes or environment (whether considered individually or collectively) but has, to varying degrees, the capacity to push back against, as well as selectively interact with, the dictates of both genes and environment.

Dr. Pinker moves on to another topic concerning the ways in which biology impacts culture by introducing the idea of 'evolutionary psychology'. This latter term refers to a supposedly scientific process that seeks to explore the ways in which the evolutionary development of various species (i.e., phylogenesis) gives rise to an array of adaptive capabilities in the mind.

Professor Pinker claims that Darwin showed how the illusion of design associated with mental development and adaptive capabilities could be accounted for by natural selection. Actually, Darwin didn't actually show anything of the kind.

Darwin proposed a theory that purported to explain the origin of all species. While that theory might account for the origin of some species, nevertheless, it remains to be seen whether, or not, that same theory actually can be shown to correctly reflect (as opposed to theoretically explain) the origin of the genetic coding contained in various species (for example, prokaryotes, cyanobacteria, Chemotrophs, eukaryotes, anaerobic and aerobic organisms, Archaea extremophiles, fungi, as well as correctly account for the transitions in genetic coding that underlay the emergence of all manner of families, orders, classes, phyla, kingdom, and domains.

Natural selection does have a role to play in the foregoing theory. It identifies those organisms that seem to be more successful than others with respect to being able to leave behind progeny that are more likely than are other organisms or species to be able to continue surviving in a given environment.

However, natural selection didn't generate the foregoing sort of adaptive capacity. Rather, natural selection merely gives its endorsement to those modalities of adaptive capacities that – in an unknown fashion -- come into existence and, consequently, are able to work more effectively in a given existential context than other modalities of adaptive capacity are able to do.

The notion of natural selection does not provide any insight into how the properties and qualities of a given form of adaptive capacity came into being in the first place. Natural selection operates after the fact of developmental or evolutionary innovation and, therefore, plays no role in the actual dynamics – whatever this might entail -- of such an innovative process except to support (i.e., select) or reject (i.e., work against or terminate) the results of that innovative or developmental process.

Dr. Pinker contends that natural selection "is the only process in which how well something works can play a causal role in how it came to be" (page 52). The foregoing seems akin to advancing some sort of bootstrap theory in which natural selection mysteriously brings about whatever adaptive innovations occur and, then, selects the best of what the process of natural selection has brought forth.

Yet, when one examines the alleged causal process of natural selection that, supposedly, explains how something that works well came to be through the process of natural selection, then, that process seems to be rather opaque. More specifically, the dynamics of natural selection that purport to give expression to a causal process that is capable of generating novel adaptive capabilities appear to be rather vague in nature.

Just how does the way in which something works well play a causal role in how that something came to be? Just how did the process of natural selection make possible such an act of evolutionary prestidigitation (i.e., the coming to be of something that works well)?

How – in specific, step-by-step terms -- did natural selection bring about the genetic coding for, say, the <u>initial</u> emergence of some form of lens, retina, iris, and so on that would function – however minimally – as an eye or eye-like structure? How – in specific, step-by-stem terms -- did natural selection bring about the transitions in genetic coding that led to improved versions of, the first editions of the retina, iris, and other facets of vision (or the capacity to differentiate between light and dark) that occurred in conjunction with various species?

According to Dr. Pinker, the brain serves as the "raw material for circuitry that computes representation of the external world (page 52). Yet, neither Dr. Pinker, nor anyone else at the present time, is able to identify – in specific terms -- what is organizing, managing, or directing the establishment of those circuits/pathways or what the nature of the computations are that, supposedly, are generating representations of the external world or how such representations are given phenomenological expression or how any of the foregoing capacities for generating circuits, computations, and representations came into being in the first place.

Human beings share 96% of their DNA with chimpanzees who, supposedly, are our closest living relatives. This would seem to imply that the 4% difference between the two species is not only responsible for (a) the differentials in awareness, intelligence, logic, understanding, insight, language, morality, creativity, spirituality, and talent (e.g., musical, artistic, mathematical, mechanical) that distinguishes humans from chimps but, as well, (b) such qualitative differences all emerged within the last six million years, or so, during the rise of the hominids.

Conceivably, however, the 4% differential in DNA sequencing between humans and genes has little, or nothing, to do with the emergence of all of the foregoing mental qualities. But even if that 4% figure does have something to do with the advent of the aforementioned mental qualities, evolutionary psychology is, nonetheless, confronted with a considerable challenge – namely, explaining how and why the foregoing sort of explosion in cognitive capabilities took place within – relatively speaking -- such a short period of evolutionary time.

While debunking the notion of 'The Noble Savage,' Professor Pinker makes a few observations and cites a few statistics that he believes lend support to his thesis that genes shape behavior. For example, he indicates that Carol Ember, an anthropologist, put forth evidence in 1978 that not only do 90% of hunter-gatherer societies participate in warfare, but, on average, 64% of those same societies engage in war activities once every several years, therefore demonstrating that not only do most hunter-gatherer societies engage in war, but they tend to do so fairly frequently.

Dr. Pinker, then, mentions the work of Donald Brown (1991 and 2000) in conjunction with the idea of human universals. According to Brown, behaviors involving dominance, conflict, rape, violence, revenge, and jealousy are expressions of human universals that are present in all manner of societies.

Presumably, the existence of the latter human universals might be offered as an explanation why most human societies – including hunter-gatherer groups (which earlier in the 20th century had been considered by anthropologists to consist largely of peaceful 'Noble Savages.') – appear to be so inclined toward engaging in war with such frequency. However, during the same discussion, Professor Pinker also indicates that when one looks at the percentage of male deaths that are due to warfare in a variety of societies -- ranging from indigenous peoples in New Guinea and South America to modern societies in Europe and the United States – the percentage of male deaths in America and Europe that are due to warfare are virtually negligible when compared to various indigenous, 'Noble Savage'-like groups.

The foregoing observations entail several potential problems. To begin with, if rape, violence, dominance, conflict, and jealousy are human universals, then why is there such a difference between the percentage of male deaths due to warfare in indigenous societies relative to modern American and European societies even after taking into consideration the millions of people that died during the First and Second World Wars?

The previous question assumes added significance given that Dr. Pinker is seeking to demonstrate that to whatever extent human universals do exist, then those inclinations and tendencies are, supposedly, either a function of genetic givens or are, to a considerable

degree, influenced by the presence of genes that play key roles in the manifestation of those sorts of human universals. After all, if the aforementioned qualities are human universals that are a function of, or heavily influenced, by certain genes, then, one might expect the incidence of aggression, violence, and hostility to be fairly consistent across societies.

Are there conditions – and, if so, what are they (Conceptual? Moral? Spiritual? Political? Legal? Philosophical? Social?) – that are capable of either triggering or preventing the outbreak of war as a function of the way in which human universals – to whatever extent they exist – are modulated by different kinds of gene expression? What forces – if any --are capable of affecting the way in which, and extent to which, genes are or are not expressed?

Is the percentage of male deaths due to warfare a function of human universals that are, in turn, a function of genes? Or, is the percentage of male deaths due to warfare a function of non-genetic factors?

Alternatively, one might explore the possibility that the percentage of male deaths due to warfare involves a dance macabre between human universals and cultural forces. If so, then, what is the precise character of the dynamics that are entailed by such a dance?

Are such deaths due to a denial of certain facets concerning human nature? Or, are those deaths due to a denial of certain aspects of culture and its institutions? Or, perhaps, those deaths are due to a denial of the nature of the way in which human universals – to whatever extent they exist – interact with various cultural variables.

Even if one accepts the idea that there are particular forms of human universals, one cannot automatically assume that those universals are a function of genes or evolution. One can acknowledge the existence of human universals without necessarily having to conclude that those universals are a product of genetics … especially given that no one has, yet, been able to work out exactly how – or if -- genes either cause – or predispose a person to -- jealousy, rape, aggression, violence, or conflict and given that no one has been able to establish what role, if any, choice might play in whether, or not, certain kinds of behaviors are manifested, and given that evolutionary theory – despite its popularity among scientists and academics – really hasn't

been able to demonstrate – in specific, step-by-step terms -- that human beings are evolved beings rather than created beings.

One might also note in passing that the statistical manner in which Dr. Pinker has framed the foregoing issue is rather arbitrary. In other words, why use the percentage of males in a given society that are killed through warfare as a basis for establishing how violent a given population of people is?

Professor Pinker gives the impression that what goes on in societies where 20 males are killed during warfare (such as might occur within certain indigenous societies) is, somehow, much worse than societies where millions of people have died due to warfare simply because the latter percentage is based on a much larger population than is true in the case of various indigenous societies. As Mark Twain indicated – borrowing from the British Prime Minister Benjamin Disraeli – "There are three kinds of lies … lies, damned lies, and statistics, and, surely, what Dr. Pinker has done in his presentation is to, at the very least, obfuscate the fact that statistics can be used to distort one's understanding of the level or character of the violence that is taking place in a given context.

The percentage of male deaths due to warfare might be higher in certain indigenous societies than occurs in modern American and European societies. However, whenever millions of people die in war (as has happened in World War I, World War II, the Korean War, The Vietnam War, and a series of Gulf Wars) then, irrespective of what percentage of male deaths are due to war, a great evil is taking place and statistics be damned.

Furthermore, if one factors in the number of people in modern societies who die due to automobile accidents, neighborhood conflict, domestic abuse, drug overdoses, suicides, iatrogenic agents, environmental pollution, false-flag psy-ops, and economic injustice (e.g., poverty) – all of which are expressions (to varying degrees) of the perpetual state of low-intensity warfare that tends to exists in societies like America due to the way that those in control create oppressive conditions for those who are not in control -- then the absurdity of the sort of statistic that Professor Pinker cites is his foregoing argument becomes even more obvious. The percentage of people who die in certain indigenous societies might be greater than

the percentage of people who die in modern societies, but the horror, terror, corruption, and perversity that exist in the latter kinds of societies is very pervasive and undermines the quality of life to a considerable degree for both the dead and the living.

Consequently, trying to give the impression – as Dr. Pinker seems inclined to do -- that societies formed by certain indigenous peoples are, somehow, more inclined to act in accordance with the properties of various human universals – to whatever extent such universal exist – than are modern American and European societies seems a rather questionable exercise. More importantly, such an exercise doesn't seem to offer a great deal of insight into what makes human qualities – both constructive and destructive – possible.

I could continue on in the foregoing manner with respect to the remaining 380 pages, or so, of: *The Blank Slate: The Modern Denial of Human Nature.* Indeed, the margins of the foregoing book have been filled with all manner of critical commentary stemming from my engagement of the foregoing book.

However, what has been said in this chapter up to this point tends to provide the reader with the flavor of my position concerning the perspective of Professor Pinker. While I am quite willing to acknowledge his point that there are aspects of human nature that cannot be reduced to being functions of culture or learning and which suggest, therefore, that genetic givens must be taken into consideration when one tries to gain insight into the structure and dynamics of human nature, nevertheless, I feel that Dr. Pinker is as much in denial of certain dimensions of human nature – for example, the Self or soul and its capacity for choice, along with capacities such as intelligence, awareness, creativity, language, talent, understanding, insight, and so on – that cannot necessarily (at least at the present time) be shown to be a function of genetic givens even though one can acknowledge that genes are likely to influence the foregoing capacities in a variety of ways involving both degrees of freedom and constraints.

Chapter 4: <u>But Is It True?</u>

In the preface to *But is it Science? : The Philosophical Question in the Creation/Evolution Controversy* edited by Robert T. Pennock and Michael Ruse, the two editors indicate that while the U.S. Constitution prohibits the teaching of religion – since doing so gives expression to a form of establishing a system of religious belief and, thereby, contravenes the 1st Amendment – nevertheless, that same fundamental document does not prohibit the teaching of science, even if the quality of the latter should be bad. Over a period of several decades, at least three cases wormed their way through various facets of the legal system and each of those cases led to judicial decisions that, apparently, verified the perspective that was being advanced by Pennock and Ruse.

Among the cases that seem to confirm the foregoing claim of Pennock and Ruse are: *McLean v. Arkansas,* 1982, as well as the 1987 *Edwards v. Aguillard* decision that took place in Louisiana and, eventually, went to the U.S. Supreme Court. In addition, the *Kitzmiller et al v. Dover Area School Board* judgment was rendered in Pennsylvania around 2005.

However, upon examination, the idea that science does not violate provisions of the U.S. Constitution seems fraught with difficulties. Indeed, the title of the book of readings edited by Pennock and Ruse might be focusing on the wrong philosophical question.

More specifically, instead of asking whether or not creationist science or the doctrine of intelligent design qualify as science – even bad science – perhaps the philosophical question that needs to be asked is: 'But is it true?' In this instance, the "it" that is being questioned with respect to some degree of truth could either be, on the one hand, creation science and the thesis of intelligent design, or, on the other hand, evolution … or, perhaps, both sides of that controversy need to be engaged in a critically reflective manner.

Let us suppose that one accepts the collective conclusions of the aforementioned three legal proceedings. In other words, let us assume that creation science and the thesis of intelligent design do not qualify as science but give expression – each in its own way -- to the teaching of religion and, as well, that the theory of evolution does qualify as being scientific in nature. Does this end the matter?

Not necessarily! The theory of evolution might satisfy the conditions of being scientific, but if essential features of that theory cannot be shown to be true, then one might wonder why students should be required to learn its details.

Of course, an obvious response to the foregoing issue would be to point out that science is a methodological process that historically can be shown to have assisted human beings to establish better and better understandings concerning the nature of certain aspects of reality. Consequently, a student should be exposed to scientific methods, together with the results arising from those methods, so that an individual can gain facility and competence with respect to being able to critically engage both scientific methods and results, thereby, enhancing a person's chances of being able to deal with various facets of life in a constructive, rational, informed, and insightful fashion.

Nonetheless, even though there is plenty of historical evidence to indicate that a great many truths have been established through the process of science, there is also considerable historical evidence to demonstrate that an array of false ideas also have populated the annals of science. Among the false theories that were accepted by a majority of the scientific community – sometimes for substantial periods of time – were: Ptolemaic astronomy; phlogiston theory; Caloric theory of chemistry; spontaneous generation; Lamarckian evolution; the blank slate (tabula rasa) model of mind; Phrenology; steady state theory of the universe (or, possibly, the Big Bang … depending on which cosmological version of the universe turns out to be correct); and various editions of string theory.

Moreover, even if we leave aside issues concerning the manner in which certain false theories have dominated the practice of science from time to time, and even though scientific methodology offers a means through which to constantly seek to improve one's understanding of some given phenomenon, the fact of the matter is that scientists tend to be wrong more often than they are right. Indeed, the history of science provides an account of how researchers – both individually and collectively – struggle to escape from a condition of ignorance concerning various physical phenomena and work their way through resolving an array of problems that – hopefully – eventually puts them in a position to fashion a tenable understanding concerning

such phenomena that, in time, gets modified or overthrown to better reflect empirical observations, both old and new.

Over the years, human understanding concerning quantum physics, chemistry, gravitation, thermodynamics, materials science, biology, astrophysics, mathematics and a host of other disciplines have all gone through a series of changes – some small and some quite considerable. Our current grasp of the foregoing areas – and many others -- is built on a multiplicity of mistaken ideas that were reshaped or replaced by a series of insights and discoveries that appeared to bring us closer to certain truths than previous ways of understanding were able to do that were, in turn, replaced and reshaped by an array of subsequent insights, discoveries, and observations.

An essential part of science revolves about becoming involved in a rigorous process of discernment in which that which is true or truer must be differentiated from that which is false. This is accomplished through observation, measurement, experimentation, analysis, critical reflection and so on.

Given the foregoing considerations, one might ask: Is evolutionary theory an example of a science that leads to a true or a false understanding of reality? Although the vast majority of scientists in the world today accept one version, or another, of a neo-Darwinian evolutionary model, I believe that enough problematic features have been put forth in my book: *Evolution Unredacted* to, at the very least, call into question the tenability of many facets of evolutionary theory, and, as a result, lend some degree of legitimacy to the idea that a student might have a right to resist, and not be subjected to, the doctrinaire teachings of evolutionary theory.

Among other things, the theory of evolution cannot provide a step-by-step account concerning: The emergence of the first protocell; the origins of the genetic code; the transition from: Chemotrophs to cyanobacteria and/or Archaea organisms (many of the latter life forms are extremophiles) – or vice versa; the transition from: Anaerobic to aerobic organisms; the transition from: Prokaryotic to Eukaryotic life forms; the origins of metabolic systems specializing in, for example, respiration, endocrine activity, immune responses, nervous functioning, sexual reproduction, consciousness, memory, reason, intelligence, language, and creativity.

Does the theory of evolution offer accounts that purport to explain all of the above sorts of transitions? Yes, it does.

However, none of those accounts has been proven to be true. All of those accounts are missing key pieces of evidence that are capable of substantiating that those models, hypotheses, and ideas are unquestionably true.

On the one hand, evidence exists that supports the possibility that in certain cases, species might have been formed through a process of, say, isolating different portions of a population that, over time, leads to the appearance of new variations that are no longer able to produce viable offspring with members of the original population. Nonetheless, one cannot demonstrate with real scientific rigor that the sorts of processes be alluded to above are responsible for the origins of <u>all</u> species.

The theory of evolution encompasses a great many factual observations and discoveries. Yet, at the same time, it gives expression to a model in which speculation and assumption continue to play a major role, and, as a result, despite all of the propaganda being issued by various evolutionary scientists, many facets of the theory of evolution are a long way from having been verified and, quite frankly, might never be capable of being verified.

Moreover, even if one puts aside all of the scientific inadequacies of the theory of evolution, there are a variety of constitutional issues that need to be explored. In other words, although evolutionary theory might be classified as a science, nevertheless, there might be a partisan quality to its framework that could be at odds with the requirements of Article IV, Section 4 of the United States Constitution (more on this shortly). In addition, one could raise the possibility that there also is a religious dimension to the theory of evolution (more on this shortly) and, if so, then, science, or not, such a theory might well be in contravention of the establishment clause of the 1st Amendment.

Article IV, Section 4 of the U.S. Constitution indicates that the federal government "shall guarantee to every state a republican form of government, and shall protect each of them against invasion;" Republicanism is a moral philosophy of the Enlightenment that generated a great deal of interest within colonial America and helped shape the fabric of the Constitutional process.

In order to qualify as being republican in nature, judgments and actions had to exhibit a variety of qualities. More specifically, to be considered republican in nature, actions and judgments had to exhibit: Integrity, objectivity, independence, non-partisanship, equitability, fairness, disinterestedness, nobility, and be devoid of elements that served the individual interests of the person performing a given action or making a particular judgment rather than serving the collective interests of society.

The collective interests of society are summed up in the Preamble to the Constitution. Those collective interests include: Forming a more perfect union; establishing justice; insuring domestic tranquility; providing for the common defense, promoting the general welfare, and securing the blessings of liberty for ourselves and our posterity.

The theory of evolution fails to be objective, independent, and non-partisan in a variety of ways. More specifically, that theory is being advanced as a true account concerning the random, material origins of species despite the fact that: (1) no one has been able to prove that all species (as opposed to some species) are the result of neo-Darwinian dynamics; (2) no one has been able to demonstrate that reality is inherently random, and (3) no one has been able to prove that consciousness, reason, memory, logic, intelligence, understanding, language, creativity, talent (e.g., musical, artistic, mathematical, etc.), and spirituality are purely material phenomena.

Furthermore, the theory of evolution is replete with elements having to do with notions of randomness and the material basis of reality that might be serving the hermeneutical and political interests of those who are propagating the theory of evolution rather than the collective interests of society, and, therefore, are not necessarily promoting the general welfare of the country … especially if the aforementioned elements involving randomness turn out to be wrong. While such ideational elements have not, yet, been proven to be incorrect, they also have not, yet, been demonstrated to be a correct description of reality, and, therefore, requiring students to learn the theory of evolution would appear to undermine principles of equitability and fairness that constitute integral dimensions of the principle of republicanism that has been guaranteed to each state of

the union, and, therefore, under the provisions of the 9th and 10th Amendments, to all the people of those states.

As noted previously, Article IV, Section 4 of the Constitution not only guarantees a republican form of government to every state but, as well, promises to "… protect each of" the states from invasion. Presumably, the protections to which the Constitution might be alluding do not involve just physical threats but could also be extended to protections against certain kinds of philosophical, hermeneutical, and conceptual systems that seek to invade the minds and hearts of the people of the United States through institutions of learning and, thereby, acquire political and legal control of the citizenry and, in the process, undermine the guarantee of a republican form of government.

Notwithstanding the foregoing considerations, teaching the theory of evolution in public schools might also be in contravention of the establishment clause of the 1st Amendment. After all, some individuals have traced the etymological roots of the word religion back to a Latin word – re-li-gare -- that conveys a process of binding or tying.

Any conceptual system constitutes a way of binding or tying a person's understanding to one, or another, understanding of reality. Consequently, the theory of evolution is a conceptual system that tends to tie and bind a person's understanding to various kinds of assumptions, ideas, beliefs, and values in an organized fashion.

Other individuals feel that the notion of religion might also be etymologically linked to another Latin word: "re-li-gi-o-nem". This latter term gives expression to a sense of reverence toward whatever might be considered to be sacred in nature – E.g., the truth, or qualities of compassion, love, forgiveness, meaning, purpose, and so on.

The sacred need not be tied to the notion of Divinity. For instance, Buddhism is considered to be a religion, yet that spiritual tradition often is understood to be based on teachings that tend not to be God-centric in character but, instead, embrace an array of methods, principles, and values that are engaged in a reverential, and, therefore, sacred fashion.

Those who are proponents of evolutionary theory tend to defend their perspective as being inviolable, true, sacrosanct, as well as being worthy of commitment and deep respect. Moreover, such individuals

tend to treat the principles, values, and ideas of evolution with attitudes and behaviors that appear to be indistinguishable from individuals who have reverence toward certain religious ideas, principles, or values and consider those themes to be sacred and inviolable.

Referring to the theory of evolution in terms of science does not extinguish the qualities of: Reverence, sacredness, commitment, binding, and tying that are present in the understanding of many of those who are advocates for that theory. Placing the theory of evolution under the rubric of science does not remove the properties of assumption, speculation, belief, interpretation, faith (sometimes referred to as a degree of confidence), and philosophy that tend to flow through that theory.

Given the foregoing considerations, then, surely, teaching the theory of evolution would seem to qualify as an attempt to establish a religious-like belief system. All of the elements of religion – namely, a sense of: Reverence, sacredness, faith, interpretation, inviolability, the sacrosanct, commitment, binding, universality, essentialness, and so on – are present in those who are proponents of, and advocates for, the theory of evolution.

There are several other possible etymological dimensions in the notion of religion that potentially tie that word to the theory of evolution. One of these dimensions is linked to Cicero's way of using the term: 'Re-le-gere', while another etymological derivation of religion gives emphasis to an Old French sense in which the notion of religion refers to a process through which a community exhibits collective devotion to certain ideas.

Cicero's aforementioned manner of engaging the idea of "re-le-gere" involves a methodology through which an individual goes over a given text on a number of different occasions. Presumably, the process of reading and re-reading a given text is a way of exercising due diligence with respect to trying to determine, among other things, the truth concerning the meaning of that text.

Similarly, proponents of evolutionary theory also tend to go over, again and again, the observations, measurements, experiments, and so on associated with that theory in order to try to determine the meaning and truth that might be entailed by those activities. Whether

the text being studied is a book or the language of nature seems irrelevant.

Furthermore, Cicero's manner of approaching the process of "re-le-gere" tends to imply that the process of critically reflecting on the meaning of a given text – whether written or having to do with the nature of reality -- is intended to serve as a way of providing one with an opportunity to work toward distinguishing between, on the one hand, the actual meaning of something and, on the other hand, meanings that might be arbitrarily imposed on a text by the individual engaging that material. If so, then, this also reflects the tendency of science to go over something again and again in order to try to discern the difference between, on the one hand, the actual truth of something and, on the other hand, false beliefs concerning the nature of some aspect of experience and, consequently, appears to bind the theory of evolution to religion in, yet, another way.

Moreover, just as religious communities tend to be devoted to the principles, values, and practices which bind the members of that community together in relation to what they believe constitutes the truth of Being, so too, the members of those communities that accept the theory of evolution reflect many of the qualities that characterize the Old French etymological derivation of the term religion. In other words, members of a community of believers involving evolutionary theory are tied together by a common sense of purpose, meaning, valuation, understanding, belief, and truth concerning the principles, ideas, values, and practices entailed by the theory of evolution in ways that parallel what goes on within so-called religious communities.

Therefore, one cannot automatically assume that just because the theory of evolution is referred to as being, or categorized as being, scientific, then, this kind of classification prevents that theory from also giving expression to a variety of religious-like qualities. To whatever extent the theory of evolution entails the foregoing sorts of religious elements, then, that theory also would appear to contravene the establishment clause of the 1st Amendment.

Thus, there seems to be a conflict between the theory of evolution and the U.S. Constitution not only in relation to the 1st Amendment, but, as well, in relation to Article IV, Section 4 of that document. As a result, the editors of: *But Is It Science? -- The Philosophical Question In*

the Creation/Evolution Controversy – have put things in a misleading manner since the issue is not whether one can consider the theory of evolution to be scientific in nature – which, in certain ways, it might be – but, instead, the issue is whether, or not, a person recognizes the religious and non-republican elements that are present in the theory of evolution and, as a result, one is prepared to remain consistent by seeking to ensure that such a theory – along with other religious-like systems of thought – are prevented from being taught in public schools because that theory is in contravention of various provisions of the U.S. Constitution.

The previously mentioned *McLean v. Arkansas Board of Education* legal proceeding arose in conjunction with Act 590 that the governor of Arkansas had signed into law on March 19, 1981. The title of that act was: "Balanced Treatment for Creation Science and Evolution Science," and as the act's name suggests, the law required public schools in Arkansas to offer programs that provided balanced treatments of creation science and evolutionary science.

A number of individuals and organizations joined together to bring suit against: (1) the Arkansas Board of Education, (2) the director for the Arkansas Department of Education, and (3) the State Textbooks and Instructional Materials Selecting Committee that, collectively, were responsible for translating Act 590 into active educational policy. Among the individuals and organizations that are being represented through the plaintiff side of the case were: The National Association of Biology Teachers, the Arkansas Education Association, the American Jewish Congress, various churches in Arkansas from different denominational backgrounds, as well as a biology teacher from Arkansas and an array of individuals who were parents or friends of students in Arkansas public schools.

The *McLean v. Arkansas Board of Education* trial took place from December 7, 1981 to December 17, 1981. Judge William R. Overton presided over the proceedings and issued his decision on January 5, 1982.

The suit was first filed on May 27, 1981. The complaint maintained that Act 590 was in contravention of the U.S. Constitution because, among other things, that law violated the establishment clause of the First Amendment – which, according to Judge Overton, is made

applicable to the states by the way of the 14th Amendment, but, one should point out that the Amendments extend to the people of any given state independently of the 14th Amendment due to the guarantee of a republican form of government in Article IV, Section 4 of the Constitution.

The aforementioned complaint filed by the plaintiffs contained two other charges as well. More specifically, Act 590 denies teachers and students their right to academic freedom by undermining the Free Speech Clause of the 1st Amendment and, in addition, Act 590 is excessively vague and, therefore, violates the Due Process Clause of the 14th Amendment.

In his January 5, 1982 decision, Judge Overton provides a certain amount of legal background to help frame some of the issues in the *McLean v. Arkansas Board of Education dispute*. For instance, he quotes from Justice Black's 1947 decision concerning the *Everson v. Board of Education* case:

"The 'establishment of religion' clause of the First Amendment means at least this: Neither a state nor the Federal Government can set up a church. Neither can pass laws which aid one religion, aid all religions, or prefer one religion over another. Neither can force nor influence a person to go to or to remain away from church against his will or force him to profess a belief or disbelief in any religion … No tax, large or small, can be levied to support any religious activities or institutions, whatever they might be called, or whatever form they might adapt to teach or practice religion."

The notion of "church" in Justice Black's foregoing statement is used as a representative term that applies to a wide variety of religious institutions that, presumably, is intended to include (despite not being specifically mentioned): Temples, synagogues, mosques, abbeys, cathedrals, meeting halls, houses of worship, spiritual sanctuaries, and the like. The foregoing presumption is strengthened when Justice Black subsequently indicates that the underlying principle extends to: "… religious activities or institutions, whatever they might be called, or whatever form they might adapt to teach or practice religion."

However, although Justice Black seems to assume that everyone will understand what is meant by the idea of a religion or church (including its extended sense noted above), nonetheless, there is

considerable vagueness that surrounds and permeates his foregoing statement. As pointed out earlier, the notion of religion might be applicable to almost any conceptual system that involves qualities of: Tying or binding someone to a set of values, teachings, ideas, values, practices, purposes, meanings, methods, understandings, theories, and/or attitudes that are engaged repetitively because they generate a sense of reverence, sacredness, and commitment that orients individuals and/or communities concerning the nature of the truth about an individual's or a community's relation with Being.

Therefore, if a church – irrespective of whatever it might be called or whatever form it might assume – revolves around, in part or in whole, the foregoing set of qualities, properties, and activities, then, Justice Black – possibly without fully understanding the implications of his words -- might be referring to a great deal more than he – or Judge Overton – believes is being claimed in the *Everson v. Board of Education* case. Indeed, any set of practices, ideas, beliefs, values, theories, principles, methods, and so on that one considers to be inviolable, sacrosanct, sacred, and worthy of reverence -- but which cannot necessarily be demonstrated to be true – begins to be indistinguishable from the usual senses associated with terms such as "church" or "religion".

Thomas Jefferson maintained that the "Establishment Clause" of the First Amendment erected a wall of separation between church and State. Yet, depending on what the State holds to be true, one might contend that the policies of the State could give expression to a set of values, ideas, beliefs, principles, methods, and practices that are difficult, if not impossible, to distinguish from religious activities when construed in the broader sense outlined above. If so, then, the so-called wall of separation that, supposedly, was put in place through the "Establishment Clause" of the First Amendment and that was intended to differentiate between church and state tends to dissolve before our eyes.

Judge Overton's decision in *McLean v. Arkansas Board of Education* also Justice Felix Frankfurter in relation to the latter's 1948 judgment concerning *McCollum v. Board of Education*. According to Justice Frankfurter:

"Designed to serve as perhaps the most powerful agency for promoting cohesion among a heterogeneous democratic people, the public school must keep scrupulously free from entanglements in the strife of sects. The preservation of the community from divisive conflicts, of Government from irreconcilable pressures by religious groups, of religion from censorship and coercion however subtly exercised, requires strict confinement of the State to instructions other than religious …"

The idea that public schools should be an agency "for promoting cohesion among heterogeneous democratic people" is put forward as a truism in the foregoing decision. Consequently, Justice Frankfurter does not explore whether, or not, public schools should be an agency "for promoting cohesion", nor does he critically reflect on what might be meant by the notion of cohesion.

Justice Frankfurter wants the instruction that takes place in public schools to be "other than religious," but he doesn't explain precisely what he means by this allusion. Furthermore, although he is clear that public schools should remove themselves "from entanglements in the strife of sects," and although Justice Frankfurter is clear that he is referring to the strife that tends to arise in conjunction with religious sects, he, apparently, fails to consider the possibility that strife also arises in conjunction with all manner of philosophical, scientific, and political sectarian thought and activity, and, as a result, one is thrown deeper into uncertainty concerning the manner of the instruction that is "other than religious" and, therefore, should be adopted by public schools to promote the sort of cohesion he seems to have in mind (at least in a vague sense) for "a heterogeneous democratic people."

During the course of rendering his decision for *McLean v. Arkansas School Board*, Judge Overton makes reference to the opinion of Justice Clark that was issued in conjunction with the 1963 case of *Abbington School District v. Schempp*. In the latter case, Justice Clark maintained that in order to be able to comply with the requirements of the Establishment Clause of the First Amendment, "… there must be a secular legislative purposed and a primary effect that neither advances nor inhibits religion."

The secular constraint upon legislative activity was again affirmed in the 1973 decision concerning *Lemon v. Kurtzman*. In that case, a

tripartite set of conditions was established to serve as guidance for trying to parse such matters – namely, (1) the legislation must serve a secular purpose; (2) the primary effect of the legislation must be to neither inhibit nor advance religion, and, finally, (3) such legislation should not encourage or generate excessive government entanglement in religious matters.

Notwithstanding the rather amorphous cloud of meaning in which condition (3) tends to be enveloped as a result of the presence of the term "excessive" (and, therefore, becomes a possible focus for future objections under the Due Process provisions of the 14th Amendment), one might question the requirement that legislation must serve a secular purpose since those purposes not only are fraught with all manner of strife (and, according to Justice Frankfurter, isn't one of the reasons for pursuing secular rather than religious systems of thought is to be able to avoid sectarian strife?) but, perhaps, more importantly, despite the lack of religious vocabulary associated with various notions of secularism, nonetheless, that sort of approach to governance tends to promote views of reality that cannot be proven to be true – anymore than religious models can be proven to be true to everyone's satisfaction – and secular approaches to governance also require citizens to treat legislation as being: Inviolable, sacrosanct, sacred, deserving of reverence, and capable of binding or tying individuals and the community to sectarian theories (of a philosophical kind) concerning the nature of reality?

Is secularism really any less sectarian than overtly religious systems of thought are? Is secularism really any less entangled in issues of strife than are religious sects with respect to disputes about what values, beliefs, ideas, practices, principles, and so on should be treated reverentially and considered to be inviolable, sacrosanct, or sacred and, therefore, worthy of obligating individuals and the community in one way rather than another?

The foregoing considerations are not an attempt to put forth some post-modernist, relativistic deconstruction of the legal system. Rather, an attempt is being made to indicate that there is considerable amorphousness at the heart of the U.S. Constitution as well as in many subsequent judicial decisions concerning the supposed nature of that document.

For instance, if the republican form of government that is guaranteed in Article IV, Section 4 of the U.S. Constitution requires federal government officials – including justices -- to act and make decisions in accordance with republican qualities of: Objectivity, integrity, impartiality, equitability, fairness, independence, disinterestedness, and not being judges in their own affairs, then, why are secular theories of reality being given preference to religious theories of reality? Moreover, displaying a differential preference for secular ideas very likely will not only serve to inhibit the observance, practice, and pursuit of religious values, ideas, practices and so on, but, as well, encourages and promotes secular ideas as if they were religious in nature ... that is, the sort of ultimate views of reality that should be taught in schools and toward which students should develop the requisite reverence and learn how to treat such ideas as being sacred, inviolable, and sacrosanct in nature?

After running through a few relevant aspects of legal history (noted previously in this chapter) in order to provide a context for his decision, Judge Overton's ruling in *McLean v. Arkansas Board of Education* proceeds to offer an extended historical analysis of religious fundamentalism and its decades-long conflict with the theory of evolution. However, Judge Overton does not make any comparable effort to put forth a critical review concerning the theory of evolution and whether, or not, there is a form of fundamentalism to which the theory of evolution might give expression.

Judge Overton does indicate – with a hint of approval -- that the Biological Sciences Curriculum Study (BSCS), which is a non-profit organization that works with scientists and teachers, has developed a series of biology texts that give emphasis to the theory of evolution. He also notes that those texts are being used by 50 percent of the children in American public school systems.

However, Judge Overton, apparently, has nothing to say about whether, or not, requiring school children to use the BSCS books might constitute a contravention of either the Establishment Clause of the First Amendment or the Guarantee Clause of Article IV, Section 4 in the Constitution. After all, the sectarian nature of the theory of evolution and its claim to constitute a scientific portrait concerning the nature of

reality has not been proven to be true and, perhaps, can never be shown to be true.

Judge Overton's ruling also makes reference to the history of fundamentalist opposition toward the theory of evolution when he notes that such a history is documented in Justice Fortas' Supreme Court opinion in *Epperson v. Arkansas*. This latter legal decision rescinded the Arkansas legislative Act 1 of 1929 that prohibited the teaching of evolution in public schools.

In each of the foregoing decisions, reasons are given about why fundamentalist views concerning the issue of origins should not be taught in public schools. However, none of those legal decisions explores whether, or not, there might be reasons why the theory of evolution also should not be taught to public school children, and one can't help but wonder whether any of the jurists who were (or are) making decisions concerning the teaching of evolution know much, if anything, about what they are advocating ... or whether their rulings are in compliance with the republican qualities of impartiality, objectivity, integrity, independence, equitability, disinterestedness, and fairness that are guaranteed through Article IV, Section 4 of the Constitution.

After providing an overview of religious fundamentalism and its history of conflict with the theory of evolution, Judge Overton's decision in *McLean v. Arkansas Board of Education* cites some of the evidence that he feels demonstrates the religious intent underlying Act 590 that, supposedly, calls for a balanced treatment of Creation Science and the theory of evolution in the classrooms of public schools. While one is inclined to agree with Judge Overton's assessment of the foregoing evidence, nonetheless, one should keep in mind that there doesn't seem to be any comparable effort on the part of Judge Overton to critically reflect on the possibility that many facets of the theory of evolution also give expression to a religious-like, fundamentalist orientation.

A distinction is made in Judge Overton's decision between, on the one hand, some of the scientific elements that are present in the theory of evolution and, on the other hand, the relative absence of – or the presence of problematic facets of -- scientific rigor in creation science. However, such a distinction tends to obscure the issue that should

have been at the heart of the *McLean v. Arkansas Board of Education* case.

In other words, rather than drawing a distinction between what is science and what is not science, Judge Overton should have better delineated the full nature of the Establishment Clause as well as explored the relevance of Article IV, Section 4 to the matter before his court. As a result, Judge Overton does not appear to issue a ruling that complies with the requirements that are entailed by the guarantee of a republican form of government that is given in the U.S. Constitution.

On the one hand, there is nothing in the Constitution that is functionally dependent on being able to make a distinction between science and non-science. On the other hand, there is a great deal – constitutionally speaking -- that rests on the issue of what constitutes a religion and that rests on the issue of what constitutes establishing a religion.

When the pursuit of scientific methodology leads to the rise of a hermeneutical system like the theory of evolution that has not – and, perhaps, cannot -- be proven to be true (i.e., that the origin of <u>all</u> species is a function of neo-Darwinian dynamics) and which claims that the ultimate nature of reality is both random and material in nature (again, neither of which has been proven to be true, and, perhaps, cannot be proven to be true), then, such a system of hermeneutics becomes indistinguishable from religious systems that seek to impose a sectarian way of thinking on citizens. Consequently, the presence of the foregoing elements in the theory of evolution contravenes both the Establishment Clause of the 1st Amendment, as well as the requirements of Article IV, Section 4 of the Constitution.

According to Judge Overton – and he is basing the following criteria on the testimony of witnesses who participated in the *McLean v. Arkansas Board of Education* trial proceedings – science has five essential properties. (1) Science seeks to discover the nature of the natural laws that govern phenomena; (2) the explanations offered by science are couched in terms of natural laws; (3) the tenets of science can be empirically tested; (4) its conclusions are provisional and, as a result, might change over time; and, (5) the principles of science are capable of being falsified.

Shortly after stating the foregoing characteristics of science, Judge Overton proceeds to point out that Section 4(a) of Act 590 fails to qualify as being scientific because that section depends on the idea that the origin of life arose as a sudden creation "from nothing." Judge Overton claims that such a contention is not scientific because it requires some form of "supernatural intervention that is not guided by natural law", and, consequently, entails an explanation that is not an expression of natural laws, and, in addition, such a thesis is not testable, and cannot be falsified.

In 2012, Lawrence M. Krauss released a book entitled: *A Universe from Nothing*. The author is an atheist, and, therefore, he is not trying to sneak the realm of the supernatural into the discussion by introducing the possibility of something arising from nothing.

The foregoing book is considered to be a book of science. The contents of his book weave together elements from quantum physics, particle physics, astrophysics, thermodynamics, and cosmology to support the idea that the singularity out of which our universe might have arisen could have been an unstable quantum state that spontaneously gave expression to the universe we have inherited and that made life possible.

Of course, whether the foregoing ideas of Lawrence Krauss are correct, or not, is a separate issue. Nonetheless, irrespective of whether his thesis is, or is not, true, the fact that such ideas are considered to be scientific indicates that, contrary to the claim of Judge Overton, the possibility that something might arise out of nothing does not necessarily depend on supernatural intervention.

In any event, insisting on a distinction between natural and supernatural might be something of a snipe hunt. There is nothing that we know of that precludes the possibility that the so-called natural laws of the universe give expression to God's presence in the operations and dynamics that govern that universe, and, as such, God is free to maintain or make exceptions with respect to how those laws unfold in any given case.

If God maintains (or conserves) natural law, this is not supernatural intervention in a natural phenomenon, but, rather, natural law merely becomes a way of marking God's presence in the process of directing physical phenomena. If God makes an exception in

the manner in which natural laws are manifested in any given set of circumstances, then, this also would not constitute a supernatural intervention in a natural process but, instead, would merely reflect that God, by virtue of Divine Presence, was modulating the way in which natural law was being manifested in such events.

Judge Overton's perspective concerning the foregoing issues suggests he believes that supernatural events are neither testable nor falsifiable. Notwithstanding the potentially false dichotomy between the natural and the supernatural that is present in Judge Overton's perspective, for thousands of years, mystics from a variety of spiritual traditions have indicated otherwise.

One can elect to dismiss, out of hand, the foregoing claims of the mystics, but doing so seems to exhibit a considerable resonance with the actions of religious clerics who refused to look through Galileo's telescope when given the opportunity to do so. After all, the mystics contend that mysticism is an empirical science in which one is constantly engaged in a process of testing and falsifying various ideas concerning the nature of the mystical path.

One might also point out in passing that at the present time the heart of Lawrence Krauss's perspective concerning the possibility of a universe arising from nothing is neither testable nor falsifiable. Yet, he is considered to be a scientist and his ideas are considered to be scientific even as his colleagues understand that the ideas of Lawrence Krauss concerning the possibility of the universe arising from nothing might not be correct.

Also, one might want to keep in mind that like many claims in science, the statements of mystics (as opposed to theologians) also often tend to be tentative in nature. For example, the dissertation that my spiritual guide wrote to satisfy one of the conditions of his doctorate program was considered by A.J. Arberry – an eminent scholar of Islam and the Sufi mystical tradition – to be one of the best treatises on the Sufi path to have been written in the English language.

Early on in his academic career, my spiritual guide would update the foregoing dissertation so that it would better reflect what he experienced and discovered during one, or another, of his 40-day periods of seclusion. However, after a while, he gave up on the idea of modifying the contents of his dissertation because the lived experience

generated through his many periods of seclusion were constantly outstripping the written words of his dissertation in too dynamic, rigorous, and ineffable a manner.

The foregoing considerations tend to muddy the waters a little as far as the issue of distinguishing between science and religion is concerned (especially in conjunction with religion's mystical dimension). However, irrespective of whether, or not, one accepts Judge Overton's manner of bringing specific criteria to bear on the problem of distinguishing between science and non-science, none of this is germane to the real issue at the center of *McLean v. Arkansas Board of Education* – namely, whether creation science and the theory of evolution (each in its own way) are, among other things, in contravention of the Establishment Clause of the First Amendment, or the Guarantee Clause of Article IV, Section 4 of the basic Constitution.

Judge Overton provided evidence in his ruling (for example, among, other things, he quoted a statement to this effect from the writing of Duane Gish, a prominent proponent of creation science) that the judge was aware of the claim that the theory of evolution was religious in nature. Yet, he did not seem to pursue this issue and, instead, appeared to accept, at face value, the idea that the theory of evolution was scientific in nature while creation science was not scientific in character.

Conceivably, defense counsel might have done an inadequate job of inducing various witnesses to develop, and elaborate on, the religious-like features that are present in the theory of evolution. Nevertheless, there was enough evidence presented in the *McLean v. Arkansas Board of Education* case to indicate that Judge Overton might not have exercised due diligence with respect to pursuing this facet of the proceedings – especially given that the foregoing issue is far more relevant to the central legal themes of the case (e.g., the Establishment Clause of the First Amendment and Article I, Section 4 of the Constitution) than is the process of trying to differentiate between what is science and what is not science.

Judge Overton was justified in striking down Act 590 of the Arkansas legal code because that piece of legislation clearly violates the prohibitions inherent in the Establishment Clause of the First Amendment, as well as being in contravention of the provisions

inherent in Article IV, Section 4 of the Constitution. However, Judge Overton's ruling missed the opportunity to truly deliver a balanced decision (and, therefore, one done in accordance with republican principles) when he failed to overturn the 1968 Supreme Court decision in *Epperson v. Arkansas* that vitiated the Initiated Act of 1929 prohibiting the theory of evolution from being taught in public schools because irrespective of however scientific the theory of evolution might be considered to be, nonetheless, that theory contains an array of elements that render it sectarian in a manner that is indistinguishable from religious theories and, therefore, constitutes a violation of the Establishment Clause of the First Amendment and, in addition, is in contravention of Article IV, Section 4.

Finally, toward the end of his ruling for *McLean v. Arkansas Board of Education*, Judge Overton states:

"Implementation of Act 590 will have serious and untoward consequences for students, particularly those planning to attend college. Evolution is the cornerstone of modern biology … Any student who is deprived of instruction as to the prevailing scientific thought on these topics will be denied a significant part of science education."

The foregoing warning sounds an awful lot like it is alluding to some sort of a religious-like litmus test for higher education. In other words, Judge Overton's foregoing words seem to be suggesting that unless a person can demonstrate that one is a true believer in the theory of evolution and, as a result, has been thorough indoctrinated into the catechism of evolutionary principles concerning the nature of reality, then that individual risks being thrown into the higher education equivalent of hell or purgatory where such an individual will have to endure boiling in mental anguish for an eternity or, at least, for the duration of one's college career … and, possibly, longer.

I remember reading Theodosius Dobzhansky's 1973 essay from the *American Biology Teacher* entitled: "Nothing in Biology Makes Sense Except in the Light of Evolution." I thought at the time when I read the foregoing essay that it was an exercise in hyperbole since a great deal of – if not most of – the material in biology makes considerable sense independently of the theory of evolution.

To be sure, the theory of evolution does provide one with a hermeneutical way to tie the phenomena of biology together in a tidy

little package that lends more sense to those phenomena than they might have if the theory of evolution is not true. Nevertheless, one can easily jettison the theory of evolution (but not population genetics) and still understand a great deal about the marvelous phenomena to which the study of biology gives expression.

Contrary to what Judge Overton claims in the foregoing quote, evolution is not the cornerstone of biology. The cornerstone of biology is biology.

One doesn't need evolution to understand the principles of photosynthesis, the Krebs cycle, nervous functioning, metabolic pathways, cellular physiology, membrane dynamics, motility, molecular genetics, or a litany of other biological functions and principles. The theory of evolution might tell one – correctly or incorrectly – what purposes and functions are served through various biological processes, but that theory contributes little, or nothing, toward the process of revealing the nuts and bolts of how cells and organisms operate.

At best, the theory of evolution enables biologists to speculate about why cells and organisms might operate in the way they do or why, in certain limited cases, new species might form due to factors such as isolation. But, if someone were to wave a wand that erased the ideas of evolutionary theory from our collective memory banks, human beings would still have discovered a great deal that makes sense with respect to biological processes under a variety of different circumstances.

Nearly a quarter century later, many of the foregoing issues resurfaced again in the 2004-2005 legal proceedings known as *Tammy Kitzmiller, Et Al. v. Dover Area School District Et Al*. The basis for the Pennsylvania case was rooted in an October 18, 2004 memorandum issued by the Dover Area School Board of Directors which announced that students would be required to not only learn about various problems that were entailed by Darwin's theory of evolution, but, as well, students would be required to learn about "other theories of evolution including, but not limited to, intelligent design."

The forgoing resolution was followed a month later by a November 19, 2004 press release from the Dover Area School District stipulating that teachers at Dover High School would be required to

read a statement to 9th grade biology students that identified a number of principles. Included in the press release were statements claiming that: There were gaps in the theory of evolution; the theory of evolution was not a fact; the idea of intelligent design provides an account for the origin of life that is different from the theory of evolution, and the book – *Of Pandas and People* – was a resource that students might use in order to learn more about the intelligent design perspective.

A little less than a month later, a suit was filed in U.S. District Court on December 14, 2004. The suit alleged that both the October 18, 2004 resolution of the Dover Area School Board of Directors as well as the November 19, 2004 press release of the Dover Area School District contravened the Establishment Clause of the First Amendment.

The trial began on September 26, 2005. It concluded a little over a month later on November 4, 2005.

The judge presiding over the case was John E. Jones II. He concluded that it was: "…unconstitutional to teach ID [i.e., Intelligent Design] as an alternative to evolution in a public school science classroom."

Like the legal decision in the McLean v. Arkansas Board of Education that was handed down in the 1980s, Judge Jones' judicial decision in the *Kitzmiller, et al v. Dover Area School District et al* case engages in a lengthy discussion that explores a variety of both legal and scientific issues concerning the attempt of Christian fundamentalists to oppose the teaching of the theory of evolution. Such opposition assumed the form of either trying to ban the teaching of the theory of evolution or seeking to have creationist or intelligent design alternatives to the theory of evolution be given equal time in public school classrooms.

During his historical review, Judge Jones II refers to the 1975 Tennessee case of *Daniel v. Waters*. In that dispute, the Sixth Circuit Court of Appeals concluded the legislation at issue gave a "…preferential position for the Biblical version of creation 'over' any account of the development of man based on scientific research and reasoning " and, therefore, was in contravention of the Establishment Clause of the First Amendment.

Although the Sixth Circuit Court of Appeals rightly pointed out that the Tennessee statute that was being explored in the *Daniel v. Waters* case violated the Establishment Clause, the Court failed to indicate that the Tennessee statute also constituted a violation of Article IV, Section 4 of the Constitution because the disputed legislation undermined the principle of republican government that had been guaranteed to each of the states. Extending a preferred position to a Biblical version of creation relative to other non-Biblical accounts concerning the development of human beings that were based on scientific research and reasoning demonstrates that the Tennessee statute was not drawn up in an: Objective, impartial, disinterested, non-partisan, equitable, or fair manner, and, as a result, is inconsistent with the qualities of republicanism.

The Sixth Circuit Court of Appeals does not raise questions in its judicial decision about whether, or not, the theory of evolution should be given a preferred position in public schools. Although the members of the Sixth Circuit Court of Appeals might have felt – if they even considered the matter – that such issues were irrelevant to determining the Constitutional status of the Tennessee statute that was being called into question, the case offered an opportunity for the Court to explore the nature of the Establishment Clause, the Preamble to the Constitution, and Article IV, Section 4 of the Constitution in an equitable, fair, non-partisan, independent, and disinterested fashion, but they failed to do so.

If it is unconstitutional to assign a preferred position to the teaching in public schools of a Biblical account concerning the origins of life or the development of human beings, is it also unconstitutional to assign a preferred position to the teaching of a scientific researched and reasoned theory concerning the evolution of life or the evolution of human beings? Identifying the theory of evolution as being a function of science does not automatically serve to justify why such a theory should be considered to be incumbent on students to learn.

Naturally, those who consider the theory of evolution to be a true account concerning the origins of species believe it is in the best interests of students to be exposed to the research and reasoning that they feel substantiates their evolutionary perspective. However, those who consider the Biblical account concerning the origins of life and the

nature of human development also believe the best interests of students are served by exposing students to the research and reasoning that the advocates of creationism feel substantiate their Biblical perspective.

Both the theory of evolution and the creationist approach to origins and human development are sectarian in nature. Why should one suppose that a sectarian position that is claimed to be scientific will be any less likely to violate the Establishment Clause of the First Amendment or to be in contravention of Article IV, Section 4 than is a Biblical approach to those same issues?

By failing to raise the foregoing sort of questions, the Sixth Circuit Court of Appeals is, itself, not only guilty of violating the requirements of Article IV, Section 4 of the Constitution, but, as well, the Court is helping to establish a sectarian framework. As pointed out earlier in this chapter -- and notwithstanding the fact that the theory of evolution does not employ an overtly religious lexicon -- one encounters considerable difficulty avoiding the conclusion that the theory of evolution is, in many ways, virtually indistinguishable from a religious-like framework because the "facts" that it cites are not capable of demonstrating that the theory of evolution is a correct explanation for the origin of <u>all</u> species.

While stating his judicial opinion in the *Kitzmiller et al v. Dover Area School District et al* case, Judge Jones II cites the findings of Judge Overton in *McLean v. Arkansas Board of Education*. More specifically, Judge Jones II summarizes the legal opinion of the earlier case by stating:

"... the United States District Court of Arkansas deemed creation science as merely biblical creationism in a new guise and held that Arkansas's balanced-treatment statute could have no valid secular purpose or effect, served only to advance religion, and violated the First Amendment."

How does one determine what constitutes a "valid secular purpose"? What are the criteria that determine what constitutes a "valid secular purpose"?

More importantly, perhaps, one wonders why secular ideas should be accorded preferential consideration to non-secular ideas in the

legal opinion of Judge Jones II. Even if one were to ignore all of the considerations explored earlier in this chapter concerning the religious-like nature of the theory of evolution, as well as ignore the possibility that the theory of evolution might violate the Establishment Cause of the First Amendment when considered from the perspective of a deeper analysis involving a more inclusive notion of religion, nonetheless, the theory of evolution tends to violate the principles inherent in Article IV, Section 4 of the Constitution because that theory cannot necessarily be shown to be true in an objective, impartial, non-partisan, disinterested, equitable, and fair manner by individuals who are not already committed to that theory.

In addition, the District Court of Arkansas seemed to be immune to the irony inherent in their previous quoted words since the theory of evolution serves only to advance the philosophy of evolutionism. This might constitute a secular purpose, but it is not a valid secular purpose because the sectarian nature of the theory of evolution tends to violate the Establishment Clause of the First Amendment as well as contravene the requirements of Article IV, Section 4.

If a person would like to ask whether, or not, the theory of evolution is a scientific theory, then, by all means, ask scientists – and such a question was asked in *McLean v. Arkansas Board of Education* as well as in *Kitzmiller et al v. Dover School District et al*. However, scientists are not necessarily the people who should be consulted if one is trying to determine the extent to which the theory of evolution constitutes an objective, equitable, fair, independent, impartial, non-partisan, disinterested account of the nature of reality or our relationship to Being and, thereby, is capable of serving a "valid secular purpose" ... that is, one that is capable of satisfying the degrees of freedom and constraints that are set forth in the Constitution (including: The Preamble; the Establishment Clause of the First Amendment; the 9th and 10th Amendment, as well as Article IV, Section 4 of the Constitution).

Judge Jones II commits the same error in his decision concerning *Kitzmiller et al v. Dover Area School District* legal proceedings that Judge Overton committed in the latter's judgment in the *McLean v. Arkansas Board of Education* case. More specifically, each of the foregoing justices spends a great deal of time in their respective

decisions making distinctions between science and non-science but spend relatively little time on exploring the nature of the Establishment Clause of the First Amendment, or on analyzing the nature of Article IV, Section 4 of the Constitution, or reflecting on whether, or not -- under the 9th and 10th Amendment -- either secular or non-secular agencies (or neither) should have control of the educational process, or whether, or not, either Federal or State agencies (or neither) should assume control of the educational process.

Both Judge Overton and Judge Jones II make the same point in their respective legal proceedings – namely, that finding fault with the theory of evolution does not necessarily constitute evidence in favor of some edition of creation science or intelligent design. Consequently, each of those judges should have understand that there is a similar logical error present when the two jurists find fault with creationist science or intelligent design and, then proceed to conclude that some form of a secular conceptual system – such as the theory of evolution or science – must, necessarily, constitute the de facto default system that should govern citizens or be taught in public schools.

If Judge Jones II is going to spend an extended period of time pointing out the many problems that permeate the notion of intelligent design and how that notion gives expression to a religious point of view, then, Article IV, Section of the Constitution demands that Judge Jones II also spend an extended period of time exploring the many problems that permeate the theory of evolution and how that theory tends to violate the Establishment Clause of the First Amendment, as well as tends to be in contravention of the 9th and 10th Amendments along with Article IV, Section 4 of the Constitution. By failing to pursue the foregoing sorts of issues in his judicial decision, Judge Jones II was not exhibiting the necessary qualities of: Objectivity, disinterestedness, impartiality, independence, equitability, and fairness that are required by Article IV, Section 4 of the Constitution and which, supposedly, are guaranteed to the people of each of the states.

Judge Jones II describes how five years after the *McLean v. Arkansas Board of Education* decision vacated Act 590 in the state of Arkansas, then, the Supreme Court of the United States struck down a similar law in Louisiana. The majority opinion in the 1987 decision for

Edwards v. Aguillard stipulated that Louisiana's Creationism Act" contravened the Establishment Clause of the First Amendment because the aforementioned Act amounted to "…restructuring the science curriculum to conform with a particular religious viewpoint."

Yet, if one were to retain the logic inherent in the foregoing way of describing the conflict between creationism and evolutionism in *Edwards v. Aguillard*, a person could easily – and justifiably – argue in parallel fashion that the theory of evolution constitutes a restructuring of the science curriculum to conform with a particular sectarian – if not religious-like – viewpoint that seeks to promote an evolutionary philosophy that is dressed up in scientific language. Referring to the theory of evolution as being scientific does not make it any less sectarian, or religious-like in the manner in which it seeks to impose a certain way of thinking on students and, in the process, attempts to induce the latter individuals to consider such a theory to be inviolable, sacrosanct, sacred, and deserving of a reverential-like commitment that should shape a person's understanding and engagement of reality.

Both Judge Overton in *McLean v. Arkansas Board of Education*, as well as Judge Jones II in *Kitzmiller et al v. Dover Area School District et al* seem to be oblivious to the manner in which they each tend to filter the information in their respective cases through the presumptive lenses of science and the theory of evolution rather than filter information through a process of reflecting on that information in a truly objective, impartial, independent, non-partisan, fair, and equitable fashion that tends to lead to the conclusion that, on the one hand, neither creation science or its update counterpart, intelligent design should be taught in public schools, nor, on the other hand, should the theory of evolution be taught in public schools. In fact, the extent to which each of the aforementioned judges seems to be blind to the conceptual dynamic through which their respective cases are being framed and filtered in a manner that give unquestioned priority to science and the theory of evolution indicates just how problematic the issue of establishing a "valid secular purpose" can be if one is going to, simultaneously, try to reconcile such purposes with, say, the requirements of Article IV, Section 4.

Secular purposes are not necessarily the de facto solution for avoiding violations of the Establishment Clause of the First

Amendment or transgressions against the requirements of Article IV, Section 4 of the Constitution. Purposes that are neither secular nor non-secular should be sought ... purposes that require an on-going process of critical reflection intended to ascertain that neither secular nor non-secular perspectives that have sectarian, religious-like features are permitted to be imposed on citizens, and, in addition, to ascertain that the actions and decisions of government officials are in compliance with the requirements of a republican form of government.

During his decision for *Kitzmiller et al v. Dover Area School District et al*, Judge Jones II states:

"We are in agreement with plaintiff's lead expert, Dr. Miller, that from a practical perspective, attributing unsolved problems about nature to causes and forces that lie outside the natural world is a 'science stopper'. As Dr. Miller explained, once you attribute a cause to an untestable supernatural force, a proposition that cannot be disproven, there is no reason to continue seeking natural explanations as we have our answer."

Although the term "natural world" is used in the foregoing excerpt from the legal decision of Judge Jones II, no definition is given for that phrase.

How does one determine what forces and causes lay within, or beyond, the purview of the natural world? How does one prove what forces and causes lay within the boundaries of the natural world?

Just because one has methods at one's disposal that are capable of detecting certain kinds of forces or causal relations in observed phenomena does not mean that other kinds of forces and causes aren't also present that fall beyond the capacity of one's methods for detecting phenomena, forces, and causes. Moreover, forces and causes that cannot be engaged or measured by our current methodology are not necessarily supernatural.

The neutrino is calculated to measure 10^{-24} meters (.000000000000000000000001) or 10 yoctometers. The Planck length is 10^{-35} meters or in the vicinity of .0000000001 yoctometers.

The Planck length tends to mark a boundary for classical ideas concerning the nature of space-time and gravity. Consequently, we

have no idea what, if anything, lies on the other side of that boundary marker or how what transpires in that realm of the Universe affects what transpires on the level of the Planck length or larger.

For example, we don't know why constants -- e.g., the mass of an electron which is 9.10938356 x 10^{-31} kilograms -- have the values they do. The Higgs field might have something to do with the mass value of an electron, but if so, at the present time, we do not know what the nature of the dynamics are between the structural properties of the electron and the structural properties of the Higgs field that would result in electrons having such a constant value.

We know that the Higgs field exists because CERN has been able to detect that field through the presence of the Higgs boson. However, we do not know what -- if anything -- makes the Higgs field possible, but irrespective of whatever might make the Higgs field possible and even though we do not, yet, fully understand the properties of that field, we assume that those dynamics are natural in character.

Natural forces and causes are whatever makes observable phenomena possible irrespective of whether, or not, we can detect them, measure them, or understand them. Advances in methodology, measurement, and instrumentation often expand the horizons of the observable and detectible, but, currently, we do not know whether, or not, we will reach a point in the future when we might encounter some sort of inherent limitation to what can be observed or measured through our physical methods and instruments.

If such a limit should be reached, this does not mean that we have exhausted what the natural world has to offer. Instead, what it means is that we will have reached a terminal point for what our methods and instruments can reveal about the character of the natural world.

Conceivably, God operates in the interstitial spaces that cannot be accessed by our methods and instruments. This would not make such dynamics supernatural but, rather, those dynamics would merely give expression to a species of natural phenomena that are beyond our ability to observe, detect, or measure.

Judge Jones II – as well as Dr. Miller, the lead witness for the plaintiff – maintains that: "once you attribute a cause to an untestable supernatural force, a proposition that cannot be disproven, there is no

reason to continue seeking natural explanations as we have our answer." Yet, the theory of evolution constantly makes reference to the idea of random, chance events that cannot be proven to be truly – that is, ontologically, rather than just methodologically -- random, chance phenomena, and, as a result, the foregoing perspective has tended to stop scientists from looking for natural explanations that transcend the idea of randomness but still fall within the realm of the natural world even though the properties and characteristics of that natural world might fall beyond the capacity of our present (and, possibly, future) methods, measurements, and instruments to be able to detect.

Neither Judge Jones II nor Dr. Kenneth Miller (the lead witness for the plaintiff) – nor anyone else -- knows how the first protocells came into existence or how the genetic code came into existence. Neither of those individuals knows how consciousness, intelligence, memory, reason, language, or creativity came into being or what made them possible.

They assume that the aforementioned sorts of phenomena are part and parcel of the natural world. Nonetheless, they know almost nothing about the underlying dynamics or causal forces that give expression to those sorts of qualities or properties and, quite possibly, they will never be able to prove or test what, ultimately, is responsible for those phenomena.

In short, neither Judge Jones II nor Dr. Kenneth Miller has defensible grounds for claiming that the natural world is a realm that necessarily excludes the presence of God. Indeed, the nature of God's activity in the natural world might just be among those phenomena that are beyond the capacity of our physical methods and instruments to be able to detect or measure.

When Judge Jones II and Dr. Miller refer to the idea of the supernatural as being a "science stopper", they seem to be blind to the parallel possibility that approaching reality in the way they do could be something of a "soul or spirit stopper". By insisting that: Public schools, their teachers, and their students must adopt a scientific approach to reality that promotes the theory of evolution, they are advocating a policy that, in many respects, cannot be tested or proven to be true, and, therefore, is as much a sectarian system as any religion and, as such, becomes an oppressive force that interferes with the

opportunity of individuals to freely seek natural explanations for phenomena – such as life – that fall beyond the limitations of the theory of evolution.

Judge Jones II indicated in his decision that during Dr. Miller's testimony the professor maintained that just because researchers cannot explain all the details of evolutionary theory, this, in an of itself, does not necessarily invalidate the theory of evolution. Perhaps this is true, but, nonetheless, such a claim does tend to lead to the emergence of questions about where and how one should draw the line that enables one to differentiate between problematic speculations and substantiated theories.

The foregoing contention takes place during a section in the judicial decision of Judge Jones II that critically analyzes some of the ideas of Professor Michael Behe concerning the issue of 'irreducible complexity'. Dr. Behe is of the opinion that there are many processes within organisms involving phenomena such as motility, blood clotting, and the immune response that exhibit structural properties of sufficient complexity whose origins, or way of coming together, cannot be explained adequately by the theory of evolution.

Taking issue with the foregoing position of Professor Behe, Judge Jones II cites the testimony of Dr. Miller and Dr. Padian indicating that Dr. Behe's perspective fails to take into consideration well known mechanisms of evolutionary dynamics. For example, Judge Jones II states:

"In fact, the theory of evolution proffers exaptation as a well-recognized, well-documented explanation for how systems with multiple parts could have evolved through natural means."

Exaptation is a process in which biological systems acquire functions that those systems did not originally possess. To illustrate the foregoing issue, Judge Jones II refers to an example provided by Dr. Padian during the latter's testimony indicating that the middle ear bones of mammals arose, over time, from the mammalian jawbone.

Judge Jones II proceeds to claim that the foregoing evidence demonstrates that Professor Behe's notion of 'irreducible complexity' excludes such data from consideration and, therefore, refutes the professor's argument. Yet, Judge Jones II fails to indicate what the set

of step-by-step processes was that led the middle ear bones of mammals to arise from and become differentiated from mammalian jawbones.

Consequently, neither Judge Jones II nor Dr. Padian have provided a step-by-step map that plots out how one goes from mammalian jawbones to the emergence of mammalian middle ear bones. Apparently, this is one of the evolutionary details that – according to Judge Jones II and Dr. Kenneth Miller – evolutionary theory is not required to explain but which – quite incredibly -- does not cause the theory of evolution to lose any sense of validity.

Yet, if one were to say that God were responsible for the transition from mammalian jawbones to mammalian middle ear bones, evolutionary scientists would demand that the proponents of that kind of a theory to provide a step-by-step account of how God made such a transition possible. However, if the proponents of that kind of a theory could not provide evidence capable of substantiating their claim, then, evolutionary scientists would very likely argue that the absence of such evidence undermines the validity of a creationist theory of origins.

None of the examples of exaptation that Judge Jones II mentioned in his decision or that Dr. Miller ran through during his testimony provide the step-by-step evidence that is needed to demonstrate that their claims are warranted. They both allude to the possibility of exaptation with respect to the emergence of complex systems of motility, blood clotting, and the immune system, but, apparently, those possibilities are supposed to be accepted without having to present any detailed evidence capable of demonstrating that exaptation correctly (and not just possibly or theoretically) accounts for the emergence of complex systems over time.

Judge Jones writes in his decision that:

"… Dr. Miller presented peer-reviewed studies refuting Professor Behe's claim that the immune system was irreducibly complex. Between 1996 and 2002, various studies confirmed each element of the evolutionary hypothesis explaining the origin of the immune system"

Moreover, on cross-examination Dr. Behe was presented with 58 publications that had been peer-reviewed, along with nine books and a number of chapters from several textbooks on immunology that explored the evolution of the immune system.

To begin with, one might ask if any of the people who were among the peers who reviewed the aforementioned studies on the evolution of the immune system were, or were not, individuals who accepted the theory of evolution. If all of them were proponents of the theory of evolution, then, perhaps, one should not be too surprised that the studies being alluded to might have been acceptable to the peers who reviewed them as long as those studies exhibited the sort of characteristics that would have resonated – to varying degrees -- with the sensibilities of the individuals who were reviewing that material.

Consequently, the foregoing alliance of studies and peers might only indicate that the peers, along with the people who conducted the studies, operated out of a similar world-view. If so, then, the evidence being cited by Judge Jones II or Dr. Miller does not necessarily constitute evidence that the theory of evolution has been shown to be true in some independent fashion.

Secondly, what does it mean to say that a study confirms a given theory? What are the criteria of confirmation? What justifies such criteria?

Since none of the individuals who wrote: Those 58 studies, or nine books, or several textbooks on immunology were present when immune systems began to emerge in various organisms and also were not present when new wrinkles might have been introduced to those systems, I can pretty much guarantee that none of the individuals to whom Judge Jones II or Professor Miller are referring would be able to specify the precise set of steps that led to the appearance of those systems or to their development. Unfortunately, Judge Jones II seems to exhibit little common sense and ask: How do either the authors of those studies and books or the peers who are reviewing that material know that things happened in the way that is being claimed in their studies.

Judge Jones II seems to be treating informed speculation concerning the possible emergence of immune systems as if it were established truth. Furthermore, rather inexplicably, he appears to be

claiming that such informed speculation is capable of disproving Dr. Behe's ideas concerning irreducible complexity.

Professor Behe's notion of irreducible complexity might, or might not, be true. However, speculation about what could have happened in the past is not necessarily the same thing as being able to produce step-by-step, verifiable evidence indicating what actually did happen in the past. Therefore, even if all of those 58 studies, 9 books, and assorted chapters that allegedly were considered to confirm the theory of evolution's account concerning the development of immune systems, nevertheless, until one closely and critically examines what is meant by the notion of 'confirmation' and reflects on the criteria that are being used to establish that supposed confirmation (and whether such criteria are justified), one can't really be sure what, if anything, has been demonstrated by the studies and books to which Judge Jones II is alluding.

I'm pretty sure that Judge Jones II did not review the 58 studies, nine books, and chapters in several textbooks of immunology that are being referred to in his legal decision. Instead, he seemed to merely accept, at face value, the testimony of Dr. Miller and several other witnesses for the plaintiff that the foregoing material proved what they claimed it did.

Throughout his decision, Judge Jones II seems to exhibit the same sort of inclination that is being noted above with respect to appearing to be positively deposed toward the idea of the theory of evolution without exhibiting any sort of countering critical reservation concerning that theory. As such, he seems to be in contravention of Article IV, Section 4 of the Constitution because he has failed to act in an: Objective, impartial, non-partisan, independent, equitable, and fair fashion, and, as a result, he is helping to establish the theory of evolution as a sectarian system that is difficult, if not impossible, to differentiate from religious-like systems and, as such, violates the Establishment Clause of the First Amendment.

The way to resolve the issues that arise in *McLean v. Arkansas Board of Education* or in *Kitzmiller et al v. Dover Area School District et al* (or any of the other legal proceedings that have dealt with those issues) is neither to accept the theory of evolution while rejecting some variation on creationist theory, nor should one attempt to

resolve the foregoing matters by accepting creation science or intelligent design while rejecting the theory of evolution, nor should one try to resolve those problems by trying to provide a balanced treatment of the two competing visions. Rather, one should proceed with the understanding that creation science, intelligent design, and the theory of evolution all violate the Establishment Clause of the First Amendment, as well as Article IV, Section 4 of the Constitution, and, therefore, should not be permitted to shape educational policy in the public school system.

Chapter 5: <u>The Construction of Social Reality</u>

In 1995 John Searle, a philosopher, released a paperback edition of: *The Construction of Social Reality*. The foregoing work attempts to provide an answer for the following question: Namely, how do presumably objective phenomena such as consciousness, intentionality, meaningful speech acts, as well as social institutions involving law, government, marriage, sports, money, and so on emerge from a physical world that consists entirely of an array of fundamental particles and forces given that the former, social entities don't appear to be due – at least in any overt, straightforward sense – to chemical and physical processes?

Although Professor Searle states in the second sentence of the Introduction to the aforementioned book that: "As far as we currently know, the most fundamental features of that world are as described by physics, chemistry, and the other natural sciences," he doesn't specify the identity of the "we" that, supposedly, "know" something about the "fundamental features" of the world or stipulate why such features should be considered fundamental. The foregoing uncertainties concerning the identity of the "we:" who allegedly "know" about "fundamental features" of the world is important because oftentimes understanding is framed by, and filtered through, conceptual worldviews that reflect certain kinds of beliefs concerning the nature of reality rather than reveal the actual nature of things in themselves.

In contradistinction to what Professor Searle claims in the previously quoted statement, the vast majority of people do not know that "the most fundamental features of" the world are a function of the dynamics to which a variety of particles and forces give expression and that can be described through the principles of chemistry, physics, and other natural sciences. At best, while a variety of people might know what they have read, seen, or heard concerning the modern, scientific perspective, most individuals are not in a position (mathematically, scientifically, and epistemologically) to personally verify – and, therefore, know or have any realized insight into, and understanding of, the possibility – that "the most fundamental features of" the world "are as described by physics, chemistry, and other natural sciences.

Furthermore, even if someone has studied – to varying degrees -- chemistry, physics, and other natural sciences, this doesn't

automatically mean that those individuals know how things work. While the latter sort of individuals might know the laws, formulae, and theories encompassed by physics, chemistry, or other natural sciences, and while such people might be able to use different laws, formulae, and theories of chemistry, physics, and other natural sciences to solve different kinds of problems, they don't necessarily know that "the most fundamental features of that world are as described by physics, chemistry, and the other natural sciences."

They might know what they believe. Yet, what they believe might not be true – that is, it might not be true that "the most fundamental features of" the world" "are as described by physics, chemistry, and other natural science.

To date, the principles, laws, formulae, and theories of physics, chemistry, and other natural sciences have not been capable of accounting -- in any unproblematic and consistent fashion -- for either the origins or dynamics of a great many phenomena. For example, at the present time, none of the natural sciences can offer a viable, step-by-step account for how life or the genetic code came into being or how the universe came to have the properties it does (e.g., the 26 constants that seem to pervade many facets of the universe – such as the fine structure constant involving the strength of electromagnetic interaction, the strong coupling constant that describes the strength of the force holding neutrons and protons together, the value of the quantum of action, and so on), nor – at least at the present time -- can the disciplines of natural science provide a definitive explanation for how the particles, forces, and molecules of physics, chemistry, and biology generate the capabilities that make possible such phenomena as: Consciousness, intelligence, language, reason, creativity, morality, or talent (e.g., musical, artistic, mathematical, athletic, inventiveness) possible.

In addition, currently, we don't know why the universe seems to exhibit a substantial, asymmetrical differential between the number of particles and anti-particles that seem to exist in the universe. Furthermore, we don't understand much, if any thing, about the nature of dark matter or dark energy, and this could constitute a sizeable expanse of ignorance concerning the fundamental nature of the universe because dark matter and dark energy together – to whatever

extent they actually exist and are not artifacts of other kinds of phenomena -- are currently believed to constitute approximately 95% of the universe (27% and 68% respectively).

If only 5% of the universe gives expression to the sorts of particles and forces that Professor Searle claims constitute the fundamental features of reality, then, to a considerable degree, we don't actually know whether, or not, the fundamental features of the universe are fully captured by the descriptions of physics, chemistry, and other natural sciences. Moreover, given that mystics (e.g., Black Elk, Naropa, Marpa, Ramana Maharshi, Ibn al-'Arabi, Ra'bia of Basra, Teresa of Avila, and so on) from many different spiritual traditions indicate that reality cannot be reduced to the laws and dynamics of physical processes but, instead, is functionally dependent on a much deeper set of non-physical, spiritual principles, one cannot be certain that whatever might be known about physical dimensions of the universe is capable of exhausting – or even understanding – the actual nature of the fundamental features of the universe.

The mystics might be correct, or incorrect, with respect to what they claim about the nature of reality. However, until one can demonstrate unequivocally that, on the one hand, mystics are wrong about the character of reality and that, on the other hand, physics, chemistry, and other natural sciences are correct about the fundamental nature of reality, then, one can't really say that "we" – whomever this might involve – actually "know" (as opposed to believe) that the "fundamental features" of the "world are described by physics, chemistry, and other natural sciences."

Toward the beginning of the first chapter of *The Construction of Social Reality*, Professor Searle begins his discussion by making a distinction between "institutional facts" that are the result of human agreement and "brute facts" that, in some manner, are independent of human agreement. For instance, when a person is born, this biological event is something that is independent of human agreements and, therefore, constitutes a brute fact, while the birth certificate that marks and records such an occasion gives expression to an institutional fact.

The hospital, nurses, midwives, doctors, and so on that attend to the biological event of birth are part of a complex sect of human

agreements – and, consequently, give expression to institutional facts -- concerning how the foregoing sorts of biological events are to be handled, and by whom, and where. The race, sex, weight, length, blood pressure, color of hair, and so on that are recorded at birth allude to physical properties of the person who is born and, therefore, are brute facts even though the way of measuring those kinds of "brute" properties are often a function of human agreements and, as a result, are considered "institutional facts."

If a baby should die shortly after birth, the child's physical condition is (very much so) a "brute" fact. Nonetheless, institutional facts – or human agreements – often determine precisely when, and under what conditions, and according to what criteria the pronouncement of death becomes official and, possibly, subject to various legal considerations.

Professor Searle wonders about how institutional facts are possible. More to the point, he wants to know: (a) How there can be any kind of objective reality – namely, the existence of institutional facts – that are the result merely of human agreement, and (b) he would like to know what role language plays in establishing the foregoing sorts of agreed upon notions of social reality.

According to Professor Searle, when one busies oneself with the process of trying to identify the qualities of something and does so from a perspective that is devoid of human purposes, goals, and interests, then, one is concerned with the intrinsic properties of whatever is being considered. Nonetheless, one might have difficulty differentiating between, on the one hand, human purposes, goals, and interests, and, on the other hand, intrinsic properties because, oftentimes, what we consider to be intrinsic to something is shaped, colored, and oriented by human purposes, goals, and interests … such as occurs in situations involving, say, abortion.

Is the fetus a person? Is personhood intrinsic to being a fetus or is personhood being conferred on the fetus – or withheld from the fetus -- as a result of an agreement among certain human beings concerning their interests, purposes, and goals about a given religious, scientific, political, or philosophical system of belief?

Professor Searle believes that human beings grow up in circumstances in which various social dimensions that exist within

those situations are taken for granted and, as a result, we tend not to reflect on the social facets of those circumstances as being in any way involving a special kind of ontology. In other words, according to Professor Searle, money and stones – despite their apparent ontological differences – both seem to form natural aspects of our world.

Stones are for throwing, building, or stumbling over. Money is for spending, saving, or lending.

Nevertheless, contrary to the foregoing perspective of Professor Searle, there seems to be considerable evidence to indicate that fairly early in life, many of us come to the realization that there appears to be something arbitrary about many institutional and social facts involving, say, money, marriage, the law, school, and government that distinguishes those kinds of reality from the non-arbitrary nature of brute facts involving, say, stones, trees, lakes, snow, and animals.

In social, institutional facts, the definitions, rules, and conventions that govern the life of those facts tend to matter to human interests, goals, and purposes since the former facts are applied to our lives, and oftentimes, those definitions, rules, and so on, are violated or applied inconsistently or problematically. However, when dealing with brute facts, then whatever definitions, rules, and conventions are used to describe those kinds of facts tend to be irrelevant to the intrinsic nature of those sorts of aspects of reality as well as the kind of impact they can have on our lives.

Professor Searle maintains there are, at least, two dimensions of our understanding of reality that are not up for debate. According to him, a condition of being an educated person in the 20th and 21st century is that one must be, apprised of, or informed about, the theory of evolution and the atomic theory of matter.

Notwithstanding the foregoing claims, there are varying degrees of amorphousness surrounding, if not permeating, just what it means to be "apprised" about either the theory of evolution or the atomic theory of matter. For example, Professor Searle contends that "Types of living systems evolve through natural selection, and some of them have evolved certain sorts of cellular structures, specifically, nervous systems capable of causing and sustaining consciousness" (page 6).

However, if one were to ask Professor Searle to write down the set of specific, step-by-step transitions in DNA sequences that, over time, led to the emergence of different kinds of neurons, glial cells, or neurotransmitters, he could not do so (nor could any of his colleagues – both philosophical and scientific). Moreover, if one were to ask him to supply the details that disclosed – in concrete terms -- the nature of the dynamics through which the nervous system was able to cause and sustain consciousness, he could not do so (nor could any of his colleagues).

Furthermore, if one were to ask Professor Searle to specify the series of transitions in DNA coding that led to the first protocell or that led to the appearance of: Chemotrophs, cyanobacteria, Archaea extremophiles, anaerobic organisms, aerobic forms of life, multicellular forms of life, or any of the organelles (e.g., the Golgi complex, lysosomes, peroxisome, endoplasmic reticulum, mitochondria, and plastids) of eukaryotic organisms, he could not provide a concrete response that was capable of being verified.

Just what does Professor Searle believe that being apprised of the theory of evolution entails? Is one apprised of that theory if one accepts without question – or with only minimal, minor sorts of questions -- what various proponents of the theory claim is true concerning evolution.

Alternatively, one might ask whether one is apprised of the theory of evolution if one comes to an empirically-based understanding that the theory in question is not necessarily capable of verifiably identifying the set of specific, step-by-step transitions in DNA sequencing that led to the emergence of protocells, cyanobacteria, anaerobic organisms, aerobic forms of life, Archaea, eukaryotes, or exemplars from any number of domains, kingdoms, phyla, classes, orders, families and genera. If so, then, being apprised of such a theory strongly suggests that the very heart of the theory of evolution – namely, the origin of species – is not the slam-dunk truism that most advocates of the theory of evolution consider it to be.

One could raise similar sorts of issues in relation to the other criteria cited by Professor Searle that supposedly identifies an educated person in the 20th and 21st century – namely, the so-called atomic theory of matter. For example, is the nature of matter really

inherently indeterminate (i.e., is such indeterminacy a brute fact) or is such indeterminacy an institutional fact that has been established through human agreement and substituted for the nature of reality?

Do, say, electrons actually have no reality (no actual position, velocity, energy, etc.) until they are measured or should one consider such signs of quantum weirdness to be an artifact of an institutional or human agreement about how to understand the nature of matter? Is matter, in its most fundamental form, both particle and wave, or are the particle-like and the wave-like facets of elementary forms of matter a function of some more basic phenomena that is capable of manifesting itself as a wave or particle under different circumstances?

Are quarks the most fundamental constituents of matter, or like protons, neutrons, and atoms, do quarks have a sub-structure? Why have six kinds of quarks (top, bottom, strange, charm, up and down) been detected in places like CERN, but only two of those quarks (up and down) seem to occur outside the laboratory?

How did different forces – for example, electromagnetism, the weak and strong forces, as well as gravity – acquire the strength and physical properties (including the aspects of those properties that are constant)? What role does the phenomenon of entanglement play in the structure of the universe?

What does it mean to be apprised of the atomic theory of matter? Is the standard model of physics – which underlies the atomic theory of matter – a way of making measurements and solving certain kinds of problems, or does it really reflect fundamental features of reality? Or, is it, perhaps, a bit of both, and, if so, which is which?

According to Professor Searle, consciousness is a biological and physical phenomenon. However, he does not specify how biological and physical processes generate consciousness, and, therefore, wondering whether, or not, consciousness might give expression to some other kind of phenomenon does not seem to be an unreasonable thing to do.

Professor Searle goes on to indicate that the process of intentionality is associated with consciousness. He characterizes Intentionality as giving expression to the capacity of an organism to be able to represent the world in different ways.

From the perspective of Professor Searle, intentionality is a form of awareness that is either directed toward some given aspect of experience or it is a form of awareness that is about some aspect of the universe. Thus, beliefs – which constitute a condition of intentionality – give expression to a form of awareness that is directed toward, or is about, some given representational understanding concerning the nature of some aspect of experience or what makes such an experience possible.

James Gibson (1904 – 1979), a psychologist, maintained that the nervous system or brain did not construct visual representations of the environment. Instead, he believed the mind has the capacity to directly grasp certain facets of any given stimulus and, therefore, does not necessarily go through some kind of cognitive, computational dynamic that generates a perceptual representation of some aspect of reality.

Gibson's approach to the mind is often referred to as ecological or environmental psychology (see: *The Ecological Approach to Visual Perception*, 1979). He felt there was a dynamic relationship between an organism and its environment in which, on the one hand, the environment in which an organism is situated offers affordances – that is, degrees of freedom, constraints, possibilities, and potentials – that are capable of being accessed directly – to varying degrees -- by an organism and, consequently, are not subject to some sort of cognitive processing that generates a representation of – rather than being a reflection of – various facets of the environment.

Conceivably, both representational and affordance relationships might exist in conjunction with the environment. If so, the challenge facing an individual is one of trying to differentiate between the two kinds of relationship so that one can determine when any given perception or understanding is a function of (a) representational processes or (b) involves some form of cognitive affordance dynamic.

The foregoing representational/affordance distinction resonates somewhat with Professor Searle's manner – mentioned earlier -- of differentiating between "institutional facts" (i.e., facts that are generated through some sort of process of human agreement) and "brute facts". Institutional facts tend to give expression to, or are a function of, various conceptual and perceptual representations of

different facets of reality, whereas affordances seem to involve brute facts concerning the inherent nature of things.

Irrespective of whether one is talking, on the one hand, in terms of institutional and brute facts, or, on the other hand, one is talking in terms of representational or affordance relationships, in both cases the problem remains the same. How does one – or, even, can one -- distinguish between epistemological realizations concerning the actual nature of reality (brute affordances) and hermeneutical renderings (i.e., interpretive, institutional representations based on human conventions and agreements) concerning what is believed (correctly or otherwise) to be the nature of reality?

Professor Searle contends we live in a world that is totally a function of physical particles and forces, and he wants to know what the epistemological and ontological status of social facts are within the context of the foregoing sort of physical worldview. Perhaps, instead, he should be exploring the following kind of issue: Namely, how does he know – as opposed to believe -- that we live in a world that is completely constructed from physical particles and forces? Moreover, perhaps he should be asking whether he actually knows – rather than believes -- that social facts actually are a function of the aforementioned physical particles and forces.

He is treating an idea – namely, that the world is entirely constructed from various combinations of physical particles and forces -- as being a 'brute' fact despite the rather premature nature of that claim. In addition, he maintains that physical realities make social facts possible despite the fact that at this stage of his argument, the latter claim is more of a promissory note than it is an established and verifiable statement of fact.

There appear to be many aspects of Professor Searle's perspective (some of which have been noted previously) that might be constructed from an array of institutional facts (i.e., facts that are the result of human agreements and conventions) rather than being the result of physical particles and forces. In addition, although Professor Searle believes that social facts occur within a context whose properties are a function of the dynamics inherent in physical ontology, nevertheless, social facts might have an ontology that runs parallel with physical facts – and, possibly, at certain junctures interacts with physical reality

-- rather than being caused by whatever particles and forces are present in physical reality.

Putting aside the foregoing considerations for the moment, one should note that Professor Searle seeks to draw a distinction between what is considered to be 'objective' and what is treated as being 'subjective'. He indicates there are a number of senses associated with the foregoing terms (i.e., objective and subjective) and wants to focus on two of those senses – namely, ontological and epistemological.

According to Professor Searle, the term "subjective" tends to be used when the truth or falsity of something cannot be determined objectively – that is, factually. Furthermore, the nature of what is objective is considered to be independent of the interests, attitudes, feelings, or purposes of a person or group of persons, whereas that which is considered to be subjective tends to be tied to, or is a function of, for example, the nature of someone's emotions toward, attitudes about, or their beliefs concerning some given event, issue, or experience.

On the one hand, Professor Searle contends that epistemology is a matter of the judgments that are made about the objective or subjective status of some given focus. On the other hand, for Professor Searle, ontology is about the reality of something – i.e., its factual or brute nature -- independent of our epistemological judgments, but, nonetheless, he believes that ontology gives expression to the existence of objective facts that are capable of beings shown to correspond with judgments that, epistemologically, are considered to be objectively true.

He goes on to maintain that, from an ontological perspective, "pains are subjective entities" since their existential status is tied to the mental states and the perceptions of human beings. On the other hand, physical objects -- such as rocks and trees -- are ontologically objective because their existence is independent of mental states or processes of perception.

However, just because pain is something that is felt by, or perceived by, someone, why automatically preclude – as Professor Searle seems to do in the foregoing scenario -- the possibility that pain also might have (to some degree) an objective reality of its own that is capable of imposing itself on the consciousness of a person

irrespective of whether, or not, that individual wants the pain and irrespective of the attitudes toward, or feelings about, that pain that might exist within an individual? Is the pain that a Stage IV cancer patient feels, or the pain that an individual undergoing a massive heart attack feels, a purely subjective response to, and judgment about, something that has no objective reality?

After all, Professor Searle contends that biological events are expressions of physical events, and, furthermore, he believes that consciousness is a function of biological processes. So, isn't it possible that the sensation of pain that emerges in the consciousness of an individual could be due to (i.e., is a causal function of) the way in which certain kinds of physical events impact biological processes that, subsequently, are manifested in consciousness as pain?

We might make subjective judgments concerning the character of the pain that exists in consciousness – such as: On a scale of 1-10, a particular person experiences a given pain as a 9. Nonetheless, the existence of the pain -- about which an estimate concerning its impact on an individual is being made – would seem to have a reality that has led to the perception of pain rather than being a product of our imagination.

In fact, medical practitioners consider the "subjective" reports of patients concerning the nature of their pain (e.g., that it is severe, sharp, intermittent, dull, or located in a certain part of the body) to be a potentially important source of information about the objective character of whatever medical problem or condition might be causing the kind of pain that is being reported by a person. Various kinds of maladies tend to be associated with different patterns and modalities of pain, and, consequently, certain kinds of pain often are considered to be symptoms that are capable of helping to detect, in an objective manner, the presence of certain kinds of medical problems.

Furthermore, when Professor Searle contends that anything that is entangled in the feelings and experiences of a perceiver should be considered to be subjective in nature, he seems to ignore the possibility that physical objects, themselves, could be a function of the mind or perceptions of God (that is, they receive their structural and dynamic character from God). This would be the ultimate expression of the Berkeley-like perspective concerning the notion that: "Esse est

percipi" since, in such circumstances, the existence of objective essences would be due to Divine perception.

Is the nature of something's "esse" -- or structural and dynamic essence -- a function of perception (human or Divine)? Or, is the character of perception a function of "esse"?

Alternatively, of course, perception and something's "esse" might interact with one another in various ways. For example, if James Gibson's theory of ecological or environmental psychology is correct, then, a person's grasp of the affordances provided by the environment would be subjective – since perception is involved – but, as well, the understanding to which such a perception gives expression also would be objective because the nature of the affordance that a certain environment makes possible is being (potentially) correctly grasped by the individual.

In the foregoing context, 'esse' (i.e., the nature of some aspect of reality) would not be caused by 'precipi' (i.e., perception). Instead, various facets of 'esse' would be reflected in 'precipi'.

In the foregoing case, understanding and reality would have merged horizons with one another to a certain degrees. There would be a correspondence or congruence that had been established between the subjective and the objective.

One can agree with Professor Searle that the realm of the objective is that which has an existence that does not depend on, or is independent, of, human perception (although such existence might not be independent of Divine perception). Nevertheless, epistemologically speaking, unless one has some form of access to the properties of the objective realm, then, one could never claim to know anything about the nature of reality.

Epistemology is rooted in a challenge that requires one to distinguish between, on the one hand, understandings that accurately reflect the actual character of particular facets of reality and, on the other hand, understandings that do not accurately reflect the actual character of a given aspect of reality. Making the foregoing sorts of distinctions does not require one to establish a firewall between the subjective and the objective – as Professor Searle seems inclined to do -- but, rather, epistemology requires one to identify subjective

conditions of understanding that are capable of reflecting – due to affordance relationships – the character or properties of certain dimensions of reality.

Subjective understandings give reflective expression to the nature of objective reality when those understandings accurately mirror the way in which some facet of reality manifests various aspects of its affordance relationships (that is, the degrees of freedom, constraints, possibilities, and potential that are present in those relationships) with a person's epistemological engagement of such an environment. Accuracy is a function of "facts" that are <u>not rooted</u> in purposes, interests, goals, attitudes, beliefs, or feelings that distort the nature of the affordance relationships that link human subjectivity and objective reality but, instead, <u>are rooted</u> in purposes, interests, goals, attitudes, beliefs, and feelings that enable facts to be discovered and grasped that radiate from, or are manifested through, the affordance relationships of reality that engage, and are engaged by, human beings.

Our interests, purposes, goals, beliefs, and perceptions can play a constructive role in the search for truth. Nevertheless, our interests, purposes, goals, beliefs, and perceptions can assume problematic roles during the process of searching for the truth.

Subjectivity exhibits qualities of objectivity to the extent that the former dynamic (i.e., the processes of subjectivity) helps one to engage -- in undistorted and unbiased ways -- the affordances to which reality gives expression. To the degree that subjectivity impedes, or undermines, the foregoing kind of engagement, then, to that extent subjectivity loses touch with whatever potential for objectivity that it possesses.

As indicated previously, one of the primary concerns of Professor Searle in his book: *The Construction of Social Reality*, involves trying to show how "culture" is derived from, or constructed from, "nature". In order to accomplish the foregoing purpose, he indicates that he is abandoning a traditional way of approaching various epistemological and ontological issues – namely, a dualistic, Descartes-like conception concerning the relationship between mind and body – and, instead, Professor Searle has decided to consider the mind to be some sort of higher-level manifestation of the brain and, according to which, the

mind, simultaneously, gives expression to both mental and physical properties.

At no point, however, within *The Construction of Social Reality* does Professor Searle demonstrate that the foregoing perspective is rooted in facts that are ontological in nature rather than being institutional in character (that is, an understanding that reflects aspects of the intrinsic nature of reality rather than an understanding that gives expression to some form of human agreement or convention concerning the epistemological and ontological status of various facts involving mind and body). In other words, Professor Searle's foregoing perspective does not show how the institutional nature of his assumptions concerning the character of subjective reality has been derived from the objective nature of things, and, therefore, the foregoing perspective leaves open the possibility that his view merely gives expression to a set of institutional facts (i.e., beliefs) concerning a possible relationship between mind and body rather than giving expression to a set of physical facts that demonstrate how mind actually does constitute a higher-level function of the brain.

Consistent with his previously noted distinction between "brute" and "institutional facts", Professor Searle distinguishes between features that are intrinsic to nature and features that must be considered in relation to the consciousness or intentionality of a perceiver or group of perceivers. For example, a given object might: Be made of wood and metal or made from plastic and metal, as well as have a certain size, weight, and shape, and all of these properties are intrinsic to the nature of the object being considered, but, in addition, the foregoing object might serve as a "screwdriver", and this latter reference would give expression to the way in which human beings use that object, and, such uses are considered in relation to human intentions, purposes, and beliefs.

The term "screwdriver" is not intrinsic to the nature of the object being considered. In German one could refer to the same object as a "schraubenzieher", and in Italian the object being considered might be referred to by the word: "cacciavite".

The invention of the object to which the foregoing three terms refer is tied to human intentionality. In other words, the object was designed to serve certain human purposes.

Nonetheless, the object's design is a function of the sort of properties to which a certain kind of physical environment gives expression. Those properties are facets of the affordances that characterize such environments.

If one wishes to affix some material to a wood surface, the invention of a "screwdriver" might serve such a purpose. However, the object to be invented would have to be able to interact with, or engage, the properties of the wood with which one is working, as well as be able to interact with, or engage, the properties of whatever material is to be affixed to the wood's surface, and, in addition, the screwdriver would have to accommodate the characteristics of whatever is going to be used to affix some kind of material to a wood surface (for example, a nail-like piece of metal that has a particular kind of shaped groove in its head).

In other words, although the object to be invented – in this case, something called a "screwdriver" in English – would serve a human purpose (e.g., affixing some material to a wood surface), the object being invented must take into consideration (i.e., incorporate into its design) various intrinsic properties of the situation being engaged. The object being invented is a kind of a hybrid reality in which both human intentions and the intrinsic nature of certain aspects of a given environment are combined, and, if the latter facet of things is not reflected in the design of the object being invented, then, that object will not serve human intentions very well.

The intrinsic properties of the foregoing situation that must be taken into consideration when designing an object to serve human interests constitute manifestations of the affordances that are present in such an environment. By grasping the character of those sorts of affordances, an object can be constructed that will serve human purposes by incorporating aspects of such intrinsic features into the design of the object to be invented.

The above relationship between invention (subjective intentionality) and affordances (objective realities) do not depend on believing – as Professor Searle does -- that the mind is a higher-level manifestation of brain functioning. Moreover, the foregoing relationship does not depend on someone engaging the issue through

a worldview that treats body and mind as two different kinds of "entities".

In short, whatever the essential nature of mind and body might be, being able to invent an object for human uses that is capable of exploiting or leveraging certain objective properties of a given environment does not depend on being able to provide a viable answer to the mind/body issue. What such an invention does depend on, however, is whether, or not, human intentionality can access certain dimensions of objective reality to some degree and irrespective of whatever the particular nature of the dynamics of such a process of access might be.

Affordances are the bridge that links human intentionality and objective reality. Affordances give expression to the relationship between human subjectivity and objective reality … or, at least, certain facets of that relationship.

If human intentionality could not access at least some dimension of objective reality, then, screwdrivers would not be able to serve their purpose. The invention of the screwdriver is predicated on the fact that human intentions and objective reality are capable of being brought together through the affordances (intrinsic features) inherent in objective reality that both engage, and are engaged by, human intentionality.

Human intentionality has its own set of affordances. These are the capacities of the objective reality – whatever that might be -- which make human intentionality possible, and, therefore, underwrite the potential of human intentionality to be able to engage the affordances of external reality in an intelligent fashion.

Objective affordances in the form of subjectivity (the capacities inherent in human intentionality) engage objective affordances in the form of intrinsic features of reality (both external and internal). Epistemology seeks to accurately capture the nature of the affordance dynamics or interactions that ontologically link subjectivity and objectivity.

Although the word "screwdriver" refers to objects that have an intrinsic set of properties that are capable of serving certain kinds of

human interests or intentions, nevertheless, the uses that the intrinsic properties of a screwdriver might serve do not need to be restricted to the commonly accepted functions of a screwdriver. The intrinsic properties of the object that is normally used to serve the particular, agreed upon functions of a 'screwdriver', gives expression to properties or affordances that are capable of serving a variety of functions that are unrelated to its uses as a "screwdriver".

For example, among the affordance properties of the object that, normally, is used to serve the functions of a screwdriver are the following features: It has a metal shaft (the thickness of which varies with the screwdriver) that terminates in an end that has different kinds of shapes that are usually relatively thin and often are somewhat rectangular or pointed in shape. The foregoing affordance features allow a person to use such an object as: A backscratcher; a weapon; a drum stick; a way of extending one's reach in order to draw some object toward one; something that can be used to poke holes in a can; a device for clearing mud from the bottom of golf shoes; a tool that can cause an electrical short, and so on.

The affordances associated with human intelligence (e.g., such as insight, understanding, creativity, inventiveness, and reasoning) engage, and are engaged by, the affordances associated with the object that normally is used as screwdriver. Together, the two sets of affordances interact and give expression to a multiplicity of uses that are not tied to the normal functions of a screwdriver.

Professor Searle continues to develop his perspective concerning the construction of social reality and contends that we can locate and explicate the place or process of social reality within the context of physical reality by specifying at least three features: Those features involve: (a) Assignment of function; (b) collective intentionality or intersubjectivity; and (c) the process of generating formative rules to organize experience.

With respect to (a) above – that is, the assignment of function – Professor Searle indicates that functions are not intrinsic to the physical properties of a given object, event, relation, or situation. Instead, functions emerge through the subjective intentions of human beings, and, then, he goes on to say that with the exception of those

parts of nature that are conscious, nature knows nothing of such functions.

Since, at the present time, we don't know what consciousness is or what makes it possible (although Professor Searle presumes – but does not necessarily know -- that consciousness is a higher-level expression of brain activity), and since, at the present time, we don't actually know what the ultimate character of nature is (although Professor Searle presumes – but does not know – that, on a fundamental level, objective reality gives expression to the dynamics of physical particles and forces) one wonders how one goes about determining what parts of nature are, and are not, conscious. In this respect, one might note that mystics from many different spiritual traditions maintain that every facet of objective reality sings the praises of, and directs their own forms of worship toward, that which makes their reality possible, and, therefore, perhaps the facets of objective reality that are aware, in one way or another, are far greater than Professor Searle supposes.

Furthermore, one wonders if objective reality – at least on some level – isn't actually aware of the functions that, for example, human intentionality assigns to processes (such as manufacturing) that introduce collateral damage (via, for example, various forms of pollution) into the natural world. Even if various aspects of non-human reality are not aware of the functions that human beings assign to different objects and relationships, nevertheless, perhaps that which makes such non-human facets of reality possible is keenly aware of how and why human beings make the functional assignments that they do.

Professor Searle indicates that functions entail a set of values that give expression to the purposes, goals, uses, conditions, and properties associated with a function that is being assigned. What is (are) the origin (s) of such values … that is, how do those values come into existence?

Given that Professor Searle believes subjectivity or intentionality is a higher-level feature of brain activity, then, he is likely to respond to the foregoing question by maintaining that the values associated with functions are invented or created through the activity of the brain. However, at the present time, he is not able to provide the set of

step-by-step dynamics that give expression to the etiology of the ideas that are intrinsic to various values (and, here, 'etiology' refers to the original emergence of an idea and not to the ways in which different people might have learned about that idea), and, therefore, one cannot be certain whether such values are creations of human intentionality (however this occurs) or the result of ideas that -- through one means or another (e.g., Satanic suggestion, thought-transference, Divine inspiration) -- influence the kinds of values that are entertained by human beings and that human beings assume – perhaps mistakenly – are from themselves.

At a certain point in his discussion, Professor Searle introduces a distinction between agentive and nonagentive functions. Agentive functions involve instances during which conscious agents – that is, intentional beings – assign a purpose or role for something according to the interests of those agents, whereas nonagentive functions have to do with intrinsic features of objective reality that exist independently of the intentions of human beings.

If the universe is the intentional creation of a Divine Being and functions (and, therefore, values) have been assigned to various facets of the universe, then, even though this is not a function of human intentionality, nonetheless, it seems to give expression to a process of agentive functioning. If this is the case, then, the aforementioned distinction that Professor Searle is making between agentive and nonagentive functions seems rather arbitrary, if not problematic.

For example, Professor Searle contends that one of Darwin's greatest conceptual accomplishments was to remove the notion of teleology from his explanation for the origin of species and, by doing so, made evolution devoid of purpose. In other words, Darwin made evolution nonagentive in nature such that whatever functions were served by this, or that, capacity (e.g., survival), then, those functions were not intentional in nature.

However, if the universe is the intentional creation of a Divine Being, then, Darwin's account of evolution becomes problematic in as much as he has removed something – agentive functions – from the intrinsic nature of the universe. Biological processes might have functional significance (e.g., the purpose of creation) beyond the capacity of such processes to make some sort of limited, nonagentive

process possible (e.g., to help the heart beat or to help some organism to be able to survive in the short run).

The value of Darwin's desire to make evolution nonagentive in nature must be evaluated against the intrinsic nature of reality. If reality is nothing more than a set of physical particles and forces interacting with one another in random ways, then, Darwin's perspective reflects the intrinsic nature of certain facets of reality, but if the universe is the intentional creation of a conscious, Divine Being, then, Darwin's theory not only does not reflect the intrinsic character of the universe, but introduces considerable distortion into one's understanding concerning the nature of reality.

Professor Searle stipulates that when the function of X is to Y, then X and Y form aspects of a system that is characterized by various values, goals, and purposes. Those values, goals, and purposes situate objects --such as X and Y -- within the system to which functional reference is being mad.

According to Professor Searle, being able to establish the functional nature of the relationship between X and Y within a given system is what permits one to identify the functions of, say, firemen and doctors within a specific social context. However, given the foregoing, Professor Searle believes this means that one cannot talk about the functions of a human being qua human being unless one considers them to be part of some larger system in which they have the function of, say, serving God.

There are, at least, two possibilities associated with the considerations that are being expressed in the last sentence of the previous paragraph. More specifically, if the function of human beings is to serve God, then one can ask whether that function is the result of, on the one hand, a social convention (i.e., institutional arrangement, human agreement), or, on the other hand, is the function of serving God a reflection of an intrinsic property of existence.

If the aforementioned function is an expression of social conventions or institutional arrangements, then the function appears to be arbitrary because it only reflects the values, interests, and purposes that have been invented through human intentionality in order to define a certain kind of social system. If, however, the foregoing function of serving God gives expression to an intrinsic

feature of reality, then, such a function would not be arbitrary because it transcends the values, purposes, and interests that have been created by human beings to organize society, and, instead, constitutes a brute, objective fact of reality.

Similar sorts of issues arise in conjunction with the actual character of the process for serving God. If the nature of that service is defined through human intentionality according to various invented or created purposes, values, and interests, then, the nature of the process through which God is to be served tend to be arbitrary because they reflect the intrinsic nature of institutional arrangements rather than the intrinsic nature of Being, but if the process of how to serve God is a reflection of the intrinsic character of some facet of Being, then, the issue of how to serve God is no longer an arbitrary matter.

There is one exception to the foregoing considerations, and this exception actually transforms what otherwise might be deemed to be arbitrary in nature into a form that is non-arbitrary in character. This sort of exception exists when the system of values, interests, and purposes that are created through human intentionality enable human beings – if they are so inclined either individually or collectively – to be able to engage, identify, and grasp the actual nature of that facet of Being that concerns the intrinsic properties of Being that have to do with serving God.

The function of the foregoing set of values, interests, methods, and purposes becomes one of seeking and establishing the intrinsic nature of some facet of Being. Depending on the quality of the system that is being invented or created, the set of values, interests, methods, and so on that is being proposed as a way of engaging the affordances of intrinsic reality could be philosophical, scientific, historical, mathematical, religious, and/or mystical in nature.

Professor Searle believes that within the context of the aforementioned notion of agentive functions, there are interesting classes of functions in which representations are assigned to an object in a way that makes the object stand for something other than itself. These objects come to symbolize, refer to, or mean something other than the object that is serving a representational function.

According to Professor Searle, language is one example of a system of objects (letters, words, sounds, and punctuation marks) that,

supposedly, represents something other than itself. He believes that, language consists of a series of functions that are imposed on letters, words, and punctuation marks that are intended to represent various kinds of meaning.

One wonders, however, whether language is actually representational in nature. Language gives expression to someone's understanding, and once an individual learns how to use language, language becomes a system of affordances that enable a person to translate thought into spoken or written communication.

The words that are in a book or on a page do not represent thought. Those words are the thoughts of the person writing them, except instead of being encoded in the form of thoughts those thoughts are encoded in the form of language.

In order to accurately convey one's thoughts, one searches for the affordance properties (e.g., syntax and semantics) of a given language that enable one to reflect – not represent – the structural and dynamic features of a given understanding. The aforementioned affordance properties consist of syntactical and semantic features that -- if one is successful and to the extent that a given language can accommodate a given phenomenological perspective – permit one to create a context of meaning that reflects a given understanding.

Thought, understanding, and meaning have intrinsic features. The syntax and semantics of a given language have intrinsic features.

When the intrinsic dimensions of, say, a speaker's use of language reflect the intrinsic features of that person's understanding, then, meaning is communicated or expressed and not represented. When a person listening to the foregoing individual's use of language comes to understand the nature of the meaning contained in the communication through being able to grasp the character of the different kinds of affordances that are present in language, then, the original thoughts have been transmitted – with varying degrees of completeness – to the person who has engaged, and is engaged by, what is being communicated through language.

What transpires during a phone conversation is not an exchange of representations. Rather, during such a conversation, there are exchanges of understandings or meanings that are taking place, and

language – along with the electronic properties of the phone system – is the medium through which meanings are being exchanged or transmitted.

Thought is a medium that has affordances (e.g., intelligence, reason, and awareness) capable of manifesting a variety of structures (e.g., ideas), dynamics (e.g., functions) and relationships (e.g., logic, reasoning) within consciousness that modulate one another to form a context of understanding or framework of meaning. Similarly, language is a medium of affordances (e.g., syntax and semantics) capable of manifesting a variety of structures (e.g., nouns), dynamics (e.g., verbs), and relationships (e.g., prepositions) within consciousness that modulate one another to form a context of understanding or framework of meaning.

When the latter medium (language) reflects the character of the former medium (thought), meaning is accurately transmitted. When the framework of meaning created through language processing does not accurately reflect the character of the framework of meaning generated through thought, then, meaning is lost and distorted.

Language is to thought, as thought is to reality. In other words, if language does not reflect the intrinsic character of thought, then, language lacks accuracy, and, similarly, if thought does not reflect the intrinsic character of reality, it also lacks accuracy.

Thought is a metric for language, just as reality is the metric for thought. Language conveys thought's understanding of reality, and, therefore, to whatever extent such thought is correct and to whatever extent the language communicating such thought is accurate, then, to that extent language will reflect certain facets of reality (whether that reality involves external or internal facets of such reality)..

There is no need for language to represent thought. Thought is capable – although, for a variety of reasons, it doesn't always succeed -- of grasping the structural, dynamic, and relational affordances of language and instantiating its understanding of those affordances in awareness as a function of those affordances.

Similarly, there is no need for thought to represent reality. Thought is capable – although, again, for a variety of reasons, it doesn't always succeed – of grasping the affordances (properties) that are

intrinsic to certain dimensions of Being and instantiating its understanding of those facets of Being in awareness in conjunction with those affordances.

Assigning functions to language or reality is not a process of representation. Rather, it is a process of mapping out the structural, dynamic, and relational properties that reflect the character of the affordances (both linguistic and existential) that are present in any given context, ecological setting, or environment.

In addition, contrary to the contention of Professor Searle in *The Construction of Social Reality*, symbols don't represent or stand for something. Instead, they evoke meaning.

A symbol would be devoid of significance if the individual engaging it did not carry with him, her, or them, the context of meaning that is being evoked by a symbol. A symbol triggers or elicits an understanding or sense of meaning in the person who is engaging, and is engaged by, such a symbol.

The affordance features of a symbol bring forth remembrance, and understanding like a key unlocks a door that permits or enables access to that which lies within. If the meaning were not already present, to one extent or another, in the individual, the symbols could not evoke, elicit, or trigger a certain kind of understanding in that person.

The affordances of a symbol are those aspects of design, pattern, or organization that structure and orient a symbol and are intended to release or unlock, or bring to mind, certain kinds of understanding and meaning. Symbols are constructed to have a particular sort of activating impact on an individual.

When a basketball coach puts Xs and Os on a whiteboard, the Xs and Os don't represent players. Rather, they give expression to structural, dynamic, and relational features of the coach's thinking process ... a process that the coach wants the members of the team to grasp by engaging the symbols that are being placed on the whiteboard in an effort to elicit or evoke a certain kind of mental orientation within the team members.

Symbols work, to the extent that they do, because they are capable of eliciting or evoking certain kinds of responses in the individuals to whom they are directed (as a function of the affordances to which the

symbols give expression). If Xs and Os on a whiteboard were representational, then one might anticipate that anyone that saw them – irrespective of whether, or not, those individuals knew anything about basketball -- would understand their significance, but this is not the case because in order for the symbols to work, the individuals who view them must have an understanding of the structural, dynamic, and relational affordances of the game of basketball, and, therefore, have the kind of understanding that will be receptive to what the symbols are trying to evoke in the individuals engaging them.

Symbols operate within a context of hermeneutical receptivity. On their own, they have no capacity to represent, but, instead, they presuppose the existence of a framework of meaning that can be activated through the presence of the symbols.

Symbols and language are but two examples of what Professor Searle refers to by the notion of "collective intentionality". As significant as the idea of individual intentionality might be, collective intentionality is also of fundamental importance since, at different times and under various circumstances, people share ideas, beliefs, values, motivations, interests, and desires, and, therefore, this phenomenon plays an important role in the social construction of reality.

According to Professor Searle, collective intentionality constitutes a phenomenon that is, in some sense, biologically primitive in character. Consequently, he believes that collective intentionality cannot be a function of, or reduced to, to some other non-biological phenomenon.

While one might agree with Professor Searle that the capacity for collective intentionality, along with individual intentionality, are foundational or basic cognitive phenomena of some kind, whether, or not, those phenomena are necessarily biological in character is, at least at the present time, a matter that has not been resolved in any definitive manner.

Currently, we do know, among other things, that biological activities involving, for example, Broca's area within the cerebral cortex of the brain have one, or more, roles to play in speech production, while the physiological activities within Wernicke's area of the cerebral cortex of the brain have some sort of role to play with

respect to language comprehension. However, having one or more roles to play in, respectively, the production or comprehension of language does not necessarily mean that collective intentionality or language (which gives expression to collective intentionality) is entirely a function of biological processes any more than a television program or radio show can be reduced to what transpires within a television or radio set.

Moreover, even though, for instance, Broca's area can be demonstrated to have something to do with speech production, the precise character of what that 'something' is, or how it works, is not understood at the present time. To be sure, a multiplicity of clinical studies have shown that when damage is inflicted upon Broca's areas, the individual suffering such damage tends to display a form of linguistic pathology (Broca's aphasia) in which utterances exhibit little, or no, grammatical organization and, as well, tend to be delivered in a halting or hesitant manner, but, nonetheless, other than knowing that such damage interferes with language production, we still don't know how language is actually produced or what makes language production possible.

Notwithstanding the foregoing considerations, Professor Searle refers to information that concerns any facet of collective intentionality – whether formal or informal -- as a "social fact". He maintains that "institutional facts" are a special subclass of social facts that involve formal arrangements, conventions, or agreements concerning collective intentionality.

Furthermore, as noted earlier in this chapter, he distinguishes between the "brute" or "intrinsic" facts concerning the nature of reality and "institutional" facts. Yet, nonetheless, at the same time, he believes that collective intentionality in the form of, for example, language permits (in a, yet, to be explained manner) "brute facts" concerning the intrinsic nature of reality to be explored and reflected upon.

Professor Searle also distinguishes between "regulative" and "constitutive" rules. "Regulative" rules are intended to organize a set of already existing activities such as might be done in conjunction with people who are driving vehicles in order to help them, for example, avoid accidents by establishing rules such as when to stop (e.g., intersections with stop signs) determining which side of the road

people should drive on who are going in different directions, while "constitutive rules" refer to conventions or agreements that are intended to make certain kinds of activities possible such as the playing of a newly invented board game.

While driving a vehicle is something that can be done irrespective of whether, or not, drivers obey the regulative rules that are designed to organize that activity, one cannot engage in an activity that is established by constitutive rules without following the rules that make such an activity possible. For instance, if a person decides to move the pieces of checkers in ways that are prohibited by the constitutive rules of that game, then, one is no longer playing checkers.

According to Professor Searle, institutional facts exist only within a context of constitutive rules because the latter sets of rules make the existence and activities of a given institution possible. The institution is instantiated through the rules that establish and constitute that institution.

Professor Searle claims that the foregoing sorts of rules are not arbitrary. However, his contention seems problematic.

To begin with, although an institution -- once established or created – might give expression to its rules in a non-arbitrary fashion (i.e., the rules are what they are), nonetheless, the very creation of the institution is somewhat arbitrary. This is because there might not be anything in the intrinsic character of reality – other than the interests of a group of individuals -- that requires an institution which is constituted according to a given set of rules to necessarily have the rules that it does.

Secondly, various individuals associated with an institution might have different understandings concerning the meaning of the rules that constitute the institution. One cannot necessarily assume that the individual or individuals who constituted the rules that define a given institution had or have an exhaustive understanding of all the possible ways in which rules might be used by individuals who subsequently became involved with the institution.

As a result, disputes concerning the aforementioned rules might arise. Moreover, the manner of resolving those disputes could lead to arbitrary ways of interpreting the constitutive rules of the institution

because those modes of resolution might not be based on, or be capable of being justified by, any substantive aspect of the original rules that made such an institution possible.

Professor Searle maintains that social facts tend to have a self-referential quality to them. Consequently, in order for, say, the coins or bills of different denominations that are in a person's pocket to be considered as money, people must believe that the coins constitute money, and if people discontinued thinking of the aforementioned coins and bills as being money, then, the coins would cease to function as money.

While one might be willing to concede that if people stopped thinking of coins and bills of different denominations as being money, then, the coins and bills would no longer <u>function</u> as money, whether, or not, those coins and bills would no longer constitute money might be another matter entirely. If an institution – say the treasury department of a given government – had issued the coins and bills to serve as money, then, even if the general population no longer considered the coins and bills to be species of money, nevertheless, the only reason that the coins and bills came into existence was due to the constitutive rules that were put into effect by the institutions – namely, the government and the treasury department – that authorized the production of the coins and bills as species of money.

New members might be elected to government and replace all of the old legislators. In addition, new employees might begin to work at the treasury and replace all of the old workers, and, both of these new groups might consider the coins and bills to be worthless.

However, although certain kinds of coins and bills might not, currently, have any value because people within and outside of government considered the items to be worthless and, therefore, no longer believed that such coins and bills functioned as money, nonetheless, the foregoing coins and bills still constitute money because they came into existence as the result of a set of constitutive rules that were established by an institution that decided – for whatever reason -- to assign the status of money to those items and had the capacity to produce items that complied with the requirements of such constitutive rules.

If the foregoing coins and money were lost and never found again, those items still would continue to be money. This is because money is not necessarily a function either of its value nor is it a function of people's subsequent beliefs about, or attitudes toward it.

Rather, as indicated earlier, money is a function of the constitutive processes through which it comes into existence. Irrespective of whether, or not, that which is constituted as money by a given institution is able to serve as a successful medium of exchange, or subsequently loses that function, it became a species of money upon being produced by the requisite process of collective intentionality.

Sometimes governments (or a department or ministry within government) provide the requisite process of collective intentionality that recognizes something as money. In other cases, banks serve as the medium of collective intentionality that confers the status of money on an array of coins and bills, and in still other instances, a group of people independent of governments and banks (for example, BerkShares dollars in the Berkshires region of Massachusetts) will come together and establish a set of constitutive rules that will define the process for something to become money.

Money is a function of the collective intentionality of some group of people. The quality and character of that intentionality determines the conditions for something to qualify as money.

Part of the aforementioned intention tends to involve the idea that money should have value as a medium of exchange and, indeed, the capacity of something to serve as such a medium is one of the ways in which it acquires its value. When money loses its capacity to serve as medium of exchange because people no longer believe in it (or never accepted it), or individuals are not prepared to acknowledge its function, the coins and bills continue to be money because of the intentions that led to its production, but the money has become dysfunctional.

Counterfeit money is money. However, it serves as a pathological form of money because the counterfeit items are rooted in intentions that seek to pass it off as something that it is not – namely, money that has been produced through a certain formal process of intentionality considered to be authoritative – that is, a generally accepted form of institutional activity.

In an effort to lend precision to his perspective, Professor Searle distinguishes between the notions of 'types' (general kind) and 'tokens' (particular instances). More specifically, he contends that the 'type' of a thing – in this case, money – depends on people having the <u>belief</u> that something is a type of money (i.e., satisfies the conditions of being money), whereas tokens refer to specific instances of materials or items being treated as money even if those particular instances of materials do not actually constitute a type of money.

One can be mistaken about particular tokens being instances of money (such as occurs in the case of counterfeit coins and bills). However, for something to be money depends, according to Professor Searle, on people having the belief that the something is a type that satisfies the conditions for being money.

However, what people believe about whether, or not, something satisfies the conditions of money might be quite independent of the circumstances of collective intentionality that led to, say, certain coins and bills becoming money. As indicated earlier, type is about the constitutive rules of production that assign rules of form, use, and distribution to something on the basis of some process of collective intentionality.

However, the foregoing collective intentionality need not encompass all members of society, and, therefore, it is not a function of collective beliefs. Something becomes money when it meets the conditions of constitutive rules that have been established for the creation of a specific type or general category of social or institutional fact and even if such a social fact is not necessarily accepted or acknowledged by the generality of people.

Professor Searle contends that social concepts are distinguished from natural concepts because part of the constitutive nature of a social concept depends on the attitudes that people have of the something that is being made into a type or general category (such as 'money'), whereas that to which normal concepts refer remain what they are independent of what people believe. In contradistinction to the foregoing perspective, I would maintain that the constitutive nature of a given social concept does not necessarily depend on the attitudes and beliefs that people, in general, have of something (say, money), but, instead, is a function of the constitutive rules that give

expression to a form of collective intentionality that leads to something coming into existence as a social fact and that such social facts remain what they are independently of what other people might believe about, or what attitudes those other people have toward, such social facts.

Furthermore, the concepts (and related terms) that are used to refer to natural entities or types do not necessarily capture the character of that to which such terms are making reference. Consequently, while those aspects of reality to which linguistic terms make reference remain what they are independent of linguistic terms, people's understanding of the relation – if any – between language and reality or thought and reality can assume a variety of different forms that might, or might not, accurately reflect the character of the aspects of reality to which reference is being made.

In either case, contrary to what Professor Searle is arguing, I'm not sure that social concepts and natural concepts are necessarily all that different. Underlying the use of words, there is a reality (whether natural or social) that has the character it does irrespective of what the generality of people might believe since what people believe does not alter the character or nature of the process of collective intentionality that led to the production of a certain type of social or institutional fact.

In addition, both natural concepts and social concepts are functions of individual and collective intentionality. In the former case, the intentionality (whether individual or collective) is directed toward, or focused on, engaging some sort of natural aspect of ontology, whereas in the latter case, the intentionality (whether individual or collective) is directed toward, or focused on, some dimension of relationships, dynamics, or structures that are social in nature.

Concepts – whether directed toward natural or social phenomena – are rooted in intentionality (whether considered individually or collectively). Concepts give expression – whether in the form of language and/or thought -- to intentionality and, in the process, make reference to some aspect of experience or whatever makes experience of a certain character possible.

Professor Searle claims that natural concepts like "mountain" and "molecule" continue to be what they are irrespective of what beliefs

and attitudes people have concerning their reality. However, concepts are a way of parsing experience and, consequently, one must distinguish between cognitive methods for parsing experience and that which makes experiences of such character possible.

The words "mountain" or "molecule" are ways of referring to, thinking about, or parsing certain kinds of phenomena. The character of the phenomena being engaged through thought and language might, or might not, have – to varying degrees -- a character that is reflected in the way in which human beings think about, speak about, write about, or parse that phenomenon.

The notion of "molecule" depends on the character of the intentionality of the people experientially engaging the aspects of ontology or reality to which the term "molecule" is being assigned through cognitive, intentional activity. The facets of reality to which the term "molecule" is being applied are independent of the methods used by a person (or persons) that is (that are) trying to parse the experiences that are made possible by whatever the nature of the underlying reality is that provides individuals with an opportunity to describe, and account for, the nature of the reality that makes experiences of a given character possible.

In an attempt to lend further clarity to his perspective, Professor Searle discusses a cocktail party to which everyone in Paris has been invited. For whatever reason, hostilities break out during the party and the casualty rates are higher than occur during certain wars.

Professor Searle maintains that despite the high number of casualties, the cocktail remains a cocktail party and is not a war. He believes that part of something being considered to be a 'cocktail party' or 'war' is for that something to be thought of as being a cocktail party or a war.

The foregoing manner of approaching issues seems rather arbitrary. Professor Searle's suggestion for describing a cocktail party in which hostilities break out that result in many casualties (comparable to what transpires in a war) is to refer to such an event as "one amazing cocktail party" because people think of the event as a cocktail party and not as a war.

However, what if some, or many, or all of the people who attend the party and who hear about the party think that the party turned into a war? Surely, if the nature, structure, or dynamics of an event change, then, how that event was conceived of originally might no longer be accurate, appropriate, or reflective of what subsequently happens at that event.

Insisting – as Professor Searle seems to do in *The Construction of Social Reality* – that despite the presence of massive casualties, one should continue to refer to an event as a cocktail party simply because it started out as cocktail party, seems to distort what is taking place in a fairly substantial manner. Whatever reasons existed prior to the event for referring to such an event as a cocktail party have departed when many people began to die, and, therefore, insisting on continuing to refer to the event as a cocktail party irrespective of what happens seems to be without justification and, therefore, rather arbitrary in nature.

Presumably, there are no definitions of a "cocktail party" (other than the one that Professor Searle appears to be insisting upon) that make references to a massive body count as being part of the festivities. Once casualties begin to mount up, whatever features of an event that rendered the term "cocktail party" to be an appropriate or an accurate description of the event have disappeared with the appearance of substantial casualties.

What had been a cocktail party became something else. While some people might reserve the term "war" only for certain kinds of conflicts that break out between countries or that have to be declared in a formal manner by legislative bodies, other people might feel comfortable in referring to what is taking place as constituting a war zone, and, in fact, there might be more commonalities between the casualties that occurred at the foregoing event and a war, then there are commonalities between what took place at the event and a cocktail party.

In fact, even if only one person died due to hostilities of one kind or another, one might suppose that the cocktail party stopped being a cocktail party the moment the hostilities broke out. Although such a set of circumstances might not be war-like in nature, the event is unlikely to continue on as a cocktail party and, instead, becomes a

"medical emergency" or a "homicide investigation" or a "traumatic turn of events" or a "human tragedy".

Moreover, contrary to what Professor Searle claims when he states that the attitude that people have with respect to, or the way they think about, a given phenomenon is partly constitutive of the phenomenon, nonetheless, people might not formulate any belief about, or adopt any attitude toward, what the nature of an event is until after they have had an opportunity to evaluate data concerning that event – directly (by attending and experiencing the event) or indirectly (by analyzing information concerning the event after the fact). After all, although an event might be advertised to be, or announced as, a cocktail party, its reality might be other than advertised or announced as different individuals seek to participate, use, or leverage the gathering in directions that serve an agenda that is other than that of a cocktail party.

For example, maybe the event is an FBI sting operation in the guise of a cocktail party. Alternatively, maybe the event is a vehicle for defrauding or robbing the homes of those who attend the event and referring to the event as a cocktail party was considered the best way of securing people's attendance.

Whose perspective is to be used to determine what the nature of an event is? Isn't it possible that a given event might be engaged through a multiplicity of perspectives and, as a result, the character of that event becomes a function of how it unfolds rather than being a function of what various people believe its nature to be, and only after the fact will people be in a position to be able to begin to try to assess what the nature of the event actually involved?

Empirically speaking, if one is trying to understand the actual nature of given set of circumstances, then, one is not supposed to prejudge that situation. Therefore, to be objective, one attempts to avoid developing a point of view that will have a constitutive effect on whatever phenomenon one is engaging.

Some people might adopt an attitude before the fact that a forthcoming event is going to be a cocktail party. Other people might reserve judgment until after they actually go to the event and/or study evidence concerning the event after the fact of that occasion.

Our attitudes and ways of thinking about an event do tend to frame how one perceives the event and, as a result, affects how one filters information concerning that event. Nonetheless, our attitudes and ways of thinking about that event do not necessarily determine (i.e., are not necessarily constitutive of) what the nature of that event actually turns out to be … a cocktail party or something else.

According to Professor Searle, one of the primary distinctions between Homo sapiens and other forms of life is due to the way in which human beings participate in different activities of collective intentionality through which functions or purposes are assigned to various aspects of life in order to establish a generally agreed-upon, acknowledged, accepted, co-operative, and authoritative way of engaging life – or parts thereof -- in accordance with the constitutive rules and principles that are recognized by the participants as having conferred on members of society a new arrangement concerning how members will relate to one another in conjunction with the constitutive rules and principles that have been created. Professor Searle considers the foregoing process to be the medium through which all institutional forms of culture emerge.

Professor Searle believes that the conceptual bridge that permits one to make the transition from, on the one hand, physics and chemistry, to, on the other hand, society, institutions, and social facts is collective intentionality. Furthermore, he feels that the critical feature of the bridge formed by collective intentionality involves the process of assigning, or imposing, a set of constitutive rules (i.e., a function) that shapes things in accordance with the properties of those rules and, thereby, confers a certain kind of social status on a given situation.

What is the relationship between individual intentionality and collective intentionality? More specifically, what is the nature of the relationship of individual intentionality with respect to the aforementioned sorts of collective intentionality that give rise to institutional facts and certain aspects of human culture?

If a group of people gets together and establishes a new way of doing things by assigning social functions through the formulation of constitutive rules that the members of the group accept, acknowledge, and consider authoritative, what is the status of individuals who do

not wish to accept, acknowledge, or consider such constitutive rules as being authoritative? From whose perspective of intentionality, and according to what criteria, is the foregoing relationship to be evaluated, and what justifies doing so?

One can agree with Professor Searle when he states that both collective and individual intentionality are equally capable of giving expression to agentive functions. In addition, one can agree with Professor Searle when he points out that a central property of institutional facts is that they only arise when a certain set of constitutive rules (i.e., a function) is agreed to by, or accepted through – and, therefore, is rooted in – an exercise in cooperation involving collective intentionality.

Nevertheless, none of the foregoing concessions touch on the issue of whether, or not, there is anything capable of making something be authoritative in a way that is independent of the decision or agreement of a group of people to confer such a status of authoritativeness on a set of constitutive rules that establishes one, or another, function as fundamental to the type of institution or social fact that has been established. Moreover, none of the foregoing concessions requires one to acknowledge either (a) that a perspective of collective intentionality is necessarily better than -- and, therefore, to be preferred over -- the perspective of any given instance of individual intentionality, or (b) that the perspective of some alternative arrangement of collective intentionality for establishing a set of constitutive rules that takes the latter group in a social and conceptual direction that was different from the former group is necessarily inferior

One should not construe the foregoing comments to indicate that some sort of relativistic perspective is being advocated. Rather, what is being indicated is that Professor Searle's perspective – at least to this point -- seems not to offer any way to escape from the relativism that appears to be inherent in that point of view <u>unless</u> one can demonstrate that a given institutional and/or individual perspective is capable of accurately reflecting the intrinsic structural character, dynamics, and relationships to which some given aspect of reality – whether social, material, or otherwise – gives expression.

Institutions tend to have rules and principles within their constitutive forms of agreement that indicate the manner in which institutional and non-institutional individuals are to be engaged. How institutions treat individuals – both in relation to those who are part of the agreement through which the institution was constituted as well as in conjunction with those who are not members of (or who do not accept and acknowledge) the form of constitutive agreement that underwrites the existence of a given institution – entail an array of social facts.

Generally speaking, there are only two ways for the relationship among institutions and individuals to unfold. Institutions or individuals might seek to impose – to one degree or another – some form of control on the situation, while the other possibility operates as a function of sovereignty arrangements which acknowledge that everyone – whether a member of a given institution or not – possesses a set of intrinsic rights that are to be protected against arbitrary forms of intrusion, negation, or circumvention that undermine and curtail those rights.

Wars, rebellions, revolutions, and various acts of civil disobedience are individual and collective responses to the attempts of various agents (whether institutional or individual) to control, in one fashion or another, those who do not agree with that agent's way of constituting and/or applying rules. Perhaps, the least arbitrary, as well as most judicious and effective, manner of trying to avoid wars, rebellions, revolutions, acts of civil disobedience, and so on is for individuals and institutions to realize that the principles of sovereignty (See Appendix A) appear to be among the most basic of social facts capable of harmoniously organizing the rules of engagement through which individuals, groups, and institutions interact with, and treat, one another.

Chapter 6: <u>Educating Reason</u>

Many people feel that the activity of 'critical thinking' constitutes a key component in any curriculum that seeks to help human beings to become educated individuals. However, the notion of critical thinking is beset with a variety of conceptual difficulties that tend to challenge one's attempt to grasp the nature of that idea.

For example, suppose someone were told that the process of critical thinking involves being receptive to appropriate sorts of reasons. A number of difficulties tend to come to mind.

More specifically, among other things, one would need to know what the criteria are that identified something as being "appropriate". In addition, a person would need to know what justified using certain kinds of criteria rather than other possibilities with respect to determining the nature of "appropriateness" in relation to the issue of reasons, and, this, in turn, would lead to further questions concerning the process of justification and how one thing (e.g., idea, fact, principle, or rule) comes to serve as the basis for justifying something else ... such as another idea, principle, rule, or the like.

Furthermore, in order to try to grasp the nature of what is entailed by the idea of critical thinking, one also might need to acquire insight into what is involved in the process of "being receptive" to reasons of an appropriate kind". Does being receptive to the appropriateness of a reason merely consist in accepting someone else's claim (or the claim of one, or another, group) that something constitutes an appropriate sort of reason without necessarily fully understanding the relationship between, say, criteria and justification?

Or, does the aforementioned process of receptivity require a much more dynamic and rigorous engagement of understanding and insight concerning the way in which various criteria can be justified and, thereby, shown to be appropriate. If the latter possibility is the case, then what sorts of conceptual dynamics are required to be able to demonstrate that someone is, indeed, being receptive – in the "right" kind of way -- to appropriate sorts of reasons?

Another way of approaching the issue of "critical thinking" is to maintain that such a cognitive process requires one to take into consideration all relevant and good reasons for believing and acting in

a certain manner. Such an approach immediately encounters a variety of problems.

For instance, how does one go about establishing whether, or not, one thing (e.g., idea, rule, principle, fact,) is <u>relevant</u> to determining the rationality of some other idea, rule, principle, etc (that is, gives expression to good reasons for some belief or action)? Moreover, how does one identify what constitutes being a <u>good</u> reason for acting or believing in a certain way?

Other terms that tend to be associated with the notion of critical thinking are words such as "principle," "consistency," and "warrant". Thus, in order to exercise critical thinking, some individuals might contend that one must engage in a process that abides by – that is, consistently adheres to – certain general principles that provide warrants or justification for thinking and/or behaving in one manner rather than another.

What kinds of principles – generalizable or otherwise -- are capable of effectively underwriting a proposed warrant or justification for contending that a given perspective or conceptual orientation is better than some other perspective or conceptual orientation? How does one determine whether, or not, certain kinds of judgments and evaluations are consistent with one another, and even if various judgments and evaluations are considered to be consistent in some sense, does this mean that judgments and evaluations which are considered to be consistent necessarily give expression to critical thinking that is rational in nature?

To what (if anything) does critical thinking commit one? Alternatively, what is the source of such commitment… that is, what is the nature of the dynamic that generates the binding power that tends to logically tie one to the results of critical thought?

Critical thinking also is often described as being "fair," "objective," and "impartial" However, the meanings of the foregoing kinds of words seem rather amorphous and, consequently, appear to be somewhat elusive in nature.

Nonetheless, there does seem to be an element present in critical thinking that requires one to put aside one's interests, biases, and presuppositions in order to be able to try to effectively engage various

ideas, beliefs, or actions in a rigorous form of exploration that seeks to determine what, if anything, the nature of the relationship is between, on the one hand, the ideas, beliefs, and so on that are being considered, and, on the other hand, the sorts of conditions that would need to be satisfied if such ideas, beliefs, and actions are to be accepted as being rational in character ... or, even more stringently, to determine the extent to which such ideas, beliefs, and actions – even if they are rational in some sense – give expression, if at all, to the truth.

Is critical thinking something that one can be trained to do? In other words, is critical thinking a matter of having one's process of reasoning formatted so that it might reflect certain kinds of logical principles, and, if so, what kinds of logical principles are to be acquired and what is the justification for using one set of principles rather than some other array of principles?

Or, alternatively, is critical thinking a process of asking questions that: (a) Attempts to probe why experience has the character it does, and (b) seeks to determine what such experience has to tell us about the nature of one's relationship with Being (Reality, the Universe)? If the latter approach is chosen, then, presumably, learning how to ask questions (whether through trial and error, and/or by means of discovery, and/or by being taught) assumes considerable importance when trying to develop the process of critical thinking, and, as well, figuring out how one is to go about learning how to evaluate what the nature of the relationship is between experience and reality – and what conclusions, if any, can be drawn from those sorts of considerations -- would also seem to constitute a critical part of the infrastructure and dynamic to which critical thinking gives expression.

Another possible way through which to approach the idea of critical thinking is involves a journey that proceeds into the interior of one's mind or essential nature as one attempts to uncover the properties of the potential that is present within human beings and makes such capacities as intelligence, intuition, insight, understanding, and reason possible. If one decides to proceed in the foregoing manner, then, one needs to reflect on several problems that are inherent in the kind of journey being alluded to – namely, on the one hand, how does one identify the actual nature of the aforementioned sort of potential, and, on the other hand, how does one distinguish

such an essential potential from other kinds of potential within the mind that might have a tendency to obscure, distort, exploit, corrupt, or act antagonistically toward the former sorts of constructive, cognitive capabilities?

What makes the reasons that are given for some claim: Compelling, weak, strong, or trivial? Are such considerations merely relative to, and limited by, one's perception and perspective or are there components of understanding that are not tied to interests, commitments, biases, and assumptions that, when such components are present, help reveal the strength or weakness of various reasons that are offered in defense of some claim?

What is the relationship between critical thinking and epistemology? Does critical thinking presuppose a form of epistemology (that is, some theory of knowledge), or can the former (critical thinking) be pursued in the relative absence of the latter (epistemology)?

Is critical thinking a methodological process through which one tries to distinguish between what is true and what is not true? In other words, is critical thinking a way to challenge, or substantiate, claims (whether one's own or those of others) concerning the nature of truth, understanding, or knowledge?

Some people consider epistemology to consist of an investigation into the nature of the justifications and reasons that are used to support claims of knowledge. Such a perspective assumes that in order for something to be considered to be knowledge, it must be capable of being justified through the use of certain kinds of reasons that demonstrate why one should consider something to be true and, therefore, constitutes an expression of something that is known.

However, what if someone knows something that is true but one has no idea how one knows what is known? For example, some calculating prodigies are able to correctly answer – usually within seconds -- any number of questions about, say, the product of several large numbers, or what the cube root, or n^{th} root, of some number is, or what the number is that occupies the $2,000^{th}$ decimal place for the irrational number π.

Moreover, some individuals who have eidetic memories can tell one – if asked – a variety of facts about what was taking place on, say, Monday, (or any other day one might ask about) twelve years ago or some other number of years ago. Other people with eidetic memory can tell you, when asked, what appears on page 327 (or any other page) of any number of books that the individual had read 'x' number of years previously.

Neither the aforementioned calculating prodigies nor the individuals with photographic memories can give reasons for why they know what they know. The proof that such people are dealing in knowledge comes after the fact rather than before the fact.

That is, once answers are given, those responses can be checked or verified independently of the calculating prodigy in order to determine if answers are true or correct. However, prior to giving their answer, such individuals cannot tell you how, or provide you with reasons why, they know what they know.

Consequently, one does not necessarily have to have a theory of knowledge (i.e., a system of reasons and justifications for claiming that something is true) in order to know that something is the case. One has knowledge when one correctly understands whatever it is that has been correctly captured by such an understanding.

Critical reasoning can be used to probe – in, as of yet, an unspecified manner -- whether, or not, some claim or understanding is true. However, there appear to be modes of knowing and understanding (such as in the case of calculation prodigies and eidetic memories) that fall beyond the range of what critical reasoning seems to be capable of resolving.

However, one does not have to resort to special, relatively rare cases involving calculating prodigies or individuals with eidetic memories in order to encounter situations in which there are things that we know but most of us cannot give reasons for why or how we know what we do. For instance, years ago I used to play the game 'Trivial Pursuit' in which one must give answers to questions that probe the minds of the players for what they know about issues that are relatively trivial in nature (e.g., the names of: Movies, cities, mountain ranges, historical events, authors, sports figures, and so on for which some sort of brief descriptive hint is given), and I often had

no idea how I (or others) knew the answers to any of those inquiries, and, yet, for question after question, correct answers (from me or other players) would bubble to the surface.

Or, consider the fact that most of us are able to speak the language to which we are exposed when growing up. Without, for the most part, being instructed how to speak a given language, nonetheless, children are able, by a very early age, to grasp a great deal of the syntax and semantics of their native language and, as a result, can converse intelligibly with other people who also know that same language.

The proof of knowledge concerning language is given expression in effective transmission of all manner of information during the course of everyday conversations. Nonetheless, most – if not all -- children are unable to explain how they know (or something within them knows) what is known about language.

Even more mysterious and elusive, perhaps, is the nature of the relationship between thought and language. How do language and thought come together and enable us to communicate our understanding to other people?

To what extent does language affect the process of critical thinking? Is critical thinking capable of separating itself sufficiently from language to be able to grasp the ways in which language can problematically influence the process of thought?

For more than a hundred years, researchers have used the process of critical thinking as a tool for probing the nature of language as well as to study how we are able to acquire and use language. So far, however, despite some breakthroughs here and there (e.g., the notion of transformational grammar) scientists and linguists do not seem to have made a great deal of progress in conjunction with developing such an undertaking.

The relative lack of success up to this point in time involving the foregoing sorts of research does not mean that answers to fundamental questions concerning the nature of language or its acquisition will never be forthcoming. Yet, at the very least, our current situation vis-à-vis our understanding of language raises the possibility that there might be limits to what critical reasoning is able to accomplish.

In fact, one of the challenges facing critical thinking could consist of efforts that try to determine what limits, if any, might be inherent in such a conceptual process. In other words, part of the task of critical thinking could consist in mapping out the nature of its potential, both with respect to its capabilities as well as with respect to those aspects of life and experience that might be beyond its grasp.

In a book entitled: *Educating Reason: Rationality, Critical Thinking and Education* by Harvey Siegel, the author claims that part of being a critical thinker is to have the right kind of attitude toward the process of critical thinking. Professor Siegel uses the term: "critical spirit" to refer to such an attitude.

In order to be considered a critical thinker, Professor Siegel believes that a person must not only have the ability to assess reasons properly (that is, to be able to align the processes of evaluation and behavior with certain rational principles), but, as well, a critical thinker must be readily predisposed toward becoming engaged in such a process. For Professor Siegel, this latter issue of attitude or orientation is a matter of character.

In other words, an individual must operate out of a perspective in which the process of seeking to determine the extent, if any, to which a given judgment or a given form of behavior complies with, or conforms to, various rational principles is a valuable activity in which to be engaged. Moreover, the source of value involved in such a process is rooted in an individual's commitment to refraining from being arbitrary in the way that person evaluates experience … that is, one must be objective in the way one goes about the process of evaluation.

What does it mean to assess reasons properly? Moreover, how does one know when one is being objective (or non-arbitrary) in how one goes about evaluating the extent to which various judgments and evaluations are operating in compliance with, or conformity to, various principles of rationality?

With what principles should one be complying? What are the criteria that determine the nature of objectivity, and what justifies the selection of those criteria?

The questions that are asked in the previous paragraph, along with the questions that have been raised throughout the first part of this chapter all give expression to critical thinking. Yet, those questions are not so much a matter of complying with various principles of rationality but, instead, they are trying to identify the nature of various structural features, dynamic properties, and possible lacunae in relation to what is being claimed by – in the present case -- Professor Siegel.

Questions (of one kind or another) often are at the heart of the process of critical thinking. Such questions are intended to bring focus to, clarification of, and understanding concerning whatever aspects of experience are being engaged, and, as such, the process of questioning is both preliminary to, as well as arises after, the development of any theory of knowledge or way of understanding the nature of one's relationship with Being.

Critical thinking involves asking questions that seek to probe, analyze, clarify, and, where possible, pin down various details concerning the: Structural features, dynamics, properties, character, relationships, history, potential, and origins of, on the one hand, some dimension of reality, and/or, on the other hand, some facet of someone's claims concerning such structural features, dynamics, and so on. Critical thinking also involves directing questions toward whatever assumptions, lacunae, weaknesses, inconsistencies, and problems might be inherent in a given understanding of reality.

The foregoing process of questioning is not intended to give expression to the agenda of a professional or amateur skeptic that tends to be dedicated to finding fault with whatever might be said, thought, or felt about the nature of reality. Rather, the questions that are at the heart of the critical thinking process are expressions of a life-long project that is directed toward exercising due diligence in conjunction with whatever methodology is used as a tool for constructively seeking the truth concerning the nature of one's relationship with Being.

One needs quality information to construct a viable understanding concerning some given facet of reality or experience. Asking questions – when done sincerely -- is a good way to probe the quality of the data, information, or evidence that is present or available.

Consequently, Professor Siegel is right to speak of the "spirit," or attitude, that is associated with the process of critical thinking and how such a spirit or orientation requires one to consider the exercise of critical thinking as being a valuable activity in which to engage. However, the reason why such a process is valuable is not because – as Professor Siegel supposes – one is willing to "conform judgment and action to principle" (page 39) or because one is committed to seeking and basing "judgment and action upon … reasons" (page 39) of a non-arbitrary or objective nature.

The exercise of critical thinking is valuable because it is through the process of asking questions that one has the best chance of coming to understand some facet of experience or reality. One asks questions in order to try to establish: What something is, or how it works, or where it comes from, or what makes it possible, or how it might impact a given situation, or what uses it might have, or what dangers it could entail, or what, if any obligations, one has in conjunction with such a dimension of reality or experience, or what other people are saying about the nature of that aspect of reality or experience.

Professor Siegel is correct when he states that the critical spirit is a function of character in the sense that a person should be inclined to try to do justice to the nature of whatever is being engaged and in the sense that an individual should be seeking to have an honest – and, therefore, objective and non-arbitrary -- relationship with reality and experience. One engages reality and experience through the foregoing sorts of character orientation so that one might engage some aspect of reality or experience in a manner that opens one up to possible ways of grasping the actual character of the affordances (to borrow from the psychologists, James Gibson) to which some facet of reality or experience is giving expression rather than involves one in a process of imposing one's own ideas and beliefs onto those phenomena.

One does justice to a given phenomenon when one asks questions that are predicated on a respect for the actual reality of that which is being explored and that one is trying to understand. We engage a given phenomenon honestly and sincerely when we are prepared to try to find ways to permit reality to speak to us in its own voice rather than in the vocabulary of our interests, biases, and presuppositions.

Moreover, through the process of asking questions, one can probe the very nature of the 'rationality', 'reasoning', and 'reasons' that, supposedly, serve as warrants and justification for various kinds of judgments and behaviors. As a result, contrary to what Professor Siegel seems to claim in *Educating Reason*, critical thinking is not so much about trying to find rational principles to which one's judgments and actions should conform, but, instead, critical thinking is intended to help one to struggle toward grasping the structural, dynamic, and potential character of some aspect of reality or experience so that whatever judgments and evaluations one makes with respect to that facet of reality or experience will take into consideration the actual nature of what is being considered, engaged, or experienced.

According to Professor Siegel, the attitude of any person who aspires to critical thinking should be one in which nothing is considered to be off-limits to the process of criticism, including one's own values and ideas. Notwithstanding the foregoing perspective concerning the nature of the process of critical thinking, the goal of such a process is not criticism, per se, but, instead, the purpose of critical thinking is to rigorously probe experience, phenomena, reality, and understanding in order to search for the truth of things, and in doing so, one should be prepared to critically engage whatever – including one's own ideas and values – that might: interfere with, corrupt, distort, obscure, distract from, or undermine such a process

Critical thinking should serve truth. Truth should not be sacrificed on the altar of a form of critical thinking that becomes lost in endless rounds of criticism rather than directed toward a process of struggling toward the nature of truth or struggling toward realizing the nature of one's relationship with reality.

The nature of reason, reasoning, and rationality are to be discovered through the manner in which the exercise of critical thinking permits one to grasp the logic of the affordances (or rationality) of some given facet of experience or reality. The character of reason, reasoning, and rationality should be a function of the nature of reality rather than being a function of arbitrary systems of logic that are derived from this or that belief system or hermeneutical orientation.

Contrary to what Professor Siegel claims in *Educating Reason*, one does not need to love reason in order to engage in critical thinking. Instead, one should love the truth concerning the nature of some aspect of reality since it is the truth concerning the nature of reality that informs reason (if the latter is able to grasp the nature of the affordances to which reality give expression) and, therefore, provides the warrant or justification for what makes the content of a given reason rational.

Reason is rational to the extent that it reflects the nature of reality. Reason is rational to the extent that it conforms to, or complies, with the character and logic of some given facet of reality or experience.

Reason is about grasping, having insight into, and acknowledging the way things are. Reason is not about evaluating and judging the nature of reality on the basis of a logic or set of reasons that is other than what is inherent in that which is being probed.

In order to value good reasoning one must value the truth concerning that about which one is reasoning. Reason is not something to impose on reality but, rather, reason derives its force through its capacity to grasp the nature of the logic through which some facet of reality operates.

Professor Siegel states that critical thinkers are moved, or influenced, by reasons "in accordance with the force of relevant reasons." *(page 41) However, what makes reasons <u>relevant</u> is the way in which they reflect the nature of some given aspect of reality, and the <u>force</u> of such reasons is derived from the extent to which those reasons capture the reality of some facet of reality or experience, and, finally, critical thinkers are <u>moved</u> by reason to the extent that those individuals grasp the structural character and dynamic nature of the affordances (i.e., logic) to which some aspect of reality or experience gives expression.

According to Professor Siegel, critical thinking is as much about developing a certain kind of person as it is about developing a set of skills. In other words, critical thinkers are individuals who must exercise qualities of character – such as objectivity, honesty, and justice – in conjunction with conceptual processes that rely on systems of evaluations and judgments that operate in accordance with rational principles.

However, in order to be willing to struggle to become objective, honest, and just in the manner through which one engages reality or experience, one likely will require access to a source of motivation for doing so. In this regard, unless one has some level of desire to know the truth of things, than a person might not be prepared to engage in the sort of struggle that is necessary for forging qualities of objectivity, honesty, and justice concerning the truth.

In other words, the dimension of character that Professor Siegel believes has an integral role to play in critical thinking is not necessarily something that can be imposed -- from the outside in -- via a process of schooling or educational curriculum. Instead, the presence of some form of intrinsic desire to know the truth (a seed whose potential varies with the individual) appears to be a prerequisite for the development of critical thinking, and unless such a motivational factor is present to some degree, then, there not only would seem to be little reason for a person to struggle toward becoming objective, honest, or just in order to be better equipped to seek the truth of things, but, as well, there does not appear to be anything with which educators might work in order to try to help nurture such a character-based orientation or inclination.

Professor Siegel considers critical thinking to be an ideal toward which educational programs should aspire. However, to whatever extent the process of critical thinking is not present, then, to that extent education is not taking place.

Critical thinking is not a future goal to be acquired after being exposed to some set of learning protocols for which educational programs supposedly serve as justifiable interventions that are intended to assist individuals to develop the process of critical thinking. Critical thinking is the cognitive means through which one struggles in the present to realize the purpose of education – namely, to seek the truth concerning the nature of one's relationship with Being.

Although there are exceptions to the following claim, for the most part, the capacity for critical thinking is intrinsic to the human condition and not something that needs to be taught or can be taught. Every question that a child voices out loud or silently considers within is an expression of the process of critical thinking.

Every hypothetical possibility entertained by a child gives expression to an exercise in critical thinking. Every exploratory, conceptual foray into imaginative variations in response to the way things seem to be in order to consider what might be constitutes an application of critical thinking.

Rather than trying to teach children how to go about the process of critical thinking, educators should be committed to ensuring that children are ensconced in the conditions that are integral to sovereignty (outlined in Appendix B). For, while critical thinking can be pursued in virtually any kind of environment – even oppressive ones – that process might have the best opportunity for flourishing when it occurs within conditions that are governed by principles of sovereignty since those principles tend to serve as catalytic agents which are conducive to the manifestation of whatever potential for critical thinking that might be present in an individual.

Consequently, the task of educators is somewhat like that of a lifeguard at a pool. Such an individual does whatever is required for: (a) Protecting those who use the pool, (b) enhancing the likelihood that patrons will be able to take advantage of what the pool facilities have to offer, and (c) facilitating opportunities for learning (such as how to swim) with respect to those who come to the pool.

Educators, like lifeguards have a fiduciary responsibility toward the people who use the facilities with which they are associated. The former individuals serve as trustees for people who hope to benefit from whatever processes transpire in conjunction with such facilities and individuals that are being served by the educators and lifeguards.

Educators, like lifeguards, work with the capabilities that accompany people who show up to use the facilities. The former individuals do not introduce anything into, or seek to impose any sort of agenda on, the operations of those facilities that is incompatible with the foregoing sorts of capabilities.

In his book, *Educating Reason*, Professor Siegel indicates that not everyone considers critical thinking to constitute an educational ideal. To illustrate his point, he refers to the evolution/creationist controversy and notes how some people on the creationist side of the argument do not believe that children should be exposed to "scientifically legitimate alternative theories" (page 48) and, instead,

believe that they own their children and, therefore, have the right to indoctrinate the latter individuals.

To begin with, and notwithstanding what already has been said in opposition to the notion that critical thinking constitutes an ideal of education, one also might consider the following possibilities. To begin with, parents do not own their children but, instead, parents own an obligation with respect to their children that involves providing the latter individuals with the conditions of sovereignty through which the children will have a relatively free opportunity for seeking the truth concerning the nature of their relationship with Being.

Furthermore, contrary to what Professor Siegel states, the issue is not whether, or not, children should be exposed to "scientifically legitimate alternative theories" such as evolution. Instead, the issue is whether, or not, children will be given the opportunity to seek the truth of things free from theories that however "legitimate" they might be from a scientific or theological perspective are not necessarily true.

Theories do not always facilitate the search for truth. In fact, all too frequently, theories short-circuit the process of critical thinking by entangling individuals in the assumptions, biases, limits, and ways of filtering experience that are entailed by such theories.

Critical thinking is intended to help one keep conceptual options open for further exploration as one works one's way through empirically and logically eliminating various possibilities from consideration because, for one reason or another, they prove to be untenable. Theoretical thinking tends to place constraints on the process of critical thinking because the ideas that are entertained through the lenses of a theory tend to shape, orient, and color what thoughts will be considered and what thoughts will be set aside.

Consequently, even though theories sometimes help to facilitate the search for truth, nonetheless, theories also can interfere with the search for truth. Critical thinking, on the other hand, is a process of questioning the potential, value, strength, problems, inconsistencies, and lacunae that might be associated with various theoretical considerations.

As I have argued at some length in the book: *Evolution Unredacted*, the theory of evolution -- despite being scientifically legitimate --

might be more of an obstacle to discovering the truth concerning the nature of our relationship with Being than it serves as a way of facilitating discovery concerning the nature of that relationship. This is because of the manner in which the theory of evolution tends to encourage resistance toward the use of critical thinking in conjunction with problematic facets of that theory.

Indeed, perhaps the only way in which a person can continue to accept the theory of evolution as a comprehensive account that, supposedly, explains the origins of all manner of species (rather than just some species) is if that individual is willing to disengage from the process of critical thinking. Such individuals appear to be inclined to commit --to borrow from the writings of Margaret Heffernan (there will be a further discussion of her work in a later chapter) – acts of "willful blindness" in which various problems are ignored in order to save the appearances of one's way of looking at the world.

Education should not be a medium for learning about theories that someone considers to be scientifically, philosophically, historically, economically, theologically or legally legitimate. Instead, education should be a medium that gives expression to conditions of sovereignty that are conducive to the process of searching for the truth concerning the nature of one's relationship to Being. Therefore, for educators to insist that children become familiar with a variety of scientific or theological theories as a necessary part of becoming educated people is no more appropriate than if a lifeguard were to insist that swimmers must become familiar with the foregoing sorts of theories as a necessary facet of becoming educated about swimming.

However, none of the foregoing comments should be interpreted as trying to suggest that learning about science, methodology, mathematics or an array of other subjects should not be part of the educational process. Nonetheless, engaging science, mathematics, methodology, and other topics as case studies for exploring both the constructive, as well as problematic, potentials inherent in different ways of engaging reality is not necessarily at all the same thing as being required to study the aforementioned topics because someone considers those theories to be true and, as a result, has decided to interfere with – and, therefore, undermine -- the conditions of sovereignty that should be governing the process (i.e., education)

through which one freely (or relatively freely) searches for the truth concerning the nature of one's relationship with Being.

According to Professor Siegel, one 'plausible" way of thinking about education is as a process through which one becomes <u>initiated</u> into a conceptual tradition that enables a person to develop competency with respect to identifying what constitutes a good reason for accepting or rejecting some given theory. From the vantage point of the perspective being described by Professor Siegel, an individual demonstrates her, his, or their capacity for operating in a rational manner when: (1) that person has interiorized certain principles of rationality so that issues can be settled or resolved through the use of those principles and, as well, when (2) that person comes to understand how such principles tend to evolve over time in an attempt to better engage on-going experiment.

One has difficulty understanding how the process of critical thinking fits into the foregoing perspective. If one is being initiated into a conceptual system for developing competency concerning the identification of what constitutes good reasons for accepting or rejecting a given theory or idea, then, one simultaneously is becoming initiated into a way of thinking that will tend to resist the kind of critical thinking that might call into question the tenability of the system through which one seeks to identify what constitutes rationality.

In other words, if one is interiorizing a set of principles for identifying rational principles, then, one also is interiorizing a set of principles that will tend to be in opposition to whatever might challenge the principles that are being interiorized, and this would seem to run contrary to the process of critical thinking outlined earlier. Furthermore, if one is internalizing an understanding that enables principles of thought to evolve over time in order to better serve the theory of rationality that is at the heart of such a perspective, then, one also might tend to be antagonistic toward anything that might threaten such a system of evolving understanding, and, again, this seems to be at odds with the process of critical thinking.

The more one is committed to theory, the less room there is for maneuvering within the context of critical thinking. To whatever extent one internalizes a system of principles that govern what one

considers as rational in nature, then, to that extent one also distances oneself from the requirements of critical thinking.

Consequently, contrary to what Professor Siegel says in *Educating Reason*, critical thinking is not necessarily about developing an appreciation for the role that reason plays in the phenomenon of rationality (page 60). Rather, critical thinking gives expression to a process of raising questions that are intended to explore the strengths, weaknesses, and possibilities (both constructive and problematic) associated with various approaches to understanding and using reasons, reasoning and rationality.

Toward the end of the foregoing discussion, Professor Siegel maintains that democracy requires a citizenry that is well versed in critical thinking. According to Professor Siegel, such citizens would be well-informed individuals who have insight into the nature of democratic institutions and, thereby, are not only able to become fully committed to the array of responsibilities that are associated with those institutions but, as well, would be capable of evaluating reasons for conserving or changing various facets of those institutions.

On the surface, the foregoing approach to the idea of democracy sounds appealing. Yet, only a limited amount of reflection is needed to reveal that the foregoing paragraph is almost completely devoid of essential meaning.

For example, among other things, the foregoing perspective provides one with no real insight into what might be required in order for an individual to be well-informed concerning the institutions of democracy. Moreover, Professor Siegel's perspective does not provide one with any sense of how responsibilities and commitment are to be derived from the kind of understanding of institutions to which he is alluding, and, finally, Professor Siegel does not offer an account justifying how – and why – one should go about evaluating reasons for either preserving or changing institutions in one way rather than another.

In fact, Professor Siegel's foregoing perspective doesn't seem to recognize the possibility that democracy – as opposed to ideas such as republicanism or sovereignty – might not be the best way to think about the issue of self-governance. To reflect on a more extended discussion of these issues, see: Volume 5 of the *Final Jeopardy* series of

books (which focuses on: *Sovereignty and the Reality Problem)*, or *The Unfinished Revolution: The Battle for America's Soul, as well as Democracy Lost and Regained.*

Chapter 7: <u>Unscientific America</u>

Approximately, eight years ago, Chris Mooney and Sheril Kirshenbaum wrote: *Unscientific America: How Scientific Illiteracy Threatens Our Future*. Mr. Mooney is a best-selling author of non-fictional works exploring different aspects of science, while Ms. Kirshenbaum – after earning several masters degrees in marine biology and marine policy from the University of Maine (which is not too far away from where I currently live) – serves as the director for the non-partisan, nonprofit organization known as *Science Debate* that seeks to "restore science to its rightful place in politics".

Library Journal considered *Unscientific America* to be among the best Science-Tech books to appear in 2009. Moreover, the science advisor for President Obama – namely, John Holdren – highly recommended the foregoing book.

I purchased the foregoing title not too long after it came out when I was a member of a book club that featured material exploring different facets of science. However, as is often the case with me, a fair amount of time passed before I actually got around to reading that work.

During a section entitled: *From a Scientist and a Write*r – which amounts to a foreword for their publication – Mooney and Kirshenbaum describe an initiative known as ScienceDebate 2008 in which a physicist, philosopher, screen writer, and lawyer were brought together for the purpose of trying to induce members of the scientific community to contact politicians who were running for office and seek to persuade the latter individuals to begin taking seriously – by addressing – an array of policy issues involving science.

The two authors indicate that the aforementioned project exceeded everyone's expectations. More specifically, within a few months of organizing that event, more than 38,000 people were supporting their efforts, including many Nobel laureates, as well as scores of university presidents, numerous well-known scientists, and a variety of scientific organizations.

Nonetheless, despite the number of successful outcomes that ensued from the ScienceDebate 2008 initiative, the central thrust of that program appeared to be largely thwarted. More specifically,

notwithstanding the fact that many scientists, educators, and scientific institutions had been sufficiently influenced by the foregoing project to begin actively reaching out to various politicians, unfortunately, candidates from both political parties – as well as the media – largely ignored the overtures of individuals from the scientific community and, as a result, failed to feature – or even include – various issues of science policy in their political campaigns.

Mooney and Kirshenbaum refer to scientists as a "reality-based community". For reasons that will be explored later in this chapter, such a moniker might be somewhat presumptuous … at least in some cases.

In the meantime, one might keep in mind that not all science necessarily reflects reality (and as my book: *Evolution Unredacted,* documents, the theory of evolution tends to lend support to the foregoing claim). Moreover, there are many scientists who appear to be less interested – and, frequently, will admit as much – in discovering the nature of reality than they are in solving certain kinds of quantitative and physical problems and have found science to be a good means through which to bring their interests to operational fruition.

During the first part of Chapter One – entitled: 'Why Pluto Matters' -- the authors of *Unscientific America* comment on the existence of a dangerous fault line that they believe runs through much of American life in which competing theories of reality, like so many conceptual tectonic plates, push up against one another, creating complex dynamics that could release a great deal of destructive potential at any given time. The foregoing pressures stem from, on the one hand, the fact that for more than half a century, hundreds of billions of dollars have been spent on establishing and operationally funding an assortment of government-based and academic-oriented laboratories (and this doesn't take into account the trillions of dollars that have been spent or the research and development of military weapons that seek to exploit the findings of science), and, yet, on the other hand, Mooney and Kirshenbaum decry the fact that a disturbingly high number of Americans – at least from the perspective of the authors – continue to resist, if not reject, a variety of fundamental scientific principles … such as "the scientifically undisputed explanation of the

origin of our species and the diversity of life on Earth" (page 3) known as the theory of evolution.

As has been noted previously (both in this book and elsewhere in my writings), one could acknowledge that the theory of evolution is "the scientifically undisputed explanation" for the origins of all species, but this might be more of a reflection on the problematic state of science when it comes to the theory of evolution than it is an admission that what is considered to be a scientifically undisputed explanation necessarily gives expression to either truth or reality. Moreover, one might challenge the claim that the theory of evolution is the "scientifically undisputed explanation" for the origins of all species because there are scientists – such as Michael Behe, a biochemist at Lehigh University – who do dispute the scientific viability of the explanation to which the theory of evolution gives expression.

To be sure, for a variety of proffered reasons, scientists (e.g., Kenneth Miller – a cell biologist at Brown University) do criticize and reject the position of Professor Behe vis-à-vis the theory of evolution (whether, or not, those proffered reasons are actually viable is another matter). Nonetheless, the very fact that there are scientists – whether they are right or wrong in what they have to say – who do dispute that the theory of evolution is an adequate explanation for the origins of all species tends to belie the foregoing contention of Mooney and Kirshenbaum that the theory of evolution is a "scientifically undisputed explanation."

Of course, if one is so inclined, one can restrict use of terms such as: "Scientist," "science," and "scientific" to situations in which only those individuals and understandings with which one agrees will be considered to be deserving of such descriptions. However, doing so would tend to prejudicially distort the nature of science since many theoretical positions, ideas, and hypotheses often are advanced when various aspects of the material world are explored, yet determining where the truth lies in any given case is not always easy and clear-cut even if – often for either arbitrary reasons or for reasons that later turn out to be problematic – the consensus of scientific opinion might be, at least for a time, oriented around one conceptual position rather than another.

For example, many physicists, for relatively arbitrary reasons,

accepted Bohr's Copenhagen interpretation of quantum mechanics. The reasons being alluded to in the previous statement are arbitrary because Bohr never actually proved that his understanding of things was correct. Instead, he was merely able to point out problems with a number of proposals that had been put forth at various Solvay gatherings by Einstein ... proposals that were expressed in the form of thought experiments that were intended to challenge the viability of the Copenhagen interpretation of quantum mechanics.

In addition to various comments concerning the sad status of the attitudes of large segments of the population in America toward the theory of evolution, the authors of *Unscientific America* also proceed to run through a litany of related problems that science and scientists face in America. For instance, they indicate that a study conducted by the *Project for Excellence in Journalism* discovered that during any given five hour period of cable news, one was not likely to encounter more than a minute, or so, of science coverage while being exposed to: 26 minutes of crime, 12 minutes of news items involving disasters and accidents of one kind or another, and 10 minutes worth of entertainment and celebrity news.

Research also has revealed that during the sixteen-year period between 1989 and 2005, the number of newspapers that contained a section on science were reduced from 95 to 34, a nearly two-thirds reduction in featured coverage. The *Boston Globe* joined the foregoing exodus in 2009 when they discontinued their highly respected section on science.

Furthermore, the National Science Foundation gathered data indicating that approximately only 15% of the American public is committed to pursuing various issues concerning science or news about science. Most of the rest of the American public seems to be steeped in one form, or another, of scientific illiteracy.

Thus, despite the fact that science and scientists possessed a great deal of cultural authority following World War II, nonetheless, for a variety of reasons, such prestige has steadily been eroded over the last 70 years. Some of the reasons underlying the loss of cultural authority that once had been enjoyed by scientists are a function of the previously noted changes in the nature of media coverage – or lack thereof.

The aforementioned decline in prestige among scientists also has to do with the way in which science is taught in grammar and high schools (especially when such "teaching" is conducted by individuals who lack true competency in science and, therefore, probably should not be conducting classes in science to begin with). Finally, still other reasons for the decline in prestige of the scientific community that was noted earlier have to do with the way in which many scientists have permitted themselves to become entangled in various kinds of conflicts of interest in which they have preferred their own financial and political interests to the possible best interests of the general public.

During his celebrated 1959 talk concerning two cultures – namely, science and humanism -- C.P. Snow explored several dimensions of the foregoing sort of disjointed and, frequently, contentious relationship. Among other things, he indicated that the foregoing two communities seemed to have little understanding of one another and, in addition, often were contemptuous toward whichever of the two cultures they did not consider to be their own.

The authors of *Unscientific America* believe that at least part of the solution for addressing the issue of scientific illiteracy among Americans rests with working to enhance the quality of the communication that takes place between the community of scientists and the rest of society. Among other things, the two authors felt that as a result of such factors as over-specialization within science, the processes, properties, principles, problems and potential of science were not being properly communicated to the rest of society, and, therefore, over time, science and scientists suffered a loss of relevance, significance, and influence in the minds of the American public.

However, there might be another reason why scientists have lost much of their cultural authority among Americans. More specifically, for a variety of reasons, many Americans no longer trust scientists to serve as objective, honest brokers of truth concerning the nature of reality.

To be an objective, honest broker of truth does not necessarily mean that one's understanding of some facet of reality is correct or true. Being an objective, honest broker of the truth requires that a person's efforts to acquire insight into the nature of some aspect of

existence be rooted in a rigorous process that is transparent, open, not intended to evade difficult problems, or mislead and distort (through commission or omission) with respect to relevant issues, as well as be critically and fairly responsive to evidence.

Mooney and Kirshenbaum do indicate that they consider scientists such as Richard Dawkins and Sam Harris to be zealots who might be more interested in using science as a means for promoting their New Atheism than they are committed to uncovering the truth. Moreover, the authors of *Unscientific America* also indicate that such ideological extremists tend to undermine efforts to find common conceptual ground because the aforementioned sorts of individuals seem to be more interested in discovering reasons for continuing to be combative rather than engaging in discussions that are sincerely dedicated to seeking the nature of truth no matter where this might lead.

On the other hand, Mooney and Kirshenbaum claim there are many individuals who reject bedrock scientific discoveries such as the theory of evolution because the latter individuals "... wrongly consider such knowledge incompatible with faith." (Page 9) Unfortunately, the two authors of *Unscientific America* never explain in just what way the kind of knowledge to which they are alluding is, supposedly, compatible with faith, nor do they explain how so many people seem to have arrived at such an incorrect understanding concerning the theory of evolution.

Whatever one might think about the truth of either some form of evolution or creationism, there appears to be a fundamental difference between, on the one hand, worldviews which maintain that everything (in physics, chemistry, and biology) is, at some point, a function of random events, and, on the other hand, conceptual frameworks which contend that events occur in accordance with determinate principles of Divine governance. To be sure, there are some scientists -- such as Kenneth Miller -- who believe in both God as well as the theory of evolution, and, in the process, seem to suppose that the universe – and, therefore, God -- operates in accordance with, among other things, the principle of quantum indeterminacy, and as a result, seek to portray God and random events as being mutually compatible with one another, but the foregoing efforts seem more like a process of trying to square the circle rather than constituting a viable scientific point of

view.

Consequently, one wonders to what extent Mooney and Kirshenbaum can be trusted as honest brokers of the truth – that is, why should they be believed -- when they try to claim that those who believe in God are wrong when the latter individuals consider the theory of evolution – as currently understood with the science community -- to be incompatible with faith. In other words, the two authors of *Unscientific America* don't appear to be serving as honest brokers concerning the search for truth when considering the nature of the relationship between the theory of evolution and the existence of God because they seem to distort the actual nature of that relationship in order to present science – at least as it is understood and practiced by the vast majority of scientists -- in a less antagonistic, more moderate, and "reasonable" light.

Unfortunately, there is a much more problematic dimension associated with various facets of science and so-called scientists than whether, or not, science and faith can be reconciled. This problematic dimension has to do with the way in which all too many scientists go about pursuing science – or failing to do so – in contexts that entail threatening possibilities for their careers, reputations, financial interests, and/or physical safety.

The events of 9/11 constitute such a context. Those events give expression to a challenge for anyone – whether scientists or non-scientist – who wishes to claim that he, she, or they are interested in seeking the truth of things.

Throughout the book by Mooney and Kirshenbaum, issues such as the theory of evolution and global warming are mentioned again and again as being pertinent to the task and challenge of trying to rehabilitate the sense of significance, relevance and influence that is associated with science in the minds of the American public. Yet, a rigorous discussion concerning the scientific issues surrounding 9/11 is completely absent from the contents of the foregoing book, and one can't help but wonder if the "reasons" why that sort of discussion is absent from the pages of *Unscientific America* might play more of a role in inducing Americans to be scientifically illiterate than does anything that Mooney and Kirshenbaum might have to say concerning why they believe such illiteracy exists and how that problem could be resolved

... indeed, the absence of the 9/11 issue in *Unscientific America* would seem to be one more indicator that there are individuals within the scientific community who cannot necessarily be trusted to be honest brokers of the truth concerning certain facets of reality ... that is, the efforts of such people to acquire insight into the nature of some aspect of existence is not necessarily rooted in a rigorous process that is transparent, open, unintended to evade difficult problems, or mislead and distort (through commission or omission) with respect to relevant issues, as well as be critically and fairly responsive to evidence.

The process of becoming, or being, an honest broker in matters of truth is often filled with a variety of difficulties. For instance, individuals often have to struggle in order to overcome blind spots in their understanding of things so that they might serve as an honest broker of events – scientific and otherwise.

However, some individuals seem unwilling, or incapable, of making the sorts of conceptual, methodological, epistemological and/or moral adjustments that are necessary to be able to engage issues in an objective, rigorous, and critically reflective manner. The discussion that begins on page 15 involves an inquiry into three individuals and their respective manners of engagement of issues involving 9/11.

One of the individuals being alluded to in the foregoing paragraph – namely, Peter Michael Ketchum -- was able to make the kinds of conceptual and emotional adjustments that enabled him to recover certain aspects of his ability to be able to try to serve as an honest broker of truth within the scientific community in matters involving 9/11. Unfortunately, the other two individuals that are discussed in the material that follows – namely Sam Harris and Noam Chomsky – do not appear to have been able to make the same kinds of adjustments as were navigated by Mr. Ketchum, and, as a result, they do not, yet, appear to have been able to rediscover and re-capture the qualities that are necessary to be able to serve as honest brokers of truth in the matter of 9/11 ... and, perhaps, in relation to other issues as well.

Consequently, Sam Harris and Noam Chomsky seem to have become deeply entangled in the problems associated with the ramifications of what being truly "unscientific" in America entail. In

other words, Dr. Harris and Professor Chomsky tend to behave like individuals who, in any given case – such as 9/11 -- are unwilling, or incapable of, objectively searching for evidence, judiciously analyzing the significance of that evidence, and accurately identifying whatever truth such evidence reveals.

[[**Note**: There is a relatively small amount of repetition that occurs during the ensuing discussion. This is due, in part, to the fact that Sam Harris and Noam Chomsky often make the same, or similar, mistakes when engaging the issues of 9/11, and, therefore, because I believe it is important not to leave unaddressed various problematic claims and assertions that have been made by Dr. Harris or Professor Chomsky concerning 9/11, I have tried to take the time that seemed to be necessary to be able to exercise due diligence with respect to a variety of issues that are commented on by Sam Harris and Noam Chomsky, and, as a result, from time to time, there is a certain repetition of material that emerges during the process of critically reflecting on their respective positions since, at certain points, their perspectives tend to overlap.

However, irrespective of whatever irritation a reader might feel as a result of the small amount of repetition that does occur in the following material, this should be measured against the mental anguish and turmoil that have been experienced by millions of innocent people in Iraq, Afghanistan, Libya, Yemen, Lebanon, and Syria whose lives have been lost, abused, tortured, wounded, displaced, mutilated and destroyed due to the fact, in part, that people such as Sam Harris and Noam Chomsky have failed to fulfill their responsibility and duty as intellectuals when it comes to the issue of 9/11 – namely, (1) "to insist upon the truth", and (2) "to see events in their historical perspective", and (3) to not disengage or detach themselves from events in a way that helps facilitate the very problems and tragedies that they claim to oppose. I'm sure that the individuals who have been most adversely affected by the events of 9/11 won't mind whatever relatively small amount of repetition occurs in the following pages because, unfortunately, such points need to be made again and again in order for those ideas and facts to have a chance of penetrating the shield of willful blindness that appears to

engulf people such as Sam Harris and Noam Chomsky in the matter of 9/11.

Willful blindness is rooted in a legal principle – which actually has relevance to many non-legal contexts … including matters of science and research. This principle refers to instances in which a person can be held accountable for their actions if that individual could have known something or should have known something that substantively affects a given situation, but, instead, the person chooses not to act on, or take into account, what could have and should have been grasped so that appropriate actions might have been taken (for a more in depth exploration of the notion of willful blindness read Margaret Heffernan's book: *Willful Blindness: Why We Ignore the Obvious at Our Peril*).]]

Peter Michael Ketchum and NIST

Consider the example of Peter Michael Ketchum. For much of his professional life, he was deeply ensconced in the world of high performance systems and scientific computation.

In 1997, he began working at NIST (The National Institute of Standards and Technology) that operates out of the Department of Commerce. From its inception, NIST has been tasked with engaging the processes through which industry sets standards and coordinating those activities with policies of the federal government.

Among other things, NIST attempts to help industry clarify the process of setting standards. In addition, NIST lends support to the foregoing process through a variety of activities, including research.

After a few years at NIST, Mr. Ketchum was assigned to the mathematical and computational sciences division of NIST. He also served as the chairperson for that division's seminar series in applied mathematics.

When, on August 21, 2002, NIST was placed in charge of investigating the cause of the complete destruction of three buildings at the World Trade Center on 9/11, Mr. Ketchum was not involved in either the research for, or writing of, various reports that were generated by NIST in conjunction with the foregoing investigation. However, he was aware that those activities were taking place.

For many years, Mr. Ketchum accepted the findings that had been recorded in a series of reports released by NIST that purported to account for the demise of the Twin Towers as well as the collapse of Building 7 on 9/11 that had been part of the World Trade Center in Manhattan. However, he had accepted the foregoing findings without really examining, or reflecting on, the contents of those reports because, during that period, he was of the general opinion that the work performed at NIST was of the highest caliber and that, as a general rule, its members conducted themselves with integrity when engaged in research.

In July of 2016, a friend mentioned to him that a certain amount of evidence was accumulating which seemed to suggest that the official position concerning 9/11 might not be the slam-dunk that the media and government had been claiming. The "official" position of the

government consisted primarily of: (1) *The 9/11 Report: The National Commission on Terrorist Attacks Upon The United States*; (2) a series of reports released by NIST concerning the demise of buildings on 9/11 that occurred at the World Trade Center in New York, and (3) The Pentagon Performance Report that was issued in conjunction with the damage that was inflicted on the Pentagon on 9/11]

For approximately a month, Mr. Ketchum didn't follow up on the foregoing information. Eventually, he began to rigorously inquire into a variety of issues concerning 9/11, especially in relation to NIST's research efforts involving the destruction of buildings at the World Trade Center.

Within a relatively short period of time after initiating his own review of the NIST findings, Mr. Ketchum realized that NIST's account of what transpired on 9/11 at the World Trade Center was, to use his words on the matter, "not a sincere and genuine study." As a result, he became quite upset … first, with himself, since, for sixteen years he really hadn't paid sufficiently close attention to an array of issues concerning 9/11, and, then, he became upset with NIST for the lack of integrity that characterized its reports concerning 9/11.

Once he was able to examine material concerning NIST's handling of its 9/11 investigation, Mr. Ketchum felt evidence overwhelmingly indicated that Buildings 1, 2 and 7 of the World Trade Center were brought down by controlled demolition rather than being due to a variety of structural damage that, supposedly had been caused by either crashing commercial jets and/or office fires that were initiated by spilled jet fuel or – in the case of Building 7 -- through just fires. Irrespective of the extent to which the aforementioned controlled demolition thesis might, or might not, be correct, Mr. Ketchum came to the conclusion that the NIST findings were not done in a competent manner and, therefore, were unacceptable.

Before moving on to explore some of the aspects of Mr. Ketchum's conceptual transformation concerning the events of 9/11, one might be prudent to consider some cautionary qualifications concerning the issue of controlled demolition in conjunction with the collapse of the Twin Towers and Building 7 at the World Trade Center on 9/11. More specifically, while there is ample evidence (some of which is presented

in the present work) to indicate that multiple explosions occurred in different parts of the World Trade Center on 9/11, and while there is considerable evidence that can be cited (e.g., see the chapter: 'Rebel with a Cause' elsewhere in The *Framing of 9/11, 2nd edition*) in support of the claim that nano-thermite was present in dust samples from the World Trade Center, nevertheless, there are a number of facts that suggest something more exotic – but still not definitively identified -- also was taking place at the World Trade Center on 9/11 than just the use of explosives and nano-thermite with respect to the destruction of the World Trade Center on 9/11.

Thermite, thermate, and nano-thermite are not explosives. They are chemical compounds that, when ignited, are capable of burning their way through, among other things, metal objects (e.g., steel columns in a building), and, when properly orchestrated with explosives, form a system that is capable of sequentially removing sections of designated steel columns to bring about a controlled collapse of a building.

As indicated earlier, I do not dispute that both explosives and nano-thermite were present in, and utilized at, the World Trade Center in conjunction with the destruction of the two Twin Towers and Building 7 on 9/11. What I do dispute is that explosions and nano-thermite are not capable of accounting for certain phenomena that occurred in relation to the events at the World Trade Center on 9/11.

For example, If two 110 storey, 500, 000-ton buildings collapsed to the ground (whether through controlled demolition or through some sort of a conventional, progressive collapse that involved a pancaking of floors one on top of another), one would expect to find 220 stories of material on the ground. Yet, photographs of Ground Zero on the morning of 9/11 (one can see the not-yet destroyed Building 7 in the background) show that after the two towers had disappeared, there was not much more than piles, here and there, of 12 to 14 stories worth of steel on the ground.

Some people have argued that the reason why there is so little debris above ground at Ground Zero is because the weight of the "collapse" drove all that material down into the sub-basements. However, Dr. Wood has found "official" photographs demonstrating that the tunnels, rails, and cars for the Path Train that ran under the

WTC showed only minor damage. Moreover, there was no debris from the towers down in the Path Train tunnels.

In addition, many of the stores in the concourse beneath the Twin Towers were not damaged. One of Dr. Wood's favorite photographs in this respect is a picture of a store in the concourse with a window full of famous Warner Brothers dolls – such as Bugs Bunny, Foghorn Leghorn, and the Road Runner – yet, the store (and this was true of many other stores) was not damaged.

Even more significantly, the World Trade Center was built over a section of concrete foundation that was poured over bedrock. The poured concrete is referred to as the 'bathtub' and it is intended to protect Lower Manhattan from being flooded by the Hudson River.

The bathtub-structure is, in some respects, fairly fragile. This was problematically demonstrated when some of the earth-moving equipment that had been brought in to help with the clean up process at Ground Zero were responsible for cracking the bathtub structure in a number of places.

Yet, one is led to believe that the collapse of 2, 110 storey, 500,000-ton buildings did not put even a scratch in that bathtub structure. Cranes weighing only a fraction of what the Twin Towers weighed could crack the bathtub structure, but the mammoth Twin Towers could not accomplish this. Surely, this is an anomaly that begs for critical reflection.

There is another problem surrounding the attempt to explain the destruction of the World Trade Towers either through a conventional progressive collapse due to fires or due to controlled explosions. More specifically, the seismic signal associated with the demise of the two towers was significantly less than one would expect to be associated with the 'collapse' of two such weighty buildings.

This was especially evident in the demise of the 47-storey Building 7. The destruction of this building had a seismic signal of .6 and was barely distinguishable from normal background noise for an average workday in Manhattan.

The seismic signal associated with the destruction of Building 1 was 2.3. The seismic signal for the demise of Building 2 was 2.1.

Those readings are comparable to the seismic reading associated with the Seattle Kingdom when it was brought down through controlled demolition. The difficulty here, however, is that the height and weight of the Twin Towers should have given expression – but did not -- to a potential energy that was some thirty times greater than the potential energy possessed by the Kingdome when the latter energy was released upon destruction.

There is an additional problem surrounding the length of the seismic signal according to Dr. Wood. For example, the length of the seismic signal for the South Tower's demise was about 8 seconds.

Most proponents of the controlled demolition idea with respect to the Twin Towers (and Building 7) often mention that all three buildings came down at close to free fall speeds. A conventional, progressive collapse (e.g., as in the pancake theory in which upper floors come crashing down on lower floors in a sequential manner) cannot be reconciled with such near free-fall speeds and would require much more time to crumble to the ground due to the resistance that each floor puts up before succumbing to the forces being exerted on those individual floors by the collapsing upper floors … this is the principle of the conservation of momentum in action.

However, the idea of controlled demolition cannot account for why, say, the South Tower was destroyed at a rate that is faster than free fall. Yet, the roughly eight- second seismic signal associated with the destruction of the South and North Towers indicates that those events took less time than would have been the case if one dropped a bowling ball from the roof of the 110-storey structure unimpeded by air-resistance (approximately 9.5 seconds … and factoring in air-resistance would slightly lengthen the duration of free fall for such an object).

Instances of controlled demolition approach near free fall velocities because buildings are rigged with cutter charges in such a way that the support columns are knocked out in a sequence that removes any resistance to the falling floors. Consequently, in such cases, the time it takes for a designated building to come down is like dropping an object to the ground from the top of whatever building is being demolished through such controlled demolition.

For a building's destruction to register a seismic signal whose length indicates a time that is shorter than free-fall speeds suggests something is going on in that process of destruction other than controlled demolition. A seismic signal of such short duration might indicate that the building is not just falling freely through space (notwithstanding air-resistance) but is being propelled downward by some force.

On the other hand, a seismic signal of such short duration also might indicate that some kind of force had destroyed the building in such a way that eight, or so, seconds was all it took to register what was left of the building plus its contents with respect to impacting the ground. For example, if – for the sake of conversation – one were to hypothesize that some sort of force reduced a large number of floors to nothing more than dust and that such dust dispersed in a cloud over a large area, then the length of the seismic signal for such an event would be like dropping an object off a much shorter building, and, therefore, the time of free-fall would be much less than one would expect for a taller building.

During the press conference that marked the release of its initial, final report on Building 7, NIST indicated that the destruction of Building 7 was "whisper quiet". NIST – through its spokesperson, Shyam Sunder – used that description in conjunction with the demise of Building 7 in order to respond to a question about the possible use of explosives (in the form of controlled demolition) with respect to the destruction of Building 7.

Some might wish to argue that by saying what he did that Sunder was merely lying in order to try to hide evidence pointing to the presence of explosives and controlled demolition. However, by saying what he did about the fall of Building 7 being "whisper quiet", Sunder actually was undermining the position of NIST.

NIST claimed that Building 7 came down as a result of a progressive collapse that had been initiated through the way fire caused girders to expand and, in the process, generate torque forces on a key core beam and, thereby, led the beam to buckle. However, if Building 7 came down due to a progressive, pancake collapse, then, there should have been a lot of noise associated with such a collapse as

one floor slammed into the next and, in addition, successive core beams and floor assemblies buckled and came apart.

However, if the demise of Building 7 was "whisper quiet", one is not talking about a conventional progressive collapse of the kind to which NIST subscribed. No noise, no conventional, progressive collapse.

By saying what he did in the press conference, Sunder is not only ruling out controlled demolition and explosions, he also is ruling out his own theory. So, if Building 7 came down "whisper quiet", then, one needs to find some other explanation for how that building came down.

In support of Sunder's "whisper quiet" comment, Dr. Wood indicates that some people were doing a video with Building 7 as a relatively distant backdrop. The building was coming down so silently that none of the participants realized what was going on until the building was already part way down.

A second point to consider in relation to the possible role of explosives or controlled demolition in bringing down three buildings at the World Trade Center revolves around the following anomaly. On five different occasions the Earth's magnetic field shifted during 9/11.

The times of these abrupt shifts in the magnetic field correspond very closely with five events at the World Trade Center. The first shift in Earth's magnetic field occurred precisely at the time when whatever struck the North Tower created a hole in that building. A second shift in the magnetic field took place at the exact time when the South Tower was impacted by something … most people believe a commercial jet was implicated with respect to the holes in the Twin Towers. Three further shifts in the magnetic field happened at the precise time that Building 1, Building 2, and Building 7 came down.

Controlled demolitions could not have caused such shifts in the Earth's magnetic field. Conventional progressive collapses cannot account for such abrupt shifts either.

The shifts in the Earth's magnetic field were recorded through the magnetometer site in Alaska. The site consists of a number of different stations, and the shift recordings were drawn from six of those stations.

In each of the foregoing cases, the magnetometer indicated that for a period of time the magnetic field signal started going down prior to a given event at the World Trade Center (i.e., being struck by something or coming down). When the five aforementioned events took place, the magnetic field signal began to rise again.

Of course, one might wish to argue that the correlation between the two sets of data – one set in Alaska involving magnetic field readings and one set in New York involving three, steel-framed, high-rise buildings – was purely coincidental. And, if such a correlation occurred with respect to just one of the five events in New York, but not in the other four, a person might be inclined to accept such a possibility, but when the abrupt shifts in the magnetic field occur on five different occasions and are tied to specific times at which events in New York transpired, then one might be wise to start looking for some other explanation.

There are a number of other anomalous phenomena associated with the events of 9/11 that occurred at the World Trade Center which tend to indicate that something more than explosives and nano-thermite were involved in the destruction of the World Trade Center buildings on 9/11. One can learn more about those additional phenomena by reading Dr. Wood's book *Where Did The Towers Go?,* but the foregoing several pages of commentary should be enough to help engender a certain amount of caution in the reader with respect to keeping an open mind about what might have transpired at the World Trade Center on 9/11 … we now return you to our regularly scheduled program concerning Peter Michael Ketchum.

One of the many factors that bothered Mr. Ketchum about the NIST reports was that they failed to exhibit due diligence with respect to determining whether, or not, there was any evidence that explosives of one kind or another might have been present at the World Trade Center on 9/11. For instance in a public statement (carried on C-Span) Dr. Shyam Sunder (Director of the NIST Building and Fire Research Laboratory) announced that before stating what NIST had found to be the cause for the collapse of Building 7, he wanted to state what NIST had not discovered in its investigations … which was that NIST had not found any evidence indicating that explosives of any kind had been

involved in the collapse of Building 7.

Dr. Sunder stated that the size of the blast necessary to bring down Building 7 would have had a very loud sound associated with it yet <u>none</u> of the video examined by the researchers concerning Building 7 provided evidence that such a blast had taken place. Furthermore, NIST had not discovered any witnesses who reported hearing such a blast.

Nevertheless, Barry Jennings -- who was serving as the Deputy Director of the Emergency Services Department for the New York City Housing Authority on 9/11 – had given public statements (independently corroborated, at least in part, by Michael Hess) indicating that as Mr. Jennings and Mr. Hess were descending the stairs of Building 7 (because the elevators were not working), the structure was rocked by an explosion from below (which occurred prior to the demise of Buildings 1 and 2) that took out the 6th floor landing near which he had been standing, and, as a result, he and Mr. Hess were forced to retreat back up the stairwell and seek an alternative exit from the building.

Furthermore, when the two individuals were finally rescued and led down to the lobby area of Building 7, Mr. Jennings described the entire ground floor as being in total ruins. Earlier, on his way to the Emergency Command Center located on the 23rd floor of Building 7, he had gone through that same lobby area and it had been in pristine, undamaged condition.

In addition, William Rodriguez, Kenny Johannemann, Jose Sanchez, Salvatore Giambanco, Anthony Satalamacchia (all of whom worked at the Twin Towers), along with Felipe David (an employee of a company that serviced the candy machines in the Twin Towers) and, perhaps, <u>sixteen</u> other individuals, all experienced massive explosions that took place in the basement complex of the North tower of the World Trade Center <u>prior</u> to anything striking the building above. Moreover, John Schroeder, a New York City fire fighter, also reported being bounced around on 9/11 as if he were in a pinball machine when a series of explosions rocked the North tower he was in – explosions that occurred prior to the demise of the South Tower -- and as he evacuated the former building, he discovered that the lobby area – including 2-3 inch glass windows and marble–covered surfaces -- had

been completely destroyed by one, or more, explosions.

Yet, NIST did not bother to interview any of the individuals mentioned in the last paragraph, nor did they talk with the aforementioned Barry Jennings, in relation to the possibility that explosions had occurring at the World Trade Center on 9/11. Therefore, notwithstanding the claims of Shyam Sunder to the contrary, apparently, NIST did not look very hard to uncover evidence concerning possible explosions that might be related to the demise of Buildings 1, 2, or 7 on 9/11 … and, indeed, when one does not look for evidence of explosions, then declaring that no such evidence has been found becomes quite easy.

NIST proclaimed – through the voice of Dr. Sunder – that researchers had: "… identified thermal expansion as a new phenomenon that can cause the collapse of a structure. For the first time we have shown that fire can induce a progressive collapse."

However, when Peter Ketchum, a former NIST employee, critically examined the evidence that NIST put forward in support of the foregoing claim, Mr. Ketchum stated: "The explanation that is given by NIST for the collapse of Building 7 sounds like a Rube Goldberg Device" in which an overly complex, fantastic, and irrelevant explanation is used to try to account for something that can be explained in a much simpler manner.

According to Dr. Sunder, NIST had identified column 79 as the weak link that was the first column to buckle and, in turn, led to the successive failures of other columns. Yet, as Mr. Ketchum has indicated in a public statement concerning the foregoing matter, the position of the column (located off-center) that allegedly buckled and supposedly initiated the collapse of Building 7 should have led to an asymmetrical collapse of the building, but, instead, the building came straight down in a symmetrical fashion, collapsing into its own footprint rather than asymmetrically tipping over in some fashion and, as a result, spilling over into adjoining areas on the ground below.

Consequently, Mr. Ketchum referred to NIST's account of the collapse as being "just fantasy land," He added that: "Asymmetric damage does not lead to symmetric collapse," and, furthermore: "It's very difficult to get a building to collapse symmetrically."

Moreover, Mr. Ketchum notes that when one takes the computer model NIST constructed in an attempt to demonstrate the nature of the alleged collapse process and compares that model with actual video footage of the demise of Building 7, the two do not resemble one another. In fact, the NIST computer model of Building 7 never actually takes one through the entire collapse process, but, instead, stops with the buckling of column 79 and, then, <u>assumes</u> that everything else that follows took place in a way that is depicted by actual video footage of events on 9/11.

Shyam Sunder claims that – with absolutely no evidence to back up his assertion – NIST's structural model of the collapse "...matches quite well with a video of the event." Apparently, he believes that as long as one asserts something with sufficient confidence, then this will be enough to make whatever one says true even if such a statement is at odds with an array of facts.

Peter Ketchum mentions that he remembers seeing a statement from NIST indicating that the researchers were having difficulty trying to figure out why Building 7 collapsed. In fact, earlier during its investigation, NIST researchers proposed a theory concerning the collapse of Building 7 that subsequently had to be discarded as untenable.

Eventually, they resolved their difficulty by fabricating a fictional, fantastical account concerning the collapse of Building 7. Even, then, they were forced to amend that second theory and acknowledge the validity of the arguments of David Chandler, a high school physics teacher in New York, which demonstrated that Building 7 was in free fall for at least three seconds ... a fact that is entirely at odds with the notion of a progressive collapse in which floors successively slam into the floors below them and, therefore, at no point do those floors have an opportunity to exhibit free-fall behavior.

The NIST computer models of the progressive collapse that, supposedly, enveloped Building 1 (North) and Building 2 (South) of the World Trade Center commits the same error as NIST did in conjunction with its model of the Building 7 collapse. In other words, in the case of each of the foregoing three buildings, the NIST models only take things up to the point at which collapses supposedly were initiated and does not provide any of the details concerning how such

a collapse, once it was initiated, would proceed in a way that is capable of being verified by what had been recorded with video on 9/11.

When Dr. John Gross – at the time, a senior researcher for NIST -- was asked about whether NIST had been tasked with the responsibility for determining the cause of the collapses of World Trade Center buildings on 9/11, Dr. Gross responded by saying:

"We found … what happened I think … we've scientifically demonstrated what was required to initiate the collapse. Once the collapse initiated, the video evidence was rather clear … it was not stopped by the floors below, so, there was no calculation that we did to determine that … what was clear on the video."

Notwithstanding Dr. Gross's foregoing comments, neither he nor NIST have scientifically demonstrated that the collapse scenario they advanced could account for the properties of the collapses that were captured by video, and, in fact, Dr. Gross admits as much when he acknowledges that NIST did not perform any calculations to demonstrate that their model would be compatible with the video evidence, and, instead, merely assumed their conclusions by claiming -- without evidence – that the video evidence confirmed their model.

Peter Ketchum – the former NIST employee who belatedly became aware of the incredibly shoddy work perpetrated by NIST in relation to its investigation into the collapse of three buildings at the World Trade Center on 9/11 – also has commented on the properties of the rubble that remained following the collapse of the two 110-storey towers plus the 47-storey Building 7. He indicates that there was virtually nothing left to the buildings … that almost everything had been reduced to a powdered state.

Joe Casaliggi, a New York City fire fighter, recalls going through the rubble at Ground Zero following 9/11. He notes:

"You have two 110 storey office buildings. You don't find a desk. You don't find a chair … you don't find a telephone … a computer … the biggest part of a telephone that I found was half of the key pad … and it was about this big [spreading his thumb and forefinger apart a few

inches]. The building collapsed in dust."

Dr. Steven Levin, an environmental medical doctor working at Mt. Sinai Hospital in New York, went through a list of some of the destruction that transpired at the World Trade Center. He said:

"We're talking here of 43,600 windows, 600,000 square feet of glass [Note: Much of which is several inches thick], 200,000 tons of structural steel, 5 million square feet of gypsum, 6 acres of marble, and 425,000 cubic yards of concrete turned, in good part, to a cloud. … I was astonished at the degree to which solid materials were turned into pulverized dust as a consequence of that building collapse."

However, as Mr. Ketchum was alluding to earlier, the foregoing degree of destruction is inconsistent with the idea of a progressive collapse of buildings at the World Trade Center. Indeed, Dr. Judy Wood, a former professor of engineering mechanics, indicates that if there had been three progressive collapses that took place at the World Trade Center on 9/11, then, one would expect to find roughly 267-stories worth of materials at Ground Zero, and, instead, one finds only three piles of rubble, none of which is more than 12-14 stories high … a problem that is captured in the title of her 2010 book: *Where Did The Towers Go?*

Mr. Ketchum also notes another inconsistency in the NIST theory of a progressive collapse involving Buildings 1 and 2 on 9/11. More specifically, a progressive collapse is driven by gravity, and, therefore, the force of a gravitational collapse is directed downward. Yet, on 9/11, video evidence reveals that there were multi-ton sections of steel perimeter columns that were being projected hundreds of feet in a horizontal direction.

The force of gravity cannot explain such lateral movement. Gravity operates in a downward vertical direction, not horizontally, and consequently, NIST failed to identify the source of the force that was propelling multi-ton steel beams in a sideways direction.

Another set of facts that is inconsistent with the notion that the three buildings at the World Trade Center underwent a progressive

collapse as a result of damage from commercial jet crashes and/or office fires has to do with the temperatures that, for months, were recorded at Ground Zero following 9/11 despite the fact that the piles of rubble had been sprayed with thousands of gallons of water. NIST reported that the maximum temperatures reached within the World Trade Center buildings were approximately 480 degrees Fahrenheit or 250 degrees Celsius.

For instance, despite the fact that substantial rain fell at Ground Zero on the 14th of September, thermographic imaging directed at the base of the three destroyed buildings at the World Trade Center detected some hot spots associated with those buildings that registered temperatures in excess of 1,300 degrees Fahrenheit, while several additional hot spots exhibited temperatures of over a thousand degrees Fahrenheit.

The U.S. Department of Labor stated on its "A Dangerous Workplace' web page that:

"Underground fires burned at temperatures up to 2,000 degrees (Fahrenheit)."

Furthermore, the October 2012 issue of *Professional Safety* – the journal of the American Society of Safety Engineers – contained the following words concerning the issue of temperatures at Ground Zero following 9/11:

"Thermal measurements taken by helicopter each day showed underground temperatures ranging from 400 degrees Fahrenheit to more than 2,800 degrees Fahrenheit."

A December 2001 History Channel program called "Rise and fall of the Towers" indicated that: "As recently as the end of November, it was still 1,100 degrees down underneath the rubble." During December, ice would form on the rubble pile early in the day, but beneath the surface, the ground was still smoldering and one person working on the pile observed that the ground wasn't frozen but "kind

of bubbled underneath your feet."

The observable fires that were present in the underground areas of the World Trade Center were finally extinguished on December 19, 2001, more than three months after 9/11. Yet, the burning question of what was the source of those fires has not been successfully extinguished.

Some people theorized that the source of the fuel for the fires came from the gasoline in the cars that were parked beneath the World Trade Center. The American Society of Safety Engineers stated in its aforementioned journal that nearly 2,000 cars were located that had been parked on three underground floors of the Center, and although some of those vehicles had exploded and were completely burned, many other cars were in drivable condition – neither crushed nor burned. Moreover, the journal article indicated that "… gasoline in a car either explodes or it remains inside the tank … it does not leak out and go looking for fires to be fueled."

The Society of Safety Engineers also indicated that a tank containing 72,000 gallons of fuel that was stored in the basement of the World Trade Center had been discovered. Although the tank was slightly damaged, no leaks were detected in the tank, and the fuel in the tank was removed.

Most of the office equipment in the buildings had – somehow – been transformed into dust on 9/11, and, therefore, could not serve as a source of fuel, and, moreover, there were many stores in the underground shopping complex that were still intact and their contents never burned. So, if 2,000 parked cars, a huge fuel storage tank, office equipment, and subterranean stores were not fueling the high temperatures at Ground Zero that continued for months on end, what was responsible for that phenomenon?

The television program "Relics from the Ruins" that aired on the History Channel featured an eight ton I-beam taken from Ground Zero that was six inches thick and bent in the shape of a horseshoe. A worker commented on the I-beam and said:

"I found it hard to believe that it actually bent because of the size of it and how there's no cracks in the iron. It bent without almost a

single crack in it. It takes thousands of degrees to bend steel like this,"

--Note: Steel melts at 2,800 degrees Fahrenheit – 1,500 degrees Celsius – and softens at 1,100 degrees Fahrenheit 593 degrees Celsius ... for steel to melt or bend in the foregoing manner usually requires that the temperature to which steel is exposed be sustained for a period of time -- and yet, as previously noted, NIST insisted that the maximum temperature attained by fires at the World Trade Center was about 480 degrees Fahrenheit.

Some people have maintained that traces of a substance were discovered at Ground Zero and that, upon analysis, the material was identified to be the incendiary/explosive known as nano-thermite. When nano-thermite is ignited it burns at around 4,800 degrees Fahrenheit and since its chemical composition provides it with its own source of oxygen, it is capable of burning in conditions that are devoid of oxygen (such as underwater).

Whether nano-thermite was the fuel that maintained the high-temperature at Ground Zero going for months or was responsible for bending an eight ton Steel I-beam into a horseshoe shape is unknown ... and for those who wish to claim that nano-thermite might have been the fuel that subsidized the more than three months worth of high-temperatures that were recorded at the World Trade Center following 9/11, then, as a homework assignment, you might try to calculate how much nano-thermite would be necessary to sustain such a persistent set of high temperatures for that length of period of time. In any event, what is clear is that there is no known way through which military grade nano-thermite could form naturally in the dust at Ground Zero, and, therefore, its presence there needs to be explained.

NIST refused to look – at least in any manner that can be called scientific – for evidence that explosives had been present at the World Trade Center on 9/11, and it did not choose to investigate whether, or not, the high temperatures that, for months, had been discovered to be present at Ground Zero following the events of 9/11 might have had anything to do with the collapse of three steel-structure buildings on 9/11. In fact, as Peter Ketchum noted in his public statement concerning the matter, NIST seemed to do everything it could to avoid looking for evidence that might indicate the presence of explosives at

Ground Zero on 9/11.

According to Dr. Sunder, "We conducted the study without bias, without interference from anyone, and dedicated ourselves to do the very best job we could. And, in fact, I would suggest that the public should … at this point recognize that science is really behind what we say." Actual facts belie the foregoing assertion.

The only kind of science that is behind the NIST reports concerning 9/11 is the sort of research that cannot but induce Americans to distance themselves from such so-called scientific activity and become "unscientific" in the best sense of the latter term. In other words, the sort of research conducted by NIST in conjunction with 9/11 is the kind of process that forces one to conclude that such "scientists" can no longer be considered to be honest brokers of truth, and if the NIST manner of research – as exemplified in relation to 9/11 -- is "scientific", then, one needs to become "unscientific" so that evidence, objectivity, rigor, love of the truth, and integrity once again matter.

Peter Ketchum – a scientist – did not investigate the events of 9/11 for nearly sixteen years. He merely accepted the word of others … until a friend's casual remark induced him to look into the matter more carefully.

As far as the issue of 9/11 is concerned, Mr. Ketchum didn't really begin to become an honest broker of the truth concerning those events until he actually begin to look at relevant evidence some 16 years after the events of 9/11 had taken place. He became an objective, honest broker of the truth in relation to 9/11 when he made the requisite efforts to acquire insight into the nature of 9/11 in a manner that was rooted in a rigorous process that was transparent, open, not intended to evade difficult problems, or mislead and distort (through commission or omission) with respect to relevant issues, as well as be critically and fairly responsive to actual evidence rather than be ruled by propaganda, indoctrination, and forces of undue influence in relation to the issue of 9/11.

Having done the foregoing does not mean that his conclusions concerning 9/11 are necessarily correct or true. Nonetheless, he has done, and is doing, what any objective and honest broker of the truth must do in order to try to gain insight into the nature of truth with

respect to some given issue ... in this case 9/11.

Unfortunately, there are many other scientists who continue to fail to examine the actual evidence concerning 9/11 and, as a result, remain in ignorance or in denial concerning the nature of the events of 9/11. Sam Harris is one such scientist.

Sam Harris and 9/11

Dr. Harris is a neuroscientist. Or, perhaps, more to the point as far as the present discussion is concerned, he was trained in sciences exploring the brain, and, therefore, is familiar with the methods and processes of science.

Yet, interestingly enough, I have not come across any statements in his books (and I've read three of those works), nor have I encountered any statements in several podcasts and interviews he has given, that touch on the subject of 9/11 which provide any indication that he actually has looked at evidence concerning 9/11. Instead, almost everything he has to say on the subject is in response to various conspiratorial claims that certain people have made about whom they believe is responsible for 9/11 and with whom Dr. Harris wishes to take issue.

In what follows, I will provide the text for a number of lengthy statements that have been made by Dr. Harris concerning 9/11. As I believe will soon become fairly evident, those statements encompass a litany of problems that seem to be devoid of any quality of scientific or even rational analysis.

For instance, during a recorded conversation between Steven Wright and Sam Harris that appeared on SamHarris.org and that tried to respond to various issues concerning 9/11, Dr. Harris states:

"When you follow each one of these anomalies to some alternative conclusion ... it's never the same conclusion. There's no unified view of what would explain everything that happened here. There's dozens or hundreds or more different things all of which are mutually incompatible but all of which are different from the prevailing story that Al-Qaeda did it. But, there is no unified view that makes it the perfect work of evil genius to have George Bush sitting reading 'My Pet Goat' when this thing goes off. Now, what evil genius decided to do it that way?

"I mean there's larger phenomenon of conspiracy thinking which again, once you connect it to the fake news phenomenon that we're living through now, it becomes hugely consequential. It's like I've always thought of conspiracy thinking as a kind of pornography of

doubt. There's an itch that people are scratching here. People who, for the most part, feel disempowered and imagine that people in power are always doing something malicious and that whenever you can explain something based on incompetence, it's never really incompetence. The irony here is that they are attributing a super human level of competence to people where there's never any evidence of this kind of competence.

"Bill Clinton couldn't stop a semen-stained dress from appearing on the evening news. Presidents can't do these sorts of things, and, yet, we are asked to imagine that thousands upon thousands of psychopathic collaborators killed some of the most productive people in our society in downtown Manhattan ... just for what? The pleasure of sending us to war in the Middle East ... not to Saudi Arabia where the hijackers came from ... but to Iraq when we could easily have found a pretext to go to war anyway and what a great war that was, and, yet, they did this without a single leak ... there's not one person with a guilty conscience who got on 60 minutes and spilled the beans ... and, yet, generally speaking, you can't even keep the next iPhone from being left on the bar before it gets released. It's an amazing double-standard of reasonableness that gives us this kind of thinking."

Although Dr. Harris mentions the issue of 9/11 anomalies toward the beginning of his foregoing statement, he never specifies what sorts of anomalies he has in mind. Consequently, one has no concrete context upon which to reflect in order to determine whether what he is saying is true or not.

Furthermore, when he speaks about following each one of the foregoing sorts of anomalies – whatever they might be -- to some alternative conclusion, once again, his statement lacks specificity. We don't know which alternative conclusions he is alluding to or what he, or anyone else, considers the nature of the relationship to be, if any, between various anomalies and various conclusions.

All we have is his declarative statement that is embedded in a context of vagueness. He proceeds to complain that "there's no unified view of what would explain everything that happened here," but he doesn't offer any concrete evidence to substantiate what he claims ... all he offers is unsubstantiated assertion.

Dr. Harris maintains there is "no unified view of what would explain everything that happened here." However, given that the so-called "prevailing view that al-Qaeda did it" also fails to explain everything that happened on 9/11 – in fact fails to explain in a factual manner nearly all the events of 9/11 -- Dr. Harris never explains why there should be an alternative, unified view that is capable of explaining everything among those who do not accept the "prevailing story that al-Qaeda did it" since the so-called prevailing view is, itself, unable to provide such a unified account.

Be this as it may, nonetheless, contrary to the foregoing claim of Dr. Harris, the one thing on which all those who reject the "prevailing story" agree – a point which Dr. Harris entirely ignores – is that the "prevailing story that al-Qaeda did it" suffers from a variety of problems. Moreover, those many problems begin with the fact that at least 6-7 of the alleged 9/11 hijackers – all of whom, supposedly, perished in the four plane crashes that occurred on 9/11 -- were confirmed as still being alive by a post-9/11 BBC news item.

Did some people jump to conclusions concerning 9/11 or about who might have been responsible for perpetrating that tragedy before they carefully examined all of the evidence? Yes, they did, and Sam Harris is one of those individuals?

In his foregoing statement, Dr. Harris contends that in relation to various claims concerning the nature of 9/11: "There's dozens or hundreds, or more, different things all of which are mutually incompatible but all of which are different from the prevailing story that Al-Qaeda did it." However, since Dr. Harris doesn't specify what the nature of the alleged incompatibilities are, we have no evidential basis for determining whether, or not, his assertion is correct or whether, or not, such alleged incompatibilities might, through one means or another, be capable of being reconciled in some fashion.

In the previously quoted excerpt, Dr. Harris mentions the idea of a prevailing story – namely, that al-Qaeda is responsible for the events of 9/11 – but what is that story based on? As I believe has been demonstrated in my own books (namely, *The Essence of September 11th*, *2nd Edition* as well as the 1st and 2nd editions of *Framing 9/11),* and as Judy Wood has pointed out -- with considerable detail -- in her book: *Where Did The Towers Go?,* and as David Ray Griffin argued in

books such as The *9/11 Commission Report: Omissions and Distortions*, and as Webster Tarpley expounded in his book: *9/11: Synthetic Terror*, and as Rebekah Roth has established in her "*Methodical*" trilogy, the "prevailing story that al-Qaeda did it" is untenable at nearly every – if not every – juncture.

As has been demonstrated in the foregoing books, there are substantial problems with *The 9/11 Commission Report*, *The Pentagon Performance Report*, various NIST reports, and a variety of reports from the FBI. So, why should anyone accept the prevailing story that al-Qaeda did it as being the indisputable, definitive treatment of 9/11?

The whole "prevailing story" notion seems to give expression to little more than an argument from authority in which one is supposed to accept such a story just because individuals in authority have told it. Unfortunately, despite being filled with lots of information (much of it amounting to little more than misinformation and disinformation), the "prevailing story" is almost entirely devoid of any relevant facts concerning the events of 9/11.

What evidence is there that is capable of proving – independently of the government's framing of the story -- that al-Qaeda carried out the attacks on 9/11. In point of fact, there is absolutely zero reliable evidence indicating that al-Qaeda carried out – or was capable of carrying out – the events of 9/11.

The FBI, itself (both through its website as well as through it's, then, director, Robert Mueller) admitted there was no evidence tying 'Usama bin Laden to the events of 9/11. Furthermore, the confessions of Khalid Sheikh Mohammed that implicated bin Laden, Mohammed Atta and others – and were obtained thorough nearly 200 rounds of water-boarding -- have never been confirmed by independent sources (and the similar confessions of other individuals that were induced through torture do not constitute independent confirmation), nor have those "confessions" ever been subjected to rigorous cross examination (indeed, the CIA prevented the members of the 9/11 Commission from having any contact with those who were 'confessing' to the crimes of 9/11).

Moreover, contrary to the aforementioned contentions of Dr. Harris, why should one assume that George Bush's reading of 'My Pet Goat' had anything to do with the plan for 9/11 or that such a reading

was put in play by some evil genius? In order to determine whether, or not, George Bush was culpable in relation to 9/11, a proper investigation of those events must be permitted. [And, by "proper", I mean an investigation that is: Independent – i.e., not run by the government; fully funded (rather than being substantially underfunded as the 9/11 Commission had been); provided with subpoena power, and requiring sworn testimony -- unlike the 9/11 Commission testimony of Bush, Cheney and others -- with penalties of perjury or worse for knowingly offering false statements].

Sam Harris's foregoing, extended statement is indulging in a form of argument in which he gets to supply all of the premises against which he wishes to argue. Yet, the premises of his argument have nothing to do with a central issue – namely, whether, or not, the "prevailing story" that Dr. Harris is unjustifiably treating as the default perspective concerning 9/11 is capable of successfully being defended when it is rigorously examined ... something that Dr. Harris has provided no indication of having done (either with respect to defending or examining).

The words "a kind of pornography of doubt" that Dr. Harris advances in conjunction with his criticism of conspiracy theories constitutes a nice turn of phrase, but, what does it actually mean and how relevant is it? On any given day, in numerous courtrooms, in virtually every state in America, as well as in a variety of Federal courts, there are numerous conspiracies that have proven to be true.

Consequently, Dr. Harris needs to clarify what he means by the phrase "a kind of pornography of doubt" in conjunction with conspiracy theories that have been proven to be true on a regular basis in the courtrooms of America. As it stands, the phrase "a kind of pornography of doubt" seems to be little more than an attempt to cast aspersions upon anyone who has the temerity to question or harbor doubts concerning the viability of the "official" story concerning 9/11.

Dr, Harris refers, in a pejorative fashion, to the itch that people supposedly are scratching with respect to 9/11 (i.e., and such an itch is described by Dr. Harris as being nothing more than a matter of individuals feeling disempowered and who "imagine that people in power are always doing something malicious"). However, he

apparently fails to consider the possibility that the underlying motivation of the individuals to whom he is alluding might have to do, instead, with not being satisfied with the "prevailing story" concerning 9/11.

Maybe such individuals are "merely" trying to seek truth and justice in relation to the events of 9/11, as well as attempting to save the country from the ruinous ramifications of the government-sponsored and media-sponsored malignancy that has enveloped the issue of 9/11. In other words, perhaps the individuals that Dr. Harris wishes to malign are not necessarily motivated by an ideology of false imagination or a thirst for conspiracy as he claims is the case.

Doesn't this kind of search for truth, justice, and a way to protect the country describe what is going on – at least to some extent -- in a courtroom when a prosecutor charges someone with conspiracy to commit various crimes? Moreover, couldn't those who do not accept the "official" story concerning 9/11 be motivated by similar goals?

Furthermore, what is one to make of the conspiracy thinking that is at the heart of the "prevailing story" – i.e., that al-Qaeda perpetrated 9/11? The mother of all conspiracy theories is that 19 Arab hijackers conspired with a guy in a cave in Afghanistan – namely, 'Usama bin Laden -- to perpetrate 9/11, and, therefore, if Harris's foregoing turn of phrase – i.e., "a kind of pornography of doubt" -- is to have substantive value, then, presumably, the "pornography of doubt" that Dr. Harris believes stains conspiracy thinking must also be applicable to his own conspiracy theory – namely, the one that is at the heart of the "prevailing story" … that 20 Arabs conspired to attack America on 9/11?

In his foregoing extended statement, Dr Harris tries to suggest that the itch being scratched in conjunction with 9/11 is nothing more than a matter of: "People who, for the most part, feel disempowered and imagine that people in power are always doing something malicious and that whenever you can explain something based on incompetence, it's never really incompetence" Where is (or what is) the proof that justifies such an assertion?

At best, Dr. Harris offers vague sorts of anecdotal references in support of his position. At no point, however, does he engage in a serious analysis of actual evidence concerning 9/11.

He always operates at a meta-level. In other words, he only addresses conspiracy theories concerning the events of 9/11, and, as a result, he never actually explores real evidence concerning the events of that day.

In addition, Dr. Harris tries to give the impression that the events of 9/11 can be adequately explained by the issue of "incompetence" rather than having to refer to any kind of conspiracy, but what is the nature of the evidence that the events of 9/11 can all be explained by the notion of "incompetence"? What are the specific facts and arguments that demonstrate that everything that went on prior to, during, and following 9/11 were all a function of incompetence?

Dr. Harris says there is never any evidence of the kind of competence to which he claims that conspiracy thinking is alluding. However, since he is entirely vague at this juncture concerning what, specifically, he means by such statements, one has nothing on which to base an assessment of whether he is right, or not, concerning his claims in this regard.

Moreover, notwithstanding the fact that Dr. Harris seems to believe that Bill Clinton's inability to prevent the release of evidence concerning a semen-stained dress indicates that presidents are powerless to prevent leaks from occurring that will expose their high crimes and misdemeanors, nevertheless, his Clinton example actually undermines Dr. Harris's perspective concerning the issue of leaks rather than substantiates that point of view. More specifically, Robert Wright, Jr., Sibel Edmonds, Colonel Anthony Schafer, and Coleen Rowley all attempted to leak information to the public about various governmental anomalies concerning 9/11 but were either ignored, censored, or placed under a gag order, and, as a result, Dr. Harris's use of the Bill Clinton example tends to disprove the point that Dr. Harris seems to be trying to make rather than demonstrate it.

Dr. Harris also overlooks – or is ignorant about – what happened to an FAA employee – James P. Hopkins -- who discovered information (which ran counter to the "official" story) that he considered to be relevant to the investigation of 9/11 and tried to forward the information up the chain of command. He was fired for his efforts in that regard.

That individual fought to get his job back. Eventually, he won his case, but, subsequently, was killed during a car accident in Washington, D.C.

Dr. Harris also ignores – or is ignorant of – articles that appeared on May 7, 2004 in both the *New York Times* and *Chicago Sun-Times* that referred to a meeting of 16 air traffic controllers that took place before noon on the morning of September 11th, 2001 at the New York Air Route Traffic Control Center in Ronkonkoma, New York. The air traffic controllers met in a conference room in the basement -- known as the "Bat Cave" -- and passed around a microphone so that each of the individuals could share, in a recorded fashion, his, her, or their recollections and impressions concerning the events of 9/11.

Several months later those tapes were destroyed by a quality assurance manager at the aforementioned Ronkonkoma center. The destruction took place despite the fact that three days after the events of 9/11, the FAA had sent out an order to all departments – including the one for which the foregoing quality assurance manager worked -- indicating that personnel were to "retain and secure until further notice ALL Administrative/Operational data and records" concerning the events of 9/11.

When asked why he destroyed the tapes, the quality assurance manager stipulated that he felt the flight controllers were not in a state of mind that would have enabled them to have voluntarily consented to making such statements. However, he provided no evidence to back up the foregoing claim, nor was he qualified to make such a determination, and, most importantly of all, he was in violation of the aforementioned directive that had been issued by the FAA several months before he destroyed the tapes.

When the quality assurance manager destroyed the recording that had been made by the 16 flight controllers, he is reported to have crushed the tapes in his hand and, then, cut the tape into little pieces, and, finally, deposited the cut up tape in various trash receptacles that were located in different parts of the building. Given the lengths to which the aforementioned quality assurance manager went in order to destroy the testimony of 16 air traffic controllers concerning the events of 9/11, one can't help but wonder about the nature of the contents of those recordings.

At this point, one might also re-introduce, the aforementioned public statement given by Barry Jennings, the Deputy Director of the Emergency Services Department for the New York City Housing Authority on 9/11, concerning his experience in Building 7 in relation to the occurrence of explosions on 9/11 at the World Trade Center. His account -- along with evidence from many members of the New York City fire and police departments -- was also ignored by the 9/11 Commission.

Or consider the case of David Schippers -- who might best be known to some people as the lead investigative and prosecuting counsel for the House of Representative's impeachment proceedings against William Jefferson Clinton. In an October 13, 2001 story run by the *Indianapolis Star* one discovers that nearly a month and a half prior to 9/11, he [Mr. Schippers] had spoken with several FBI agents who were hoping for some legal advice.

The article describes how the two agents disclosed that they had reliable information specifying how lower Manhattan was to be a target in a terrorist attack that would involve the use of hijacked airplanes as weapons. The information they had included targets, dates, and funding pathways.

The reason for their speaking with Mr. Schippers is that they both had been removed from the investigation and had been threatened with being prosecuted under the National Security Act if they spoke out about what they knew. According to the two FBI agents, the threats and obstruction apparently came from FBI headquarters in Washington.

During the interview, Mr. Schippers claimed that some six weeks or so prior to 9/11, he had tried without success on a number of occasions, to get in touch with Attorney General Ashcroft in order to pass on the information that Mr. Schippers had learned through the two FBI agents. The Attorney General did not return any of Mr. Schippers' calls to the former's office.

Finally, one of the friends of the Attorney General who had been contacted by Mr. Schippers in relation to FBI information got back in touch with the Chicago lawyer (i.e., David Schippers). The friend of the Attorney General said that John Ashcroft had received the information and would call Mr. Schippers the next day.

The next day Mr. Schippers did receive a call but not from the Attorney General. According to Mr. Schippers, someone else, calling on behalf of the

Attorney General, said that the matter would be investigated, and following that investigation, Mr. Schippers would be informed of what had been discovered and/or done.

Mr. Schippers passed on his information to the Attorney General approximately a month before the events of 9/11. Nonetheless, as of the October 2001 interview date, Mr. Schippers had not been contacted by the Attorney General with respect to the very detailed information concerning the September 11, 2001 attacks.

Finally, one shouldn't forget – as appears to be the case with Dr. Harris (or, perhaps, he never knew) -- that more than twelve individuals (a number of them worked for the Pentagon, some as members of the Pentagon police) came forward after 9/11 and indicated that just prior to the explosions which occurred at that complex on the morning of September 11, 2001, the only plane they saw approach the Pentagon flew on the north side of the Citgo gas station that was located approximately a mile, or so, from the Pentagon. This is a crucial issue because *The Pentagon Performance Report* indicates that the plane that supposedly struck the Pentagon had a flight path that proceeded along a line to the south of that Citgo station and that, among other things, took the craft over a Virginia Department of Transportation communication antenna.

If the testimony of the foregoing 12 individuals is correct, then, the findings of *The Pentagon Performance Report* are brought into serious question because the only plane that was near to the Pentagon at the time of the explosions would have struck (if it struck) the Pentagon at an angle that is entirely at odds with the "official story." Moreover, many commercial and military pilots have indicated that the south-side flight line that is promoted by the official story would have involved unmanageable g-forces (as well as a substantial destabilizing "ground effect") in order for American Airlines Flight 77 to be able to avoid the aforementioned Virginia Department of Transportation antenna and still be able to skim over the grass on the Pentagon lawn and, then, enter the Pentagon on the level of the ground floor as indicated by the "official story".

Consequently, Dr. Harris is factually incorrect when he tries to claim that there were no leaks concerning 9/11. Rather, there were all kinds of leaks, but those leaks also were accompanied by an array of

efforts on the part of the government and the mainstream media to contain and suppress the foregoing sorts of information.

Furthermore, even if one were to concede Dr. Harris's point that there were no leaks concerning the events of 9/11, nonetheless, if – as Dr. Harris states in the extended statement that was quoted at the beginning of this section of the present chapter – conspiracy thinking claims that psychopathic individuals collaborated in the killing of people in Manhattan on 9/11, then, none of those psychopathic will have the requisite guilty conscience that is likely to lead them to make the sort of public confessions on 60 Minutes that would constitute the kind of leak that Dr. Harris seems to have in mind. Thus, even if it had been the case that there were no leaks concerning the events of 9/11 – which is factually untrue – if psychopaths really were in charge of the 9/11 operations, then, one would have no reason to expect that any leaks would be forthcoming since, by definition, psychopaths are individuals who do things without remorse for the harm they cause to others, and therefore, they do not experience guilty consciences in relation to the things they do or don't do.

One also should keep in mind some rather sobering revelations that appear in research concerning psychopaths (such as: *Without Conscience: The Disturbing World of The Psychopaths Among Us* by Robert D. Hare; *Snakes In Suits* by Paul Babiak and Robert Hare; *The Sociopath Next Door* by Martha Stout, and *The Psychopath* by James Blair, Derek Mitchell, and Karina Blair). For instance, a conservative estimate of the number of psychopaths that live among us is between 10 and 13,000,000 million individuals, and those individuals occupy all strata of society including: Government, the military, science, law enforcement, the media, the judiciary, banking, education, and the corporate world.

The power structure is infested with such individuals. If some aspect of that power structure were interested in perpetrating a crime like 9/11, it would have little trouble recruiting people from within its own ranks that possessed the right sort of psychopathic tendencies to be able to plan, implement, and cover-up something like 9/11, and there are millions of other individuals who, if necessary, could be psychologically manipulated into becoming ideological psychopaths who could play the role of "useful idiots" on behalf of such

psychopathic "leadership" (Ideological psychopaths are individuals who are so entangled in, and committed to, their system of beliefs that they are willing to adopt psychopathic-like traits – such as a relative absence of compassion and conscience – in order to impose their beliefs on other human beings).

In his earlier, extended statement, Dr. Harris alludes to the ideas of some individuals who argue that the motivation for 9/11 was to create a pretext that would be able to justify going to war in Iraq in order to afford the United States an opportunity to take control of Iraq's oil. Dr. Harris questions the logic underlying such thinking by citing the fact that none of the hijackers came from Iraq and, therefore, if the motivation for 9/11 had been to provide justification for attacking Iraq, then, surely, a better scenario could have been arranged than getting non-Iraqis to hijack airplanes and crash them into various targets in the United States

Dr. Harris should be less arbitrary and selective (in a self-serving manner) with respect to the possible motivations concerning the perpetration of 9/11 that he considers. However, by framing the issue in the way he has – namely, that some people believe that 9/11 was used as a pretext for invading Iraq – he is able to ignore a litany of other possibilities concerning the kinds of motivations that might have been behind 9/11.

For example, on – and/or prior to -- 9/11, hundreds of billions of dollars worth of gold were removed from the vaults of the Bank of Nova Scotia beneath Building 4 of the World Trade Center. In addition, billions of dollars worth of insurance fraud, bond market manipulations involving Brady bonds, and problematic stock market transactions (in relation to American and United Airlines, as well as in relation to a variety of companies that were located in the Twin Towers of the World Trade Center) also were committed in conjunction with 9/11.

Moreover, the Office of Naval Investigation and the Army Audit Office had been given the task of investigating the 2.1 trillion dollars that were reported as having gone MIA by Donald Rumsfeld the day before 9/11. The offices where the two foregoing investigatory units were located happened to be among the ones that were destroyed at the Pentagon on 9/11.

Furthermore, Building 7 of the World Trade Center contained considerable evidence concerning the multi-million dollar scams of, among others, Enron, World Com, and Global Crossing. All of that evidence was destroyed on September 11, 2001.

9/11 was also used as a pretext for rushing to pass The Patriot Act that already had been written prior to 9/11 and for which its proponents were merely awaiting the right opportunity to be able to introduce it into Congress. Moreover, 9/11 served as the motivating pretext for the creation of Homeland Security, which became a cash cow worth billions of dollars as well as a means of gaining increased control over the citizens of America.

Furthermore, the first war to be declared after 9/11 was not in Iraq, but in Afghanistan, and that war was tied directly to 9/11 – despite a lack of proof – as a result of charging the Taliban with harboring the person who was considered by the U.S. government to be the master-mind of 9/11 – namely, 'Usama bin Laden – again, despite the official admission of the FBI that there was no evidence tying bin Laden to 9/11. Moreover, notwithstanding that to which Dr, Harris alludes in relation to his previously given extended statement, there would have been no reason to attack Saudi Arabia because although many of the alleged 19 hijackers supposedly were from Saudi Arabia, nevertheless, those individuals were characterized as a bunch of disaffected individuals who had broken ranks with the Saudi government because the latter had permitted infidels to set up bases on holy land during the first Gulf War, and, therefore, presumably, Saudi Arabia was not responsible for what those disaffected individuals did and, as a result, could not be considered to be a state sponsor of terrorism.

In addition, contrary to what Dr. Harris claims, Cheney, Bush, and others did come up with a variety of other pretexts in addition to September 11th, for going to war with Iraq. Aside from the fact that Cheney insisted that there had been contact between al-Qaeda and Saddam Hussein that took place in Czechoslovakia, Hungary, Romania or some such place, Bush, Powell, and Blair invented the idea that there were weapons of mass destruction in Iraq despite the fact that the UN indicated that there were no weapons of mass destruction remaining in Iraq (Hans Blix was head of the United Nations

Monitoring, Verification, and Inspection Commission from January 2000 to June 2003 and American Scott Ritter, Jr. was a weapons inspector for the United Nations from 1991 to 1998, and both of the foregoing individuals stated prior to the 2003 invasion of Iraq that, up to that point in time, no significant cache of weapons of mass destruction were being stockpiled in Iraq).

Finally, in his previous quoted extended statement, Dr. Harris takes a fictitious example – i.e., the next iPhone being left at a bar before it is released – and tries to claim (without evidence) that such a contrafactual example is relevant to what took place in relation to 9/11 by creating the impression that if 9/11 had been the result of the actions of individuals other than bin-Laden and 19 Arab hijackers, then there would have been leaks of one kind or another … but, according to Dr. Harris, no such leaks have occurred. The fact of the matter is that quite independently of the already mentioned instances of government officials such as Sibel Edmonds, Robert Wright, Jr., Colonel Anthony Schaefer, Coleen Rowley, Barry Jennings, David Schippers and many others who tried to get their testimony included in the public record concerning 9/11, there also were other leaks concerning 9/11. For example, one might consider the notice released prior to the events of 9/11 by Odigo (an Israeli instant messaging service) warning roughly 4,000 people to stay away from the World Trade Center on 9/11, or, perhaps more importantly, there is the sworn testimony of April Gallop – who was at Ground Zero in the Pentagon at the time that explosions occurred – which stipulated that she saw no evidence indicating that a plane had hit the Pentagon on 9/11 and also testified that several people who did not identify themselves came to the hospital where she and her baby were being treated for injuries due to events taking place on 9/11, and those individuals tried to intimidate her into silence with respect to what she had seen and experienced at the Pentagon on 9/11.

When it comes to 9/11, clearly, Sam Harris seems to know almost nothing – if not nothing – about the events of that day. The thinking that is problematic concerning 9/11 is entirely his, and Dr. Harris is the source for some of the very fake news phenomenon that he purports to be critically opposed to in his foregoing comments.

Nonetheless, Sam Harris is quite correct. When one connects the issue of fake news with Dr. Harris's sort of conspiracy thinking (his thinking is conspiratorial not only in relation to what the critics of 9/11 are all about, but, as well, his belief that al-Qaeda is responsible for 9/11 is also conspiratorial), then, the results are "hugely consequential" because his brand of fake news might, very well, have helped facilitate the deaths of millions of Muslims and other individuals in the Middle East, as well as might have helped enable the displacement, abuse, mutilation, and destruction of millions of Iraqi and Afghani lives by the United States government and others.

The following excerpts are from another podcast in which Sam Harris participated that pertains to the issues of 9/11. I'll begin with an extended quote from this second podcast that features some of the views of Sam Harris concerning 9/11, followed by some critical reflection on what he says, and, then, move on to address other excerpts from that same, second podcast.

"If you ask someone who really believes in the 9/11 truth conspiracy theory, right, that Bush brought down the World Trade Center, and you ask them to have a conversation about it, and they give you all the rigmarole about the melting point of steel and building 7 and people rigged the buildings to explode, and you ask them how they got all that thermite into the buildings, and they did it in the dead of night, and how many conspirators were involved, and there's an endless energy to talk about these things, and in that case these really are propositional claims about what happened when no one was looking, and I think the people who believe this stuff really do believe it, and this is very much analogous to what happens in religions … this is analogous to a Christian saying: "No, No, you don't understand. I really think that Jesus was resurrected. I think he was nailed up on the cross, he was a human being. The tomb was empty, and he ascended … and what do you think ascension is? Well, I think it's actually going up against gravity physically, and when the rapture happens, I'm going to be pulled up there, and if you're in a 747 at that moment, you're going to see me up in the stratosphere. Whether they are that explicit, if you

get people talking, they believe something concrete ... they're not metaphorical moves."

Why is Dr. Harris's litmus-test for 9/11 a matter of whether, or not, someone believes that Bush is responsible for what went on that day? Why doesn't Dr. Harris – or the conversation he claims to want to have with someone who engages 9/11 in a way that is different from him – start with the fact that the official story does not hold together and, therefore, whatever happened on that day is other than what the official story – or Dr. Harris -- is trying to suggest?

How does one have a conversation with someone – such as Dr. Harris -- who refers to the issue of facts as "rigmarole"? The use of that term seems to provide evidence that Dr. Harris is a person who already has made up his mind about the issue of 9/11, and, as a result, uses a pejorative term to sum up what he believes concerning matters that appear to be closed for him as far as further inquiry of a sincere, objective nature is concerned.

In a real conversation – that is, a dialogue – two, or more, individuals mutually explore possibilities in order to try to discover the nature of truth involving some matter, but all Dr. Harris seems to want to do is to ask questions in an incorrect order and in an obstructionist manner. For instance, instead of asking – as Dr. Harris does -- how people got thermite into the Trade Towers, (and thermite is a mixture of powdered iron oxide and aluminum capable of generating very high temperatures when ignited), why not ask why traces of military grade nano-thermite have been found in dust samples from Ground Zero (and nano-thermite consists of a metal and metal oxide whose particles are combined in powders that are 100 nanometers in size), or why not ask Dr. Harris to defend the official story concerning the events of 9/11?

Instead, Dr. Harris asks questions for which he knows there are logistical problems and for which there is, at best, only marginal and rather speculative "evidence." Doing things in this manner offers him a way to frame the conversation in a way that serves his interests ... in other words, the foregoing approach gives expression to an underlying strategy in which certain kinds of questions are asked or raised in

order to obscure, or detract attention away from, more pertinent and fundamental kinds of questions.

For instance, the theory that Bush brought down the World Trade Center might be a theory that is advanced by some individuals, but such an idea doesn't necessarily have anything to do with the fact that three World Trade Buildings came down at near free fall speed on 9/11 and that this latter set of facts is completely inconsistent with the "official" explanation that planes and fires caused three buildings at the World Trade Center to collapse. In other words, one should separate the issue of who is responsible for 9/11 from the issue of the physical evidence that exists in conjunction with the events at the World Trade Center, the Pentagon, and Shanksville, Pennsylvania.

Before trying to decide who perpetrated the events of 9/11, perhaps, the first order of business should be to determine the nature of the events that transpired on that day. For example, before claiming that 19 Arabs were the ones who attacked America on 9/11, maybe one should try to determine what the evidence is concerning whether, or not, 19 Arabs actually hijacked four planes, or whether, or not, those individuals could have flown commercial jets in the way indicated by the "official story", or whether, or not, cell phones could have been used to make calls from airplanes at heights above 1,500 feet, or whether, or not, planes and/or fires would have been able to cause three steel-framed buildings to collapse in the way indicated by the official story, or whether, or not, a plane hit the Pentagon, or whether, or not, a plane actually crashed in Shanksville, Pennsylvania.

In the previously quoted, extended excerpt from one of his podcasts, Dr. Harris notes that the people who harbor all kinds of beliefs concerning the events of 9/11 are making propositional claims about what happened when no one was looking. Furthermore, Dr. Harris claims that this is very similar to what takes place in conjunction with religious claims when people give expression to various beliefs about, for instance, the crucifixion and resurrection of Jesus or what happens during the phenomenon of "rapture" despite the fact that those individuals have no access to hard evidence concerning those sorts of matters.

While it might be true that some people make statements about 9/11 that are divorced from, or contradicted by, actual facts

concerning the events of that day, nonetheless -- and notwithstanding Dr. Harris's propositional claims to the contrary -- the issues of 9/11 are not at all like the religious issues that Dr. Harris mentions. There is a considerable amount of factual evidence that exists in relation to the events of 9/11 that are, for the most part, absent from an array of religious issues.

For instance, commercial jets could not have flown at the speeds indicated by the official story concerning 9/11. Such speeds exceeded – by hundreds of miles per hour -- the VMO, or the maximum permitted operating speeds for such aircrafts and would have led to substantial structural damage to aircraft flying at those speeds. Or, contrary to the claims of NIST, Underwriters Laboratories empirically demonstrated that the floor assembly units for the Twin Tower buildings would not have failed in the way in which NIST claimed they did on 9/11, and, therefore, the failure of those assemblies could not have been a cause of the progressive collapse of the two towers as stated by NIST with respect to the events of 9/11.

Kevin Ryan, a chemist, was fired from his job at Underwriters Laboratories for disclosing the foregoing information. This is, yet, another fact that discredits the view of Dr. Harris that there were no leaks that occurred in conjunction with the events of 9/11.

Furthermore, independently of the logistical problems raised by Dr. Harris concerning how people (or how many people were required to) get thermite into the Twin Towers, or when this was done, and quite independently of whether, at this point, those questions can be determinately answered, one is confronted with the fact that Mark Basile, a chemical engineer, along with a number of other scientists (e.g., Steven Jones, a physicist, Kevin Ryan, a chemist, and Niels Harrit, a chemist), have found evidence that military grade nano-thermite was present in different dust samples that were taken from Ground Zero. This fact needs to be explained because there is no good reason for nano-thermite to be present in those dust samples ... in other words, military grade nano-thermite is not something that will naturally form in dust without a great deal of highly technical assistance.

In addition, quite apart from Dr. Harris's dismissal of such allegedly rigmarole issues as the melting point of steel, many scientifically and technically oriented observers have commented that

fires and heat cannot account for the total pulverization of nearly a million tons of: Steel beams, concrete, acres of marble surfacing, numerous multi-ton electrical transformers, as well as office furniture that took place at the World Trade Towers on 9/11. The phenomenon of progressive collapse -- which is put forth by NIST as the reason why three steel-framed structures collapsed on 9/11 -- is not capable of generating the level of force that could cause the foregoing kind of destruction.

Progressive collapses are a function of the force of gravity. Yet, whatever caused the pulverization of more than one million tons of materials on 9/11 at the World Trade Center involved a force or forces that is, or are, far in excess of what gravity can deliver through a progressive collapse.

Another empirical fact that is present with respect to 9/11 is that air-phones could not have been used to make phone calls, as claimed in the official story, on some of the planes supposedly hijacked on 9/11 – namely, American Airlines Flights 11 and 77. Air phones had been deactivated on all American Airline flights as of January 31, 2001, nearly nine months prior to 9/11.

Consequently, Barbara Olson – who, supposedly, was a passenger on Flight 77 -- could not have used an air-phone on 9/11 to call her husband, Ted Olson, the Solicitor General for the United States. As noted above, all such phones had been deactivated by American Airlines and, therefore, were not available on Flight 77.

Furthermore, contrary to the claims of the official story, Barbara Olson could not have used a cell phone to make a collect call to her husband. This is because not only do cell phones not operate in such a fashion, but, as well, because cell phones in 2001 were not capable of working in planes flying at altitude that is when the calls from Barbara Olson to Ted Olson supposedly were made.

Finally – although many other facts could be cited here – according to the official story, no plane parts were found at the alleged 9/11 crash sites in New York City, Virginia (the Pentagon), or Shanksville, Pennsylvania. Yet, 80,000 pieces of the Columbia shuttle were retrieved despite the fact that the shuttle was traveling at 17,000 miles per hour when it disintegrated while the hijacked planes of 9/11 were

only flying at 4-500 miles an hour when they supposedly disintegrated.

Airplanes don't disintegrate when they impact the ground or a building. And, yet, according to the official story concerning 9/11, we are being asked to believe – despite a total lack of any evidence or proof – that for the first time in aviation history, four commercial jets all disintegrated on impact on the same day and left nothing behind except a couple of paper passports (one on the streets of New York and the other in a field in Shanksville) that, quite by chance, happened to belong to several of the alleged hijackers.

In short, Dr. Harris contends that claims made in relation to 9/11 are like claims made in a religious context because – according to Dr. Harris – in both instances propositional statements are being made about events that are devoid of the sort of facts that are needed to support the propositional statements that are being made. Although there could be specific instances in which the foregoing contention might be substantiated with respect to the claims that some individuals make in conjunction with 9/11, nonetheless, as a general statement concerning 9/11, his contention is ludicrous because – as has been noted throughout this chapter -- there are many facts that can be consulted in relation to 9/11 that one cannot access in various religious issues.

Following up on the previously quoted extended excerpt from a second podcast concerning 9/11, Sam Harris goes on to say:

"There's no question that people sometimes conspire, right, so I already have a room in this unexplored mansion … it's completely rational for me to open that door. I'm not forsaking any principle of rationality to say: This might be among the conspiracies that I haven't heard about. It only becomes irrational – like in the case of 9/11 truth – for me when I see that (1) the incentives are not aligned the way they should be; (2) the number of conspirators are so vast as to make any effective secrecy implausible; (3) the kind of reasoning that I notice people doing in order to defend the anomalies there become … it's so obviously post hoc and based on confirmation bias, and a host of cognitive errors that the defenses are not plausible, but if you change all of that, and you give me an allegation, about an egregious

conspiracy that is more well-behaved … where you don't require 5,000 conspirators, and it is not all pieced together after the fact, and the incentives make some sense, then I have a category for that which is, yes, sometimes there really are mustache-twirling conspirators who have access to information that we don't have and they operate in darkness, and we find out 30 years later, and, yes, it's true that for me to spend any time entertaining that in a condition where it is not yet plausible or not popular … yeah, that is kind of a faith-based use of my time … I'm saying, well, is this worth doing … am I going to look crazy to my peers?"

In the foregoing comments, Dr. Harris contends that -- depending on circumstances – although the idea of conspiracy is not necessarily irrational, nevertheless, he considers 9/11 claims to be irrational. He proceeds to cite three rules of reasoning [involving (1) proper alignment of incentives, (2) the number of conspirators, and (3) the kind of reasoning employed) that, supposedly, help lead him to the conclusion that 9/11 claims are irrational in nature.

Why should one accept Dr. Harris's foregoing conditions of rationality, or why should one accept his way of applying those conditions to the issue of 9/11? There is nothing in the contents of that podcast from which the foregoing excerpt is drawn that provides anything of a persuasive nature that might induce one to adopt his proposed rules for reasoning about 9/11.

He only addresses – in a very oblique manner – a few possibilities in his remarks, and, then, appears to conclude that because some ideas concerning 9/11 might be irrational, then, all ideas concerning 9/11 must be irrational. In other words, Dr. Harris seems to be classifying all 9/11 ideas that differ from the prevailing story (the "official" view) as being irrational.

However, he fails to demonstrate that his position is tenable. Among other things, in this regard, Dr. Harris doesn't tackle any central or fundamental issue concerning 9/11 … not the least of which is that there is absolutely nothing about the prevailing/official view, story or theory concerning 9/11 that is tenable, and, therefore, by necessity, one is forced to search for some other way to account for the events of 9/11.

One also might point out that in conjunction with his aforementioned first rule of reasoning concerning 9/11 Dr. Harris doesn't specify what the nature of the incentives are that should be aligned in a certain way, nor does he specify the nature of the criteria that are to be used in determining what constitutes a proper alignment of incentives, nor does he justify the use of those unspecified criteria for establishing a proper alignment of incentives. In short, Dr. Harris first rule or principle of reasoning concerning 9/11 is devoid of specific content or any sort of rationale for why it should be used to identify what is rational when it comes to the issue of 9/11.

As far as the second rule or principle of reasoning that is employed by Dr. Harris to make judgments about the rationality of any given perspective concerning 9/11 – namely, the matter of how many conspirators are required to pull off 9/11 – one wonders how many conspirators are required to make something implausible, and what is the basis for making such a claim? The second rule or principle of reasoning cited by Dr. Harris seems both arbitrary and subjective.

What he considers implausible might not actually be so. Among other things, he has no idea – or, at least, his foregoing comments contain no evidence in this respect -- about what secrets might have been kept successfully by the government or about how many people might have been involved in keeping those secrets.

After all, there were a reported 125,000 people involved in the Manhattan Project during its peak period of hiring (and this does not take into account the total, cumulative number of people who were hired, for one reason or another, for just short periods of time at some point during the project). Yet, nonetheless, that secret appeared to be kept fairly well while it was taking place.

At a subsequent juncture in his foregoing comments, Dr. Harris mentions that 5,000 people constitute a conspiracy that is not well-behaved. This seems to be a rather arbitrary figure (and claim) and, therefore, stands in need of being justified ... something that Dr. Harris does not do.

In addition, there could be a lot fewer people needed to keep a significant secret hidden than Dr. Harris appears to suppose is necessary. For example, a great deal of information might be capable of being controlled by a few individuals and, then, altered as necessary

in order to provide different people with various cover stories concerning what is taking place, and, as a result, many individuals whose understanding of what is transpiring might be manipulated by the kind of information they are being fed and, therefore, they could be participating in a set of events such as 9/11 without understanding the actual significance of their participation or how that participation serves a secret purpose or project that might be orchestrated through the control of information concerning those events.

During his foregoing extended comments, Dr. Harris also alludes to individuals who supposedly reason about 9/11 in, allegedly, an ad hoc fashion or individuals who base their understanding on confirmation bias, or individuals who commit other kinds of cognitive errors. However, he provides no specific examples of what he means.

Therefore, one has no way of knowing whether what he claims he has noticed in conjunction with such 9/11 thinking is really the case or whether what he saying in this regard merely gives expression to his own set of cognitive errors. In fact, to proceed in the vague, non-specific way that he does in the context of 9/11 is to commit a cognitive error, because, without specificity, what he says is devoid of substantive value.

Dr. Harris also advances the idea in his foregoing, extended comments about the allegedly problematic way in which conspiracy thinkers are "defending" various views concerning 9/11 anomalies. However, Dr. Harris doesn't specify what sorts of anomalies he has in mind at this point, nor does he stipulate what the nature of the defense is concerning those anomalies or why such defenses are problematic.

Before trying to analyze whether, or not, certain ways of defending various anomalies are viable, one, first, should become clear about the nature of the anomalies one is talking about in order to determine whether, or not, some ways of defending a perspective concerning various anomalies might be better than others. For instance, one might critically reflect on the manner in which the prevailing/official view, story or theory seeks to explain away (or dismiss) various anomalies -- such as the issue of bombs going off at the World Trade Center or the free-fall speed exhibited during the demise of the three building at that complex, or, the alleged crash of planes at the Trade Towers – by, for the most part, largely ignoring all

manner of evidence concerning the foregoing matters that is inconsistent with the story the government and the mainstream media wish to promulgate.

At a certain point in the previously quoted extended comment, Dr, Harris talks, in a pejorative fashion, about piecing things together after the fact. Just what does he mean?

Most understanding and knowledge is pieced together after the fact. This is a common process in both science and everyday life in which we try to make sense of the data or information that is available to us but tend to do so after the fact, rather, than prior to the fact. Is Dr. Harris suggesting that people should generate their understanding before the fact of events?

At a certain point in his extended comments, Dr. Harris speaks about waiting until an idea is plausible or popular before deciding whether, or not, to invest time in such an issue. He also notes, in passing, that he does not wish to look crazy in the eyes of his peers.

The truth is not necessarily about people's conception of what is, or is not, plausible nor is it a matter of popularity. Furthermore, searching for the truth should not be a function of one's concern with what others think about what one is doing because this merely means that one is permitting other people to set the agenda for the pursuit of truth, and, consequently, one becomes susceptible to a process of self-censorship in which one shies away from tackling certain issues because of the opinions that other individuals have concerning those matters.

Of course, when investigating any given issue, one should take into consideration what other people – especially one's peers – believe. Nonetheless, one needs to independently reflect on those beliefs in order to determine whether, or not, the beliefs of one's peers should be taken seriously and considered to be reliable.

In many cases one only can determine the "worth" of doing something after the fact of having done it. This is one of the reasons why people conduct experiments or why they explore different aspects of existence in order to find out what worth, if any, is entailed by such activities … and, often times, discovering problems can have as

much worth – and, sometimes has more worth – than discovering certain kinds of truths.

In his foregoing, extended comments, despite citing three rules or principles of reasoning concerning 9/11, Dr. Harris fails to specify what it is about the issue of 9/11 that is irrational, or implausible, or not worth the effort to try to discover what the truth concerning 9/11 actually is. Dr. Harris refers to alternative approaches to 9/11 as being inherently implausible, and, yet, rather than examine, in concrete terms, the actual evidence concerning such matters, he restricts himself to talking only in vague generalities about allegedly problematic, conspiratorial approaches to 9/11, and, lo and behold, he finds that alternative ideas about 9/11 are, ipso facto, implausible … as computer programmers might say: Garbage in and, therefore, garbage out.

In addition to two podcasts (discussed above) that contain material on Dr. Harris's ideas about 9/11, Sam Harris also was a guest on 'The Joe Rogan Experience" where he discussed such issues. "The Joe Rogan Experience is an Internet program that explores – through interviews and commentary -- a variety of issues.

During the foregoing program, Dr. Harris states:

"The problem with any conspiracy of that sort, and especially a bigger one, like 9/11 truth stuff conspiracy is that it just takes so much perfect collaboration to bring it off, and we know that people are so bad at that … we know that interests don't align so perfectly … we know that there's always somebody who just wants to sell their story to a tabloid, or feels guilty about the part they played … or, they're getting divorced and they just can't stop talking … and Bill Clinton couldn't keep a semen-stained dress off of the news. You know that's like the simplest thing. He is like the President of the United States with a terrified intern, and this is going to wreck his presidency, and he still couldn't keep the dress a secret."

To begin with, Dr. Harris offers no evidence or proof in the foregoing statement (or later in the program) demonstrating that

conspiracies require "perfect collaboration" in order for them to be perpetrated. Furthermore, the term: "perfect collaboration" frames his perspective gives expression to an arbitrary standard that he claims is necessary for a conspiracy to be perpetrated, and, consequently, that standard is something that he needs to justify ... which he does not do during the aforementioned program..

In addition, the foregoing excerpt from his interview with Joe Rogan seems to provide fairly clear evidence that Dr. Harris wishes to use many, if not all, of his comments concerning 9/11 by playing them off against various 'conspiracy theories'. Yet, not all things 9/11 are necessarily about conspiracies.

Unfortunately, however, Dr. Harris doesn't appear to want to talk about the actual issues, problems and evidence that pertain to 9/11. Indeed, during the course of nearly 70 minutes of recorded material (involving two podcasts and the Joe Rogan interview), Sam Harris fails to offer even one fact about the actual events of 9/11 ... everything he says in the aforementioned recorded material is based on generalized, unsupported statements concerning purported conspiracy theories.

Furthermore, Dr. Harris not only limits his remarks concerning 9/11 to the topic of conspiracy theory, but he also seems to want to talk only about certain kinds of conspiracies ... ones that don't make sense or that involve problems of one kind or another. Apparently, he is trying to distance himself (and everyone else) from the real issues of 9/11, and if this is not what he is trying to accomplish, then, nevertheless, this is the inevitable result of the manner in which he seems to approach issues involving 9/11.

Dr. Harris continuously places the cart before the horse when it comes to 9/11. For example, rather than taking the time to sift through the evidence concerning the prevailing or official view/story and its attendant problems, he chooses to address the issue of collaboration and how it needs to be so perfect in order to be pulled off.

Who is responsible for 9/11 – irrespective of whether, or not, the perpetration of such a crime is done with perfect collaboration -- is not the first order of business in any investigation of 9/11. To properly initiate an investigation into 9/11, one needs to try to establish what happened on that day.

Once the foregoing has been accomplished, then, one could proceed to critically entertain different theories about possible responsibility. In other words, once a person has established some basic facts, then, an individual might be in a position to determine whether, or not, any of those kinds of theories are defensible, or indefensible, ways to account for the facts that have been established.

According to Dr. Harris's earlier quoted statement on the Joe Rogan program, "we" allegedly know all kinds of things about conspiracies. For example, supposedly, we know that people are bad at keeping conspiracies secret and, supposedly, we know "there's always somebody who wants to sell their story to a tabloid", and so on.

Apparently, we know all kinds of things that aren't necessarily so. For instance, we might know that some people are bad at keeping secrets, but we have no way of knowing if everybody is bad at doing so.

Conceivably, there are people who are really good at keeping secrets and/or at collaborating with one another to maintain secrecy. Presumably, such people would be very hard to identify and, therefore, might stand a good chance of being able to elude detection.

Moreover, contrary to the foregoing contention of Dr. Harris, we don't necessarily know that there always will be somebody who wants to talk about a conspiracy or that there always will be someone who has a guilty conscience concerning things in which they were involved. To be sure, we might know there are some people who are willing to talk or who have a guilty conscience because we have come across such cases in our own lives or through the news or on television or in books.

Nevertheless, we are not necessarily likely to know about cases in which the people involved with a given event were unwilling to talk about what went on, or unwilling to sell their story, or did not have a guilty conscience concerning such matters. By purporting that we know all the things he claims we know with respect to the issue of conspiracies, Dr. Harris is putting forth a theory that requires something more than his assertions about such matters.

In addition, as was the case with respect to one of the podcasts involving Dr. Harris was discussed previously in this chapter, he, once

again, refers to the Bill Clinton example concerning a semen-stained dress, and Dr. Harris appears to believe that just one example – the one he keeps repeating – is capable of proving his point about the difficulty involved with suppressing evidence. However, all his example demonstrates is that there are some things that have not been kept a secret.

The Bill Clinton case is part of an inductive argument. Dr. Harris is trying to argue from the particulars of the Bill Clinton issue to conspiracy theories in general by arguing that as Bill Clinton goes, so go all attempts to keep things secret, but he needs something more than one anecdotal case to give credence to the point he is trying to make.

In other words, the form of Dr. Harris's argument at this point is that conspiracies are highly unlikely to be successful because all one has to do verify such a contention is to look at the Bill Clinton case involving Monika Lewinsky and the semen-stained dress. Yet, Dr. Harris does not offer any relevant evidence concerning how many conspiracies are successful and remain hidden as measured against how many conspiracies are not successful or do not remain hidden ... a statistic that might serve to support his view that the Bill Clinton case is fairly typical of what happens when people try to keep things secret or quiet.

Consequently, what Bill Clinton could, or could not, do with respect to the suppression of evidence doesn't necessarily have anything to do with the issues of 9/11. One needs to ask, among other things, whether, or not, the official theory concerning 9/11 is tenable, and, if it is not – which I do not believe it is, and this is a belief rooted in considerable evidence (some of which has been indicated previously in this chapter and much more of which can be found in several books on the subject that I have written) -- then, one must go in search of some alternative account to explain the events of 9/11.

Plausibility concerning the nature of the events that transpired on 9/11 must come from the evidence entailed by 9/11. Plausibility will not be found – as Dr. Harris seems wont to do -- through the processing of irrelevant information – such as the activities of Bill Clinton in the Oval Office – or by speculating, in a general manner, about conspiracies of one kind or another.

To reiterate a point made earlier, first, one must ask if the prevailing/official view is capable of being defended, and irrespective – at this point – of how such a set of events might have been pulled off or how unlikely such a process might have been, if the "official" view, theory, or story is not tenable, then one is left with the realization that although somebody did pull something off on 9/11 because the evidence supports such a claim, but, nonetheless, the somebody who did pull something off did not necessarily include the 19 hijackers from Saudi Arabia and a few other Middle Eastern countries who were identified by the FBI as having perpetrated 9/11 because according to the BBC and various other sources, at least ten of those individuals are still alive, and none of the names of any of the alleged hijackers appeared on the passenger manifest lists for Flights 11, 175, 77, or 93.

Dr. Harris continues on in the Joe Rogan interview with the following comments:

"There's an adage on this subject – never ascribe to conspiracy what can be explained by incompetence, or something like that, and it's just so obvious the incompetence factor in many of these situations is so high and so obvious … and with September 11th, it's just a crushing variable … we were just not … we're not prepared to deal with that kind of problem, and anyone who thinks this was a conspiracy thinks that at least hundreds, probably thousands of people woke up one day – perfectly normal people … people in the FAA, people in the military, people in government … woke up perfect psychopaths willing with a clear conscience to murder 3,000 of their innocent neighbors and not … this wasn't Tuskegee …this wasn't the poor and disenfranchised of a race that you're not so fond of … these are some of the most powerful people in our society just blown up one day and all of this was perfectly attuned to leave the person at the top of the conspiracy -- presumably George Bush -- sitting reading *My Pet Goat* when the whole thing kicked off I mean it's just … it's ridiculous … it's like … and, then, as a pretext to go into Iraq … first of all, it would have been so much easier to think of a pretext to go into Iraq, but why make it look like we got bombed or attacked by Saudis, and Yemenis and Egyptians which, in fact, is what it looks like?

... If your thinking about the sort of false flag operation thesis ... that we wanted to go into Iraq and steal their oil ... but, then, we're perfectly evil and perfectly Machiavellian and could bring this whole thing off without any leaks to this day... ten years hence, no one has come forward and said this is the part I played in it, and I feel terrible about it, and, yet, we botched it in these huge ways where we had to go to Afghanistan, before Iraq, and we really didn't want to go to Afghanistan ... no one suggests we actually wanted to actually wanted to be running around Tora Bora fighting the Taliban."

Can incompetence – as Dr. Harris claims -- really explain 9/11? For example, can one attribute the fact that three Trade Towers fell that day at roughly freefall speeds into their own footprint as being due to incompetence? Was the fact that most of the Twin Towers and Building 7 had been transformed into dust on 9/11 – something that could not be accomplished by airplane crashes, fires, and collapses – due to incompetence? Was the fact that none of the phone calls from the allegedly hijacked airplanes that day – most of which were cellular in nature – could not possibly have been made from those planes when they were in the air due to incompetence? Was the fact that there was no airplane wreckage found at the Pentagon due to incompetence? Was the fact that at least ten of the alleged hijackers – including (according to his parents) Mohammed Atta -- were still alive after 9/11 due to incompetence? Was the fact that professional commercial and military pilots have indicated that they could not have hit those buildings that day in the manner indicated in the official story due to incompetence? Is the fact that no steel-structured building prior to, or since 9/11, ever collapsed due to fires despite having burned for up to 20 times as long as the Trade Towers due to incompetence? Is the fact that none of the pilots or flight attendants in the four, allegedly hijacked airplanes followed FAA protocol that day due to incompetence? Is the fact that William Rodriguez and others heard and experienced bombs going off in the Twin Towers before planes supposedly struck those buildings due to incompetence? Is the fact that none of the alleged hijackers ever flew anything more than a single-engine airplane and were considered to be poor or terrible pilots by their instructors, and, yet, somehow on 9/11 were able to fly

commercial jets better than pilots with many years experience were able to do, due to incompetence? Is the fact that for months after 9/11 temperatures in excess of 1,000 degrees Fahrenheit were recorded at Ground Zero despite the fact there was no identifiable source of fuel to sustain such temperatures for that length of time due to incompetence? Does the fact that April Gallop – who was at the Pentagon when things blew up on 9/11 – was willing to testify in a sworn statement that there were no plane wreckage, engines, luggage, bodies or fires in the space where the incident happened due to incompetence? Was the fact that 12 witnesses – including members of the Pentagon police – have given public statements that the plane that approached the Pentagon on 9/11 flew on the North side of the Citgo gas station about a mile from the Pentagon and not on the South side of that station as required by the Official story due to incompetence?

In addition, Dr. Harris appears to be proposing something quite remarkable in his previous comments when he appears to suggest that the events of September 11th are entirely explicable as a function of incompetence. More specifically, according to Dr. Harris, 20 Arabs (consisting of 19 alleged hijackers and a guy in a cave in Afghanistan) were able to collaborate with sufficient competence to pull off 9/11, but, for whatever reason, such collaborative competence seems to be beyond the ability of Americans because, as Dr. Harris confidently states, everybody "knows" how bad at conspiracies and keeping secrets that people in government are.

Furthermore, in the previous extended statement that has been quoted, Dr. Harris advances a theory – based on a fictitious conspiracy scenario -- concerning the alleged cognitive states of the people who might have committed 9/11. More specifically, according to Dr. Harris, first, those who were responsible for 9/11 were perfectly normal, and, then, they became psychopaths.

However, the argument is entirely constructed from suppositions that are not tied to any actual analysis of the people who were responsible for 9/11 ... whoever they might be. He has no idea – and, certainly, no evidence to substantiate such an idea -- whether, or not, the perpetrators were normal individuals, or whether there was some transformation in them through which they became psychopaths ... this is all contra-factual thinking ... on the part of both Dr. Harris as

well as on the part of any conspiracy theory that might be making such claims.

At this point in the previously quoted excerpt from the Joe Rogan Experience interview, Dr. Harris launches into a soliloquy against those who believe that the attacks of 9/11 were a pretext for invading Iraq despite the fact that the alleged hijackers were, supposedly, from Saudi Arabia, Yemen, and Egypt. As he does so, he attempts to downplay the fact that the first war to be declared after 9/11 involved Afghanistan by trying to claim that no one wanted to go into Afghanistan. However, if this is the case, then, why did the United States reject, out of hand, the Taliban offer to be willing to hand over 'Usama bin Laden on the presentation of proof by the United States that he was, indeed, responsible for 9/11?

NATO's rules of engagement with respect to Afghanistan also required the foregoing sort of proof. However, just as the United States government never provided that proof to the Taliban government, the American government also never produced such proof for NATO, and, therefore, NATO's participation in the Afghan war constitutes a violation of that alliance's charter.

Furthermore, if, as Dr. Harris claims, the United States government was not interested in going into Afghanistan, then, why did the American government indicate that its reason for war with Afghanistan had to do with the fact that the Taliban had been giving safe harbor to 'Usama bin Laden and other members of al-Qaeda, and since those individuals were responsible for 9/11, then, Afghan must be taught a lesson concerning its support of such terrorists and criminals? This reason for war was given despite the fact – previously noted -- that the FBI indicated on its web site that bin Laden was not wanted for 9/11, and, as well, Robert Mueller – the, then, Director of the FBI -- also indicated, when asked, that the FBI had no evidence which tied bin Laden to the events of 9/11?

To try to argue – as Dr. Harris does -- that the U.S. government did not want to go into Afghanistan is to engage in revisionist history. Dr. Harris fails to consider a variety of possibilities for going into Afghanistan that not only had to do with 9/11 but also had to do with, among other things, that country's potential for serving as a strategic location for building a gas pipe line.

For example, the events of 9/11 could have been a pretext for, among other things, invading Afghanistan, and, thereby, getting the war on terror started. The events of 9/11 could have been a pretext for: Passing of The Patriot Act, and/or for establishing Homeland Security, and/or for enabling various intelligence agencies to conduct ever more rigorous forms of illegal surveillance on the American people, and/or for justifying programs of rendition and torture ... all of which were in place prior to the invasion of Iraq.

The events of 9/11 might also have been a pretext for justifying the elimination of the Taliban's interference with the heroin drug trade. In addition, the events of 9/11 could have been a pretext for generating huge spending increases in the military budget and, therefore, increasing profits for the military-industrial complex.

The events of 9/11 might have been a pretext for undermining criticism of, and opposition to, the idea of further wars in the Middle East. Consequently, the events of 9/11 could have helped grease the skids for sliding into the invasion of Iraq.

Harris focuses on the fact that citing 9/11 as a pretext for invading Iraq makes no sense. However, he fails to consider all of the things that the events of 9/11 enabled the federal government to do quite independently of Iraq and for which 9/11 could have served as a pretext for initiating.

Dr. Harris continues on during the Joe Rogan interview with the following comment:

"We go to Iraq ... that worked out well ... the idea that that was the easiest way to get their oil is crazy. It would have been far cheaper to buy it.

Dr. Harris's foregoing analysis is quite off the mark. Saddam Hussein was interested in accepting, and had begun transitioning into, a program of receiving, Euros in payment for oil rather than U.S. dollars. This threatened the American petro-dollar.

If the petro dollar fell by the way side, then, this would have been the beginning of the end for the United States economy. Therefore, contrary to what Dr. Harris claims, purchasing Iraqi oil would not, ultimately, have been cheaper than seizing that resource if the United States were forced to purchase Euros with money that was not just printed into existence through quantitative easing in order to be able to pay for its oil.

In a relatively short period of time, the price of oil would have become prohibitively expensive for the U.S. government and American companies. This is because the monetary exchange markets could no longer be manipulated by the United States through pumping U.S. dollars into the world's economy in order to continue financing America's consumption of world goods ... including oil.

The only thing crazy here is Harris's analysis of the Iraq situation. The reason for invading Iraq was not just about oil but, even more fundamentally, was about controlling the cost – and, therefore, affordability -- of oil in America.

During the Joe Rogan interview, Dr. Harris stated that:

"If we just wanted to go into Iraq to create ... let's buy the idea that people conspire and that, actually, certain people in our government are willing to run a false flag operation so that we can go into Iraq. What would you have done? You would have shot down one of our planes over Iraq ... we wouldn't even have needed that because Saddam was shooting at our planes ... we had a no-fly zone in force for ten years ... the war wasn't over as far as he was concerned ... he kept shooting at planes ... he didn't hit any, but let him hit one, and, then, we would go in, but ..."

Actually, contrary to the foregoing contrafactual thinking of Dr. Harris, the American government actually did run a number of false flags against Iraq. Those false flags went by the name of "weapons of mass destruction" and "Yellow cake" uranium from Niger, and the intelligence asset "Curve Ball", and alleged 'high-level intelligence

meetings between Hussein and al-Qaeda in Czechoslovakia', and the notion of Iraq being a primary source for "state-sponsored terrorism".

Dr. Harris adds on to his previous comment by claiming, in response to the idea that 9/11 might have been an 'Inside Job', that:

"… killing 3,000 people in downtown Manhattan … people who were well connected and send the world-economy into a tailspin, it just doesn't have the right shape of it."

To reiterate some points that were made earlier, Dr. Harris's foregoing statement conveniently ignores a variety of possibilities for why some morally challenged individuals might not have thought twice about the prospect of killing 3,000, or more, of their fellow citizens, many of whom played productive roles in the world economy. For example, Dr. Harris seems to ignore the fact that the evidence that had been gathered involving the Enron, World Com, and Global Crossing scandals, together with various other market scandals, and were being stored in Building 7 of the World Trade Center, were all destroyed on September 11, 2001. This could have served as a powerful motive for someone's being indifferent to any loss of life that might be associated with the destruction of such evidence.

Alternatively, one might wish to consider the multi-billion dollar insurance frauds that came about as a result of the destruction of the World Trade Center as an enticing motivation –- at least from the perspective of some twisted individuals -- for the killing of 3,000, or so, of the "little" people. One might also mention the profits that were generated by the theft of hundreds of billions of dollars worth of gold from the vaults of the Bank of Nova Scotia that were housed in the basement of Building 4, or the money that would be made from re-building the World Trade Center, as well as the money that would be generated through the military-industrial complex due to the destruction of the World Trade Center and using that destruction as justification for going to war, or the money that would be made by re-establishing the heroin trade routes out of the poppy fields of Afghanistan, or the money that might be made by mercenaries for the

parts they would play in, first, Afghanistan, and, then, later on, Iraq. All the foregoing possibilities might have been far more pertinent to generating motivations for perpetrating 9/11 than either Iraq or whatever temporary blips to the world economy that might have ensued from the deaths of 3,000 people, irrespective of what the role of such individuals might have been in the world economy.

For some people, September 11th, 2001 was a tragedy. For other individuals, 9/11 was the mother of all financial, economic, military, political and/or career opportunities.

Toward the end of his interview with Joe Rogan, a question is raised about why the United States seemed so eager to invade Iraq, Dr. Harris states:

"To some degree, I'm talking out of my depth here because I'm not really like a policy guy …

Nor, apparently, -- at least based on the foregoing three Internet programs -- is Dr. Harris "really like" a: History guy, or a "fact" guy, or a 9/11 guy, or a financial/economic guy, or a political analysis guy, or an "insight" guy. Furthermore, despite having received a doctorate in cognitive neuroscience, Dr. Harris does not appear to be much of a science guy either since he seems to be unconcerned with discovering actual empirical evidence concerning 9/11 and appears to prefer, instead, to become immersed in contrafactual meta-thinking with respect to various conspiracy theories that might have arisen in the minds of some people in conjunction with 9/11 but tend to be far removed from the essential issues of 9/11.

Many scientists who have abdicated their scientific responsibilities in relation to 9/11 might be like the previously discussed case of Peter Michael Ketchum, the former employee of NIST, who, unfortunately, up to a certain point in time, never really exercised due diligence in the matter of 9/11 because he had trusted – mistakenly – that the so-called scientists who actually were involved in the investigation of the World Trade Center destruction or the damage at the Pentagon were honest brokers of the truth concerning 9/11 … which they were not. However, although Mr. Ketchum needed 14 years, or so, to reactivate his status as an honest, objective broker of

the truth in the matter of 9/11, nonetheless, he finally did become a scientist once again in that respect and started looking at actual evidence in conjunction with 9/11, and, then, proceeded on to analyze and weigh the value and significance of that data.

However, although Dr. Harris provides a certain amount of evidence to suggest that, to some extent, he has thought a little – very, very little -- about the events of 9/11, nonetheless, he has not done so as a scientist because the scientific method is entirely absent from the way he tends to engage the topic of 9/11. In other words, his perspective concerning 9/11 is not only almost entirely devoid of empirical content, but, in addition, the quality of his thinking concerning the issue of 9/11 lacks rigor, insight, rationality, and diligence.

As such, Dr. Harris does not seem worthy to be considered as an honest and objective broker of truth with respect to matters pertaining to 9/11. In other words he appears to have failed to make the requisite efforts to acquire insight into the nature of 9/11 in a manner that is rooted in a rigorous process that is transparent, open, not intended to evade difficult problems, or mislead and distort (through commission or omission) with respect to relevant issues, as well as be critically and fairly responsive to actual evidence

Like so many other scientists in America, Dr. Harris appears to have abdicated his fiduciary responsibilities to the truth in matters pertaining to, among other things, 9/11. In the process of having exhibited signs of willful blindness (see page 14) concerning the issues of 9/11, he has become part of the realm of "Unscientific America" that Chris Mooney and Sheril Kirshenbaum never talk about in their book of the same name ... namely, the realm of so-called scientists who have abdicated their responsibilities to the truth in the matter of, among other things, 9/11.

Perhaps, the reason why Mooney and Kirshenbaum never explore the foregoing sorts of issues in their aforementioned book is because they, themselves, suffer from the same malady as Dr. Harris does. In other words, they all seem blind to the fact that each of them, in her or his own way, is helping to bring about an "unscientific America" because of their unwillingness to be honest, objective brokers of the truth when it comes to issues such as 9/11.

The topic of 9/11 should have a central role in both scientific and non-scientific facets of the curriculum in every American high school and university. The fact that this is not the case constitutes an important reason why America is becoming increasingly "unscientific" because – as the issue of 9/11 demonstrates in the case of individuals such as Sam Harris -- all too many individuals who consider themselves to be scientists – or teachers of science -- have abdicated responsibility when it comes to fulfilling the most fundamental role of a scientist – namely, to serve as an honest broker of truth in all matters of investigation … including the issue of 9/11.

Noam Chomsky and 9/11

Sometimes, because of his research in linguistics and theories of mind, Noam Chomsky is referred to as a cognitive scientist. Moreover, he has an office in, and teaches (or taught) courses at, an institution – M.I.T. – that is home to many colleagues who often are referred to as scientists or engineers and who have been helping to train succeeding generations of scientists and engineers for many decades.

In October of 2001, four or five weeks after the events of 9/11, Professor Chomsky released a book of essays called *9-11* which ran a little over 100 pages in length. The book consisted of a half dozen, or so, essays that were drawn from interviews he had done following 9/11.

Approximately ten years later he updated the foregoing work by adding an essay about a variety of issues that arose in conjunction with the Navy Seal Six operation that allegedly terminated the life of 'Usama bin Laden in Pakistan on May 2, 2011. The title of the latter book was *9-11: Was There An Alternative?*

With respect to the latter publication, I won't go into the details of the eyewitness accounts in Pakistan – not covered by Western media outlets – indicating that the American government's version of events in relation to the foregoing operation are not corroborated by individuals from Pakistan who actually observed Operation Neptune Spear take place at Abbottabad, nor will I do anything more than state that many years earlier (in 2002 or 2003) bin Laden had been reported, by a variety of foreign media outlets, to have died of various physical ailments, and, consequently, whatever took place on May 2nd, 2011 was something other than it was portrayed to be.

What remains the same, however, both with respect to the 2001 edition of *9-11* and its updated, 2011 edition, is that in both cases, Professor Chomsky tends to fail to carefully examine, analyze, and critically reflect on a great deal of relevant information concerning the events of 9/11 and the life of 'Usama bin Laden. Professor Chomsky claims to be putting things in an appropriate historical context in his two books (more accurately, two editions of one book), but all he actually does is construct a narrative that gives expression to his political and philosophical ideology.

Both of the foregoing works – without citing any evidence whatsoever -- take as a starting point the "official" government story that 19 Arab hijackers, working in conjunction with 'Usama bin Laden, planned and executed the events of 9/11. He, then, proceeds to engage in a historical analysis that purports to put the activities of the alleged hijackers into what he considers to be a proper historical perspective.

Early on in the first edition of 9-11, he says:

"The horrifying atrocities of September 11 are something quite new in world affairs, not in their scale and character but in their target. For the United States, this is the first time since the War of 1812 that the national territory has been under attack, or even threatened."

In other words, the perpetrators of September came from outside of the United States and attacked the home mainland of America. No provision is made for the possibility that there might have been elements of that attack which were orchestrated from within the United States by some rogue elements within the intelligence community, the military, the corporate world, and/or the senior executive service (the SES went into effect during the administration of Jimmy Carter consisted of a group of organizational, management executives who occupied positions just beneath various Presidential appointees and were intended to serve as liaisons between such appointees and the rest of the civil service.)

Professor Chomsky goes on to claim:

"The likely perpetrators are a category of their own, but uncontroversially, they draw support from a reservoir of bitterness and anger over U.S. policies in the region,"

Then, he goes on to talk about the "moneyed Muslims" (such as business leaders, bankers, and professionals of one kind or another):

"... with ties to the United States. They expressed dismay and anger about U.S. support for harsh authoritarian states and the

barriers that Washington places against independent development and political democracy by its policies of 'propping up oppressive regimes."

The foregoing comments constitute part of the core set of forces that supposedly induced "the likely perpetrators" (i.e., Muslims) to commit the atrocities of September 11. Yet, the narrative that is being constructed by Professor Chomsky is done in the absence of any evidence indicating that Muslims actually carried out the acts of 9/11, and, moreover, the hermeneutical tapestry that is being woven by Professor Chomsky does not offer any evidence – other than presumed motives – that are capable of lending support to the idea that one should consider the 19 Arabs who were identified by the FBI (and who did so within a matter of hours) as the perpetrators of 9/11 or why one should consider them to be "the likely perpetrators".

Much of the book, *9-11*, consists in a litany of variations on the same foregoing themes – namely, how the imperialistic, as well as financially and economically exploitive policies of the United States in different parts of the world and in different periods of history have helped bring about a multiplicity of powders kegs of resentment, anger, and bitterness concerning the United States … especially in the Muslim world. However, at no point during the process of advancing any of the foregoing instances of analysis does Professor Chomsky cite one piece of evidence indicating that Muslims actually were responsible for the atrocities of 9/11.

He is like a detective who says again and again and again: 'Well, they certainly had the motive to do it. We gave it to them." Nonetheless, he does not produce any forensic evidence that has probative value.

Professor Chomsky goes on to say:

"…it is important not to be intimidated by hysterical ranting and lies and to keep as closely as one can to the course of truth and honesty and concern for the human consequences of what one does, or fails to do."

Yet, as I believe will become clear in due course, Professor Chomsky is the one who is guilty of hysterical ranting and, quite miserably, fails "to keep as closely as one can to the course of truth and honesty and concern for the human consequences of what one does, or fails to do" when it comes to the issue of 9/11.

Later in his book, Professor Chomsky states in response to the question of 'Who is responsible' for 9/11, he answers:

"... It was assumed, plausibly, that the guilty parties were bin Laden and his al-Qaeda network."

Unfortunately, Professor Chomsky never provides an account – either in this book or in others that he has written – capable of demonstrating -- in terms of hard evidence -- what makes such an assumption plausible, other than to say that "No one knows more about them (i.e., al-Qaeda) than the CIA" ... something that we have to take at face value because evidence is never forthcoming to indicate that the CIA either knew them as well as they claimed or knew them in a way that was capable of proving that bin Laden and his al-Qaeda network were responsible for 9/11.

In fact, during "*An Evening with Noam Chomsky: The War On Terror*" that took place at M.I.T. on October 18th, 2001, Professor Chomsky indicated that while he, more or less, agreed with the official position of the Bush Administration concerning the alleged identity of the perpetrators of 9/11, nonetheless, "...it was astonishing to see how weak the evidence was," and, then, went on to suggest that for purposes of discussion he was going to assume that such an account was true but, whether, or not, Islamic terrorists were involved in 9/11 didn't matter much.

What an astonishing thing to say. This is comparable to a system of justice sentencing someone to a life sentence in prison or sentencing them to death and, then, adding, that whether, or not, the person being sentenced in the foregoing manner is guilty doesn't matter much.

How does one justify such a statement? I have, yet, to come across anything in Professor Chomsky's books or presentations that is

capable of justifying his claim that whether, or not, Islamic terrorists perpetrated the atrocities of 9/11 doesn't matter.

What is equally astonishing is the utter lack of curiosity that Professor Chomsky seems to exhibit in relation to the fact, by his own admission, that the evidence concerning the alleged guilt of al-Qaeda and bin Laden appeared to be so weak. Why did he just slide pass this issue of weak evidence and proceed to work on the assumption that not only were the allegations true, but, when push came to shove, whether, or not, Muslim terrorists were involved didn't matter?

One could assume that Professor Chomsky feels that the most important aspect of his analysis has to do with providing insight into, and an understanding (i.e. a proper historical perspective) of, the United States and the way in which its political, financial, military, and economic policies create problems that, sooner or later, will have unwanted consequences for both the United States and the world ... one of which was 9/11. From such a perspective, the sort of terrorism that is entailed by groups like al-Qaeda is, relatively speaking, small potatoes when measured against the terrorist activities perpetrated by the United States, and, in this respect, whether Muslim terrorists perpetrated 9/11 doesn't really matter ... what matters are U.S. policies and their problematic ramifications ... both domestically and internationally.

However, if Professor Chomsky is wrong in his analysis of the nature of the events that are taking place in the world and/or why those events are occurring – and I believe he is – then, identifying who actually perpetrated the atrocities of 9/11 really will matter. In fact, Professor Chomsky's flawed analysis of 9/11 serves as proof that either he really doesn't understand why identifying the actual perpetrators of 9/11 is of fundamental importance for gaining insight into the nature of world dynamics or, alternatively, he actually does understand the significance of this issue and chooses to hide the truth as well as be less than honest with respect to his analysis of the 9/11 tragedy and, as a result, he has failed to adhere to his set of previously noted values – namely, "...to keep as closely as one can to the course of truth and honesty and concern for the human consequences of what one does, or fails to do."

According to Professor Chomsky, individuals who believe that the "official" story concerning 9/11 is suspect or who believe they have uncovered evidence to demonstrate that the "official" story is, in some way, untenable should do what any scientist does – namely, publish their findings in the available scientific and professional journals and arrange talks at various universities to address those issues. Apparently, Professor Chomsky does not know as much about science as his place of employment might suggest because the world he inhabits – that Is, the realm of science, engineering and academia -- is not always a bastion for the free flow of information, essential curiosity, rigorous research, and/or objective analysis that he seems to believe it is.

A number of scientists – for example, Judy Wood, Steven Jones, Kevin Ryan, and Niels Harrit – lost their jobs because they questioned the "official" position concerning 9/11. Once people start losing their jobs for engaging in a process of critical inquiry concerning 9/11 – or, any number of topics – the influenza of self-censorship begins to spread fairly quickly among previously inquiring minds.

Furthermore, the fact there were many scientists and engineers associated with NIST, *Scientific American*, *The Pentagon Performance Report*, and *Popular Mechanics* didn't prevent those individuals from issuing articles, books, and reports that were breathtaking in their ineptitude and the extent to which those individuals betrayed the tenets of objective inquiry. Yet, the foregoing sort of mentality almost completely dominates the activities of many scientific, professional, media, and academic endeavors when it comes to, among other things, the issue of 9/11 … and Noam Chomsky's way of engaging 9/11 reflects the same stultifying, incurious, group-thinking mentality.

During June of 2004, Professor Chomsky gave a talk in Budapest, Hungary. At a certain point during his presentation, the topic of 9/11 arose, and he responded as follows:

"Did they [i.e., the Bush Administration] plan on it in any way o know anything about it … this is extremely unlikely. For one, they would have to have been insane, to try anything like that … if they had, it is almost certain that it would have leaked out. It is a very porous system. Secrets are very hard to keep. So something would have leaked

out ... very likely, and if it had, they would all have been before a firing squad and that would have been the end of the Republican Party forever."

In light of Professor Chomsky's activities over the last 40 years or so – which involves writing scores of books and articles, as well as giving countless interviews and lectures that provide, to a captivating degree, evidence-based details concerning the ways in which successive American governments have consistently attempted to subvert truth, justice, human rights, and democratic processes, one is somewhat surprised to observe Professor Chomsky become preoccupied with speculating about the 'reasonableness' of Bush's innocence based on something other than actual evidence concerning 9/11. Professor Chomsky has developed a reputation for scratching beneath surface phenomena in order to uncover the actual dynamics at work in a given set of circumstances, but, in Hungary, he abandons that modus operandi and becomes ensconced in surface phenomena.

Consequently, Professor Chomsky does not begin his comments, before a Hungarian audience as any good scientist might, with something to the effect of: "Well, let's take a look at some of the actual evidence concerning 9/11 and whether, or not, that data supports the government's hypothesis because I have spent years demonstrating that government's often cannot be trusted to speak the truth concerning such events." Rather, he proceeds by putting forth a straw dog 'who-done-it' scenario – i.e., Bush did it – which enables him to avoid having to talk about actual evidence and, instead, permits him to focus entirely on speculating about whether, or not, the "Bush did-it" hypothesis is reasonable given what we supposedly "know" (??) about the phenomenon of government leaks.

By framing the issue in the way he does, Professor Chomsky is able to sidestep the heart of the 9/11 controversy – namely, does the available evidence concerning the events of 9/11 actually support the government's official story about that day in which, allegedly, 19 Arab hijackers conspired with 'Usama bin Laden to fly planes into buildings in America. Instead, Professor Chomsky spends his time putting together an argument that -- quite effectively -- diverts attention away from key issues.

Furthermore, one should note that Professor Chomsky offers no evidence to substantiate his foregoing comments concerning the issue of leaks. For instance, he does not provide statistics about, or research concerning, the percentage of hidden government activities that actually are leaked when measured against those activities that are successfully kept from public view.

He merely states that the government system is very porous and that government secrets are very hard to keep. However, none of the foregoing claims are based on anything more than Professor Chomsky's assertion that such is the case, and, therefore, one is not in any position to determine how likely it is that someone would have leaked something, or other, concerning the government's participation in, or knowledge about, the events of 9/11.

Notwithstanding the foregoing considerations, Professor Chomsky also filters his previously quoted remarks through a conceptual framework in which one is not given any opportunity to consider alternative possibilities -- if the government actually were somehow involved in, or had knowledge about, 9/11 -– with respect to which part of government might have played an active role in helping to orchestrate the events of that day. Professor Chomsky restricts his focus to Bush and members of his administration, but if some other dimension of government were involved in the perpetration of 9/11 besides the Bush Administration, then, perhaps, one would be prudent to consider the activities of: Various facets of the "intelligence community" (something of an oxymoron), and/or different members of the military, and/or any number of possible candidates from among the Senior Executive Service branch of government … none of whom – despite the fact that Constitutional theory suggests otherwise -- are necessarily under the control of elected officials such as Bush, Cheney, and company.

Professor Chomsky continues his commentary on 9/11 with the following remarks:

"… furthermore, it was completely unpredictable what was going to happen. You couldn't predict that the plane would actually hit the World Trade Center – it happened that it did, but it easily could have missed. So, you could hardly control it, but what you could be almost

certain of is that any hint of a plan would have leaked and would have destroyed them …"

The foregoing statement is factually incorrect in several ways. For example, at least from the early 1990s, technology has existed that is capable of remotely controlling commercial – and other – aircraft.

We are most familiar with such technology in relation to the phenomenon of drones. Nonetheless, prior to 9/11, both American Airlines and United Airlines (key companies in the events of September 11th, 2001) installed flight termination systems in all of their planes in order to guard against, among other things, hijacking and, thereby, enable people on the ground to be able to take over control of such aircraft if circumstances warranted it.

Consequently, if flight termination systems were activated on 9/11 by parties unknown (possibly unknown parties within government), then, one cannot necessarily say that "what was going to happen" on 9/11 was "completely unpredictable." Only people, like Professor Chomsky, who, apparently, are ignorant of such technological developments, might have been unable to imagine the possibility that what took place on 9/11 in New York, Virginia, and Shanksville, Pennsylvania might have been quite predictable – or was predictable to a considerable degree – as far as the individuals who were running those operations were concerned.

Professor Chomsky's foregoing remarks are also factually shaky when he says: "You couldn't predict that the plane would actually hit the World Trade Center – it happened that it did, but it actually could have missed." There are several ways in which such a statement is factually problematic.

First of all, Professor Chomsky is quite right that a pilot's chances of hitting either of the Twin Towers were very "iffy" propositions. However, Professor Chomsky apparently fails to appreciate the potential implications that his statement carries with respect to the issue of 9/11.

More specifically, at some point following 9/11, John Lear, part of the Lear jet family, described, for a Project Camelot film crew, how he took a number of professional pilots – including some who had many

years of experience on the type of aircraft that allegedly crashed into the Twin Towers on 9/11 – into a Pan American Flight Simulator in Miami, Florida and discovered that under the conditions described by the FAA in its reports on 9/11, none of his pilots could duplicate what a bunch of novice Arab pilots, who had difficulty flying Cessna airplanes, supposedly pulled off on 9/11.

Lear referred to the challenge of intentionally flying a large commercial jet like American Airlines Flight 11 or United Airlines Flight 175 into a tall steel-framed building as being "impossible". He added: "At the height of my career, as proficient as I was in every kind of airplane, there's no way I could have done that. I mean, it's just too complex."

Dan D'vato, who flight tests pilots for his airline, also took a number of line pilots into a flight simulator in the weeks following 9.11. He tested them on a 737 -- which is a smaller and more maneuverable jet aircraft than the ones involved on 9/11 – and he discovered that despite many years of experience flying all manner of planes under all manner of conditions, none of those line pilots could hit the World Trade Center Towers at the speeds that were supposedly exhibited by Flight 11 and Flight 175 on 9/11.

Russ Wittenburg, a retired commercial and Air Force pilot, commented on the likelihood that the alleged Arab hijacking pilots of 9/11 infamy could have accomplished what the government's official story seeks to attribute to them. He said: "I flew the two actual aircraft which were involved in 9/11 -- The Flight number 175 and Flight 93. The 757 that allegedly went down at Shanksville and Flight 175 is the aircraft that is alleged to have hit the South Tower. I don't believe it's possible for terrorists ... so-called terrorists – to train on a 172 (single-engine Cessna) then jump in the cockpit of a 757 – 767 glass cockpit and vertical navigate the aircraft, lateral navigate the aircraft ... and fly the airplane at speeds exceeding its designed limit speed, by well over a hundred knots, make high-speed, high-bank turns, exceeding probably 5, 6 7 g's ... and the aircraft would literally fall out of the sky. I couldn't do it, and I am absolutely positive they couldn't do it."

Professor Chomsky never appears to question the idea that novice pilots who had difficulty exhibiting proficiency with respect to the flying of even single-engine Cessna airplanes (and, therefore, one

wonders if one accurately can refer to such individuals as "pilots"), nonetheless, were somehow able to fly large commercial airplanes on 9/11 in a manner that experienced pilots would have had great difficulty in accomplishing ... if they could have done it at all. Why does Professor Chomsky consider the possibility that for members of the Bush Administration to try to perpetrate something like 9/11 would be "insane", and, yet, he doesn't consider the idea equally insane – if not more so -- that individuals who had been rated as terrible pilots by their flight instructors were subsequently capable of performing incredible feats of aviation on 9/11?

Furthermore, Professor Chomsky foregoing remarks are completely devoid of any hint of questions concerning the idea that planes actually hit either the Twin Towers or the Pentagon. The superstructure of commercial jets consists largely of aluminum, and aluminum is not capable of cutting through steel-framed and concrete buildings in the cookie-cutter fashion that is depicted in photographs of the Twin Towers on 9/11, and any reliable witness who has learned about what happens when an aircraft strikes a building will attest that this is the case.

In addition, aircraft do not melt into steel-framed buildings -- that is, show no evidence of meeting with an equal and opposite force of resistance, and, thereby, comply with Newton's third law of motion. Yet, this is precisely what is depicted in the 9/11 videos that, supposedly, show a commercial jet slamming into the South Tower of the World Trade Center.

Moreover, commercial aircraft do not disintegrate into nothing when they crash into an object – whether that object is a steel-framed tower, the Pentagon, or the ground in Shanksville, Pennsylvania. Yet, on September 11th, 2001, we are being asked to believe – and Professor Chomsky seems quite gullible in this respect – that four commercial aircraft disintegrated on 9/11 and left behind no signs of their presence ... except a couple of paper passports belonging to the alleged hijackers.

As pointed out previously, 80,000 pieces of the Columbia shuttle were recovered despite the fact that it was travelling at 17,000 miles per hour when it broke apart. Yet, airplanes that were travelling at 1/34th of that speed supposedly just evaporated into thin air since, for

the first time in aviation history, parts to four commercial jets were never located following their alleged crashes on 9/11.

Some individuals have indicated that following 9/11 part of a jet engine actually was found on Murray Street near the World Trade Center. However, the part that lay at the foregoing location – and later on was moved to a landfill on Staten Island more than a year before the 9/11 Commission began its deliberations -- was a General Electric product, but United Airlines only uses Pratt and Witney.

Consequently, the jet engine part found on Murray Street could not have come from Flight 175 as some individuals have tried to claim. In addition, and, perhaps, somewhat more intriguingly, what was part of a General Electric jet engine doing on Murray Street, and how did it get there?

Professor Chomsky continues to expound on the issue of 9/11 before his Hungarian audience when he states:

"Now if you look at it there is a big industry in the United States … on the left as well… I mean you should see the e-mails I get … this huge Internet industry from the left trying to demonstrate … and there are books coming out … best sellers in France and so on that this was all faked and it was planned by the Bush Administration, and so on … if you look at the evidence, anybody who knows anything about the sciences would instantly discount that evidence."

While it might be true that there is a "big industry in the United States" taking place on the Internet in which various individuals put forth theories about how the Bush Administration perpetrated the events of 9/11 or how things were faked on 9/11, nonetheless, Professor Chomsky never offers any specific examples of what he has in mind when he makes the foregoing sorts of charges. Consequently, one is unable to determine whether, or not, he is correct when he says: "if you look at the evidence, anybody who knows anything about the sciences would instantly discount that evidence."

What evidence, exactly, is one supposed to be considering? Furthermore, just what aspects of science would "instantly discount that evidence"?

What about those individuals who do know something about science and did not "instantly discount" whatever evidence he is alluding to in very non-specific terms? Should one automatically assume that because some individuals might reach a conclusion that is different from the sort of conclusion that Professor Chomsky has in mind that, therefore, such people must not actually know anything about science?

Why should one suppose that Professor Chomsky's understanding of science is to be preferred to the understanding of science held by those who might disagree with him on this issue? Certainly, Professor Chomsky's comments do not offer any way to objectively decide such a question.

In fact, the foregoing assertions of Professor Chomsky are entirely vague in nature. This lack of specificity and concreteness continues when he adds to his previous remarks by saying: "There are plenty of coincidences and unexplained phenomena … you know, why did this happen and why didn't that happen … and so on,"

How can one possibly know if something is a coincidence or an unexplained phenomenon until one has an opportunity to critically reflect on actual evidence? Why should one accept as true something that Professor Chomsky says is the case just because he says it?

According to Professor Chomsky: "If you look at a controlled scientific experiment, the same thing is true …" (i.e., as far as the presence of unexplained phenomena and coincidences is concerned). He goes on to say: "… when somebody carries out a controlled scientific experiment, at the best laboratories, at the end there are lots of things that are unexplained, and there are funny coincidences."

Is it necessarily true that at the end of controlled experiments carried out at even the best laboratories there are always "lots of things that are unexplained and there are funny coincidences"? If what he is saying is true, then, why not put forth even a little of the evidence to which he is alluding?

However, if an experiment is really well-controlled, then, there should be a relative dearth of "unexplained phenomena" and "funny coincidences" generated by such a process because that is what a well-controlled experiment is designed to eliminate. The data from an

experiment should, as precisely as possible, either help confirm, or disconfirm, the hypothesis that led to that experiment being performed, and if an experiment leads to lots of "unexplained phenomena" or "funny coincidences, then, by definition, the experiment is not well-controlled.

Professor Chomsky goers on to maintain that:

"If you want to get a sense of it [i.e., that is, the issue of unexplained phenomena and funny coincidences], take a look at the letters columns in the technical scientific journals, like *Nature* or *Science*, or something ... the letters are commonly about unexplained properties of reports of technical experiments carried out under controlled conditions which will just leave a lot of things unexplained ... that's the way the world is."

While it is true that the letters columns in various scientific and technical journals do contain comments on various experiments that have been performed and, at some point, have been given written expression in the sorts of journals to which Professor Chomsky refers in the foregoing quote, nonetheless, such comments often tend to involve criticisms about aspects of an experiment that have not been well-controlled or that have failed -- for instance, in the analysis or conclusion sections of an article -- to take into consideration various alternative possibilities that might account for the results that were derived from a given experiment. In other words, the comments in the letters to which Professor Chomsky is alluding in the previous quote often tend to be directed toward pointing out possible flaws with one, or another, facet of the methodology employed in a given experiment rather than being preoccupied with various "unexplained phenomena" or "funny coincidences".

If an experiment is written up and contains "unexplained phenomena" and/or "funny coincidences," then, such an article or note is quite likely to be flagged by the peer review process and required to be redone in a more rigorous fashion. Professor Chomsky's foregoing comments make it seem as if the idea of quality-control is absent from the publication of articles concerning scientific experiments, and in the

process, he seems to confuse the dialogues concerning scientific method that tends to take place in various technical journals with the alleged existence of all manner of – but unspecified – "unexplained phenomena" and "funny coincidences" that supposedly appear in the letters columns of such journals.

During the aforementioned 2004 talk in Hungary, Professor Chomsky goes on to note that:

"Now, if you take a natural event ... you know, not something that is controlled ... most of it will be unexplained. There will be all sorts of things that happen that afterwards you can put them in some kind of pattern, but beforehand you can't ... and the pattern might be completely meaningless ... because you can put into some other pattern too if you want ... that's just the way complicated events are ... so the evidence that has been produced, in my opinion, is essentially worthless ..."

If the foregoing words of Professor Chomsky are to be believed, then, presumably, the 100, or more books, that Professor Chomsky has written should be considered -- that is, if he is to be logically consistent – as being "essentially worthless" in his opinion. After all, his books satisfy the conditions that he outlined in his previous comment in as much as those books explore an array of complicated, natural events involving history, politics, government, media, economics, language, cognitive processes, or philosophy, and, apparently, since, according to Professor Chomsky most of those natural events "will be unexplained", and, in addition, since "... afterwards you can put them in some kind of pattern, but beforehand you can't ... and the pattern might be completely meaningless ... because you can put into some other pattern too if you want ... that's just the way complicated events are ...", then, it follows that Professor Chomsky's 100, or more, books are little more than unexplained, meaningless, and arbitrary arrangements of data that could just as easily be explained by "some other pattern" of conceptual framing, and, consequently, should be considered to be "essentially worthless."

The choices before Professor Chomsky appear to be two. On the

one hand, he could concede that the foregoing analysis of his position is entirely consistent with what he proclaimed to his Hungarian audience in conjunction with the issue of 9/11, and, therefore, anything that he says about such a topic should be considered to be "essentially meaningless," or, on the other hand, he could admit that his comments about complex, natural events constituting largely unexplained and meaningless patterns of thought that are fairly arbitrary in nature might have played a little too fast and loose with the semantics and syntax of the matter he was discussing.

Professor Chomsky brings to a close his comments on 9/11 in Hungary when he contends:

"I should say that I'm pretty isolated on this in the West … a large part of the left completely disagrees on this and has all kinds of elaborate conspiracy theories about how it happened and why it happened, and so on … but I think it is completely wrong, but I also think it is diverting people away from serious issues … I mean even if it were true … which is extremely unlikely, who cares … doesn't have any significance"

Why should one accept his foregoing pronouncement that one, or another, alternative theory concerning 9/11 is "extremely unlikely"? He cites zero evidence that might justify his perspective concerning any particular theory, and he engages in no detailed critical analysis of concrete issues involving such evidence.

Instead, he spends all his time remarking on how the Internet and many commentators on the left are involved in little more than putting forth "elaborate conspiracy theories about how it happened and why it happened, and so on." This is nothing more than argument by assertion.

Moreover, one is somewhat nonplussed by Professor Chomsky's claim that even if any of the theories to which is alluding were true, nevertheless, according to Professor Chomsky, that fact would have no significance. One wonders what the nature of his argument possibly could be which held that if someone were able to demonstrate that 19 Arab hijackers did not perpetrate the events of 9/11, but, rather, those

events were the handy-work of one, or another, facet of the United States government, then such a fact would have no significance.

Millions of people have been killed and maimed as a result of the manner in which successive American governments, the American media, and academia in the United States have interpreted the events of 9/11 in compliance with the official government story. Millions more individuals have been displaced as a result of those "official" interpretations.

Due to the "official story" concerning 9/11, the United States government has spent trillions of dollars on wars in Afghanistan, Iraq, and elsewhere. These are trillions of dollars that could have been, and should have been, spent on helping the people of the United States to improve economically, financially, and educationally, as well as to have access to better health care and an enhanced infrastructure, rather than contributing to the profits of the military-industrial complex.

As a result of the government's official position concerning 9/11: The Patriot Act was passed, Homeland Security was established; the TSA was introduced; a series of NDAA (National Defense Authorization Act) policy initiatives have been implemented; the NSA has stepped up its illegal surveillance of the American people; and a slew of Executive Orders have been written by several Presidents that, given the right opportunity, are designed to turn the American republic into a fascist dictatorship. In addition, the United States government engaged in rendition and torture programs in many parts of the world.

According to Professor Chomsky previously quoted comment, all of the foregoing events could have been perpetrated under false pretenses, but he claims that such a fact would have no significance. Just what are his criteria for defining what constitutes the nature of "significance", and what justifies his use of those sorts of criteria?

Professor Chomsky completes his analysis of 9/11 before a Hungarian audience by saying:

"... It's a little bit like the huge energy that's put out on who killed John F. Kennedy ... who knows and who cares --- plenty of people get killed all the time ... why does it matter that one of them happened to be John F. Kennedy ... If there was some reason to believe that there

was some high-level conspiracy, it might be interesting, but the evidence against that is overwhelming, and after that if it happened to be a jealous husband or someone else, what difference does it make. It's just taking energy away from serious issues to ones that don't matter, and I think the same is true here."

What is the "overwhelming" evidence against the idea that there was a high-level conspiracy involved in the assassination of John F. Kennedy? Professor Chomsky's foregoing claim – as well as the perspective of the multi-volume Warren Commission Report -- can be totally decimated with 5 words – namely, "Back and to the left" – because as is clearly indicated in the video of that event, the fatal shot that killed Kennedy pushed his head "back and to the left," and that shot could not possibly have come from the book depository building where Oswald supposedly was positioned.

In addition, law enforcement ran Oswald through two gun-shot residue tests on the day of the assassination. Both tests were negative.

Jim Marrs (*Crossfire*), Peter Dale Scott (*Deep Politics and the Death of JFK*), Oliver Stone and Peter Kuznick (*The Untold History of the United States*), and James W. Douglas (*JFK and the Unspeakable: Why He Died and Why It Matters*), as well as Michael Parenti (*Dirty Truths)*, John Judge (Coalition on Political Assassinations) and others, have all put forth considerable evidence indicating that Professor Chomsky's position is untenable when he tried to contend that the evidence that stands in opposition to the possibility that there was a high-level assassination plot against Kennedy is overwhelming. Moreover, contrary to the repeated claims of Professor Chomsky over the years (e.g., *Rethinking Camelot*) that the assassination of Kennedy had no appreciable effect on U.S. policy, the foregoing authors all indicate that the assassination of JFK fundamentally changed the direction of government policy with respect to an array of international, financial, economic, intelligence, and domestic issues.

The perspective of Professor Chomsky concerning the JFK assassination is fundamentally flawed. Furthermore, even if one were to grant his point that the Internet is filled with wild, unsubstantiated theories concerning the nature of 9/11, nonetheless, he also is wrong when he claims that even if true, such theories are of no significance.

To be sure, not every theory about 9/11 is true just as not every scientific theory is true. Nonetheless, in each case (that is, both in relation to science and in relation to the topic of 9/11), everything depends on the nature of the evidence that can be gathered, as well as on a proper analysis of that evidence.

However, since Professor Chomsky either tends to ignore actual evidence concerning 9/11 or fails to engage that evidence with due diligence, he really has nothing of value to say about 9/11. In other words, almost all – if not all -- of his statements concerning 9/11 are empty of substantive content and, therefore have no probative value.

In 1967, Professor Chomsky released an essay entitled: "*The Responsibility of Intellectuals*". It was published as a special supplement by the *New York Review* on February 23rd.

Among other things, the foregoing essay provides an array of details concerning the many ways in which the media, government officials, and technocrats tend to lie, distort, mislead, deceive, misinform, as well as commit sins of omission concerning the truth at the behest of power structures. Yet, rather ironically and quite inexplicably, despite more than three decades of driving home the foregoing point in a variety of books, articles, lectures, and interviews, nonetheless, in the aftermath of 9/11, Professor Chomsky never seems to consider the possibility that the media, government officials, and a host of technocrats were lying to, misleading, deceiving, or misinforming him and the rest of America in relation to the events of 9/11.

The aforementioned essay (i.e., *The Responsibility of Intellectuals*) also argued that the individuals to whom Professor Chomsky was alluding in his essay were in a privileged position, and, therefore, had a moral responsibility to critically, rigorously, and truthfully address the issues of the day. Furthermore, in that essay, he said: "If it is the responsibility of the intellectual to insist upon the truth, it is also his duty to see events in their historical perspective."

By failing to insist on establishing the truth concerning the issues of 9/11, and by being derelict in his duty with respect to seeing the events of 9/11 "in their historical perspective," Professor Chomsky has become actively complicit in helping to enable many of the political events that have transpired since the events of 9/11 occurred. As such,

he has lost his right to be considered as an honest broker of truth … at least in conjunction with the issue of 9/11, and, perhaps, in other ways as well.

Apparently, Professor Chomsky is an "intellectual" who – at least in conjunction with 9/11 -- has lost his way. If so, then he seems to have betrayed the moral and epistemological framework that he sought to bring to the attention of others nearly 50 years ago in his essay on the responsibility of intellectuals.

Some people might consider him to be a scientist of sorts. However, unfortunately, in the matter of 9/11 he does not appear to conduct himself as such.

Like the high priests during the time of Galileo, he refuses to look at the actual evidence. Instead, he seeks to dismiss, out of hand, such evidence as being of no significance … even if true.

Nine years after his aforementioned comments concerning 9/11 had been delivered at Budapest, Hungary in 2004, Professor Chomsky again addressed the issue of 9/11 during a question and answer session at the University of Florida (November, 2013). He was asked a question by a member of the audience (Bob Tuskin) along the following lines … namely, given that Professor Chomsky had said on Z-Net in 2006 that he (Professor Chomsky) wanted to see a consensus of opinion among architects and engineers with respect to the collapse of buildings at the World Trade Center on 9/11 and since over 2,000 architects and engineers now have agreed that Building 7 fell at free-fall speeds when it collapsed on 9/11 – and this is a point that NIST acknowledges – then, the questioner asked whether Professor Chomsky was ready to come on board with respect to the issue of 9/11 … especially given that there is no better evidence of a media cover up than the events involving Building 7 on 9/11.

Professor Chomsky responded to the foregoing question by beginning in the following manner:

"Well, in fact, you're right, there is a consensus among the miniscule number of architects and engineers … a tiny number … a couple of them are perfectly serious."

Let's assume that Professor Chomsky is right when he claims that there is a consensus among only a "miniscule number of architects and engineers … a tiny number…" Of the remaining number of architects and engineers, how many of them actually examined the evidence concerning 9/11 or how many of these other architects and engineers were, and are like, the previously discussed case of Peter Michael Ketchum, a former employee of NIST, in which he did not examine the evidence concerning 9/11 for nearly 14 years following those events because he assumed – wrongly – that the scientists at NIST who investigated the collapse of three buildings at the World Trade Center on 9/11 were competent in, and had integrity concerning, their investigatory efforts?

Suppose one has two groups of people. One group of individuals constitutes a majority of the architects and engineers in America who very likely -– as Peter Ketchum did for nearly 14 years -- might never have taken the time to examine actual evidence concerning 9/11, and another, tiny, miniscule group of architects and engineers who actually have looked at evidence concerning 9/11.

Why assume – as Professor Chomsky does -- that the consensus of the foregoing majority group of architects and engineers that might not know much, if anything, about the issue of 9/11 should be considered to be more important, or should carry more scientific weight, than the consensus of a group of architects and engineers consisting of a tiny, miniscule number of people who actually know a fair amount about the issues of 9/11? Professor Chomsky never appears to consider such a possibility but, automatically, assumes – without any evidence -- that the majority consensus view is the one that should be trusted?

Not content with merely saying that the consensus of architects and engineers who have adopted a contrarian position concerning 9/11 is a tiny miniscule group, Professor Chomsky introduces some ad hominem flavor to his comments by saying that "a couple of them are perfectly serious." I'm willing to wager that Professor Chomsky has not spent much, if any, time with any of the architects and engineers who reject, among other things, the conclusions that NIST reached as to the nature of the cause of collapse for three buildings at the World Trade

Center on 9/11, and, therefore, Professor Chomsky is not in a position to know anything about the individuals whom he is maligning (i.e., all the architects and engineers who, according to Professor Chomsky, are not serious in their pronouncements concerning 9/11).

Professor Chomsky goes on to state that the foregoing group of architects and engineers:

"… are not doing what scientists and engineers do when they think they've discovered something. What you do, when you think you've discovered something … what you do is write articles in scientific journals, give talks at the professional societies, to the civil engineering department at MIT or Florida or wherever you are and present your results, and, then, proceed, to try to convince the national academies, the professional societies, the physicists, and civil engineers, the departments in major universities, convince them that you have discovered something."

How does Professor Chomsky know – or does he know – whether, or not, the foregoing miniscule group of architects and engineers have tried to do exactly what he is indicating? Maybe the reason why their concerns have not appeared in scientific journals, or they have not been featured in gatherings of various professional societies, or their concerns have not been the topic of symposia and forums at places like M.I.T. is because out of fear, vested interests, ignorance, and various kinds of power politics that exist within the scientific and engineering communities, the concerns of the foregoing miniscule group of individuals have been ignored and effectively marginalized by those individuals who make the decision about what issues will, and will not, be explored.

Given that Noam Chomsky's name, along with that of Edward Hermann) tends to be associated with the issue of manufactured consent [derived from Walter Lippmann's 1921 (or so) book: *Public Opinion*, in which Lippmann refers to the manufacture of consent as a technique for controlling the views of citizens within a "democracy"], one can't help but be puzzled by Professor Chomsky's stance that the miniscule number of architects and engineers to whom he is referring

haven't tried to do what he claims that they should have been doing in order to get people thinking about their concerns. Manufacturing consent does not occur just in the mass media, but takes place as well within science and engineering, and, consequently, one is inclined to believe that Professor Chomsky should have been among the first individuals to recognize that such power dynamics might be in play within the communities of scientists, engineers, and academics when it comes to 9/11.

Professor Chomsky goes on to say:

"Now, there happen to be a lot of people around who spent an hour on the Internet and think they know a lot of physics, but it doesn't work like that. There is a reason why there are graduate schools in these departments and research …"

Once again, Professor indulges in ad hominem attacks through which he casts aspersions on a group of people about whom, for the most part, he knows nothing.

While it could be true that some people might believe they can acquire facility with the principles of physics by spending an hour's worth of research on the Internet, Professor Chomsky really has no idea what the academic and professional credentials are of the people who take exception with the "official" view of the government concerning 9/11, nor does he have any idea what research those individuals have done, nor does he know how much physics those individuals know and understand. Moreover, one doesn't necessarily need graduate training in physics – as Professor Chomsky seems to be implying in his foregoing remark -- in order to be able to understand various kinds of dynamics that are entailed by 9/11.

In many instances, one doesn't need much more than a high school course in physics and a little common sense to be able to follow arguments or pursue certain lines of investigation involving 9/11. More importantly, many dimensions of 9/11 don't necessarily require any formal knowledge of physics at all.

For example, the fact that the debris from the World Trade Center constituted a crime scene, and, therefore, should not have been

removed without a proper chain of custody being established for it and without it being forensically investigated does not require one to have knowledge of physics. The statement that no steel-frame building has collapsed anywhere in the world due to fires either prior to 9/11 or following it -- does not require a knowledge of physics but of history.

The fact that Eric Lawyer, a New York City fire fighter, stated that NIST, along with the initial investigators, failed to properly protect the scene of the fires at the World Trade Center, and, therefore, violated national standards governing the investigation of the sorts of fires that encountered at the World Trade Center does not require knowledge of physics. In addition, the fact that initial investigators at the World Trade Center failed to comply with NPFA manual requirements in relation to evidence that suggested the presence of "exotic accelerants" (NPFA 19.2.4), alternative fuel sources (NPFA 18.15), and acts of extremism (NPFA 19.4.8.2.6) does not require a knowledge of physics.

The fact that William Rodriguez Kenny Johannemann, Jose Sanchez, Salvatore Giambanco, Anthony Satalamacchia (all of whom worked at the Twin Towers), along with Felipe David (an employee of a company that serviced the candy machines in the Twin Towers) heard, saw, or felt the effects of massive explosions in the basement of the world trade center before the North Tower was hit by something does not require a knowledge of physics. The fact that 118 individuals (including many fire fighters and police officers) made recorded statements concerning the explosions they heard, saw, or experienced in conjunction with the events of 9/11 does not require knowledge of physics.

The fact that Barry Jennings was forced to walk back up the stairs in Building 7 on 9/11 because the floor below him had been rocked by massive explosions and that, subsequently, he and his companion had to walk through a ground floor area that had been devastated by explosions does not require a knowledge of physics. The fact April Gallop reports that she was at Ground Zero in the Pentagon when explosions took place, but when she led people out of the Pentagon, she saw no aircraft debris such as seats, passenger bodies, luggage, or fires from a plane crash does not require a knowledge of physics.

The fact that 17 people – including members of the Pentagon Police staff -- indicated that the plane they saw fly toward the

Pentagon just prior to the onset of explosions at the Pentagon approached the Pentagon on the north side of the Citgo gas station -- rather than the south side as reported in the *Pentagon Performance Report* -- does not require a knowledge of physics. The fact that no parts from any Boeing aircraft of the kind that supposedly struck the North and South Tower or the Pentagon have ever been found does not require a knowledge of physics.

The fact there are no Muslim names on any of the passenger manifest lists for the allegedly hijacked planes does not require knowledge of physics. The fact that training pilots have testified that Hani Hanjour – the alleged hijacker pilot of American Airlines Flight 77 -- approached them several weeks prior to 9/11 and demonstrated that he could not even fly a Cessna, and, yet, two weeks later he, supposedly, could fly a commercial jet in expert fashion, does not require a knowledge of physics.

The fact that 7-8 of the alleged 9/11 hijackers have been reported by BBC television to still be alive after the events of 9/11 does not require knowledge of physics. The fact that 'Usama bin Laden released a response following 9/11 stipulating that he was not responsible for those attacks does not require a knowledge of physics.

The fact that the FBI did not consider 'Usama bin Laden to be a suspect in 9/11 because there was no evidence tying him to those events –- and made several officials announcements to this effect -- does not require a knowledge of physics. The fact NATO requires evidence that a member country has been invaded in order for military options can be pursued but the United States never gave either NATO or the Taliban government proof of what happened on 9/11 does not require knowledge of physics.

The fact that, among others, John Schroeder – a New York City fire fighter – heard and felt explosions while working his way up the stairwell of the North Tower does not require a knowledge of physics. Schroeder reported that all of a sudden:

" ... our building got rocked ... we got bounced around in the stairwell like pinball's man, and we just said, you know what, it's time to go. We came down and it looked like a bomb went off in the lobby.

Everything was exploded ... everything was gone, like what is going on here? For every window in the lobby to be exploded, I mean them windows were like as thick as forget it. They were 2-3 inch glass. You know ... come on. They exploded out of the lobby ... you know it wasn't from the jet fuel."

The fact that Mayor Giuliani's testimony also echoed the report by the Department of Labor concerning the existence of 2,000-degree heat at Ground Zero does not require knowledge of physics for one to be able to understand that something is amiss with the official story concerning 9/11. After all, if jet fuel burns at 800-1500 degrees Fahrenheit, and if, as NIST reported, jet fuel and office furnishings were the only source of fuel, but most of this had been eliminated within a fairly short period of time (as a result of the pulverization of almost everything that transpired during the collapse of three buildings at the World Trade Center on 9/11), then what was the energy source that caused 2,000 degree fires to burn for months?

This is not a matter of physics. This is an issue involving logic and common sense.

Professor Chomsky appears to label all of the foregoing issues, along with many others that have to do with 9/11, as being nothing more than factoids. Factoids are ideas or statements that are repeated and mentioned so frequently that they are assumed to be facts, and, therefore, to refer to evidence cited by those who reject the "official" government theory concerning 9/11 as being factoids is to engage all such matters through a pejorative, and very biased set of, filters.

No evidence is offered by Professor Chomsky to demonstrate that he deals only in facts whereas those who reject the "official" theory deal only in factoids. Like nearly everything else -– if not everything else -- that Professor Chomsky has to say about 9/11 there is an absence of evidence to support his position.

Consequently, Professor Chomsky's manner of negatively characterizing the abilities of people concerning 9/11 is little more than idle speculation. One can't but wonder why he feels it is necessary to stoop to such tactics of denigration.

Professor Chomsky adds to his foregoing statement by claiming:

"… there is one article that has appeared in an on-line journal where someone claims to have found traces of nano-thermite in Building 7 … I don't know what that means … you [i.e., the person asking the question] don't know what that means …"

While the foregoing statement of Professor Chomsky does indicate that he has knowledge, of some kind, involving an Internet article on nano-thermite, nonetheless, he, apparently, has not bothered to read that article because if he had, then he might have discovered what nano-thermite is instead of professing ignorance concerning the subject.

However, what mere awareness of the existence of an – apparently -- unread Internet article on nano-thermite does not entitle Professor Chomsky to do is to make assumptions about what the person at the University of Florida who is asking him a question knows -- or does not know -- about nano-thermite. He shouldn't presume that just because he – that is, Professor Chomsky – is too incurious to look up the meaning of a term –- say, nano-thermite – that, therefore, such people as the person who is asking him a question is also equally incurious about such matters. Like many other things that Professor Chomsky says in relation to 9/11, he tends to be quite presumptuous with respect to what he believes he knows and understands.

Professor Chomsky continues on with his response to the question that was asked of him at the University of Florida about Building 7 and 9/11, He notes:

"Whatever one thinks about Building 7 – and, frankly, I have no opinion – I don't know as much science and engineering as the people who believe that they have an answer to this … so, I'm willing to let the professional societies determine it if they get the information …"

Professor Chomsky has no opinion about a 47-storey steel-framed building that was not hit by an aircraft but, nevertheless, for the first time in history, collapsed due purely to fires. Professor Chomsky has no opinion about a building that individuals such as Barry Jennings reported had been rocked by explosions prior to the collapse of the

first tower. Professor Chomsky has no opinion about a building whose collapse NIST explained as a progressive collapse despite the fact that NIST also acknowledged that the building was in free-fall for more than three seconds and, therefore, exhibiting behavior that directly contradicts the notion of a progressive collapse in which each floor must crash down on the floor below in successive fashion and, as a result, provides no opportunity for freefall to occur. Professor Chomsky has no opinion about a building that fell symmetrically into its own footprint despite the fact that NIST's explanation for its collapse is asymmetrical in nature and should have led to an asymmetrical form of collapse but did not. Professor Chomsky has no opinion about the collapse of a building that NIST explains in a manner that is not capable of being reconciled with the video evidence of that building's collapse. Professor Chomsky has no opinion about how a variety of individuals (fire fighters, police officers, and news media) seemed to know prior to its collapse at 5:20 in the afternoon that Building 7 was coming down.

Apparently, Professor Chomsky, by his own admission, has no opinion about Building 7 unless that opinion is fed to him by "professional societies," and, therefore, he has basis for determining whether, or not, the story he is being fed concerning that building is true. How incurious Professor Chomsky seems to be in conjunction with Building 7.

Ironically, and rather tragically, Professor Chomsky seems to have become a cog in the mechanism of manufactured consent. He merely defers to the opinion of people whom he considers to be experts without bothering to determine whether that expert opinion is a reflection of sound evidence and impeccable reasoning, or whether it merely reflects the dictates of power.

By Professor Chomsky's own stated standards and principles, he has a responsibility to insist that truth be established. Yet, in any number of ways, he has reneged on that responsibility in the matter of 9/11.

Next, Professor Chomsky states:

"... so, whatever the facts [i.e., concerning the demise of Building 7], there is just overwhelming evidence that the Bush Administration wasn't involved."

One can't help be incredulous with respect to such a statement. In other words, if the facts of Building 7's collapse turned out to be due to, for example, the controlled demolition activities of agents appointed by members of the Bush Administration, then how could Professor Chomsky possibly try to argue that "... whatever the facts, there is overwhelming evidence that the Bush Administration wasn't involved" since those two statements would directly contradict one another?

Leaving aside the foregoing issue, what is the nature of the "overwhelming evidence" to which Professor Chomsky is alluding and that, supposedly, demonstrates that the Bush Administration was not involved in 9/11? Actually, there is no evidence, per se, that Professor Chomsky cites in support of his contention that the Bush Administration had nothing to do with 9/11.

What he does do is advanced some speculative theories about why he believes trying to claim that the Bush Administration was involved in 9/11 makes no sense. In this regard, he cites three points that he considers to be uncontroversial and factual in nature.

First, he says that most people are agreed that the Bush Administration wanted to invade Iraq. Secondly, counter to those interests, the Bush Administration did not blame 9/11 on Iraq, the country that they wanted to invade, but, instead, they blamed 9/11 on their allies, the Saudis, and, the third uncontroversial fact according to Professor Chomsky is that:

"... unless they're total lunatics, they would have blamed it on Iraqis if they had been involved in any way ... that would have given them open season on invading Iraq ... total support ... international support ... a U.N. resolution ... no need to concoct wild stories about weapons of mass destruction and contacts between Saddam and al-Qaeda ... no reason to invade Afghanistan which, mostly, was a waste of time for them ... But, they didn't. Well, the conclusion is pretty

straightforward -- either they were total lunatics, or they weren't involved, and they're not total lunatics, so whatever you think about Building 7 – there are other considerations to be concerned with."

Apparently, Professor Chomsky believes he sufficiently understands all the permutations and combinations of the dynamics that underlay strategic and tactical planning to be able to restrict his "facts" to the three he cites. Nonetheless, there are other possibilities.

To begin with, if Afghanistan were really a waste of time, then, the powers that be would not still be ensconced in that country after nearly 17 years. For instance, when the Taliban government took over in Afghanistan, it began to interfere with the lucrative drug trade that was being run by, among others, certain factions of the CIA, and, therefore, various political, economic, financial, and allegedly, humanitarian arguments were introduced in order to bring about war with Afghanistan for reasons that should appear to the public to be about something other than promoting the drug trade, and 9/11 was a perfect excuse in this respect.

Secondly, the Patriot Act already had been written prior to 9/11. Consequently, 9/11 provided great cover for implementing a draconian set of provisions upon the American people that would enable those in power to do pretty much whatever they felt like doing … including war, rendition, torture, and Guantanamo.

Thirdly, contrary to the foregoing comment of Professor Chomsky, Afghanistan has never been a waste of time for the military-industrial complex. Afghanistan is one of many geese that are laying golden eggs for the profiteers of the military-industrial complex, and that complex tends to pull the strings of government administrations – irrespective of whether this is done in conjunction with Bush, Obama, or other presidential administrations.

Fourthly, 9/11 helped jump-start the whole "war on terror" meme, together with the many ramifications that ensue from that meme. Invading Iraq might have been on the agenda of the Bush Administration, but the war on terror was, and is, larger than Iraq and was used, and continues to be used, to justify an array of policies and activities beyond Iraq such as: Homeland Security; the TSA

(Transportation Security Administration;, NDAA (National Defense Authorization Act) legislation, as well as wars in Libya, Syria, Yemen, and in whatever other countries the United States decides it wishes to exercise hegemony over.

Fifthly, although members of the Bush Administration identified an amalgam of Saudis, Egyptians, and Yeminis as being the perpetrators of 9/11 -- rather than Iraqi citizens -- those identified individuals were considered to be acting on behalf of al-Qaeda rather than the Saudi government. In this way one can both keep the oil coming and the war on terror going.

Soon, one began to hear about al-Qaeda in Iraq, and al-Qaeda in Syria, and al-Qaeda in Libya, and so on. One easily can charge people with being members of al-Qaeda, and as such, terrorists can be fashioned out of thin air wherever there is a need for them.

The Machiavellian machinations that were taking place within the Bush Administration went way beyond Iraq. The ramifications of 9/11 went way beyond Iraq.

Thus, for Professor Chomsky to try to argue that the Bush Administration wasn't involved in 9/11 because that event didn't provide it with a pretext for invading Iraq constitutes a rather excessively narrow characterization of some of the policy dynamics that were present in the Bush Administration and that could have served as alternative motivations for bringing about the events of 9/11. Many objectives besides invading Iraq were on the Bush Administration's list of things to accomplish.

Consequently, the "facts" that Professor Chomsky cites as constituting "overwhelming evidence" that the Bush Administration was not involved in 9/11 completely fail to exonerate the members of the Bush Administration. One could concede, without controversy, that the Bush Administration wanted to go into Iraq, and one can acknowledge as true the fact that the Bush Administration identified mostly Saudis as perpetrators of 9/11 rather than individuals from Iraq, and one can admit that unless the Bush Administration consisted of lunatics – which it didn't – then, the Bush Administration should have implicated the Iraqis in 9/11 rather than Saudis. Nonetheless, despite conceding all of the foregoing facts as being uncontroversial, the conclusion that Professor Chomsky draws – namely, that the Bush

Administration was not involved in the perpetration of 9/11 – does not necessarily follow from the stated premises because Professor Chomsky has failed to take into consideration an array of alternative motivations – some of which have been mentioned earlier -- for wanting to bring 9/11 about and, as such, could have served a plethora of ambitions that the Bush Administration had for America and the rest of the world.

Notwithstanding the foregoing considerations, one still might argue that although the Bush Administration, per se, was not involved in the perpetration of 9/11, it was, for unknown reasons, neck-deep in the attempt to cover up the nature of that crime. After all, among others, the Bush Administration failed to secure the World Trade Center and the Pentagon as crime scenes and, thereby, ensure that there would be a proper chain of custody in relation to the gathering of all evidence concerning 9/11.

Furthermore, the Bush Administration continuously resisted the idea of investigating 9/11, and it was the Bush Administration that, after succumbing to public pressure to form an official commission for the investigation of 9/11, made sure that the commission was underfunded as well as was provided with too little time, resources, and power to accomplish a truly thorough investigation. In addition, the Bush Administration was responsible for appointing NIST to study the destruction at the World Trade Center and was also responsible for not exercising due diligence with respect to the activities of NIST, and, similarly, the Bush Administration is responsible for the fraudulent activities associated with the *Building Performance Report* that was written in conjunction with events at the Pentagon on 9/11. It is the Bush Administration – via way of the FBI – that confiscated all public and private video recordings of the events at the Pentagon on 9/11 and chose not to disclose the contents of those videos to the public.

Moreover, to suggest that the Bush Administration might not have been directly responsible for the events of 9/11 does not mean that other facets of government – such as various members of the intelligence community, the military, the FAA, and/or the Senior Executive Service working in conjunction with any number of defense contractors – couldn't have played primary roles in the perpetration of

9/11. All of the foregoing dimensions of government benefitted from the opportunities that 9/11 set in motion, and, as a result, 9/11 served an array of purposes for a number of different facets of government that could have constituted motivations for wanting to bring about – directly or indirectly – the events of 9/11.

When Canadian Barry Zwicker interviewed Noam Chomsky on November 14th, 2002, the topic of 9/11 came up and Professor Chomsky's reply was: "Look, this is just conspiracy theory." Yet, in a 2002 book: *Understanding Power: The Indispensable Chomsky*, edited by Peter R. Mitchell and John Schoeffel, Chomsky is quoted as saying:

"... conspiracy theory has become the intellectual equivalent of a four-letter word. It's something people say when they don't want you to think about what's really going on."

So, given the foregoing assertion, the fact that Professor Chomsky told Barry Zwicker in 2002 that 9/11 is "just conspiracy theory", would seem to suggest that, for some unknown reason, Professor Chomsky doesn't want people to think about 9/11 because he, himself, uses the very term – namely, "conspiracy theory" whose purpose he reported in 2002 was intended to induce people not to think about "what's actually going on."

Like Sam Harris, the vast majority of statements that Noam Chomsky makes about 9/11 are devoid of substantive content that is based on actual evidence concerning the events of that day. Instead, they both like to label anyone who rejects the "official" story concerning 9/11 – i.e., that 19 Arab hijackers conspired with 'Usama bin Laden to hijack four aircraft and use those planes as weapons to in order to attack the United States on that day – as being "conspiracy theorists" or "conspiracy thinkers", and in doing so – each in his own way -- attempt to actively discourage other individuals from engaging the issues of 9/11 in a rigorous and critical fashion.

As a result, those two individuals cannot be considered to be honest brokers of truth when it comes to the issue of 9/11. In other words, the efforts of such people to acquire insight into the nature of some aspect of existence (e.g., 9/11) is not necessarily rooted in a

rigorous process that is transparent, open, unintended to evade difficult problems, or mislead and distort (through commission or omission) with respect to relevant issues, as well as be critically and fairly responsive to evidence, and as such, both Dr. Harris and Professor Chomsky appear to exhibit signs of willful blindness (see page 14) with respect to the manner in which they engage the issues of 9/11.

Both individuals have made quite a few statements concerning 9/11 which indicate that despite the fact some people might refer to them as scientists, nonetheless, as has been discussed throughout nearly two–thirds of the present work, their respective pronouncements about 9/11 give expression to a totally unscientific way of dealing with that subject … that is, when it comes to the issue of 9/11, they seem to lack objectivity, diligence, rigor, judiciousness, insight, discernment, or openness in such matters and, as a result, their judgment concerning those issues do not appear to be reliable.

I do not care to speculate about why they carry on as they do with respect to 9/11. I only know that I do not trust what they have to say in relation to either 9/11 or any matter that is affected by the ramifications of 9/11. Consequently, I do not consider them to be objective, honest brokers of truth concerning the matter of 9/11, and I believe there is an abundance of evidence to back up such considerations (some of which has been presented in the present work). .

Instead, I believe they are both guilty of exhibiting an array of active symptoms indicating that each suffers from what might be severe, and possibly, untreatable cases of willful blindness with respect to the events of 9/11. More specifically, given that neither Dr. Harris nor Professor Chomsky are stupid people – indeed, they are quite intelligent, although, clearly, Professor Chomsky is the more intellectually gifted of the two individuals – nonetheless, each in his own way, as well as in overlapping ways, could have known and should have known an array of fundamental facts concerning the events of 9/11 but, unfortunately, the two individuals appear to have chosen to evade, ignore, and discount those facts in a way that appears to have induced millions of other individuals (followers, if you will, of those two individuals) to have become equally alienated from serving

as objective, honest brokers of the truth concerning 9/11 and, in the process, those millions of individuals also – like their leaders -- have succumbed to the ravages of willful blindness in matters pertaining to, among other things, 9/11.

Professor Chomsky, in particular, has left a trail of evidential crumbs indicating that his stance on 9/11 fundamentally betrays a variety of his own clearly stated values and principles. For example, in the 2nd paragraph of his 1967 essay, 'The Responsibility of Intellectuals,' Professor Chomsky states:

"Intellectuals are in a position to expose the lies of governments, to analyze actions according to their causes and motives and often hidden intentions. … For a privileged minority, Western democracy provides the leisure, the facilities, and the training to seek the truth lying hidden behind the veil of distortion and misrepresentation, ideology, and class interest, through which the events of history are presented to us."

Certainly, Professor Chomsky was in a position to expose the lies of government concerning 9/11, but, for whatever reason, he chose not to do so. Furthermore, Professor Chomsky was among the privileged minority who had "the leisure, facilities, and training to seek the truth lying behind the veil of distortion and misrepresentation" that was used by the government, academia, and the media, to problematically frame and filter the events of 9/11, to propagandize and indoctrinate the American people, and, yet, Professor Chomsky turned his back on such privilege, facilities, and training and, instead, appears to have taken a variety of active steps (both in some his books and in some of his public lectures) to help facilitate the process of distortion and misrepresentation being perpetrated by the government and media with respect to the events of 9/11.

In the 3rd paragraph of 'The Responsibility of Intellectuals' he maintains:

"It is the responsibility of intellectuals to speak the truth and to expose lies"

He, then, proceeds to describe some historical events (e.g., Martin Heidegger's pro-Hitler comments and Arthur Schlesinger's claims that the American sponsored invasion of Cuba was "nothing of the sort") that exemplify how intellectuals betray their responsibility to the truth, but, nevertheless, Professor Chomsky seems entirely oblivious to the manner in which he, himself, has betrayed his responsibility to truth in the matter of 9/11.

Later in 'The Responsibility of Intellectuals" Professor Chomsky observes:

"A good case can be made for the conclusion that there is indeed something of a consensus among intellectuals who have already achieved power and influence, or who sense that they can achieve them by 'accepting society" as it is and promoting the values that are 'being honored' in this society."

Quite ironically, in the matter of 9/11, Professor Chomsky now appears to be part of a consensus among many intellectuals "who already have achieved power and influence" and who have accepted the way in which social institutions involving government, media, education, and corporations have framed the issue of 9/11 and, as a result, he appears to continue to perpetuate the values (i.e., lies, distortions, deceptions, manipulations, and disinformation) concerning 9/11 "that are 'being honored' in this society by such institutions ... the very sort of activities toward which he was so critical in 'The Responsibility of Intellectuals' essay.

In the final paragraph of the foregoing essay, Professor Chomsky brings his commentary to a close with the following remarks:

"Let me finally return to Dwight Macdonald and the responsibility of intellectuals. Macdonald quotes an interview with a death-camp paymaster who burst into tears when told that the Russians would hang him. "Why should they? What have I done?" he asked. Macdonald

concludes: "Only those who are willing to resist authority themselves when it conflicts too intolerably with their personal moral code, only they have the right to condemn the death-camp paymaster." The question, "What have I done?" is one that we will ask ourselves, as we read each day of fresh atrocities in … "

not just Vietnam -- but, more currently, Afghanistan, Iraq, Syria, Yemen, Palestine, and the United States. What has Professor Chomsky done with respect to 9/11 except, apparently, to be unwilling to resist the siren call of authority concerning that issue despite the fact that such power structures conflict intolerably with his often stated personal moral code concerning the responsibility that intellectuals have to insist on seeking and establishing the truth in all matters … including, presumably, 9/11, and, as a result, according to his own stated values, he would appear to have lost his right to condemn the government for what he believes it has, or hasn't done, with respect to the issue of 9/11.

In the film *Manufacturing Consent: Noam Chomsky and the Media* by Mark Achbar & Peter Wintonick there is an interchange between William Buckley and Professor Chomsky that runs along the following lines:

First, Buckley refers to Professor Chomsky's book *American Power and the New Mandarins* and says:

 "You say the war {i.e., Vietnam] is simply an obscenity, a depraved act by weak and miserable men."

Chomsky: "Including all of us … including myself. … That's the next sentence."

There are a few more comments exchanged between the two men, and, then, Buckley continues on with:

"You count everybody in the company of the guilty."

Chomsky: "I think that's true in this case."

And, then Professor Chomsky clarifies his perspective by saying:

"I think the point I'm trying to make, and ought to be made, is that the real ... at least to me and I say this elsewhere in the book [*American Power and the New Mandarins*] that what seems to be, in a sense, a very terrifying aspect of our society, and other societies, is the equanimity and detachment with which sane, reasonable, sensible people can observe such events ... I think that's more terrifying than the occasional Hitler, or Lemay, or other that crop up ... these people would not be able to operate if not for this apathy and equanimity ... and, therefore, I think it's in some sense the sane and reasonable and tolerant people who share a very serious burden of guilt that they very easily throw on the shoulders of others who seem more extreme and more violent."

Professor Chomsky's concerns with respect to the Vietnam War would seem to be resurfacing in the case of 9/11. More specifically, when one reflects on various comments that Professor Chomsky has made about such events, his words often seem to be remarks of equanimity and detachment in which, apparently, among other things, it doesn't matter whether Muslims did, or did, not attack the United States on 9/11 just as, according to Professor Chomsky, the topic of who killed JFK doesn't matter.

Professor Chomsky says things in such a "sane, reasonable and tolerant" way and, then, seeks to "throw on the shoulders of others who seem more extreme and more violent" (such as successive political administrations in the United States) a burden of guilt, when, there is a very real and terrifying sense in which the kind of indifference to, detachment from, an apathy toward the truth of things that seem to be exhibited by Professor Chomsky in his comments concerning 9/11 indicate that, perhaps, some of that assigned guilt ought to be shared by those – who through their sanity, reasonableness, tolerance, sensibility, equanimity, and apathy (as appears to be the case with respect to Professor Chomsky) – have helped to perpetuate the obscenities that ensued from 9/11.

If Professor Chomsky feels comfortable with referring to the response of people concerning the obscenities of the Vietnam War as being that of "weak and miserable" individuals who have become

entangled in their own web of equanimity, sanity, reasonableness, detachment, and apathy, then surely, those individuals – as seems to be the case with Professor Chomsky – who tend to engage the events of 9/11 with equanimity, detachment, reasonableness, and apathy would also deserve to be included among the referents to whom his phrase "weak and miserable" might appropriately be applied.

Furthermore, one is dismayed to discover the ways in which Professor Chomsky has been perpetrating his own form of manufacturing consent in conjunction with 9/11 since, for so many decades, he has been warning his reading and viewing audiences about the ways in which processes of manufactured consent are used by the power elite to deprive people of what Walter Lippmann referred to in *Public Opinion* as:"The means to detect lies" (that is, the capacity to think critically and independently). Yet, Professor Chomsky appears to be deeply entangled in a process of manufacturing consent that seeks to induce his audience to defer to the opinion of professional scientists concerning the matter if 9/11 and insists that those people who feel they have discovered something important about 9/11 should go to the institutions of power – the media, academia, professional journals – and seek their assistance to help address the issue of 9/11.

According to Professor Chomsky, people need to acquire the ability to detect illegitimate modes of control concerning the nature and flow of information so that those processes can be challenged and resisted. Unfortunately, his stance on 9/11 constitutes a major obstacle in relation to those who hang on his every word and, as a result, are prevented – as well as prevent themselves – from being able to challenge and resist propaganda concerning 9/11 ... propaganda that interferes with being able to access the truth about what transpired on 9/11.

Professor Chomsky maintains that the power elite have hegemony – or control -- over social and cultural institutions and use that control to distract, manipulate, misinform, marginalize, and unduly influence ordinary people through the propagation of various kinds of Necessary Illusions or frameworks of propaganda concerning the alleged nature of the society in which we live. Necessary Illusions are the myths and narratives that are fed to the populace in order to induce them to

believe that certain things are true when this is not the case, but the consumption of such illusions is necessary in order for the power elite to be able to maintain its control over the people.

Necessary Illusions are meant to manipulate or deceive, and, unfortunately, this is what Chomsky seems to have done, and apparently continues to do, in relation to his comments and perspective concerning 9/11. For example, he puts forth one necessary illusion – namely, that Muslim's are responsible for the atrocities of 9/11 – and, then, he puts forth another necessary illusion – namely, that we can overcome our current political problems by ignoring evidence concerning 9/11 – and, as a result, the possibility of substantial change seems to recede from the collective grasp of many people who follow Professor Chomsky because the element of truth has been removed from their presence in the case of 9/11.

Near the conclusion of *Manufacturing Consent*, Professor Chomsky says:

"The question, in brief, is whether democracy and freedom are values to be preserved or threats to be avoided. In this possibly terminal phase of human existence, democracy and freedom are more than values to be treasured; they may be essential to survival."

I think Professor Chomsky is focusing on the wrong issues ... we should be focusing on the principles of sovereignty (instead of on democracy) and we should be focusing on the duties of care that are entailed by those principles of sovereignty (rather than on freedom per se). Furthermore, one of those duties of care is to serve as honest, objective brokers of truth concerning different facets of existence (such as 9/11).

Apparently, Professor Chomsky – who has been a long-standing proponent of a ideological system that weaves together strands of democracy, socialism, libertarianism, anarchy, and syndicalism, (i.e., an idea centered around the transfer of property, means of production, as well as the means of distribution to labor unions) – fails to realize that there might be something more fundamental than democracy, socialism, libertarianism, anarchy, and syndicalism. As indicated in the

previous paragraph, this something more is encompassed by the idea of sovereignty (For those who would like to explore the notion of sovereignty further, please refer to my works: (1) *The Unfinished Revolution: The Battle For America's Soul*; (2) *Final Jeopardy: Sovereignty and the Reality Problem, Volume V*, and (3) *Democracy Lost and Regained*).

Professor Chomsky believes that in order to overcome the Propaganda Model that the power elite use to convey various Necessary Illusions to the citizens in an attempt to induce the latter group of people to become compliant with the way of power, citizens must take two crucial actions. First, citizens should seek information from alternative media rather than from sources that are firmly ensconced in the operations of the propaganda mill that serves the interests of the power elite, and, secondly, citizens need to become involved in grassroots community action through which they work, in concert with one another, toward establishing some sort of libertarian-socialist-syndicalist-anarchist political and economic system through which to realize, at least in part, the inherent potential for creativity that Professor Chomsky believes people, in general, possess.

However, media literacy involves something more than just seeking out alternative media sources. Media literacy is about developing a capacity to be independent with respect to the process of critically reflecting on all media options … including the alternative media.

In short, one must do one's own research. In addition, one is responsible for exercising due diligence and, therefore, engaging in a process of critical reflection concerning such information irrespective of its source.

In my opinion, Professor Chomsky fails his followers in an essential way in conjunction with the foregoing issue. More specifically, Professor Chomsky is supposedly interested in helping people to become disengaged from systems of propaganda and, as a result, develop independence of thought. Yet, Professor Chomsky seems to have abdicated his responsibility to assist many, if any, of his followers, to develop the sort of intellectual independence that would enable those individuals to be able to identify and challenge Professor

Chomsky's own system for generating propaganda and manufacturing consent concerning the events of 9/11.

By failing to exercise due diligence with respect to the events of 9/11, Professor Chomsky would seem to have denied his followers the very thing they might need – i.e., the truth -- to serve as a seed from which grassroots community action could grow, and, as a result, he sabotages his own proposal for how to overcome the Propaganda Model of the prevailing power elite. Instead, Professor Chomsky appears to have offered his followers little more than several Necessary Illusions (e.g., that 19 Arabs perpetrated the atrocities of 9/11 and that the truth doesn't matter when it comes to 9/11) that appear to be designed to establish and maintain his own ideological hegemony or control over the conversation concerning our collective futures.

As previously noted, Professor Chomsky claims toward the end of *Manufacturing Consent* that: "Democracy and freedom are more than values to be treasured; they may be essential to survival." Nonetheless, a value that is to be treasured even more than democracy and freedom, and, as well, a value that is even more essential to our survival than democracy and freedom is the truth … the very value that Professor Chomsky seems to want to jettison when it comes to the issue of 9/11.

Without truth, neither democracy nor freedom is possible. Without truth, survival becomes corrupt.

Professor Chomsky could have known the foregoing reality and should have known it, but, apparently, chose to ignore its importance in conjunction with the issue of 9/11, and, as a result, his reasoning process seems to have been captured by forces of willful blindness concerning that topic. The tragedy of Professor Chomsky is that he appears to believe that by proceeding as he does – i.e., in active denial of the actual nature of 9/11 – he is furthering his political agenda through persuading people not to be distracted by various truths concerning 9/11, but, in actuality, such an ideological stance merely undermines, corrupts, and delegitimizes the political and economic project he has been actively trying to promote for more than fifty years.

Chapter 8: <u>Filtering Propaganda</u>

A propagandist, a fake news specialist, and an educator walk into an empty bar. Several drinks are purchased, consumed and, then, the educator leaves for a meeting, returning the bar to its empty status. Is the foregoing scenario nothing more than cynical hyperbole, or does it lend voice to something about which we ought to be worried and about which we should have been worried for some time now?

Most systems of education in America (whether in high school or university) do not tend to support or conduct classes and educational programs that involve rigorous, critical explorations into: 9/11; the many links between pharmaceuticals and violent behavior; the limitations, lacunae, and problems that are present in the theory of evolution; the unacknowledged, black budget, multi-billion dollar programs run by the government with respect to UFOs; the CIAs long-standing role in the world's illicit drug trade; the fraudulent nature of the Federal Reserve; the differences between democracy, republicanism, and sovereignty; the numerous difficulties that are present in the 5-G, GMO, AI, trans-humanistic, nuclear, and geo-engineering technologies that certain forces are attempting to impose on human beings; the long history of the United States Government's failure to operate in accordance with the requirements of Article IV, Section 4 of the Constitution; the extent to which the military-industrial complex controls the people and the resources of the United States; the actual nature of climate change; as well as the flaws inherent in capitalism, socialism, and communism.

Every year, governments, businesses, and organizations spend around 600 billion dollars to shape and influence the perspective of citizens in conjunction with one, or another product, policy, project, or program that they are trying to "sell" to the public. Every year, governments also spend over 600 billion dollars to shape and influence the perspective of students in elementary and high schools in conjunction with one, or another, topic that is part of the educational curriculum.

One wonders if there is any real difference between what, on the one hand, governments and businesses do when trying to manipulate the phenomenology of potential clients though the process of advertising, public relations, or communications and what schools do

when trying to initiate students into the ways of culture in accordance with various institutional interests. According to statistics that were gathered a number of years ago, if a person watches 30 hours of television a week, that person is subjected to around 38,000 commercials per year, and given that students tend to be exposed to about 35-40 hours of educational programming per week, one wonders how many "commercials" concerning one topic or another this might translate into over the course of a year.

Presumably, governments and businesses believe in what they are doing when they push their policies, projects, and produces, just as so-called educators believe in what they are doing when pushing their curricula projects. However, is the fact that people believe what they are doing is right or a good thing necessarily sufficient to justify what is taking place through either of the foregoing venues?

In the *Age of Propaganda: The Everyday Use and Abuse of Persuasion*, Anthony Pratkanis and Elliot Aronson indicate that the modern era of propaganda first emerged in Philadelphia somewhere around 1843. Apparently, this milestone was achieved by Volney Palmer who had the idea of serving as a liaison between (a) newspapers that were seeking sources of revenue and (b) prospective advertisers that were seeking customers for their products.

However, the foregoing authors also note that the first use of the term "propaganda" occurred in 1622. More specifically, Pope Gregory XV established the Sacra Congregatio de Propaganda Fide as a vehicle for inducing men and women to voluntarily submit to the principles and values inherent in Church doctrine rather than trying to force some form of religious compliance through holy wars.

For a time, the term propaganda was used to describe processes that sought to spread values, opinions, and ideas that were considered to give expression to various kinds of lies and deceptions … such as one ones that individuals might believe were being employed by one's enemies during a time of tension or conflict. However, eventually, propaganda came to be associated with any process of communication that consisted in the juxtaposition of ideas, images, goals, symbols, slogans, and memes that were intended to entrain people's emotions and motivations so that those individuals would come to view that framework in favorable terms and, as a result, might be inclined to

become committed to that perspective.

As such, propaganda was a form of persuasion. Consequently, an important issue to raise at this point concerns whether all instances of persuasion are exercises in propaganda or whether there are forms of persuasion involving discussion, arguments, and dialogue that are capable of helping to lead to real insight into any given issue rather than merely giving expression to what someone else wants one to think and feel about a particular subject.

During the time of the Greek thinkers like Socrates (470 BC to 399 BC) and Plato (427 BC to 347 BC), as well as extending over into the era of Aristotle (384 BC to 322 BC), there were individuals known as Sophists who, in contrast to individuals such as Plato, did not believe that ultimate truth of any kind either existed or could be realized. The Sophists saw their role in society as teachers who could assist people to learn various techniques of persuasion that could be used to establish, as well as communicate to others, defensible arguments for proceeding in one way rather than another in a given context, and, therefore, the process of persuasion was claimed by some to constitute a pragmatic method through which to differentiate "better" solutions from those possibilities that were considered to be less desirable.

Plato considered Sophists to be philosophical bottom-feeders that were capable of accomplishing little more than muddying the waters of clear thinking. He believed that the proper role of a teacher was to help individuals struggle toward the truth by engaging life through the techniques and methods of philosophical exploration.

Later on, Aristotle sought to reconcile at least certain facets of the teachings of Plato with the perspective of the Sophists. For instance, both Plato and the Sophists believed that engaging in the process of persuasion was a useful thing to do, but whereas the Sophists maintained that persuasion was limited to being able to identify various facts that were important to being able to distinguish between good and not so good arguments, Aristotle held that logic and reason could be used to uncover the truth of things.

Nonetheless, Aristotle also believed that not everyone was necessarily capable of grasping the forms of reason and logic that were integral to discovering the truth of things. In the case of the latter kinds of individuals, Aristotle felt that the role of a teacher should be to

use techniques of persuasion that might help those who, on their own, could not grasp the nature of truth by leading them, gradually, to an understanding concerning the truth and, thereby, assist those individuals to be in a position to be able to use learned truths to come to correct conclusions concerning various topics.

Irrespective of how one views any of the foregoing possibilities, there are a variety of difficulties inherent in each of those perspectives. For example, even if one were to agree with, say, Plato, that ultimate truth of some kind existed, nonetheless, whether, or not, that truth can be realized through the methods of reason, logic, and/or philosophy entails a separate set of issues.

Furthermore, one might be willing to agree with the Sophists that, perhaps, the best human beings are capable of doing is to identify facts that are crucial to helping a person to be able to differentiate good arguments from more problematic ones. Yet, the foregoing stance still leaves one open to an array of unanswered issues concerning the nature of, and justification for, the criteria that are to be used that will enable one to identify those facts that make one argument better than another.

Finally, Aristotle doesn't really seem to provide a clear-cut answer that explains how people who, or their own, supposedly are not capable of grasping the truth are, somehow, able to understand the character of truth as a result of the process of persuasion. What are the dynamics of the persuasion process that are capable of leading people to the truth – if they are truly capable of doing so -- when such individuals on their own were not capable of realizing the nature of truth?

In addition, the perspectives of Socrates, Plato, and Aristotle, as well as the Sophists, entail a rather sizable presumption. More specifically, all of the foregoing perspectives contend – each in its own manner -- that they understand the nature of things and, therefore, such understanding apparently entitles them to teach others – through the use of logic, reason, philosophy, and/or persuasion – what the nature of truth is.

However, on what basis can any of the foregoing positions be justified? Or, more generally, on what basis can any person be justified to serve as a teacher ... as someone who purports to be able to lead

people – directly (through reason and logic) or indirectly (through persuasion) – to whatever truths are capable of being realized?

Is there any way to distinguish between, on the one hand, forms of propaganda (teaching?) that seek to lead people toward acquiring insights into the alleged nature of things, and, on the other hand, those forms of propaganda (teaching?) that are intended to lead people to various understandings or points of view that serve the interests of those who do the teaching and/or who control those who do the teaching? Whose interests are being served in any given instance of so-called teaching?

If – as the authors of the *Age of Propaganda: The Everyday Use and Abuse of Persuasion* claim -- the goal of modern propaganda is not to lead people to the truth but, rather, to direct them toward some given perspective that is considered by leaders to be desirable (for whom?), then, how does one know that those educators who purport to be leading people to the truth aren't actually engaged in propaganda and, therefore, that which is deemed to be true is nothing more than what educators consider to be desirable quite independently of its truth value? Moreover, if – as Anthony Pratkanis and Elliot Aronson maintain in their aforementioned book -- the nature of propaganda is to substitute slogans, symbols, images, and feelings for well-reasoned arguments, isn't it possible that what are called good arguments might be nothing more than arrangements of symbols, images, feelings, and slogans in the form of statements called premises that are intended to give the impression of constituting reasoned arguments?

According to the *Age of Propaganda: The Everyday Use and Abuse of Persuasion*, one of the primary differences between the manner in which older civilizations such as Greece and Rome engaged the issue of persuasion and the way in which modern American civilization deals with the issue of persuasion is that, unlike modern America, the former civilizations tried to teach their citizens about the nature of persuasion and, therefore, sought to afford them with some degree of protection against the techniques of persuasion that might be used against those individuals by this or that governmental, institutional, or cultural set of forces. However, modern American civilization does not offer many, if any, educational programs that are directed toward assisting citizens to acquire competence in matters of persuasion, and,

as a result, not only do many Americans become vulnerable to various techniques of undue influence (both within, and without, so-called formal educational settings) that are used to "persuade" people to move, or think, or feel in one way rather than another, but, as well, citizens tend to become alienated from both the truth as well as from their own sense of identity as an appropriate foundation for being able to exercise agency concerning matters of truth.

Aristotle was the first individual – at least, the first individual for whom there is a written record – to methodically explore the hermeneutical terrain of persuasion. He believed there were three main components that shaped the process of persuasion -- namely, *ethos* (the character of the source through which persuasion is being transmitted); *logos* (the nature of the message being communicated); and, finally, *pathos* (the emotional state of those who are the objects of persuasion).

Neither: Ethos, logos, nor pathos necessarily had anything to do with establishing the truth of that which was the object of a given exercise in persuasion. Nevertheless, Aristotle offered a variety of suggestions for increasing the likelihood that the process of persuasion would be successful ... that is, he provided tips that were intended to enhance the likelihood that such a process would be able to induce members of an audience to become favorably disposed toward accepting, or committing themselves to, a given idea, policy, value, principle, cause, or the like, irrespective of the degree of truth contained in those ideas, policies, and so on.

For instance, among the tips offered by Aristotle was one that advised speakers to try to convey the impression that the speaker was someone who could be trusted. Of course, anyone who is running a con -- or is a true believer concerning some ideological system – also will seek to convince others that he, she or they can be trusted.

Aristotle further recommended that people should try to create the impression that what was being said was logical and well-reasoned. Nonetheless, being able to accomplish the foregoing does not necessarily guarantee that what is being said actually is capable of withstanding rigorous logical or rational analysis.

In addition, Aristotle discussed the critical role that is played by the emotional state of an audience and, consequently, the importance

of learning how to leverage such emotions in order to induce people to accept what was being said. However, if what is being said is not true, then, the process of trying to leverage emotions to render members of the audience more susceptible to what is being communicated merely becomes an exercise in manipulation, indoctrination, and undue influence.

Aristotle also talked about a fourth facet of persuasion. He referred to this as *atechnoi*, and this encompassed the aspects of a situation that helped formed the existential context through which a speaker had to navigate in order to try persuade others to move conceptually, emotionally, or behaviorally in one direction rather than another.

Since a speaker might not have any control over the foregoing sorts of features to which *atechnoi* gives expression, those properties tended to place limits on what techniques of persuasion an individual might employ. Nevertheless, a person could use those uncontrollable features to frame a given situation in a way that would permit the speaker to give emphasis to some issues while de-emphasizing other aspects of the situation … thereby, regaining a degree of control over the situation.

There are interesting – if disturbing -- parallels between, on the one hand, the form of the context in which education is embedded, and the four components that constitute the woof and warp of Aristotle's model for persuasion. In other words, like the phenomenon of persuasion, education can be described as a process consisting of: *Ethos* (the character of the source through which persuasion is being transmitted); *logos* (the nature of the message being communicated); and, finally, *pathos* (the emotional state of those who are the objects of persuasion), as well as *atechnoi* (the aspects of a situation that are beyond the control of the one exercising some form of persuasion).

Thus, either as individuals and/or as representatives of institutional authority, teachers, supposedly are trustworthy bearers of information. Teachers leverage, and are embedded in, the authority of the social or cultural system that organize the educational process.

Such authority is used to engender – deserved or not – an aura of authoritativeness and, therefore, trustworthiness with respect to teachers. As is the case in the matter of persuasion, this dimension of

authoritativeness or trustworthiness in education is an important component in the process of trying to induce students to cede their agency concerning matters of truth to teachers ... i.e., that students should accept – that is cede their agency in the search for truth to -- the authoritativeness of teachers as trustworthy sources of information in that search.

Furthermore, as is true in the process of persuasion, there is a dimension of message (logos) – or curriculum – that is present in education. Teachers leverage components of ethos (the trustworthiness of the message giver) and pathos (the emotional currents within those who are the focus of persuasive activities) in order to induce students to become receptive or open to whatever message/curriculum is being transmitted through a teacher.

In addition, just like instances of persuasion, educators seek to use -- knowingly or unknowingly -- emotional techniques in the process of education that involve aspects of a sense of: Duty, obligation, patriotism, pride, morality, pleasure, fear, competition, shame, desire, respect, acceptance, guilt, isolation, and/or belonging to engage the emotions of students. This emotional engagement forms the fulcrum around which learning supposedly pivots.

Finally, as is true in the case of processes involving persuasion, so too in education, both teachers and students have to deal with the forces of *atechnoi*. These are the legal, institutional, cultural, social, financial, and historical 'realities' that underlie a given context of education or persuasion and that can be used to frame or filter the way in which *ethos*, *logos*, and *pathos* are brought together to induce a person to cede agency to the dynamics of a process involving persuasion or education.

The activities of persuasion and education share one other feature. Nothing in the form of either kind of dynamic necessarily guarantees that such processes will lead to the truth.

The components of *ethos*, *logos*, *pathos*, and *atechnoi* can all be abused and corrupted. As a result, the processes of persuasion and education can each be used to lead a person away from the truth as well as be used to lead a person toward the truth, and, therefore, in any given case, an individual cannot necessarily be sure about the nature of the process to which one is being exposed or subjected.

Persuasion and propaganda are both intended to induce people or the members of an audience to cede their agency (locus of responsibility for acting in accordance with, the truth) to the process of persuasion or propaganda. Unfortunately, educators often seek to do the same thing – that is, educators often seek to induce students to cede their (the student's) agency to educators in conjunction with the process of determining the nature of truth in any given instance rather than helping students to become empowered to take control of activities directed toward seeking the truth concerning the nature of one's relationship with Being.

Although a great deal of time is taken in educational theory to explore various techniques of teaching (ethos), or to identify the message of teaching (logos/curriculum), or how to engage the emotional potential of students (pathos or motivation), not a great deal of time is spent on gaining insight into the nature of the forces that constitute the *atechnoi* or context within which ethos, logos, and pathos take place. Indeed, the reason why certain topics are not taught or do not occur within the educational curriculum is, quite frequently, because there are forces present in the social, legal, cultural, economic, historical, political, and hermeneutical components that constitute the atechnoi (or uncontrollable features of the context in which the process of education is embedded) that have a vested interest in restraining, constraining, and shaping the character of the dynamics to which any educational process gives expression.

Numerous elements within various facets of: The military, religious organizations, corporations, the media, financial institutions, technological concerns, research facilities, politicians, governmental agencies (federal, state, and local), the so-called intelligence community, the law, and education (elementary, secondary, and post-secondary) do not want their activities explored in an objective, impartial, and rigorous fashion. This helps to explain the many lacunae – or missing topics -- in education such as: 9/11; the links between pharmaceuticals and violent behavior; the limitations and problems that are present in the theory of evolution; the unacknowledged, black budget, multi-billion dollar programs run by the government with respect to UFOs; the CIAs long-standing role in the world's illicit drug trade; the fraudulent nature of the Federal Reserve; the differences

between democracy, republicanism, and sovereignty; the numerous difficulties that are present in the 5-G, GMO, AI, trans-humanistic, nuclear, and geo-engineering technologies that certain forces are attempting to impose on human beings; the long history of the United States Government's failure to operate in accordance with the requirements of Article IV, Section 4 of the Constitution; the extent to which the military-industrial complex controls the people and the resources of the United States; the actual nature of climate change; mysticism, as well as the flaws inherent in capitalism, socialism, and communism.

Every one of the foregoing lacunae that exist within a given educational system is an attempt to deprive students of informed consent. In other words, by avoiding such issues, the efforts of teachers or an educational system to persuade, propagandize, or "educate" students to cede their agency (responsibility) to teachers in matters that are relevant to the search for truth are built on spurious, arbitrary, and, therefore, unjustifiable grounds.

Processes of persuasion and propaganda are geared to manipulate dimensions of trust (*ethos*), content (*logos*), and motivation (*pathos*) in accordance with the degrees of freedom that are permitted by the forces of *atechnoi* that shape, influence, direct, and frame those sorts of hermeneutical processes. Education becomes indistinguishable from the aforementioned processes of persuasion and propaganda when teachers -- and the forces of atechnoi that teachers (knowingly or unknowingly) serve -- prevent students from being able to discover their (the student's) own potential for agency (i.e., the capacity to seek, discover, realize, and apply the truth).

Informed consent concerning a given process can only be rooted in conditions of truth and authentic agency. Agency is authentic when a person has control over the dynamics that are required to be able to establish the conditions that govern and given expression to truth.

To whatever extent processes of persuasion, propaganda, and education deprive students of a fair opportunity to operate in accordance with conditions of truth or to exercise authentic agency in conjunction with those conditions, then, to that extent those processes become spurious, arbitrary, and corrupt forces of undue influence. This remains the case even when the purpose behind such

instructional or informational activities is intended to push or pull students in the direction of that which the educators who are doing the pushing and pulling consider to be the truth, and even if the beliefs of such educators concerning the nature of truth are, to some degree, correct.

For instance, consider the following experiment conducted by Richard Miller, Phillip Brickman, and Diana Bolin in conjunction with some fifth-graders in Chicago, Illinois. More specifically, the stated purpose of the researches was to induce the students to become neater and tidier with respect to littering behavior.

To that end, some of the students were subjected to lectures about the issues of tidiness, neatness, and littering, while other students were told by a janitor that their class was among the neatest in the school. In addition, the latter students were encouraged by their teacher to think about why they were being referred to in that way by the janitor.

The students that were subjected to lectures showed no improvement in relation to their littering behavior. However, the students who were labeled as being neater and tidier were three times more likely to dispose of their litter in a tidy and neat fashion than were the members of the class that were subjected to lectures.

The outcome of the foregoing experiment was constructive in the sense that certain positive behaviors were enhanced. However, even though that outcome was desirable, nonetheless, one is uncertain as to how much of that behavior was due to the development of authentic agency concerning the discovery of important truths about the issues of tidiness, neatness, or littering, and, therefore, the educational value of the foregoing experiment is questionable.

Something was learned (i.e., becoming more inclined to be tidy and neat, and, therefore, perhaps, more aware in relation to the issue of littering). However, that learning was manipulated or induced, to some degree, by a process of labeling rather than being due to the efforts of students to gain mastery over the conditions of truth as an exercise in establishing authentic agency concerning issues of tidiness, neatness, and littering.

A person who is manipulated into being tidy does not necessarily

acquire any essential truths concerning the importance of tidiness. As a result, such behavior might be more a function of contingencies rather than being due to the emergence of an insight or understanding concerning the significance and value of tidiness, and, if this is the case, then, when such contingencies are changed in a manner that is no longer likely to induce tidiness, then, so too, the behaviors that previously followed upon those contingencies might move way from tidiness and neatness, whereas when someone learns about the nature of authentic agency and, thereby, becomes responsible for one's behavior and the impact that one's behavior has on the world around one, then, an individual's behavior might become independent of changing contingencies and remain as a stable character trait or way of engaging life in a neat and tidy manner.

If the goal of education is merely to get people to act in a desired way, then, it becomes little more than a process of persuasion and propaganda. As such, it leaves the core or essence of a human being untouched.

In his 1922 book, *Public Opinion*, Walter Lippmann described an incident that involved a young female who grew up in a small, mining community. The girl had been in a cheerful mood, but, when she saw a window pane in the kitchen develop a crack as a result of a strong gust of wind, she became hysterical.

After some time had passed, she regained a degree of emotional equanimity and explained why she had behaved in the foregoing manner. The young girl indicated that the cracked pane of glass was a sign that someone within her family had passed away, and she believed the person who had died was her father.

Although her demeanor became somewhat calmer, over the next several days she continued to feel depressed and grief-stricken about what she believed was the deceased status of her father. However, a few days later, she received a telegram indicating that her father was alive and well.

Lippmann raised a question in conjunction with the foregoing story. He wondered how many people in the United States were like the aforementioned girl and, therefore, went about life in the debilitating thralls of some fictional understanding of things that arose as a result of their interpretation of the significance of incidents in the

world (which were like cracks in panes of existential glass) that were reported in the media.

He was of the opinion that mass media had the capacity to induce readers and listeners to create images and understandings in their minds that did not accurately reflect the nature of social and physical reality. Research over the next 95 years has indicated that while the media are not always successful in inducing people to think in specific ways, nonetheless, the media often are quite successful in shaping or framing the issues about which people think.

For example, within certain degrees of freedom, the media does explore issues involving: 9/11, pharmaceuticals, violence, evolution UFOs, drugs, the Federal Reserve, democracy, GMOs, the CIA, Artificial Intelligence, 5-G transmission, nuclear power, climate change, the Constitution, the military-industrial complex, and capitalism, but the coverage is structured in a variety of ways. In other words, the media tends to frame how all of the foregoing issues are presented, and this process of framing places constraints and restraints on what can and cannot be examined, as well as on how such issues can be engaged, and, therefore, although the media might not tell people what to think, nonetheless, it does shape what people think about (and don't think about), as well as tends to set the conceptual boundaries within which the public is permitted to think about those topics.

If a person is encouraged or induced to think about a given topic – say, 9/11 or evolution – in only certain ways, then, one tends to develop a form of willful blindness in which perception is shaped by what has been made transparent (i.e., permissible to talk and think about) while the lacunae (i.e., anomalies, unexplained issues, unanswered questions) that permeate such "transparencies" are rendered invisible despite being in plain sight. One develops cataracts of the mind.

Unfortunately, oftentimes, education tends to operate in the same way as the media does. In fact, the two often reinforce one another, and, as such, education tends to be just another extension of mass media whose role is to place constraints on what, and how, people think about an array of issues.

Both mass media and education engage in a process of map-making that is intended (by those who control such processes) to

serve as guides to help individuals navigate their way through life. However, the nature of the map-making process itself tends to be protected against, or off-limits to, critical examination.

Let's return, for a moment, to Lippmann's aforementioned young girl from a small mining town. The girl's overwrought response to the cracking of a pane of glass in the kitchen was not caused by the cracking of the glass per se, and, therefore, there is a certain incongruity between, on the one hand, the context in which the false belief arose in the girl's situation and, on the other hand, contexts in which the media might cause false ideas to arise in conjunction with some given event.

Either as a result of her own reflections on, or intuitions concerning, the significance of the cracked pane of glass, or as a result of established traditions of folklore, superstitions, or rural legends in her community, a conceptual link was established between the cracking of a pane of glass and the idea that the event signified the death of a close relative ... which the young girl interpreted as being a reference to her father. Irrespective of whether she came up with the foregoing idea on her own or learned about the idea from others in her family or community, she was, for a variety of conceptual, social, and emotional reasons, vulnerable to becoming influenced by such ideas, and the vulnerability existed prior to the cracking of the pane of glass.

The media as well as the process of education (whether done informally through the family and one's community or formally through institutions operating in accordance with official curricula) both often engender conceptual and hermeneutical vulnerabilities in individuals through the ways in which those dynamics frame and filter information, just as local folklore, superstitions, and rural legends engender conceptual and hermeneutical vulnerabilities in individuals through the ways in which the latter ideas frame and filter the processing of information. Both the media and the process of education – as also is the case in relation to traditions of folklore and rural or urban legends – often tend to give expression to an agenda of some kind concerning how one should engage, interpret, and understand life.

To whatever extent the media determines how one thinks about or engages a variety of issues, then, to that extent, the nature of the

dynamic through which the media frames and filters those issues is unlikely to be examined in any rigorously critical sense by the individual whose life is being influenced by the impact of that media. Similarly, to whatever extent the process of education determines how one thinks about or engages a variety of issues, then, to that extent, the nature of the dynamic through which education frames and filters those issues is unlikely to be examined in any rigorously critical sense by the individual that is being influenced by the impact that the process of education has on his, her, or their life.

To whatever extent an individual is not encouraged and constructively assisted by media and/or the process of education to develop authentic agency with respect to -- and, therefore, exercise effective control over – the dynamics of media and education, then, to that extent the media and/or the processes of education interfere with the ability of such an individual to establish the conditions of sovereignty through which to have the opportunity to be able to create a different kind of existential map that might be capable of charting a more constructive and effective passage through which the truth concerning the nature of one's relationship with Being could be realized than are the maps being promoted by the media and/or established educational processes. Unfortunately, both the media and processes of education often are resistant to permitting individuals to establish any kind of mapping process that is different from the ones those "official" processes seek to induce individuals to adopt.

Using school as a medium through which students acquire information, knowledge, skills, and maps for being able to chart a course for their careers or that prepare them – supposedly – to be able to navigate through the world of work is one modality of education. Considering education to be an opportunity through which students are encouraged to develop their inherent potential for being able to construct their own maps for navigating through the many problems that surround the process of seeking to discover the truth about the nature of one's relationship with Being tends to give expression to quite another kind of education.

The foregoing two modes of education do not have to be antithetical to one another. Generally speaking, however, maps concerning career and the work-a-day world are taught to the almost

complete exclusion of maps having to do with being able to navigate one's way through issues of sovereignty, informed consent, authentic agency, and other fundamental questions entailed by the process of seeking to discover the truth about the nature of one's relationship with Being.

To whatever extent an individual is not encouraged and constructively assisted by media and/or the process of education to critically engage the dynamics of media and/or the process of education, then, to that extent, such an individual is being denied the opportunity to establish informed consent concerning those processes. Without informed consent, sovereignty is not possible, and without sovereignty, the sort of authentic agency one needs to seek the truth concerning the nature of one's relationship with Being is likely to be elusive if not, to varying degrees, unavailable.

According to Anthony Pratkanis and Elliott Aronson, the authors of the *Age of Propaganda: The Everyday Use and Abuse of Persuasion*, a prominent American novelist, essayist, journalist, playwright, commentator, and political activist of the 20th Century (spilling over a bit into the 21srt century) by the name of Norman Mailer created the word "factoid". Mailer claimed that the foregoing term refers to an idea or statement that someone uses or treats as if it were factual in nature but, actually, the idea or statement had no verifiable, evidential basis prior to its being given expression through some aspect of the media.

Factoids are used as if they were true. However, such ideas or statements, supposedly, are either false or they cannot be demonstrated to be true.

Pratkanis and Aronson proceed to briefly explore a number of cases that they feel will help illustrate the properties of a factoid. One of the examples selected by the two authors involves the issue of alien abduction.

In passing, the two authors mention the alien abduction work of both Budd Hopkins and Whitley Strieber. The last name of Strieber is misspelled in my copy of the *Age of Propaganda* since a "v" is used in the space where a "b" should be ... which would seem to make the misspelled name something of a factoid since the name is being presented to the world as, presumably, a true spelling of someone's last name when this is not the case.

There are many other individuals, such as the, now deceased, Pulitzer-Prize winning Harvard psychiatrist, John Mack or the logger, Travis Walton (*Fire In The Sky*), who, respectively, explored the experiences of others or claimed to have experienced the phenomenon of alien abduction himself that are not mentioned by Pratkanis and Aronson. The latter two individuals do discuss – very briefly – the 1961 case of Barney and Betty Hill, one of the first cases of alien abduction to receive fairly extensive public attention.

The two authors of *Age of Propaganda* provide an outline of the Hills' abduction experience and, then, proceed to talk about how the couple went to a therapist and, subsequently, were hypnotized and questioned by the therapist concerning the nature of their alleged experiences. The accounts that were given by Barney and Betty Hill under hypnosis were divergent from one another in most respects, and, as a result, the therapist considered their reports about their "experiences" to be confabulations or the product of their imaginations (apparently, the therapist didn't consider the possibility that just one of the accounts might have been a confabulation while the other account was not).

Professors Pratkanis and Aronson end their account of the Hills' story by noting that approximately ten years later *Look* magazine did a two part series on the foregoing incident, and, as a result, a number of people came forth with stories of their own concerning the issue of alien abduction. In addition the two authors note that various investigators have not been able to substantiate the accounts of any of the people who have come forth with stories of alien abduction, and, then, the two authors summarize their treatment of alien abduction by stating that the whole Hill affair led to the emergence of a factoid industry concerning the issue of alien abductions … including charges of cover-up concerning those "abductions".

To say that something has not been substantiated is not necessarily the same thing as saying that something is false. Proving something to be false requires considerably more evidence to be compiled than merely demonstrating that there is an absence of verifiable evidence concerning an issue.

Furthermore, given the many unknowns surrounding and permeating the process of hypnosis, one wonders if using hypnosis to

conclude that the accounts of the Hills were confabulations might, itself, be considered to give expression to its own set of possible factoids -- that is, statements concerning the nature of, or results from, hypnosis that cannot be independently verified as being true. In fact, given the considerable controversy surrounding the nature and claimed effectiveness of the therapeutic process, one wonders if therapy is nothing more than an organized set of factoids that are treated by therapists as truths that are incapable of being verified and for which there is a lack of verifiable evidence.

 I don't know what the reality of alien abduction is. Nonetheless, having read the work of John Mack, Whitley Strieber, and others concerning that phenomenon, I do know that the treatment of that issue by Pratkanis and Aronson is far too cursory for someone to be able to make any sort of determination about how to differentiate, in a reliable manner, between the facts and factoids of the alien abduction phenomenon.

Are the statements issued by individuals who claim to have had such experiences true, but unsubstantiated facts, or are those statements factoids that are treated as true but aren't, or, do such statements consist of some combination of facts and factoids? Are the conjectures made by therapists, hypnotists, and investigators in conjunction with the alien abduction phenomenon instances of true but, unsubstantiated claims, or are they, themselves, nothing more than a series of factoids that are not only incapable of being substantiated but could quite well be false.

The foregoing situation goes to the heart of the current fake-news issue. How does one determine what is a fact and what is a factoid?

Much depends on the nature of the methods and criteria that one uses to try to justify one's claims. Much also depends on how one goes about trying to justify the use of those methods and criteria.

Educators are not immune to the foregoing issues. In fact, in one way or another, the process of education often takes place among the complex and chaotic shadows that are created when allegations of facts and factoids are hurled against one another as competing philosophical, political, economic, religious, financial, and scientific hermeneutical systems seek to gain control over the dynamics of education.

Since the process of education is often entangled in an on-going challenge that requires one to try to distinguish between facts and factoids, then, presumably, engaging that challenge in a rigorous and direct fashion would seem to make sense. In other words, not only does an essential part of the educational process seem to involve discovering how to critically reflect on issues such as sovereignty, informed consent, and authentic agency in order to acquire control over the methods through which evidence, information, and facts/factoids are evaluated, but, as well, one cannot realize the conditions and principles of sovereignty, or understand the nature of informed consent, or act on the requirements of authentic agency unless one is able to gain control over, and acquire mastery of, the process of education so that such a process is directed by the Self rather than being directed by others.

In short, a person needs to have an opportunity to create her, his, or their own maps for navigating through journey of life that in order to be able to discover ways of realizing the truth about the nature of one's relationship with Being. One might need help (from parents, friends, and one's community) to meet such a challenge, but whatever help one receives in that regard should be sincerely and solely dedicated to assisting the individual to develop competency in relation to a map-making process that will enhance that individual's chances of successfully being able to realize the truth concerning the nature of one's relationship with Being in a manner that is consistent with an individual's potential for doing so.

In the *Age of Propaganda: The Everyday Uses and Abuses of Persuasion*, Professors Pratkanis and Aronson talk about an experiment they conducted in conjunction with Burton Golden. In the first part of the experiment, a group of sixth-graders were exposed to a talk about the importance of arithmetic, and the individual who gave that talk was introduced as being either someone who washed dishes for a living or was introduced as a person who was a prize-winning member on the faculty of a prestigious university.

According to the foregoing three researchers, the "engineer" was much more effective than the dish washer was in influencing the opinions of the students concerning the issue of the importance of arithmetic. The researchers said that such an outcome was both

expected and consistent with other research that has been conducted in relation to such issues.

Nothing was said in the description of the foregoing experiment about what criteria were used to measure the effectiveness of a given presentation and whether, or not, those criteria could be justified as being valid, or reliable, measures of effective influence. Moreover, nothing was said in the *Age of Propaganda* about whether, or not, those experiments included trials that involved both women and men posing as engineers and dishwashers, or whether, or not, the presenters were actual engineers or merely pretend engineers (who had slept the night before in a Best Westin Hotel), or whether, or not, any of the presenters were described as being from less prestigious universities rather than prestigious universities, or whether, or not, contingencies were considered in which the dishwasher was described in ways that made that individual seem interesting or attractive (e.g., they were artists, writers, or inventors who were washing dishes to make ends meet but used arithmetic in their pursuits outside of work).

What the three researchers did do and which was mentioned in the overview of that experiment which was included in the *Age of Propaganda* was that the race of the person who was giving the talk about arithmetic was varied. Sometimes the person who gave the talk was black, and sometimes that individual was white ... which makes one wonder about how the experiment might have been affected if the presenters were introduced as Native Americans, Muslims, or illegal immigrants.

Several weeks prior to running the foregoing trials, the children who participated in the experiment had been given a questionnaire that, supposedly, measured the extent to which an individual was prejudiced against blacks. Apparently, no questionnaire was administered that measured the extent to which students were prejudiced against dishwashers or about the extent to which students might be vulnerable or sensitive to "factoids" concerning prestigious universities and prize-winning individuals.

In addition, there wasn't any discussion in the *Age of Propaganda* concerning whether the questionnaire that was administered was a valid (i.e., reliable) instrument for measuring prejudice. Moreover, apparently, the students who were given the questionnaire were all

white since nothing was said about how black children scored on the questionnaire that was designed to quantify prejudice against blacks.

The experiments conducted by the aforementioned three researchers demonstrated – according to the experimenters – that among those children who were judged, on the basis of the foregoing questionnaire, to be most prejudiced toward blacks, such children also tended to be less influenced or impressed by engineers who were black relative to engineers who were white. However, the researchers also said something that calls out for a clarification that was not forthcoming in the *Age of Propaganda*.

More specifically, the researchers indicated that among those who, on the basis of the aforementioned questionnaire, were considered to be the least prejudiced towards blacks, then, black engineers were more likely to have a greater influence than white engineers on the opinion of those students concerning the importance of arithmetic. Yet, if prejudice toward blacks is being identified as a cause for the extent to which, or way in which, students were <u>not</u> influenced by a talk on the importance of arithmetic given by a black engineer, then, what significance should be assigned to the fact that students who have been tested to be, supposedly, the least prejudiced toward blacks were more open, apparently, to being influenced by a black engineer rather than a white engineer?

As interesting as the foregoing, unanswered question might be, one also should point out that there is another set of questions entailed by the previously outlined experiment that also is in need of answers. For instance, without wishing in any way to give the impression that arithmetic does not have value, the fact of the matter is that I, along with countless other individuals, have managed to go through decades of life without having to spend a great deal of time engaged in arithmetic, algebra, trigonometry, geometry, or calculus, and, therefore, one can't help but wonder about the nature of the educational assumptions that underlie an experiment that seeks to test how sixth-graders will be influenced by the profession, prestige or skin color of a person who is giving a presentation about the importance of learning arithmetic.

What about the impact of, among other things, profession, prestige, or color on questions concerning the meaning and purpose of

education? What about the impact of, among other things, profession, prestige, or skin color on issues involving sovereignty, undue influence, authentic agency, informed consent, critical consciousness, identity, and truth concerning the nature of one's relationship with Being?

How does the importance of arithmetic stack up against the importance of topics such as: Sovereignty, authentic agency, identity, life's purpose, and so on? How does one measure the degree of prejudice that might be present with respect to people who talk about issues that are more complicated – and, perhaps, more crucial – than the topic of arithmetic? How does one differentiate between the facts and factoids inherent in those sorts of topics?

The previously outlined experiments of Professors Pratkanis, Aronson, and Golden, explore some of the ways in which profession, prestige, and skin color can influence judgments concerning various issues. In the terminology of Aristotle, the dimensions of *ethos* (the element of character or trust) and *pathos* (emotions such as prejudice) were being experimentally probed, and the researchers discovered that under certain circumstances, both ethos and pathos appeared to be more influential in relation to the formation of opinions than is the content (or truth) of the message being presented (*logos*).

The questionnaire administered to the sixth-graders in conjunction with those experiments probed a dimension of life that Aristotle referred to as giving expression to *atechnoi*. In other words, the foregoing questionnaire sought to measure the degree of prejudice that existed in the students prior to the experiment and, therefore, such prejudice was, unfortunately, beyond the capacity of the researchers and the students to change … at least within the context of the experiments being described.

Atechnoi also might include the assumptions of the researchers that framed their understanding of education and what they considered might be an important issue to investigate or might be an issue that was tractable (i.e., measurable). Thus, the researchers decided to explore the relationship between, on the one hand, profession, prestige, as well as skin color, and, on the other hand, the extent of the influence that those three features had on judgments by sixth-graders about the importance of arithmetic, rather than, say,

explore the impact that those features had, if any, on judgments concerning the importance of issues such as sovereignty, identity, informed consent, and critical consciousness.

What researchers think about or explore is oftentimes constrained by the cultural and institutional assumptions, values, practices, and beliefs that are given expression through the dimension of *atechnoi* in which researchers are embedded. The properties of *atechnoi* also often tend to frame, shape, orient, limit, and influence what takes place within the dimensions of *ethos*, *logos* and *pathos*.

Given the foregoing, one might ask: Why do we permit features such as, among others, profession, prestige, and skin color to influence our opinions and judgments? What makes us vulnerable to those kinds of forces?

What is there about the cultural, historical, religious, political, social, scientific, institutional, economic, and media components of the *atechnoi* in which we are situated that renders us vulnerable to the influence of features such as, among other things, profession, prestige, and skin color? Surely, the media and the process of education play significant roles in sensitizing us to, and orienting us toward, the foregoing sorts of themes.

As such, *atechnoi* gives expression to forces that often work in opposition to certain aspects of the full human potential within individuals becoming realized. This potential has the capacity to seek the sort of authentic agency, informed consent, and sovereignty that are necessary for being able to fashion quality conceptual maps that can assist individuals to competently chart a course through the many problems associated with seeking the truth concerning the nature of one's relationship with Being.

There are forces inherent in *atechnoi* (such as prejudice) that often are not interested in enabling people to seek the truth because the truth tends to be antithetical to those forces. In addition, there are forces (e.g., political, economic, social, cultural, historical, and religious) which are inherent in *atechnoi* that often serve as conduits for modalities of undue influence that resist those dimensions of a human being that are inclined toward seeking: Sovereignty, identity, informed consent, and critical consciousness, because -- as in the aforementioned case concerning the issue of truth -- the foregoing

tendencies (such as sovereignty, identity, and so on) tend to be antithetical to the aforementioned kinds of forces involving undue influence (political, economic, and so on) that are inherent in atechnoi.

The term "propaganda" refers to any process that uses techniques of persuasion in a way – intentionally or otherwise – that undermines or adversely affects another person's capacity to realize her, his, or their potential for operating in accordance with the conditions or principles of sovereignty, informed consent, authentic agency, and critical consciousness. These conditions and principles are of fundamental importance to the process of building maps that are capable of helping one to navigate one's way through the challenges entailed by the task of seeking the truth concerning the nature of one's relationship with Being.

The title of the book by Professors Pratkanis and Aronson that has been referenced throughout the present chapter is *Age of Propaganda: The Everyday Use and Abuse of Persuasion*. The title implies there are uses of persuasion that are not abusive.

For the most part, however all uses of persuasion give expression to abusive tendencies. This is because those who seek to use techniques of persuasion to induce another person to move conceptually, emotionally, and/or behaviorally in a given direction are seeking to undermine an individual's inherent potential for operating in accordance with the conditions and principles of, for example, sovereignty or critical consciousness, and, thereby, be able to work out a process of hermeneutical mapping that not only enables a person to successfully navigate through the problems that are entailed by the challenge of seeking the truth concerning the nature of one's relationship with Being., but does so in a manner that best fits with the strengths, weaknesses, and inclinations of such an individual.

To resort to techniques of persuasion (even so-called rationally-based ones) in order to induce conceptual, emotional, and/or behavioral changes in another person is to exhibit disrespect toward, and a distrust of, the potential for sovereignty that exists in the latter individual. To use techniques of persuasion to bring about changes in the understanding of another human being tends to be an act of interference (usually unjustified) involving the latter individual's right to exercise informed consent concerning changes in beliefs, values,

emotions, and behaviors that are being introduced into that person's life.

To resort to techniques of persuasion in order to induce another person to undergo a transition in beliefs, values, understanding, emotions, judgment, opinion, inclination, and/or behavior tends to constitute an attempt to actively prevent the individual who is the object of such techniques of persuasion from being able to exercise authentic agency in which that person has conscious control over, and, therefore, responsibility for, the choices she, he or they make. To employ techniques of persuasion for purposes of altering the way a person understands, feels about, engages, or responds to a given set of circumstances is an aggressive attempt to impose the beliefs, values, ideas, understandings, judgments, and/or opinions of the one using the techniques of persuasion upon the individual toward whom those techniques are directed.

In short, using the techniques of persuasion (including the use of so-called rational and logical principles) to bring about various kinds of changes in the lives of other individuals constitutes an assault on the rights of the latter individuals to be able to freely exercise principles of sovereignty, informed consent, authentic agency, and critical consciousness to fashion one's own conceptual maps for seeking the truth concerning the nature of one's relationship with Being. The only exception to the general principle that all uses of techniques of persuasion tend to be abusive and, therefore, give expression to forces of undue influence, involves instances in which one can demonstrate, beyond a reasonable doubt, that the use of such techniques will necessarily enhance (rather than undermine, disrupt, or interfere with) the likelihood that a person will be able to acquire greater competence in relation to, or control over, that individual's potential for exercising sovereignty, informed consent, authentic agency, and critical consciousness in conjunction with his, her, or their life.

Given the foregoing, perhaps one of the fundamental requirements of life would seem to involve having the opportunity to seek, and act in accordance with, the truth concerning the nature of one's relationship with Being because without the truth, one can never determine whether, or not, life is an arbitrary process or gives expression to some

kind of purpose or set of purposes that might help orient the exercise of sovereignty and critical consciousness. Therefore, the process of education should provide an individual with opportunities to acquire control over, and be able to exercise, the principles of sovereignty, informed consent, authentic agency (i.e., the process of not ceding one's agency to others), and critical consciousness in order to be able to work toward realizing whether, or not, life has any dimension of purposefulness.

The processes of life and education are intimately caught up with the final jeopardy challenge – namely, to struggle toward establishing the best (most truthful) answer one is able to fashion in relation to the question: What is the nature of one's relationship with Being? Without truth, sovereignty, informed consent, authentic agency, and critical consciousness, then, the final jeopardy challenge begins at no beginning and works toward no end.

Techniques of persuasion tend to interfere with being able to acquire and/or exercise the foregoing processes. Such interference prevents people from being able to struggle toward realizing the potential that is inherent in each human being for discovering the nature of the truth concerning one's relationship with Being.

Consequently, education should <u>not</u> be a way to initiate someone into the ideas, values, beliefs, practices, and understandings of a given culture, society, or community unless those ideas, values, beliefs, practices, and understandings can be demonstrated to be capable of helping individuals acquire competency in, and control over, the principles of sovereignty, informed consent, authentic agency, and critical consciousness. In other words, education -- when understood in the foregoing sense -- should serve the pursuit of truth and, thereby, help prepare individuals for the rigors of the final jeopardy challenge, but techniques of persuasion usually are antithetical to a process of education because those techniques tend to undermine, interfere with, and obscure the pursuit of truth.

If foregoing approach to education were described in the language of Aristotle's *Rhetoric*, then, for example, *ethos* might be considered to be a measure of the extent to which the person presenting a message of some kind pays homage to the principles of sovereignty, informed consent, authentic agency, and critical consciousness by refraining

from putting forth any message that is inconsistent with the foregoing principles. The quality of *ethos* in such cases will be a reflection of the ability of the message bearer to abide by, and act in accordance with, the principles of sovereignty, informed consent, authentic agency, and critical consciousness that tend to play important roles in the search for truth concerning the nature of a person's relationship with Being, and, thus, serves as an index of character or trustworthiness in relation to the message bearer.

Nothing else but commitment to truth, as well as principles of sovereignty, informed consent, authentic agency, and critical consciousness should determine the quality of *ethos* exhibited by a message bearer. Using techniques of persuasion tends to be counterproductive with respect the quality of *ethos* that is associated with any given message.

Similarly, the Aristotelian dimension of *pathos* might be considered to be a measure of emotional qualities such as: Objectivity, fairness, tolerance, honesty, compassion, integrity, courage, humility, perseverance, patience, love, nobility, and a desire for the truth. For best results, the foregoing qualities need to be present in both the message bearer as well as in the individual toward whom a message is being directed.

Alternatively, techniques of persuasion that seek to induce changes in another person's understanding, attitudes, ideas, beliefs, values, and behaviors tend to appeal to, or manipulate, emotions involving: Prejudice, enmity, jealousy, selfishness, cowardice, dishonesty, partisanship, impatience, injustice, and, as a result, give expression to, forces that tend to resist and distort the search for truth concerning the nature of one's relationship with Being. Such techniques are inappropriate uses of persuasion because they constitute assaults on a person's right to be engaged through principles of sovereignty, informed consent, authentic agency, critical consciousness, and the truth rather than through forces of undue influence, manipulation, and exploitation.

In addition, from the perspective of education being alluded to in this chapter, the only appropriate content to which *logos* should give expression will be a function of truth, as well as a function of principles of sovereignty, informed consent, authentic agency, and critical

consciousness. All other messages are either irrelevant to the pursuit of truth or they serve to interfere with, obscure, distort, distract one from, and/or undermine the process of seeking the truth concerning the nature of one's relationship with reality, and, therefore, give expression to forces of undue influence (i.e., influences that subvert the pursuit of truth and the exercise of sovereignty).

Finally, from the perspective of the kind of education being delineated here, *atechnoi* refers to all of the conditions and forces that tend to be beyond our control but impact the dynamics of *ethos*, *logos*, and *pathos*. Some of the conditions and forces inherent in *atechnoi* are consonant with the pursuit of truth as well as the principles of sovereignty, informed consent, authentic agency, and critical consciousness, while other facets of *atechnoi* give expression to conditions and forces that are not consonant with the pursuit of truth, principles of sovereignty, and so on.

The final jeopardy challenge requires one to engage *atechnoi* and determine, on the one hand, which of its dimensions will constructively assist or enhance one's pursuit of the truth, exercise of sovereignty, and so on, while simultaneously, on the other hand, identifying those dimensions of *atechnoi* that are likely to problematically inhibit or resist one's pursuit of the truth, as well as one's attempt to exercise principles of sovereignty, informed consent and so on. Navigating through such a challenge involves developing the capacity (through a process of conceptual, emotional, spiritual, and behavioral mapping) to differentiate between facts and factoids, or to distinguish between real news and fake news, or to be able to separate the wheat from the chaff with respect to issues of truth and falsehood in a given set of circumstances, and such a capacity can only be developed through a pursuit of truth that takes place in a context that permits and encourages an individual to exercise principles that are rooted in conditions of sovereignty, informed consent, authentic agency, and critical consciousness.

To return to the opening paragraph of this chapter, educators have the potential to be propagandists, and/or they have the potential to be bearers of fake news, or they have the potential to be individuals who promote the pursuit of truth, sovereignty, informed consent, authentic agency, and critical consciousness. Which of those potentials attends

the post-bar meeting will determine whether, or not, one should co-operate with them or try to find ways to defy them that are consonant with the pursuit of truth and the exercise of sovereignty.

The effects of propaganda and techniques of persuasion seek to impact an individual in a manner that is comparable to what takes place when one country seeks to invade or infiltrate another country's life space during the process of colonialism. In other words, in both instances – i.e., conceptual colonialism and national colonialism – there is a process of invasion, infiltration, and control in which one party (person or country) seeks to establish a dominating presence within the soul of another party (person or country) and, thereby, subvert, the latter's capacity to be able to seek the truth and exercise sovereignty in an independent and self-determined fashion through processes such as informed consent, authentic agency, and critical consciousness.

Chapter 9: <u>Death of Character</u>

According to James Davison Hunter, "Character is dead." Although he acknowledges that, from time to time, there might be isolated cases of individuals or communities that exhibit qualities of character, nonetheless, as a general trait, he believes the property of character has largely disappeared from America and Americans.

Hunter claims that character arises in relation to the existence of convictions. Moreover, he maintains that character is a function of one's ability to comply with, or act in accordance with, the requirements of those convictions.

However, in contrast to the foregoing perspective, one might wish to argue that the quality of one's convictions (in other words, that which makes something worthy of commitment) could be considered to be a function of the character through which those convictions are forged rather the nature of the belief to which one is committed. As such, character does not so much reveal its presence during the process of complying with convictions as much as character might constitute a prerequisite for establishing the kinds of convictions that are worthy of one's compliance.

From the perspective of James Davison Hunter, character has gone into decline among Americans due to the disappearance of a correlative set of convictions that have a sacred dimension to them ... a dimension that is derived from the relationship that such convictions are presumed to have with the truth. Hunter maintains that sacred convictions have been replaced by the language of values from which the element of truth has been removed or squeezed out ... an element that he considers to be at the heart of the convictions that constitute the sacred ground from which the seeds of character grow.

According to Hunter, truth has been replaced by values. Conviction and character have been replaced by lifestyle and preference.

Hunter also makes a distinction between the Self and character. While, on the one hand, he alludes to the potential of the Self for change, malleability, seeking, and realization, nevertheless, on the other hand, he contends that the Self is, in some sense, less than character.

Surely, however, character is one of the potentials of the Self, along with the latter's potential for change, malleability, seeking, and realization. If so, the issue, then, becomes one of trying to understand the nature of the forces that determine whether, or not, the Self's potential for character will, or will not, come to fruition.

In his book: *The Death of Character*, James Davison Hunter, claims that our current dilemma is not so much due to the moral failings of individuals as much as it is due to a set of larger historical forces. For example, he feels that multinational capitalism has brought about a set of social conditions that tends to undermine, and interfere with, the formation of a coherent sense of Self that is capable of acting with character amidst the onslaught of the dynamics of values, preferences, and utilities that have gained control over the processes through which historical and social tapestries are woven and from which the strands of sacred truths have been removed.

However, contrary to the impression that Hunter tends to give in the opening comments of his aforementioned book, multinational capitalism is not a function of impersonal forces. Rather, multinational capitalism is the result of choices that have been made by individual human beings (both on the demand side and the supply side of things, as well in relation to the administrative side of law and government through which choices are set in motion and regulated), and those choices often have been made for the most personal of "reasons" involving such factors as: Greed, selfishness, dishonesty, desire, anger, resentment, impatience, ignobility, fear, pride, hatred, and so on.

Multinational capitalism is one of the sets of convictions that have emerged as a result of choices that individuals have made concerning what they believe the truth is with respect to the nature of their relationship with Being. Multinational capitalism gives expression to the set of choices that individuals have made with respect to developing certain dimensions of the Self's relationship with Being rather than others.

If truth has lost its sacred quality and, as a result, convictions have become an endangered species, this is because individual human beings (on both a large scale as well as small scale) have made choices that move them in such a direction. For a variety of "reasons," all too many people have been induced to become inclined to choose values

over truth and utilitarian preferences over character.

James Davison Hunter seems to acknowledge the foregoing point – at least in part -- when he indicates that the individuals who are in charge of imparting moral education to our children have had complicity in the devolution of character. According to him, the programs being employed by moral educators for purposes of initiating children into a given moral framework tend to interfere with the process of forming, or establishing, the convictions that he considers to be necessary for the emergence of character to take place.

Hunter contends that in order for character to be renewed within the next generation of children, those individuals must be exposed to a comparable renewal process involving convictions that have a sacred quality to them as a result of the manner in which those convictions participate in the truth. According to him, the presumed sacred dimension of those convictions – since, allegedly, they are truth based – serves as the wellspring for the force of obligation, duty, binding power, or constraint that enables character to comply with, or subjugate itself to, those sorts of convictions.

The foregoing analysis is very rationalistically oriented. It tends to maintain that through grasping the character of truth that, supposedly, is present in a given conviction, one is able to recognize the sacred nature of that conviction, and, this, in turn, provides the justification for -- and, therefore, strength necessary for adhering to, such a conviction -- thereby permitting a person to exhibit character.

Perhaps, however, one, first, needs to possess qualities of character before one will be in a position to grasp the truth of something. In other words, when qualities of: Humility, honesty, impartiality, courage, perseverance, patience, equanimity, nobility, charitableness, empathy, love, and so on are present, then, the Self might be in a position to extend a fair or moral hearing to Being or reality and, thereby, become open to whatever truths might be present in a given set of circumstances.

From the perspective of the foregoing possibility, character provides one with an opportunity to adjudicate between the wheat and chaff of events … between the facts and the factoids … between fake news and real news … between the true and the false. Conceivably, reason journeys where character permits it to travel, and,

as a result, both good and poor character often determine – each in its own manner -- the nature and quality of one's existential itinerary.

Maybe, character – rather than reason -- is the medium through which the sense of the sacred first enters into awareness. Possibly, the only source of obligation that is worthy of consideration is that which comes from the extent to which character embraces the truth of something and, in the process, reveals a sacred presence within the nature of one's relationship with Being.

Character – instead of reason -- identifies what is good because there is a fundamental resonance involving character and the good that is not necessarily present between reason and the good. In other words, reason might be able to grasp the logical structure of a certain conception of the good, but character tends to be what permits a person to grasp the sacred quality of the good, and, in addition, the dimension of a sacred presence -- rather than logical structure -- is what tends to move us, or draw us, toward developing a sense of obligation or duty concerning one's relationship with Being.

Similarly, there is an essential resonance between character and virtue that enables the former to recognize the latter but which is not necessarily present between reason and the virtuous. Although reason might be able to identify the logical properties of virtue, character and virtue seem to share the same kind of emotional and motivational ambience.

Perhaps, character is what enables reason to become open to the truth … to become sensitive toward that which is sacred. Maybe, character -- not necessarily reason -- senses what is authoritative about the nature of truth.

Plato claimed in *The Republic* that the sine qua non of government leaders in any given society involved character. He believed that the social fabric tended to fall apart when its leaders lacked character.

Plato also maintained that unlike leaders -- who he believed were responsible for charting the course of society -- nothing much rested on whether, or not, cobblers, and the like, lacked character. I believe Plato was wrong on this point.

If the leaders of a society have character, but its other members do not, then, the leaders have nothing with which to work. In such

circumstances, the character of the leaders – along with their plans for society -- will be constantly under attack by, and resistance from, the incivility and characterless activities of the rank and file members of society.

The absence of character in either the leaders or the rank and file members of a society (or both) is likely to lead to social dissolution. Furthermore, lack of character in leaders and citizens might well precede a lack of concern for the truth as well as tend to precede a loss of interest in being willing to have the realm of the sacred (understood as that which gives expression to the truth) underwrite a sense of obligation toward citizens (in the case of leaders) or toward the leaders (in the case of citizens) or toward fellow members of society (in the case of both leaders and citizens).

Plato felt that the character of leaders was what made good government and social prosperity possible. He seemed to fail to grasp the possibility that to whatever extent there is an absence of reciprocity involving issues of character with respect to the relationship that leaders and citizens have with one another, then, to that degree, the likelihood of social disintegration might be enhanced.

Plato operated out of a top-down model. However, leaders are as dependent on the character of the citizenry as the citizenry is dependent on the character of its leaders, just as students are as dependent on the character of their teachers as teachers are dependent on the character of their students.

However, the notion of what constitutes character often varies from place to place, time to time, and understanding to understanding. Earlier in this chapter, character was expressed in terms of qualities such as: Honesty, humility, patience, perseverance, equanimity, impartiality, and so on, but, for example, during 19th century America, character was often judged according to the kind of reputation, set of manners, or sense of duty one displayed to others and how those qualities measured up against an array of expectations concerning the manner in which people of character were supposed to behave in different circumstances.

The foregoing perspective held that character was a function of social mores and expectations rather than a function of truths that might be independent of social mores and expectations. In such a

context, character was a property one acquired within a community rather than something that gave expression to some dimension of one's potential as a human being that might encompass possibilities that were independent of the social mores or expectations that tended to shape a given community.

Max Weber's notion of the Protestant Ethic associated a different set of properties with the idea of character. This involved qualities that gave expression – especially in an economic and material context – to striving, achieving, producing, accumulating, developing, and building.

The Protestant Ethic was rooted in a theological or hermeneutical engagement of the Bible/Christianity that purported to provide an account of various expectations that God had in conjunction with human behavior. Thus, according to the foregoing perspective, one had character to the extent that one exhibited the qualities to which the Protestant Ethic gave expression.

Stated somewhat differently, the Protestant Ethic entailed the idea that success came in response to the display of good character. Moreover, success and good character were both considered to be reflections of the Divine favor or Grace that had been bestowed on an individual.

As such, there was a sort of means-ends aspect to the notion of character. In other words, character was the path through which worldly and spiritual success were realized.

However, there is another sense of character that can be considered independently of issues involving, on the one hand, worldly and spiritual success, and, on the other hand, the expectations of others. From the perspective of this kind of alternative approach, character gives expression to truths concerning certain aspects of the nature of human potential with respect to its relationship with Being.

More specifically, qualities of: Honesty, empathy, compassion, love, perseverance, nobility, patience, and so on, have to do with identity. They give expression – at least in part -- to who and what human beings have the potential to be.

To be properly human, one must have character in the foregoing sense. That quality of character is what enables a human being to function in a manner that gives expression to the constructive

potential -- conceptually, emotionally, behaviorally, and spiritually – that is possible for human beings.

Striving to act in accordance with the aforementioned sense of character does not guarantee any particular outcome. Instead, it constitutes a set of methods and instruments that offer one an opportunity through which to discover truths about the nature of one's relationship with Being, and, thereby, realize, in an intimate manner, the nature of one's identity as a human being.

James Davison Hunter argues in *The Death of Character* that schools have become part of the problem in the matter of moral education. He claims this is the case because the strategies employed by schools for the purpose of transmitting moral qualities to students tend to be counterproductive due to the manner in which those strategies tend to get in the way of doing what is needed for the restoration of character in individuals.

The manner of transmission to which Hunter is critically alluding has to do with so-called educational strategies that seek to impose a universal moral framework on students based on problematic and arbitrary conceptions concerning the realities in which he feels that morality and character are situated. More specifically, in contrast to, say, psychological theories that propose the existence of ethically-neutral moral capacities that are inherent in human beings and which merely need to be activated through various informal (e.g., family) and formal (e.g., schooling) processes of learning, Hunter believes that both morality and character are a function of specific, concrete, historically and culturally modulated sets of circumstances, and, as a result, he contends that character emerges in relation to, or develops as a result of, particular religious, philosophical, and social beliefs concerning the nature of truth.

According to James Davison Hunter, psychological strategies that purport to be ethically neutral are resistant to the idea that moral understandings are shaped by the particularities of historical, social, and cultural circumstances that form the content of moral teachings and which, in turn, help engender and reinforce the development of a sense of obligation toward, or being bound by, such teachings (i.e., the element of character). Hunter rejects the idea that morality and character are somehow independent of the concrete existential

realities in which they arise.

Although Hunter acknowledges that children today are as innately capable of developing character as they have ever been (see page 13 in *The Death of Character*), nonetheless, he contends that the social and cultural institutions that are necessary for the realization of such capabilities are in varying states of dissolution. As such, for Hunter, the death of character is not due to humans being inherently incapable of realizing the qualities of morality and character, but, rather, the death of character is about the growing inability of social and cultural institutions to provide the philosophical, religious, and political particulars that are needed to induce the growth of character.

Hunter wishes to argue that character is, to a considerable degree, a social and cultural phenomenon. In other words, he believes that character constitutes a sort of particularized instantiation of culture within an individual.

However, Hunter seems to be rather vague with respect to the nature of the details that surround and permeate such a process of instantiation. In other words he appears to fail to provide a clear-cut answer in *The Death of Character* concerning the specific nature of the hermeneutical dynamics that determine how an individual will engage culture, and vice versa, in order for the particulars of a given moral understanding to be brought about that will be capable of engendering character formation.

Similarly -- and as previously noted -- although Hunter believes that the capacity for morality and character is innate within human beings, he doesn't specify the nature of the innate capacity that makes morality and character possible. He contends that both social and individual components have roles to play in the development of morality and character, but he appears not to have much insight to offer concerning how those components play off against one another to generate one kind of understanding rather than another.

He contends that, for the most part, morality encompasses a set of attitudes toward life and ideas about the nature of reality. Yet, he doesn't provide a clear explanation for why certain kinds of convictions (i.e., beliefs) arise in some individuals in conjunction with a given set of attitudes and ideas but do not arise in other individuals who are exposed to similar sets of attitudes and ideas within the same

community, or why some people develop a sense of obligation toward some of those attitudes and ideas but other individuals do not do so.

Hunter maintains that morality does not constitute a body of impersonal rules and abstract ideals that somehow exist outside of human subjectivity. Instead, he believes morality gives expression to cultural and social modalities of attitudes and ideas that become internalized and begin to form the conceptual categories that order, shape, and orient our lives.

In short, Hunter considers morality to be both a way of seeing things (i.e., *doxa*) as well as a set of conventions (i.e., *nomos*) that establish boundaries within which one operates and that both frame and filter what one considers to be possible and permissible. As such, the way things are seen in society or a given culture becomes the basis for "explanations" about why things are the way they are since the way things are gives expression to social and cultural boundaries that constrain life and order it, and, thereby, provide that community, society, or culture with a sense of hermeneutical coherency.

While it might be true that some people (such as James Davison Hunter) treat morality -- to a considerable, but not complete, degree -- as a function of what a given historical community imparts to individuals in the form of a set of conventions and a way of seeing things that are subjectively internalized by a person in her, his, or their own individualized manner and, thereby, becomes a justification for acting in one manner rather than another, such a claim doesn't, in and of itself, preclude the possibility that morality – to a far greater degree than Hunter imagines -- might constitute an individual's hermeneutical and epistemological journey through the circumstances of his, her or their own life such that morality in Hunter's sense of the term gives expression to only some of the circumstances that an individual engages during her, his, or their journey ... circumstances that, for a variety of reasons, an individual might choose to reject, replace, ignore, or substantially alter in some fashion. After all, Hunter fails to put forth any evidence that his characterization of morality is correct nor has he demonstrated that morality is nothing more than a set of conventions or a way of seeing things that is imparted by society and to which individuals adapt ... each in his, her, or their own fashion.

Why should an individual abide by (i.e., internalize) the cultural

conventions and ways of seeing things to which she, he or they might be exposed during the course of one's journey through life? Cultural sets of conventions or ways of seeing things that derive their sense of authoritativeness just from the fact that they constitute the form of life that occurs within a given community, society, or culture is rather tautological or self-referential – and, therefore, arbitrary -- in nature, and, therefore, not necessarily very authoritative.

Truth is the only defensible foundation for any substantial sense of authoritativeness. One's sense of the sacred tends to emanate from the extent to which something is perceived to give expression to the truth, but one's sense of the sacred also tends to arise in conjunction with the extent to which, and way in which, character resonates with the truth.

Principles of character -- such as: Impartiality, equanimity, honesty, perseverance, patience, compassion, empathy, openness, humility, integrity, and judiciousness – are ways of permitting the data or information to which various dimensions of Being give expression to be given a fair hearing. Such principles of character are ways of establishing, understanding, protecting, developing, and using the conditions of sovereignty that play significant roles in helping a person to seek the truth concerning the nature of one's relationship with Being as well as grasp the sacred nature of that truth.

Contrary to what James Davison Hunter argues throughout his book, character is not dead. Rather, the issue of character is a sacred problem that confronts us all by virtue of the final jeopardy challenge that is entailed by life, for how a person chooses to engage that problem will have considerable impact on the quality of the truth that might be generated in any given set of circumstances.

Sovereignty, character, identity, and choice exude qualities of sacredness. This is because of their capacity to facilitate (through their presence) or resist (through the presence of their problematic counterparts) the process of seeking the truth concerning the nature of one's relationship with Being.

Character is not dead. Instead, it is a pragmatic necessity for engaging the ignorance and uncertainty that tend to permeate our existence and for which each individual has a duty of care (to oneself, to others, and to Being) to develop in a constructive fashion.

If moral education in schools is failing – and I believe that Hunter is correct on this point – this is because educators have lost touch with the exigencies of the final jeopardy challenge with which we are all faced. Rather than focusing -- as Hunter maintains should be the case -- on renewing certain kinds of convictions concerning various beliefs (social and cultural in nature), emphasis should be given to fostering the conditions and principles of sovereignty, character, choice, identity and the sacred that will constructively impact the search (both individually and collectively) for the truth concerning the nature of one's relationship with Being.

If, on the one hand, we cede our agency to the sort of character that is rooted in: Selfishness, dishonesty, enmity, partisanship, bias, prejudice, anger, impatience, unfairness, jealousy, pettiness, ignobility, indifference, and a lack of equanimity, then, we are likely to become entangled in a very problematic approach to the issue of searching for the truth – to the extent such a search takes place at all, If, on the other hand, we embrace the sort of character that is rooted in: Selflessness, honesty, love, impartiality, objectivity, equanimity, patience, fairness, integrity, nobility, humility, and compassion, then, one is likely to become involved in a very constructive and heuristically valuable process of searching for the truth concerning the nature of one's relationship with Being.

One doesn't have to adopt particular beliefs or convictions to make the foregoing choice. One only has to understand how the issue of character affects the final jeopardy challenge with respect to finding the best (i.e., most truthful) manner of engaging Being.

I have always found it interesting that the mystical teachings for a wide variety of spiritual traditions (from Taoism, Hinduism and Buddhism to the spirituality of Native peoples, and from Judaism to Christianity and Islam) -- together with many non-spiritual humanistic traditions -- have all tended to point in the same direction with respect to the issue of character. More specifically, all of the foregoing spiritual traditions seem to agree that there are approaches to life that are constructive in nature (and which give emphasis to positive traits of character) and there are ways of engaging life that are problematic and destructive in nature (and which give emphasis to negative traits of character).

In addition, there seems to be an amazing degree of generalized agreement in the practices that are advocated by different mystical traditions. This generalized form of agreement consists of activities such as prayer, fasting, seclusion, charitableness, contemplation, and meditation.

The benefits of the foregoing practices run in two directions. On the one hand, those practices help establish and deepen positive traits of character while, on the other hand, those same practices assist individuals to struggle toward diminishing the impact that negative traits of character have on a person's life.

Irrespective of the nature of the doctrine or theology to which one might subscribe, mystical practices seem to be geared toward constructively developing the positive properties of character while diminishing the impact that negative properties of character have on life. Constructive changes in the quality of character enable an individual to become better prepared to listen more attentively, more openly, and more judiciously to whatever Being has to offer.

For the mystics, character is the prolegomenon to the book of life. The former orients how one reads, frames, filters, and engages the latter.

Character is not necessarily a function of convictions or beliefs, nor is it necessarily a matter of complying with certain kinds of convictions or beliefs. Character is a methodology for exploring the ambiguities, problems, uncertainties, mysteries, and possibilities of life.

From the perspective of James Davison Hunter, character entails four dimensions: *Moral discipline*, *moral attachment*, *moral autonomy, and moral compass*. *Moral discipline* refers to the process of constraining behavior, impulses, and inclinations in the service of some greater good, whereas *moral attachment* involves the manner in which one feels bound by, or committed to, some overarching ideal or sense of community.

Moral autonomy concerns a person's ability to freely make moral judgments. Finally, the dimension of *moral compass* that Hunter contends is associated with character has to do with the manner in which the teachings, rules, principles, and habits that are engendered

by the moral framework that a person internalizes from one's culture helps an individual to cope with, and navigate through, the contingencies of life.

In contrast to Hunter's foregoing position, the perspective being advanced here is that the presence of character – in the sense of the struggle to establish positive, constructive traits such as honesty, fairness, objectivity, and so on -- together with whatever negative, problematic traits (such as dishonesty, bias, and unfairness) can be eliminated, constrained or diminished constitutes a good in and of itself. Irrespective of whether, or not, one discovers the nature of truth or serves some higher ideal or sense of community, positive, constructive traits of character enhance the quality of one's life and tend to offer one the best opportunity through which to seek the truth concerning the nature of one's relationship with Being, while negative, problematic character traits interfere with, undermine, distract, and distort one's attempt to seek the truth of things.

Similarly, character in the sense being presented here is not an index for one's commitment to, or sense of being bound by, (i.e., moral attachment) some given ideal, community, or greater good. Rather, character is the means or process through which one seeks to discover truth concerning the nature of one's relationship with Being, and, consequently, one exercises character in order to be able to have an opportunity to seek (through authentic agency or sovereignty), access (if one is fortunate), and realize (where possible) the nature of truth.

In addition, one exercises moral autonomy precisely to the extent that the positive, constructive traits of character permit one to free oneself from all those considerations (such as negative, problematic traits of character) that would obscure, undermine, interfere with, or distort one's attempt to identify the truth of a situation. Character is what makes truly free moral choices possible … that is, to be able to make choices that are not entangled in forces that have induced one to cede moral, emotional, and conceptual agency to conditions that orient choice in ways that are prejudicial, unfair, dishonest, biased, and so on.

Finally, one can agree with Hunter that character does serve as a moral compass. However, from the perspective being presented here, the metric to which such a moral compass gives expression might owe more to the efforts of an individual to seek the truth of things than that

metric owes to the efforts of an individual's culture to induce members of society to internalize a given set of principles, rules, habits, and so on as the basis of such a metric.

James Davison Hunter refers to Ralph Waldo Emerson contention that men of character are the conscience of the communities to which those individuals belong, and he claims that the foregoing reference signifies the manner in which those kinds of individuals feel bound by the fundamental ideals and principles that govern a particular community. An alternative reading of the foregoing reference might be that people of character – irrespective of whether they are men, women, or some other modality of being human – are the conscience of a community because their moral judgments are not necessarily a product of prevailing social and moral ideals but, instead, constitute an expression of the way in which character – considered as methodology – is willing to examine a given issue from the perspective of someone who seeks to conduct a process of due diligence by seeking to be honest, objective, judicious, impartial, compassionate, loving, humble, open, kind, and so on with respect to that individual's engagement of various issues, and, thereby, exhibit the best qualities of conscience.

During the discussion of *The Republic* that follows the foregoing comments in *The Death of Character*, Hunter summarizes some of the qualities that Plato felt the guardians or leaders of society ought to have. More specifically, Plato believed that the guardians of the Republic are those individuals who are most likely to commit their lives to doing what they consider to be in the best interests of society and, as well, the guardians of the Republic are those individuals who will have shown themselves to be capable of adhering rigorously and steadfastly to various principles and convictions.

The best service that someone – whether a leader or follower – has to offer to a community is to act with character … that is, to be someone who engages issues through positive, constructive qualities of demeanor rather than through negative, problematic qualities of demeanor. Commitment to truth does not necessarily require steadfast adherence to certain ideals or principles of social convention, but, rather, commitment to truth requires one to be willing to travel along the path of character during the process of critically engaging any given issue.

Every interest of a community that is other than truth, sovereignty, or authentic agency seems arbitrary. Character – in the sense of positive, constructive traits of demeanor – appears to be best suited to serve the foregoing interests.

Søren Kierkegaard considered character to be something engraved or etched on the mind or soul of a human being, and, therefore, something that did not change ... especially, in difficult circumstances or in situations that were replete with temptations of one kind or another. Hunter notes that Kiekegaard's foregoing position is consistent with the Greek etymology of the term (i.e., character) which refers to a mark that is impressed or engraved in some distinctive fashion.

Hunter attributes the unchangeable nature of character as being due to a person's commitment to some given ideal, principle, notion of the Good, or social convention. However, perhaps, the unchangeable nature of character that is etched on the mind or soul of a human being is the reflection of an individual's essential commitment to the value of character in and of itself ... that is, as a reliable, nuanced, and productive method through which to engage the problems and challenges of life.

The sense of infidelity, sin, transgression, and heresy that arises in conjunction with violations concerning character is not necessarily because, as Hunter might argue, that some conviction, ideal or standard has been betrayed. Instead, by abandoning the exercise of character, a person has betrayed her, his, or their own opportunity for seeking the truth concerning the nature of their relationship with Being, and, thereby, the individual has lost contact with that [namely, truth, sovereignty, and authentic agency (i.e., free will)] which is sacred and can only be constructively accessed through character considered in a positive sense

The battle between good and evil gives expression to the conflict (both individual and collective) that occurs when inclinations toward positive, constructive exercises of character face off against the existence of tendencies toward negative, problematic exercises of character. The good involves processes of pursuing the truth, realizing sovereignty (for oneself and others), as well as exercising authentic agency in conjunction with making constructive choices concerning

the pursuit of truth and sovereignty, while evil gives expression to forces that resist the pursuit of truth, the realization of sovereignty, or the exercise of authentic agency (i.e., free will).

Character serves as an index for both good and evil. This is more a matter of <u>how</u> one goes about engaging life rather than being a function of <u>what</u> cultural or social doctrines (specific moral content) are acquired.

Of course, truth – or content -- does matter. However, truth – according to one's capacity -- is acquired through the exercise of good character.

Insight into the nature of truth is not a function of the received content or internalized doctrine of one's community. Instead, truth must be actively pursued and realized through the exercise of character.

Character in the positive sense perceives the sacred dimension of truth, sovereignty, and authentic agency and, thereby, serves the good. Character in the negative sense obscures the sacred dimension of truth, sovereignty, and authentic agency and, thereby, serves evil (the absence of good).

An important dimension of character in the positive sense is resiliency. Resilience refers to the capacity to bounce back from difficulty.

There are numerous forces (both within and without) that have existed in the past as well as continue to manifest themselves in the present and which (1) seek to dissuade people (individually and collectively) from seeking, realizing, or applying the truth, or that (2) try to undermine or destabilize the conditions of sovereignty that enable people to thrive – individually and collectively -- or which (3) interfere with an individual's exercise of authentic agency by attempting to induce individuals to cede their agency to forms of character that are negative and problematic in nature. Consequently, there is considerable evidence to indicate there is a great need for the quality of resiliency ... to be able to recover from the onslaught of negative forces (within and without) that seek to derail one's search for the truth and one's attempt to establish the conditions of sovereignty and authentic agency that are conducive to such a search.

The final jeopardy challenge – that is, the challenge to find the best answer possible (which needs to be a function of the truth) for the fundamental question of life that concerns the nature of one's relationship with Being – entails many difficulties, problems, failures, and setbacks. Consequently, without a capacity for resiliency, one will be unlikely to be able to cope with the contingencies of life.

Relatively recently, I had an opportunity to gain intimate insight into the nature of resiliency. The foregoing opportunity was a product of my having died or coded a number of times in the emergency room of a local hospital.

As good an example of resiliency as the process of being revivified might be given the way in which the emergency room personnel kept fighting to save my life despite setbacks (e.g., loss of heart activity) or the manner in which my body kept responding to the resuscitation efforts of the hospital staff, nonetheless, that facet of my recovery is not primarily what I have in mind in conjunction with the issue of resiliency. Furthermore, when I think about the issue of resiliency, I am not referring to the fact that despite having only a very small chance of being likely to recover from my coding experiences (and this was one of the reasons why I was put in a medically induced coma), I was even less likely – statistically speaking -- to recover from the foregoing incident with all of my mental faculties intact.

Nevertheless, my body did survive. Even, more remarkably, my mind suffered no ill effects from my close encounter of the third kind involving death.

No, when I speak of resiliency, I am thinking of a battery-operated candle that was, and is, in the living room window of my home. Due to injuries received during the process of resuscitation, I could not sleep in a prone position and, therefore, had to make do with one of the recliner chairs that occupied the living room in our home, and opposite that chair was the aforementioned candle.

The candle had first been set up several weeks prior to Christmas. Although my close encounter of the third kind with death occurred on January 27, 2017, for some reason, the candle in the living room window had not been taken down following the end of the Christmas holiday period.

I don't believe – but I might be wrong -- the candle possessed a timing-mechanism which caused the bulb in the candle to light up when darkness descended. If that candle did have such a mechanism, it didn't seem to work very well because, in the beginning of my home recovery, the bulb only began to light up around 1 or 1:30 in the morning.

I was taking a diuretic at the time, and, as a result, I was getting up to visit the bathroom five, or more, times a night. Consequently, I was able to monitor the status of the light throughout the night till near the time of dawn when I might drift off for a couple of hours of sleep.

The lighting up of the candle was a comfort to me. My wife would already have retired for the night (although for several weeks she would sleep in the recliner beside mine to make sure that I had help if I needed it during the night), so, I was, for the most part, alone with my thoughts, and, therefore, I felt a certain camaraderie with the light since we both – each in our own way – were trying to stay lit up.

Night after night, the candle came on without fail in the wee hours of the morning. I kept a vigil concerning it and looked forward to its going from dark to light.

Once the candle turned on, it stayed lit for four or five hours at a time. I wondered how long the double-AA batteries would last because they hadn't been replaced for several Christmases.

We have two cats. They each like to lie on the front window sill.

From time to time, they cats would knock the candle over, and, on occasion, the candle would roll off the sill and onto the floor some three, or so, feet below. Despite the rough treatment, the candle continued to come on in the early hours of the morning and stay on for the remainder of the night.

The foregoing sequence of events continued on for a number of months. However, at some point, the cats were extra rough with the candles, and the base of the candle was broken, and, as a result, I had to apply duct tape first-aid in order to restore the candle's capacity to be able to stand up without falling over.

At this point, the candle seemed to go into hibernation. For a number of weeks, the candle did not come on at any point during the day.

Nonetheless, several weeks, later, the candle began to come on again. This time, the process of turning on usually occurred about an hour, or so, following sunset.

Once again, its consistency and regularity began to manifest themselves. The candle would come on and stay lit until at least the time when I retired for the night.

By this time, my resuscitation injuries had sufficiently healed that I was able to sleep in a bed. In addition, I had been taken off the diuretic (it was interfering with my ability to sleep), so I am uncertain how long the candle stayed on, but, at the very least, I can confirm that during the period it remained lit for 6 or seven hours at a time.

More rough treatment by the cats ensued. Therefore, more periods of seemingly permanent darkness followed.

Yet, again and again, despite such periods of hibernation, eventually, the light would come on again – day after day -- and stay lit for at least six or seven hours at a time. The only thing that varied from one cycle to the next was the time when the light would come on, but whatever that time might be in any given cycle of resurrection (which usually lasted for a number of weeks), that period would be fairly fixed so that when the candle did come on, it did so within the temporal window that, somehow, had been set for the candle during a given cycle.

More than a year and a half following my brush with death, the foregoing phenomenon continued to happen. Most recently, it took place during Ramadan, the month of fasting for Muslims.

Approximately half way through the month, the candle began to come on within an hour, or so, following sunset. It would still be on when I got up to have the traditional small breakfast that took place before the day's fast would begin, and, therefore, the candle had been shining for, at least, 7 or 8 hours at a time.

The foregoing cycle continued for about 40 days until just after the anniversary date that marks the passing away of my spiritual guide some thirty years ago. Once again, the cats had had their way with the candle and knocked it over and it went into hibernation once again.

Although the candle is, presumably, an inanimate object, it has exhibited the quality of resiliency again and again. Despite the many

forms of abuse to which it was subjected at the whims of our cats, and despite the fact it was operating on batteries that were several years old and that had been used extensively, consistently and regularly by the candle during that period of time, the ornament continued to recover again and again and again.

My wife liked the way the lone candle looked in the window at night. As a result, she purchased another half dozen, or so, battery-operated candles to put in many of the remaining windows of our home so that they could shine forth during the night.

Those candles were put up long after the aforementioned, first candle had been put up, and, in addition, the same kinds of batteries were used in the new candles as had been used in the first candle. Moreover, none of the later candles were knocked about by the cats because they were stuck to the window panes by suction caps in places that were out of the reach of our cats.

Nevertheless, all of the new candles have long ago gone dark, and they have not returned to operational status. Only the original candle continues to show remarkable resiliency with respect to coping with the difficulties of candle life and has been able to return to operational status again and again and again.

In education, the resiliency movement emerged in the context of a basic question concerning the source of certain kinds of recuperative differences among various individuals. More specifically, why do children that face the same sort of challenges and difficulties show differential results with respect to the degree of success that occurs in conjunction with engaging those challenges and difficulties?

To be sure, individuals (like candles) posses differences in inherent abilities, and, therefore, to some extent, differentials in success are a reflection of those sorts of inherent capabilities. However, individuals who have conducted research concerning the issue of resiliency were interested in discovering what environmental factors, coping strategies, stress-reduction techniques, and so on might help provide individuals with some degree of enhanced facility for dealing with the difficulties and challenges of life.

Resiliency researchers believe that irrespective of inherent differences among individuals, every individual could be assisted to

become more resilient in the way in which she, he or they engaged the problems of life. A number of themes were found to be intimately tied to the issue of enhancing the quality of resiliency.

More specifically, among other things, children need to know and feel that they have sufficient control in their lives to be able to affect -- in substantial ways -- what happens to them. In addition, children will only be prepared to take constructive steps in their lives when they have confidence in their competence to do so.

Furthermore, the enhancement of resiliency tends to be most likely to occur when a child has formed a deep relationship with at least one adult figure. This is a relationship that is rooted in a sense of unconditional love (and this is not the same thing as unconditional approval) and in an absolute sense of safety, and, sometimes what is necessary for such love and safety to be expressed (and felt) is for adults to be willing to get out of the way of a child's developmental learning process.

There are no hard and fast rules that will guarantee the growth of resilience. Rather, resilience is something that takes time, patience, and support in order for the opportunities to be created that are needed for a child to be able to hone his, her, or their ability to be resilient.

Parents have a crucial role to play to assist the growth of resiliency in children. For instance, researchers have discovered that what children witness their parents (and teachers) doing is far more important than what children hear adults saying.

Moreover, one of the most important things that parents (and teachers) can do is to actively and attentively listen to what their children have to say. The child's confidence in the willingness of adults to listen to what children are saying can be far more important than anything that those adults might say.

Resiliency research has identified seven C's that have fundamental significance for the issue of developing resiliency. Those seven C's are: Character, control, competence, coping, confidence, contribution, and connection.

Although resiliency researchers and clinicians such as Dr. Kenneth Ginsburg consider character to be one of the seven components that

play a role in the development of resiliency, I feel that resiliency is one of the ways in which character manifests itself, and, in fact, for me, all of the seven C's that were noted above are a function of character considered as a positive, constructive force in one's life.

For example, to be <u>competent</u> in the task of engaging the difficulties, problems, and setbacks of life, is to be someone who exercises authentic agency (i.e., someone who demonstrates trustworthy judgment – and, therefore, responsibility -- in the choices that are made). Trustworthy judgments and responsibility serve as indices for the degree to which character is present.

Similarly, to feel in <u>control</u> of a situation – as far as circumstances permit – is to have <u>confidence</u> in the quality of the character one possesses to be able to engage a given challenge or difficulty of life in a constructive, productive manner. Since one often cannot control many aspects of the situation with which one is confronted, such control has mostly to do with one's inner life, and, therefore, here again, the issue of character comes to the forefront, for one tends to demonstrate inner control through the qualities of character.

Furthermore, to be able to constructively <u>contribute</u> to a situation tends to require character. Indeed, irrespective of whether, or not, one can resolve a given problem or challenge, one still can contribute to a situation in a variety of ways through the presence of qualities such as: Kindness, honesty, compassion, empathy, love, patience, forgiveness, generosity, nobility, courage, and humility … all of which are expressions of character.

In addition, many of the challenges and difficulties of life cannot be resolved or solved. As a result, one must engage life while battling strong headwinds of ambiguity, uncertainty, and ignorance.

Character is what helps one to <u>cope</u> with the unsettled nature of life. Sometimes all one has to offer to a situation is one's character and if we engage such situations through the positive, constructive traits of character, then, sometimes, this is the best one can do.

On the other hand if there are actually steps that can be taken to resolve a situation or solve a problem, then, character has a pivotal role to play with respect to how a situation gets resolves or a problem gets solved. So, in either case, character plays an important role in our

capacity to cope with life.

Finally, the process of <u>connecting</u> to family, friends, community, nation, the world, and the universe tends to be a function of character. The quality of our connectedness will be affected by the aspect of character through which that connectedness takes place.

Like competency, control, confidence, contribution, coping, and connection, resiliency also gives expression to the issue of character. While the foregoing six C's all affect the degree of resiliency that might be present, at the heart of each of those C's is the quality of character.

The growth of resiliency can be enhanced through spheres of modulating influence that have to do with the dynamics of: Competency, control, confidence, contribution, coping, and connection. However, such growth depends on the status of the property – namely, character – that is at the heart of those modulating influences, and such status depends, in turn, on whether, or not, one is operating – or learning how to operate – through the positive, constructive traits of character such as: Honesty, fairness, objectivity, patience, compassion, and the like, rather than through negative, problematic character traits such as: Dishonesty, enmity, impatience, bias, unfairness, and so on.

Resiliency refers to the ways in which an individual returns – or is drawn back -- to the potential inherent in the positive, constructive nature of character. Resiliency has to do with a person's willingness to persevere in engaging life through the positive, constructive dimensions of character rather than cede agency to forces that seek to incline us toward negative, problematic aspects of character.

When resiliency, competency, control, contribution, coping, confidence, and connection – which are all dependent on character – are permitted to exist in a context that is governed by conditions of sovereignty, truth, and authentic agency, then, one's opportunity for developing positive, constructive traits of character are enhanced. However, when, the foregoing components are deprived of conditions of sovereignty, truth, and authentic agency, then, one's opportunity to develop positive constructive traits of character are diminished.

Resiliency can, and does, emerge in conditions that are characterized by the relative absence of sovereignty, truth, and authentic agency with respect to such conditions. However, to enhance

the likelihood that people, in general, will be able to develop character, and, thereby, improve on their ability to exhibit resiliency, competency, control, contribution, coping, confidence, and connection, then, the extent to which conditions of sovereignty, truth, and authentic agency are present in any given set of historical and cultural circumstances plays a fundamental role in whether, or not, positive, constructive development is likely to occur.

As indicated earlier in this chapter, James Davison Hunter is wrong when he claims that "character is dead". Character has not died, nor is character necessarily dependent – as Hunter tends to suggest -- on the return or renewal of certain kinds of cultural or social convictions concerning the sacred.

Instead, character is present, to one degree or another, in any discussion concerning the importance of truth, sovereignty, and authentic agency. Furthermore, real education gives expression to a process of bringing about opportunities for learning that permit people (both individually and collectively) to understand the nature of the relationship involving, on the one hand, character, and on the other hand, conditions of sovereignty, truth, and authentic agency, and, thereby, help facilitate their ability to engage the final jeopardy challenge of life concerning the search for the truth about the nature of one's relationship with Being.

Chapter 10: <u>Paradigm Shift</u>

Rudyard Kipling is reported to have said:

"Words are the most powerful drugs used by mankind."

If he is correct, then education and learning are complex modes of delivery for introducing mind- and soul-altering entities into people of all ages ... modalities that both affect the efficacy of such drugs, and, as well, are affected by them.

<u>Preamble</u>

The reader should understand that because what ensues is an extended essay about the possibilities of education rather than a definitive treatment of that topic, there are many facets of the following material that are set forth in a somewhat compressed form, rather than in a fully delineated manner. Although I believe there are enough details inherent in this extended essay to provide an understandable map of the conceptual terrain that this chapter outlines, there are many issues that could have been developed more expansively in the present essay that have been left for another day and another discussion

Moreover, since this essay tends to deal with basic principles and since principles tend to be inherently complex, layered and given to nuance (more on this shortly), the task of unpacking the substantive character of any given principle tends to be something of a work in progress and, in effect, this means there is unfinished business that accompanies this extended essay. However, such unfinished business should not be confused with the issue of logical lacunae anymore than one should take exception to the fact that a child is, somehow, lacking as an individual simply because further maturation will occur at a later time.

The foregoing point leads to a third matter. Any time one proposes a paradigm shift, there will be those who will read such a proposal through the colors of the glasses with which they normally view experience and expect the former to conform with the latter and, as a result, might become agitated when this does not happen and, consequently, tend to dismiss what is being written as so much nonsense. Yet, the whole idea of proposing a paradigm shift is to

challenge the usual way of doing business.

We live in desperate times. There is considerable degradation of: the human spirit, community, politics, moral integrity, and the environment that is taking place currently and has been occurring for quite some time.

Change is necessary. The argument is no longer whether, or not, to undergo a transition in the way we think about and do things, but, instead, we are faced with task of identifying the sorts of change that might be most capable of stopping the present process of degradation and that might help lead in the direction of healing – on many, many levels. However, before one can get to the issues of education and learning, one needs to understand the structural character of the context in which these topics are currently embedded. Therefore, I will be exploring quite a few topics that, initially perhaps, might seem to have little to do with natters of education and learning. However, such preliminary adventures are very necessary in order to clear a viable path for journeying toward the intended destination.

Consequently, I request you to read the following material slowly, as well as with considerable reflection, equanimity, and patience. For a variety of reasons, the terrain of this extended essay is not always straightforward or easy to navigate, and I hope you will meditate on the themes being explored here rather than merely rush to judgment concerning the heuristic potential of the principles set forth.

Proposal

What if someone could offer a way to (a) substantially cut property, state, and federal taxes, while simultaneously: (b) revolutionizing the process of education so that the emphasis is on learning instead of accountability wars, political agendas, and self-serving means of generating money for those whose primary interest might be other than the welfare of learners; (c) bringing an end to the, till now, interminable wrangling over discrimination, reverse discrimination, and affirmative action debates by truly leveling the playing field for all concerned; (d) enabling citizens to gain complete control over their learning; (e) shifting the burden of responsibility for identifying competence to where it belongs and, thereby, ending a form of subsidization that has done nothing but undermine the

process of learning; (f) reducing the costs of both public and higher education by billions, if not trillions, of dollars; (g) re-thinking the meaning and purpose of the Constitution; (h) and, doing all of the foregoing by requiring only nominal expenditures for underwriting the transition entailed by such changes? Does this all sound like a Rube Goldberg device, a perpetual motion machine, a quixotic quest, and/or the ranting of someone whom, without proper monitoring of medication, has been dumped back into the community from a mental facility?

Read on. You might be surprised.

Rules and Principles

One of the keys to the possibilities noted above rests with the Constitution. Or, said, perhaps, more accurately, one of the keys lies in how one might approach the problems and challenges that are inherent in the Constitution.

The word "inherent" that appears in the previous paragraph is not used inadvisably. Almost by necessity, the Constitution is a hybrid of specific rules and general principles.

Principles are different from rules. Rules are linear and principles tend to be non-linear.

In other words, the very nature of a rule is that it should be understood, processed, and applied in roughly the same manner from one situation to the next. This is the essence of what is meant by something being linear.

A principle, on the other hand, has degrees of freedom within its structural character that provide opportunities for variations on whatever theme(s) is (are) at the heart of that principle. These degrees of freedom establish boundary conditions that cannot be transgressed without violating the principle while, at the same time, giving expression to the conceptual area within which the principle is intended to hold prominence, relevance, and applicability.

Being non-linear, principles have a capacity for flexibility that is not present in rules. Without transgressing its spirit, a principle is capable of responding to varying circumstances in ways that rules are unable to do without undermining the essence of the idea underlying

such a rule.

One should not suppose the foregoing suggests that principles can be anything one wishes to make them. Degrees of freedom are not the same thing as license.

For example, many people speak of the Golden Rule, which, sometimes, is expressed in the following fashion: 'Do unto others as you would have them do unto you'. First of all, referring to this maxim as a rule is a misnomer, for there is no clear, identifiable theme in this saying that can be applied under specifiable conditions in a determinate way, and, consequently, this moral precept is devoid of the very qualities that are necessary to establish it as a rule.

A general recommendation is being offered, not a hard and fast stipulation. The form of a rule frequently reflects an 'if/then-like' structure such that if certain conditions are met, then, certain behavior or procedures should come into effect or be pursued or applied, but this property is absent from the foregoing moral precept.

The Golden Rule is really a Golden Principle. There are degrees of freedom encompassed within this principle that permit one to go, simultaneously, in a variety of directions.

Can one say this Golden Principle is about kindness, compassion, empathy, love, forgiveness, tolerance, honesty, nobility, magnanimity, being charitable, friendship, and so on? Not necessarily, although all of these qualities are quite consistent with that principle.

If one wishes others to be honest with one, then, one should be honest with them. If a person wishes others to forgive her or him, then, the individual should forgive those other people. If one wishes someone else to be tolerant toward one, then, one should be tolerant with that person.

The Golden Principle neither explicitly mentions any of the foregoing possibilities, nor does it enjoin upon anyone that she or he must be kind, compassionate, loving, and so on. All it says, at least on the surface, is the following: However one wishes to be treated, then, one should not only treat others in a like manner, but the onus of responsibility for living in accordance with this principles begins with oneself and is not dependent on others treating one in a certain fashion, nor does the principle guarantee that even if one acts in a

certain way in relation to others that, therefore, one's mode of engaging people will be reciprocated.

If one looks at the life of the giver of the Golden Principle, one might say that, by implication, qualities of love, kindness, honesty, generosity, forgiveness, and so on are inherent in this principle. Such an understanding presupposes one knows what was in the mind and heart of the giver of the principle at the time the principle was issued. Consequently, such a presupposition is rooted in a theory of interpretation or a hermeneutical system about someone's intentions, mind-set, or purposes with respect to such a principle.

Moreover, even if one were to admit that qualities such as kindness, compassion, love, forgiveness, and so on, were, by implication, entailed by the Golden Principle, one is faced by, yet, another problem. What is meant by kindness, compassion, love, forgiveness, etc.?

All of the entries in the foregoing list of terms refer to principles not rules. There is not one way of being kind, or compassionate, loving, or forgiving. Furthermore, what one person considers kind or loving might not be seen as such by someone of a different understanding or might be engaged through an alternative modality for demonstrating kindness, compassion, love, forgiveness, and so on.

The spirit, or deep structure, of this Golden Principle tends to revolve about good, moral, just, constructive, or positive behaviors. Nonetheless, someone might want to say that, for example, a person with sadomasochistic inclinations might invoke this principle to justify pathological behavior, and while such an application is consistent with the surface character of the precept, such behavior might not be consonant with the underlying spirit of that principle -- at least as envisioned by the one who initially introduced this precept.

Whatever the deep structure of the Golden-Principle might be, its surface structure only says that if one has any hope of having someone else treat one in a certain way, then, everything begins with oneself and, as well, begins with what one does in relation to others. Everything else is mere theory, speculation, opinion, and interpretation … or, as one sometimes hears in the courts: 'Objection, your Honor, this calls for conclusions based on testimony that has not yet been entered into evidence.'

Constitutional Issues

There are some portions of the Constitution that are expressed as rules. Many of these rules are clear and straightforward, while others seem to contain language that is ambiguous, and, therefore, in such cases, one is not certain how to proceed even though one might be dealing with a rule rather than a principle. Other facets of the Constitution are in the form of principles. How one should understand those principles is both a huge problem and a challenge.

There were 39 people who signed the United States Constitution. Among this group there were no women, Native Peoples, Blacks, Asians, or poor people. The signatories were lawyers, bankers, financiers, physicians, landowners, businessmen, and high-ranking soldiers.

Those 39 individuals were selected by a larger sub-set of the population encompassed by the original thirteen states. This larger group is but a sub-set of a still larger group of people who had little, or no, role in the selection process that led to these 39 people being identified as signers of the Constitution.

Signing the Constitution is not necessarily synonymous with framing the Constitution. Furthermore, there is ample evidence to indicate that Native Peoples had a substantial hand in helping to frame a variety of substantive ideas that shaped the final form of the Constitution even though none of these indigenous individuals were signatories of that document.

All of the foregoing leads to five important questions. More specifically, when one speaks of the 'Framers of the Constitution': (1) To who is one referring? (2) Did all of the 'framers' understand things in the same way with respect to the language of the Constitution? (3) Even assuming one could identify what such understanding(s) involved, why should one give precedence to what the participants meant over the understandings of those who did not participate in the selection process and/or whose views were not represented by the individuals who were selected? (4) Why should people of today be bound by a document that they had no role in framing or giving consent to? (5) Even assuming people are bound, in some way, to adhere to the Constitution, what is the precise nature of that obligation? ... Is the character of such an obligation: moral, legal,

political, logical, or some combination thereof, and what is the structural character of the argument that demonstrates the undeniable truth of such a moral, legal, political, logical, or combinational binding authority?

Lest one forget too quickly, the Declaration of Independence, signed just 11 years, or so, prior to the Constitution, states:

"When in the Course of human events, it becomes necessary for one people to dissolve the political bands that have connected them with another, and to assume among the powers of the Earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation. –

"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness.

"That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, – "That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience has shown, that mankind are more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security."

Rights belong to people and not to governments. Rights that are

inalienable exist prior to the establishment of any form of government and those rights are not derived from the process of governing.

Governments are instituted to be the guardians of such rights. Governments are fiduciary agents for creating conditions that are conducive to people being able to access and secure such rights.

So says the Declaration of Independence. So says the Constitution. So says the Bill of Rights.

The Preamble to the Constitution stipulates:

"We the People of the United States, in Order to from a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America."

The Constitution establishes the framework of rules and principles within which Governments might be formed and operate. However, Governments are established to serve the people in securing rights, justice, liberty, domestic tranquility, common defense, and the general Welfare.

There is an interesting possibility associated with the fact that only six of the 39 individuals who were signers of the Constitution were also signatories of the Declaration of Independence. Four of the 56 signers of the latter document died prior to the gaining of independence, and several others retired due to ill health.

One of the interesting dimensions of the foregoing is that the spirit and language of the Declaration of Independence has not only been substantially toned down when some of its principles were included in the Constitution, but provisions have been etched into the Constitution that render the spirit of the Declaration moot – such as in relation to the idea that people should have the right, if not duty, to abolish Governments that do not serve the unalienable rights to which all human beings are entitled. In such a case, the revolutionary language of the Declaration of Independence has been transformed into an electoral process, and, unfortunately, the Constitution provides people few remedies in the event that many or most of the politicians turn out

to be either hawkers of conceptual snake-oil, self-serving proponents of vested interests, or the political version of the world's oldest profession.

One might say the difference in spirit and language between the two documents is the difference between revolutionary zeal and the practical business of politics. One also might say that the people who assumed control of the United States by means of the Constitution did not want something to be done unto to them that they had been willing to do unto others.

Or, one might say that since these politicians didn't want to run certain risks of real accountability or being dismissed summarily, they instituted provisions that placed some institutional restraints on what could be done to and with them, as well as on when and under which circumstances such things might be done. In short, these politicians would treat others in a certain fashion, if those others would treat them in such a fashion – a gentlemen's agreement, if you will, aimed at keeping certain gentlemen in control.

The individuals who crafted the Declaration of Independence said things correctly in a number of ways. For instance, "Governments long established should not be changed for light and transient causes." Moreover, human beings "are more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed."

Nonetheless, the people and Governments should both understand and take heed that "when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security." In other words, when the unalienable rights of human beings are placed at risk, then, "whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness."

When the signers of the Declaration spoke of the right of people to "alter and abolish" destructive forms of government, they were not speaking about voting in a new King of England or having a new round

of elections for the parliamentary system across the Pond. They were talking about a form of alteration and abolition that would totally disenfranchise the powers that, until then, had been interfering with the rights, liberties, and pursuit of happiness of people in the colonies.

If the foregoing process of alteration and abolition could have been accomplished through peaceful and diplomatic means, then this would have been the preferred method. But, if not, then, force would be used to defend that Declaration (and for those who might be worried that the following seeks to advocate any form of forceful overthrow of government, please rest easy, for this is not the intent or purpose of this extended essay).

Consent of the Governed

The South issued its own form of Declaration of Independence some four score and a few years later (and none of what follows should be construed as either an apologia for, or criticism of, pre-Civil War Southern politics – the following discussion points in an entirely different direction). The South found out that what is good for the goose, it not necessarily good for the gander.

Despite complying with the words, format, and spirit of the document of 1776 and stating the causes of their disaffection with the reigning federal government, and despite indicating that the people (or, at least, some of them) were not giving their consent to be governed, and despite indicating how the policies of the federal government were destructive of the rights of people (including women, native people, Blacks, and children -- although none of these groups or their problems were among the grievances listed by the leaders of the South ... at least not in any constructive or just sense), nonetheless, the alleged leaders of the South were told they didn't have the right to go their own way – whether those ways be good, bad, or indifferent. May the spirit of 1776 rest in peace!

The spirit of 1776 was not about saving governments or a country. It was about saving people.

When governments get in the way of how people wish to come together as a community, Union, state, or nation, then, governments, not people, should step aside. For the people are the ones who have

the right of way -- and, here, power is not synonymous with the issue of 'right'.

How quickly some people forget the road less traveled that had been taken in order to be able to get to where we are in relation to issues of freedom, choice, self-determination and democracy. Lincoln, playing King George to the upstarts of the Confederation, seemed to forget about the meaning of the Declaration of Independence, as well as the Constitution, for he, along with Jefferson Davis, decided that they had the right to force their respective views of the Constitution -- and what it, supposedly, meant -- upon others, and, as a result, hundreds of thousands of people died.

Apparently, Lincoln failed to recall that in 1854 he had said: "No man is good enough to govern another man without that other's consent." But, then, politicians often tend to be children of the moment believing, apparently, that 'consistency is the Hobgoblin of little minds'.

None of the foregoing should be construed as saying the causes of the South were justified, or that the Causes of the North were unjustified (or vice versa). This is not about territorial squabbles involving states' rights versus federal rights, or about one style of living versus another, or about who was exploiting whom economically and politically, or about the right to own slaves (and the Emancipation Proclamation was not declared until September 22, 1862 -- a year, or so, after the Civil War started and would not become law until January, 1863, and quite a lot more time passed before that law actually began to take effect through, among other avenues, the advent of the 13th Amendment in 1865.). Rather, both the South and the North seemed to have forgotten that the Declaration of Independence and the Constitution were about guarding and securing rights for people, not governments, and, consequently, both the North and the South failed in their fiduciary responsibilities to their respective constituents.

If Lincoln and Jefferson Davis had not been so intent on imposing their respective ways of interpreting how Governments might best secure rights, liberties, defense, happiness, tranquility, and welfare for people, then, maybe, in time, the North and South might have evolved in a socially integrated manner which actually could have served the

interests of everyone without hundreds of thousands of people having to die, and without the ensuing bitterness -- another legacy of the Civil War that is responsible for constantly poisoning the well of the Body Politic from which we all have had to drink so many scores of years down the line.

The Gettysburg Address gives expression to great literature but a rather distorted understanding of history. The "new nation that was brought forth on this Continent" was not only "conceived in liberty and dedicated to the proposition that all men are created equally". It was a new kind of nation that, supposedly, was being brought forth ... a nation in which people were to be the primary focus, and governments were merely the means through which those ends were to be served.

Lincoln ended his address with the famous sound bite that a nation which is a "government of the people, by the people, for the people shall not perish from the earth" -- language, by the way, which appears nowhere in either the Declaration of Independence or the Constitution. Be this as it may, apparently, from the perspective of the North, the people of the South were not among those whom government was of, by and for ... and, consequently, perhaps this set of circumstances was one of the many possible inspirations for George Orwell's idea in *Animal Farm* which stipulates that 'all animals are equal, but some are more equal than others.'

In any event, Lincoln gave priority to the wrong idea in his famous wartime speech. America was not intended to be a nation that is a government of, by and for the people. America was supposed to be a Union of people to which government had a fiduciary responsibility ... people came first and government was meant to offer a purely procedural means for serving those people.

Moreover, less anyone be too quick to store such issues in the attic of our collective unconscious, the Civil War did not free people of color. It merely redesigned the nature of the cage in which they were placed -- indeed, the northern ghettoes and slums did for black-skinned people what the reservation did for red-skinned individuals ... namely, provided white people with a 'workable' solution that was paid for by the misery of those who were forced to make that solution work and quite independently of the many injustices inherent in such a 'solution'.

All too quickly, the process of government became an end in itself, and the people about, and for whom the Declaration of Independence and the Constitution were allegedly written became the means to help public servants serve the latter. The people were conned into swapping one King George for thousands of them, and although many in the Colonies saw the necessity of the Declaration of Independence, nonetheless, the logic of that necessity was not permitted to extend to the way that politicians and so-called public servants abuse the intent and purpose of the Constitution, and, instead, used it for self-serving reasons that compel people to live in accordance with arbitrarily derived understandings of the Constitution -- with no small thanks to the role of the Supreme Court.

Judicial Tautologies and Non Sequiturs

Supreme Court justices can pontificate all they like about the nature and meaning of the Constitution, but the judicial curtain needs to be drawn back by some human counterpart to Toto. There is a need to expose the fact that the Supreme Court has created a judicial Wizard of Oz in relation to the Constitution -- lots of thunder and bellicose meanderings, signifying little or nothing, uttered by people pretending to be something that they are not and alluding to knowledge and wisdom that they do not necessarily have.

While the members -- both present and past -- might take umbrage with the following, in truth, there are two, and only, two differences between a Justice of the Supreme Court and the average person on the street – namely, (1) the former has power and the latter has none with respect to possessing any say about what the name of the game is in relation to Constitutional flimflam sleights of mind; (2) a Jurist has an education into the history of how other similarly empowered individuals have perpetrated the Wizard of Oz myth in order to hide the very real fact that most Jurists, whether current or past, do not have the slightest capacity to prove that any interpretation of the meaning and purpose of the Constitution which they wish to force on everyone else can be either: (a) fully reconciled with the principles of either the Declaration of Independence and/or the Constitution; or, (b) demonstrably justified as being 'the' interpretation that is most likely to secure and guard rights to: a more

perfect union, justice, tranquility, defense, welfare, or the blessings of liberty for all of the people of this country.

To say a given legal argument has plausibility is not the same thing as saying that such an argument gives expression to a valid proof. When the rights, liberty, tranquility, welfare, security, justice, and desire for a more perfect union are at stake for millions of people, one needs something more than an "I call them as I see them" sort of mentality from jurists.

The criterion of 'beyond a reasonable doubt' that weighs in at most criminal trials -- rather than the far less rigorous guideline of a 'preponderance of evidence' that holds sway in matters of civil litigation -- should be the principle governing the decisions of the Supreme Court. Any time one has judicial decisions that carry by a 5-4, 6-3, or even an 8-1 majority, one has prima facie indication that reasonable doubt might be present with respect to whatever issues are being deliberated upon.

When a Supreme Court justice cites a precedent in order to support his or her legal decision – and a precedent is really nothing more than an allusion to a form of logic used in some previous judicial opinion that a given jurist considers to be persuasive - then, the Supreme Court justice in question frequently has done nothing but given expression to a tautology. This is because the conclusions of such a jurist are often already contained in the premises that collectively encompass that jurist's biases and preferences with respect to approaching the meaning and purpose of the Constitution.

The highly heralded exploration for so-called 'legal principles' with which jurists occupy much of their time frequently tends to be a 'Snark' hunt. The fact of the matter is one has the language of the Constitution and one has the language of prominent authorities (now and over the years), but, unfortunately, the connection between, on the one hand, the foregoing two sets of language packages, and, on the other hand, reality, truth, justice, tranquility, welfare, security, liberty, and a more perfect union is, oftentimes, something of a will-o'-the-wisp.

More often than not, the nature of this will-o'-the-wisp is in the form of a non sequitur in which conclusions do not necessarily follow from a set of premises. Alternatively, the form of the argument,

euphemistically speaking, is, as previously indicated, in the form of a tautology in which the prefabricated biases of a jurist are forced -- sometimes violently so -- upon a set of legal facts and principles, and the only way the biases are made to fit with such facts is through the raw, brute power that stands behind those decisions and not through defensible logical argument.

Einstein, when he was engaged in his running, conceptual battles with some of the creators of quantum theory, once said that "God does not throw dice" in a reply to those who believed the universe operates as a random phenomenon. However one might feel about Einstein's foregoing position, the fact of the matter is, Supreme Court jurists ought not to treat the principles of democracy as if democracy should be regulated by the rules of a dice game – and all too frequently, unfortunately, such jurists do play dice with the lives of people ... and often in a very arbitrary manner.

Judicial precedents are selected by a jurist because the former tend to mirror the hermeneutical system employed by such a jurist and not because the precedent can be defended as true independently of what that jurist believes. Where jurists begin their deliberations is where they often end those deliberations because many jurists tend to end with the same legal assumptions and philosophy with which they began, and the only difference is that the ending is couched in slightly different language in order to give the impression there has been some sort of transitional bridge of logic that has been crossed over as one goes from the premises of a legal argument to a conclusion that is said to be entailed by those premises.

On occasion, the logical movement from premise to conclusion in such arguments might be impeccable, but this often is more reflective of the nature of a tautology forced upon an issue than it is reflective of any discovery of judicial truth with respect to a given constitutional issue. What requires questioning, however, is both the structural character of the legal premises, as well as the underlying assumptions and interpretations that have led to such a conclusion.

In addition, one should pay close attention to the legal sleights of mind that often are woven into the text of an argument. These are processes of conceptual prestidigitation that seek to give an appearance of logical validity when none actually exists.

Being able to loosely tie a legal argument to words or ideas in the Constitution does not necessarily justify or validate such an argument. Moreover, and for reasons that will be developed in the following discussion, a jurist (or a president or legislator) must not permit his or her personal philosophy of life to color a decision since, constitutionally speaking, doing this violates both the spirit and purpose of the Preamble to the Constitution as well as the opening salvo of the First Amendment.

This is because every jurist, on whatever level of review, has a philosophy of law that shapes, colors, and organizes how that individual approaches the interpretation of any legal document or legal circumstance -- both in terms of (a) whether law is a matter of rules and/or principles, and (b) how one should go about interpreting those rules and principles. This philosophy of law might be a function of: a theory about what the 'Framers of the Constitution (supposedly) meant', or such a judicial philosophy might involve a competing interests evaluation or a cost-benefit analysis of the Constitution in conjunction with some legal matter, or a given judicial hermeneutical system might revolve about an underlying theory of social welfare or distributive justice or fairness or moral imperative. Nevertheless, whatever might be at the heart of such a judicial philosophy, it violates -- for reasons to be outlined in the following discussion -- the very fabric and spirit of the Constitution.

One of the reasons why the Constitution has the ambiguity it has (both with respect to its rules and its principles) is because the 39 signatories of that document could not agree sufficiently on the hermeneutical specifics of the provisions inherent in the rules and principles of the Constitution in order to be able to map things out in more detail. Alternatively, or, perhaps, in addition, the aforementioned signatories did not have the foresight to understand that such ambiguity did exist in the Constitution and, therefore, grasp the scope of the problems that this would create for subsequent generations. Or, possibly, these signatories did have the foresight to understand the foregoing sort of difficulties, and just didn't know what to do about it, and, therefore, left those problems as an exercise for later generations to foul up in any way the latter wished, and, therefore, perhaps, like all would-be government officials, the framers of the Constitution were

very good at leaving messes for other people to try to clean up.

If one moves from the 39 people who shaped and signed the Constitution, to the larger set of people who selected those individuals, to the even larger set of individuals who were not represented in the selection process, and, then, one threw in all those people who were entirely disenfranchised by the process (women, Native Peoples, Blacks, and children), then, really, whose Constitution are we talking about here? Whose purposes? Whose meanings? Whose values? Whose ideas? Whose modes of logic? Whose needs? Whose interests? And, how does one justify selecting any sub-set of meanings from this array of possibilities as constituting that which should govern the lives of people and define what is meant by the rights of people to a more perfect union, justice, tranquility, defense, welfare and the blessings of liberty?

Undoubtedly, one would find themes of commonality among all these various sets of individuals – places of agreement about what was right and what was wrong. However, if the history of human kind has proven anything, the far more common thread of human events is about disagreement ... not about agreement.

Problems usually don't arise when people agree about things. Problems arise when people disagree.

Yet, the one thing that the Constitution does not do is map out how to find just solutions in the context of disagreement – solutions that serve everyone's rights to a more perfect union, justice, tranquility, defense, welfare, and the blessings of liberty. The Preamble to the Constitution does not talk about a majority of the people, it alludes to 'all' people – "We the People".

Anyone who supposes one can, or should, water down the inclusive language of the Preamble, and, thereby, suggest that Constitutional democracy really only means one needs to satisfy just some simple majority of the population -- and which simple majority this might be is entirely arbitrary and a matter of the fortunes of politics -- doesn't have the slightest understanding of why the Declaration of Independence came into being in the first place. Or, maybe they do have such an understanding, and in order to protect their interests, they wish to ensure that no one else is in a position to follow the original logic(s) underlying that document ... the very logic

that made the Constitution possible and that is inherent in the Constitution's Preamble.

Furthermore, anyone who wishes to reduce democracy to a simplistic and brain-dead form of majority rules doesn't understand the concept of a 'right'. Rights belong to all citizens of a democracy, but they are intended to prevail against a majority, if necessary, for the very idea of the protections afforded by rights is that such protection should stand even against the wishes of the majority. A right that cannot guarantee protection against the wishes of the majority is no right at all.

Similarly, when the Preamble to the Constitution talks about forming "a more perfect Union", establishing Justice, insuring domestic Tranquility, providing for the common defense, promoting the general Welfare, and securing the Blessings of Liberty to ourselves and our Posterity, then, the logical character of rights is in force here, and the underlying intention is that protections should be afforded to everyone to enable them to benefit from those processes of establishing, insuring, providing, promoting, and securing.

How to do this so that both minorities and majorities are equally protected and served is, of course, another matter. The Constitution represents a procedural blueprint for how to approach this problem, and the signatories of that document might not have known how to do it, and, currently, we might not know how to accomplish this, but the basic challenge is clear.

Consequently, one simply cannot ignore the Preamble as a nice-sounding piece of literary fluff that merely introduces the, supposedly, real business of the Constitution. Indeed, the whole purpose of forging the Constitution was to serve the integrity of the Preamble. In other words, the procedural rules and principles of the Constitution are intended to constructively assist the realization of the Preamble's purpose.

Unfortunately, many people have misunderstood the meaning and significance of those procedural measures entirely, interpreting them to mean that elected officials have the right to pass laws, via majority votes, to tell people what is meant by Justice, or Tranquility, or common defense, or the general welfare, or the Blessings of Liberty. Such an interpretive approach to the Constitution flies in the face of

everything that led up to the writing of the Declaration of Independence and the Constitution ... to follow the former (rather than the latter) line of thinking is an exercise in revisionist history that serves the powers that be.

The separation of powers among the Executive Branch, the Legislature, and the Judiciary was intended as a system of procedural checks and balances to protect the integrity of the principles and purposes inherent in the Preamble. Unfortunately, the whole idea of a separation of powers has become a tug of war among little children squabbling to protect their territorial powers to impose themselves and their thinking upon others, and in doing so they have all demeaned their offices, the Constitution, and the people who have died so that the Constitution might be written and enacted.

The Constitution did do one thing, and it did this fairly well. The document provided a starting point that gave people a context around which to focus and to explore possibilities.

The document provided a way to get things going. However, there is a downside or dark side to such momentum, and that is the inertial forces which have come into play that resist -- blindly and obsessively -- moving in directions that might be much more conducive to securing and guarding the rights of citizens to a more perfect union, justice, tranquility, defense, welfare, and liberties than is presently the case.

What Does The First Amendment Mean?

Amendment 1 of the Constitution, passed some four years after the Constitution came into being and which was made possible by the procedural rules set forth in Article V of that document, stipulates:

"Congress shall make no law representing an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances."

Some people refer to the first part of this Amendment as the

'Separation Clause'. Such individuals maintain that the purpose and meaning of this portion of the Amendment is to demarcate the boundaries of governmental conduct so no form or process of religion will be instituted as a matter of public policy, and, simultaneously, to ensure that government will not interfere with anyone's right to exercise one's choice of religious practice -- including, by implication, the right not to make a choice concerning, or practice in accordance with, any particular religious doctrines or practice.

Procedural speaking, this part of the Amendment, as is also true of the remaining aspects of the Amendment, is an excellent way to create conditions through which the rights of the Preamble might be pursued by people without prejudice to what they believe, do, say, write, or the reasons for which they assemble. This is so as long as other principles inherent in the Preamble -- such as 'domestic Tranquility' Justice, common defense, the Blessings of Liberty, or the general Welfare -- are not disturbed, compromised, or undermined thereby.

However, a very important question to ask at this juncture is the following. What is religion and is religion a matter of rules or principles or both?

One can go to any number of dictionaries, look up the word "religion" and run down through the primary, secondary, or tertiary designations. Nonetheless, one should try to remember that a dictionary is not the word of God even though some lexicographers might like to think otherwise.

A dictionary is nothing more than a compilation of common and not so common usages of a word. Dictionaries presuppose the linguistic practices of people.

Dictionaries provide parameters of possibility in order to inform one how people do, and have, used such words in order to facilitate communication. Whether the meanings inherent in, or the basis of usage for, a word are right, wrong, true, or false with respect to the nature of reality is actually irrelevant to being able to come to understand what someone is saying by using words in certain ways.

In addition, etymologies provide a history of the evolution of usages and transitions in such usages across languages and cultures

with respect to various practices of usage. Again, recording this history or noting the changes in usage over time says nothing about the truth or falsity of those linguistic practices with respect to their capacity to reflect the structural character of reality in an accurate manner.

If one wishes to add n-dimensions of nuance to a dictionary's rendering of a word's meaning, then, one might read what various individuals have written about such a word as these people developed their respective theologies, philosophies, mythologies, sciences, sociology, anthropology, psychology, histories, moralities, or legal perspectives in relation to that word. Like the reiterated equations underlying a fractal, one can take almost any word and explore the possible meanings and significance of that word to an indefinite extent -- as many levels down, up, and in other dimensions, as one likes -- without necessarily coming any closer to the truth or end of the matter or issue.

The Constitution says nothing about whose usage is to be preferred concerning a word such as "religion". The Constitution gives no guidelines about what any of its words do mean or should mean or could mean.

The Preamble to the Constitution does provide some indication that our approach to these matters should be as broad as possible without being forced to drop off the edge of the world of intelligible meaning into nihilism, sophistry, or nonsense. Moreover, there is some indication in the Preamble that this broad-spectrum engagement of issues should be consistent with the preservation of the integrity of the several principles (for example, a more perfect union, justice, tranquility, common defense, general welfare, and liberties) that are mentioned in the Preamble.

As an exercise, let's consider some possible ways of reflecting upon the idea or concept of "religion". For instance, one prominent theme of religion is 'faith'.

Some people describe faith as being nothing more than beliefs, values, or opinions to which one is attached with considerable conviction and passion despite an absence of evidence. Other people characterize faith as either a faithful or heuristically valuable insight (productive or useful) into the way one's experience links up with, or connects to, the nature of reality, despite the possibility of error with

respect to such an insight.

Is there anyone who does not have faith in either of the foregoing senses? Is there anyone who does not hold her, his, or their beliefs with conviction or passion, or does not consider those beliefs and convictions to be constructive or heuristic leads for engaging and/or seeking the ultimate nature of truth or reality -- and, yet, simultaneously, realizes one could be wrong with respect to that which one believes one is right?

Another term used in conjunction with religion is "soul". Who amongst us does not believe human beings have a soul ... and possibly animals, plants, and the rest of the universe as well?

The issue has never been about the idea of soul. The controversy has been over its nature and purpose.

Does the soul transmigrate? Is the soul accountable, and, if so, to whom: God? ... the community? ... the judicial system? ... ourselves? ... our family? ... the Universe ... all of the above?

Is the soul the seat of the intellectual machine? Is the soul that which motivates and inspires creative activity? Is the soul the source of feeling of empathy for things? Is the soul really just a way of referring to the psyche by another name and, therefore, is merely a psychological construct or artifact? Is the soul destined for either eternal perdition or salvation? Is the soul a miracle of random, evolutionary forces? Is there an Over-soul to which we are all connected via the agency of our individual souls? Is the soul material, psychological, ethereal, spiritual, mythological, rational, irrational, illusory, permanent, or transitory?

Whether true or not, most of us believe the existence of a soul -- however it might be described – to be one of the things that distinguish human beings from other beings of the Universe. This is not because other beings (whether animate or seemingly inanimate) might not have a soul, but, rather, because the structural character or quality or nature of the human soul is somehow different and, consequently, defining of what being human entails – both in the way of possibilities, as well as in relation to responsibility and accountability.

Some people say that the notion of a 'conscientious devotion and

scrupulous care' to certain precepts is the hallmark of religion. This devotion or commitment to a set of ideals, values, principles, morals, and priorities that are intended to guide the living as well as the engagement of life through such devotion is said to characterize the essence of religion.

We all have ideals, beliefs, ethical precepts, codes, and so on to which we are devoted and to which we -- according to our capacities, inclinations, and circumstances -- seek to follow with some degree of scrupulous care. If we don't choose to call these things religious, does this make them any less consonant with some of the principles inherent in religious discourse? Isn't a rose by any other name still a rose?

Of course, some demand that religion must be about one's relationship with a Supreme Being. Numerous wars have been fought over what people believe the name of this Supreme Being is or should be.

One commits a logical fallacy when one confuses the name of something as having a greater claim on the nature of reality than the actual nature of the reality to which that name allegedly makes identifying reference. One is reifying language rather than understanding that language is nothing more than an elaborate way of pointing to, and describing, something that lies beyond the horizons of linguistic limits.

In the Old Testament, the Hebrew Tetragrammaton YHWH or JHVH -- unpronounceable amalgamations of four consonants -- is used to allude to the reality that the Supreme Being does not use any spoken name to identify the reality of "I Am That I Am". Unfortunately, the penchant of some people to invest language with more reality than it deserves has transformed the foregoing Tetragrammaton into a name, Yahweh or Jehovah when no such naming process ever was intended.

In this context, the very act of naming distorts that to which the Tetragrammaton is seeking to direct our attention through a modality of alluding. The process of naming tends to distort because we are projecting our way of coding experiences, understandings, interpretations, and values onto reality whenever we do this. In so doing, we tend to reduce the richness of the infinite -- or, at the very

least, the indefinite -- down to the names we invent in order to make reference to our experience ... both individual and collective.

Oddly enough -- although not really -- the Buddhist inclination not to name ultimate reality is right in step with the aforementioned Tetragrammaton. The Void that is Fullness alludes to the presence of a Reality, but this Presence cannot be captured through the use of any name.

Some people speak of Buddhism as a godless religion. One would be more accurate to refer to Buddhism as an approach to the engagement of reality that shies away from naming That which cannot be named because doing so introduces substantial distortion into the conceptual and hermeneutical landscape.

Names imply 'thingness' or having the status of an object. The Buddhist and the Jewish scriptures, along with many mystical traditions, are trying to draw our attention to the idea that the ultimate nature of reality is not a function of thingness, nor objects, stuff, material, substance, or even spirit.

Some spiritual traditions of Native peoples use a term such as "the Great Mystery". Is this so different from the Christian idea of the Cloud of Unknowing about which some mystics have talked that alludes to the veils that stand between, on the one hand, human experience, language, or reason, and, on the other hand, the reality that transcends our experience, language, or reason, even while that Reality makes such experience, language and reason possible?

Einstein spoke about the 'Old Man'-- his way of alluding to the truths to which the ultimate nature of reality gave expression. Was he a religious man? Well, whatever the answer to this question might be, his writings do indicate, in many places, that he held truth and reality to be sacred trusts that were one's obligation to understand and respect.

"Supernatural" is another word one often hears in the context of religious discussions. What exactly, however, do we mean by this?

Someone once said words to the effect that one culture's magic is another culture's technology. Might one not suppose that one culture's notion of the supernatural is another culture's knowledge concerning the character of Nature?

Are the infinite dimensions of mathematical space supernatural? Even if one were to accept the idea of String Theory in physics to be true, does this mean there is, or can be, nothing beneath (beyond) such a truth? Is so-called 'dark matter' or the similar sounding, but very different notion, of 'dark energy' supernatural entities?

Currently, we do not have a defensible Grand Unified Theory capable of explaining all physical phenomena, since -- among other things -- we suffer from an absence of any way to reconcile the general theory of relativity with the other fundamental forces. And, this is just one of the obstacles to such a 'Theory of Everything', since we also suffer from the rather embarrassing fact that all of the important constants of science have to be arbitrarily introduced into such GUT discussions because, currently, there is no way to plausibly account for why, say, the Planck constant has the value it does or how that value arises from first principles of any such GUT framework, or why the electron has the precise charge it does, and so on.

Yet, even if we were to have a fully realizable Grand Unified Theory of all the known physical forces, is such a GUT framework really capable of providing an accurate and satisfying account of: consciousness, intelligence, creativity, soul, purpose, choice, personality, the search for meaning, faith, and trans-personal experiences, or Being? And, if we do not have such an account, then, how does one go about determining what might be meant by the idea of the 'supernatural'?

Astrophysicists claim they can trace events back to mere picoseconds from the Big Bang. However, they have absolutely no explanation for what would have brought this all about, and the plausibility of most cosmological models of the Big Bang depends on, among other things, an event known as "inflation" for which absolutely no one has the slightest idea of why or how such an event would have physically occurred -- although by assuming the existence of such events, the Big Bang model is saved -- theoretically, at least -- from a substantial embarrassment.

Was the Big Bang a supernatural event with material consequences? Is 'inflation' a sign of supernatural intervention?

Evolutionists love to claim they have nailed down, precisely, how life arose or, barring that, they purport to have the only

scientifically plausible account for the emergence of life. Any evolutionist who wishes to claim this is talking through his or her spectacles of faith and nothing more.

The key to trying to understand the possible nature of the transition from non-living to biological systems does not rest with the work of Darwin, neo-Darwinians or with the findings of those who have developed the field of population genetics, but, rather, lies hidden in the darkness of, as yet, undiscovered, scientific country. As someone who has looked at most of the so-called evidence bearing on this matter – from pre-biotic chemistry, to: molecular biology, cytology, membrane functioning, thermodynamics, as well as chaos and complexity theories, along with a number of other disciplines -- I have concluded that investigators really don't have a smoking gun with respect to providing a reasonable, evidenced-based account devoid of speculative assumptions concerning the issue of randomness for how biological systems evolved out of non-biological systems.

Evolutionists have a lot of technical data with no way to piece it together in an intelligible and defensible manner that would be acknowledged as such by any impartial, objective individual. Nevertheless, this state of affairs does not mean that any of the so-called 'Creationist' schools of thought are correct.

The reality of our present epistemological status is that we actually don't know how things came about. If we are honest with ourselves and with the available evidence, this is how and where things stand at the present time.

We have theories, opinions, paradigms, ideas, and world views. However, what we don't actually have is certain <u>knowledge</u>, or even reasonably certain knowledge, about the foregoing matters.

We have lots of speculation trying to parade itself as knowledge ... nothing more. And, those who claim otherwise – whether 'creationists' or scientists -- merely are confusing conceptual smoke and mirrors with the rigorous demands of demonstration and proof.

Proponents of both the evolutionary and creationist schools of thought have often brought more heat than substance to the problem of trying to understand, to whatever extent this is possible, how the origin(s) of life took place. (For those who might be interested in

reading further about this issue, please read my book: *Evolution Unredacted* -- which is a detailed, rigorous, scientific, examination of the available evidence that, allegedly, stands in support of an evolutionary account for the origins of life.)

When one doesn't have determinate answers to the central questions of life, one lacks knowledge about whether, or not, one is dealing with natural or supernatural events. In fact, when one doesn't have the necessary information, evidence, or proof about such questions, one doesn't even know how to establish a line of demarcation that clearly and definitively distinguishes the supernatural and the natural, and, therefore, everything remains open to further study.

Labeling things as being either one or the other really establishes nothing but the arbitrariness of the process used to linguistically identify various facets of experience. This state of affairs tends to obfuscate the relationship between language and reality.

"Worship" is another term one finds in a context of religious discussions. Talking, singing, dancing, writing, searching for truth, loving life, communing with nature, as well as serving friends, family, or community – the foregoing are all ways of engaging in worship. One doesn't have to confine worship to the home or a theologically sanctioned building.

Worship can be manifested through both vocation and avocation. Worship can be expressed through the way one interacts and treats other people.

Worship arises through the sacrifices we make for our families or the community, or friends, or the truth. Worship is in the heart when one hears music that moves one or sees a work of art that brings tears to one's eyes.

Worship is to treat with respect and reverence that which we hold to be sacred. Worship does not depend on language ... it is a state of being ... it is an attitude toward life ... it is a way of engaging our experience of Being.

We are all caught up in the sheer mystery, wonder, awe, inexplicability, beauty, enormity, indefiniteness, richness, possibilities, and terror of existence. We tend to treat these experiences as sacred

ground.

We engage those experiences through a combination of faith, doubt, knowledge, and questions. We might, or might not, be dealing with something supernatural -- although since we haven't figured out the physical side of things yet, we don't even know what is meant by saying that something is supernatural other than that such a dimension of existence operates by principles beyond what we know or understand to be 'natural'.

We have a passion about all of this. We commit ourselves to all of this in different, personalized ways that are manifested with varying degrees of being done conscientiously and with scrupulous care.

Some people refer to the foregoing in religious terms. Some people refer to the foregoing in non-religious terms.

The precise term that is used actually is irrelevant. The First Amendment is a principle, not a rule, that both prohibits the establishment of any way of engaging reality that is intended to serve as public policy to which everyone must adhere, bow down, or comply with. In addition, the First Amendment indicates that public policy cannot interfere with the way people choose to exercise this right to engage Being, existence, life, or the opportunities encompassed by reality -- as long as such exercise does not undermine or compromise the integrity of any of the principles inherent in the Preamble, and the reason for which the Constitution came into being as a procedural means of preserving.

Public Policy and the First Amendment

Whether politicians, government bureaucrats, or Supreme Court Jurists like it or not, almost invariably, public policy entails doing what the First Amendment prohibits. In other words, as the preceding discussion concerning the First Amendment indicates, public policy is a means for making laws respecting the establishment of a way to engage reality that satisfies the conditions of what religion, broadly construed, actually involves.

Public policy is really religion in secular drag, and such linguistic camouflage is actually intended to hide the underlying identity of the conceptual body that is being paraded before the public. Public policy

demands that everyone adhere to its tenets for engaging, analyzing, evaluating, and acting in relation to the nature of existence or reality, and, as such, this is really nothing less than a process of establishing a state-run religion hiding in secular-like garments.

The term used to identify a human activity -- in the present case, 'public policy' -- can be misleading and, therefore, one needs to look at the structural character and intent underlying the usage associated with a given term. If one looks at the intention and nature of the process to which much public policy gives expression, one would be hard pressed to differentiate that sort of activity from political and legal instances of making, or trying to make, "laws respecting an establishment of religion, or prohibiting the free exercise thereof" when one begins to reflect on the complexities, nuances, and breadth of activities that are encompassed by the term "religion".

The Preamble to the Constitution is about people, not governments. The Constitution is the set of procedural guidelines -- in the form of both rules and principles -- that establishes (on behalf of people, not governments) a framework for serving the principles inherent in the Preamble.

To whatever extent the public policies of government officials or jurists try to establish a set of values, beliefs, ideas, principles, philosophies, opinions, or theories to be incumbent on the people, then, government officials and jurists are engaging in practices that are not only in violation of the First Amendment, but, as well, are transgressing against the very spirit, purpose, and meaning inherent in the Preamble to the Constitution and all that led to the writing of a document (namely, the Constitution) that was intended to procedurally serve, secure, guard and protect the integrity of the principles introduced into the Preamble. Whether one calls such public policy: economics, judicial review, science, political philosophy, fiscal policy, or a distributive theory of justice, one is establishing a mandatory framework of values that is prohibited by the Constitution and inconsistent with the spirit of the Preamble to that document.

The whole idea of the Declaration of Independence, the Preamble, and the Constitution was to bring an end to tyranny, despotism, and arbitrary authoritarianism. The purpose and intent of writing those documents was to prevent anyone -- whether King George, or a

President, Governor, Congress, a state legislature, the judicial system, institutions, organizations, or corporations -- from exercising power in ways that would prevent people from having access to the right to the pursuit of happiness, a more perfect union, justice, domestic tranquility, common defense, general welfare, and the blessings of liberty, by creating obstacles to such principles through making personal philosophies of life (political, religious, scientific, or otherwise) the law of the land and, thereby, having established a religious framework.

The First Amendment says a government cannot interfere with the free exercise of religions by individuals. Such an Amendment says absolutely nothing – either explicitly or implicitly – about governments qua governments (as opposed to private citizens), being entitled to freely practice its form of religion, faith, worship, or beliefs concerning how anyone should engage truth or reality.

Just as the judicial system was in error when, on several occasions, it extended the quality of being a person to corporations, so, too, governments have surreptitiously, and through legal prestidigitation, assumed for themselves a right to the exercise of religious freedom that only was intended to be granted to the people. Just as the classifying of corporations as persons was a legal fiction with real, detrimental consequences that placed people in harm's way and at a considerable disadvantage, so, too, government officials and jurists who, in a very self-serving manner, accrue to themselves the right to establish public policy counterparts to the establishment of religion, have introduced a legal fiction that has destructive consequences that places people in harm's way and at a considerable disadvantage with respect to securing the rights to which the Preamble gives promise.

All too many politicians have interpreted the so-called 'Separation Clause' of the First Amendment as a green light for government officials and jurists to impose their philosophical beliefs upon citizens while, simultaneously, preventing mere citizens from having religious beliefs instituted as public policy. If the purpose of the latter exclusion is to protect the community from having to submit to the personal beliefs of individuals, the logic of this preclusion extends to government officials and jurists, as well, and, therefore, those officials and jurists should not have the right to establish personal philosophies

of any kind (economic, judicial, political, educational, or otherwise) as public policy.

The fact something is called 'public policy' rather than 'religion' does not alter the logical ramifications of the argument or the principle that is being violated. Both public policy and religion are personal visions for, and ways of, engaging reality, in accordance with issues of faith, commitment, passion, belief, and a moral system that treats certain principles as sacred and, therefore, allegedly, is worthy of our conscientious and scrupulous attention.

Public policy might not refer to a Supreme Being -- although, on occasion, it does. Nonetheless, the arrogance underlying public policy substitutes for, and plays the role of, a supreme being (although 'idol' might be a better term) to which all must bow down.

Submitting to truth and the nature of reality out of choice is one thing. Being compelled to submit to the arbitrary fiats and proclamations of would-be deities that have been invented and/or forcibly imposed by someone else is quite another matter.

One of the reasons why the federal government seeks not to become actively involved – at least in a primary fashion – with the process of education is in order to avoid even the appearance of impropriety with respect to the First Amendment. In its own way, this aspect of public policy tends to substantiate all that has been said in the previous discussion about religion and public policy, but selective attention has permitted government authorities and Constitutional experts to acknowledge the former point while failing to follow through on the logic of the underlying principle.

Notwithstanding the foregoing issue, most people suppose that whatever powers have not been: (a) Delegated to the three branches of the Federal government, nor (b) specifically prohibited to the States, belong to the States. After all, isn't that what the 10th Amendment, the last outpost of the Bill of Rights, guarantees?

Actually, the answer to the above question is: 'No!' Whatever the Constitution has not specifically delegated to the Federal Government nor prohibited to the States, "are", as the Constitution clearly indicates, "reserved to the States respectively, or to the people."

In addition, and not to put too fine a point on this matter, the 9th

Amendment paves the way for, as well as underscores, the provisions of the 10th Amendment. The 9th Amendment says: "The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people" ... this alludes to rights which are not a function of what is retained by government or states but, rather, by the 'people.

While the precise nature of these 'other rights' is not specified and only alluded to (especially, through the presence of the Preamble), nonetheless, how quaint and interesting! The Constitution actually indicates that people have potential powers reserved for them that might be entirely independent of government activities, and this tends to suggest that, contrary to what Lincoln thought, the United States is not a nation that is a government of, by, and for the people, but that the people are an entity all on their own, quite apart from government.

Before pushing on with this startling development, let's backpedal a bit. If the Federal Government is not supposed to become involved in the business of education for fear that, in so doing, it would violate the spirit of the Preamble and the letter of the First Amendment, then what business does any given state government have in regulating education?

What is the precise nature of the twist in logic that extends to state governments a power that transgresses both the spirit and letter of the Constitution? The Constitution does entitle every state government to have a Republican form of government (Section 4 of Article IV), but such a form of government does not entitle states to "make laws respecting an establishment of religion," for although the 1st Amendment specifically forbids <u>Congress</u> from doing so, the implication of this prohibition encompasses every level of government.

There is no legal argument that could make this fiduciary responsibility of every level of government other than this. To proceed in some other fashion would be to engage in a revisionist approach to history and the Constitution that seeks to make them something other than they were and are.

As argued previously, public policy -- which is a source of government intentions with respect to the people, and, therefore, the force behind the generation and establishment of many laws -- often tends to be another term for the "establishment of religion" since the

structural character of a great deal of public policy has some of the qualities of religious activity and merely uses a different lexicon in order to hide this fact. This is true for the public policy of the federal government, and this is true for the public policy of state governments.

One of the conclusions which follow from the foregoing is that compulsory education is unconstitutional. States have sought to rush into the vacuum left by the federal government's withdrawal from where angels fear to tread (for example, in the realm of education), but there is a word for those who seek to do what states have attempted to rush into in this respect.

Most forms of government tend to be imperialistic by inclination, seeking to extend the boundaries of their fiefdoms as far as possible. In giving expression to this inclination, state governments have usurped something from the people to which states are not entitled and, in accordance with the provisions of the 10th Amendment, something -- namely, education -- which actually is one of the powers that has   been reserved   for   the people quite independently of government.

Passed in 1865 -- the year in which the Civil War ended -- the 13th Amendment states in Section 1: "Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction." The citing of involuntary servitude as a separate, though not necessarily unrelated, concept from the institution of slavery is an important one, but there is a very strong case which can be made that compulsory education constitutes both a form of slavery and involuntary servitude.

Historically, public education began, on the one hand, as a method for removing children from the labor pool in order to bolster the bargaining power of older workers, and, on the other hand, public education began (through the writings of Horace Mann and others) as a means of trying to contain what many government officials and scions of social privilege perceived as the threat of Catholicism. Today, education has become, to a great extent, the minor league feeding system for the Big Dance known as 'economics'.

Whether one is talking about some form of indentured servitude (through, for example, education loans) or enslaving children to serve the   interests   of   governments,   corporations,   or   self-appointed

guardians of cultural heritage, compulsory education is a form of involuntary servitude. In many ways, education is a modern form of slavery.

A slave is someone without power, voice, or rights who must act in accordance with the arbitrarily derived whims and wishes of a master. A slave is someone who will be punished for doing other than what the master commands -- and the modalities of punishment are varied, subtle and gross – (e.g., truancy laws, suspension, expulsion, detention, poor grades, unfavorable recommendations, a miserable quality of life within the school system, or a school record that will haunt one to the grave).

A slave is someone over whom another person or persons has absolute control in relation to life, liberty, and pursuit of happiness. A slave is someone who, both mentally and morally, is in subjugation to another human being's whims. A slave is someone who involuntarily serves another person's economic and political agenda.

The 13th Amendment might have been written with people of color in mind, but there can be no question about the following fact: Students who are subject to compulsory education meet the criteria of what constitutes a slave. Furthermore, the very idea of 'compulsion' means, by definition, that a student's life consists of involuntary servitude. If there is no choice in the matter, or if the exercise of choice automatically results in punishment, to one degree or another, then, such servitude can be nothing other than involuntary.

Parents, governments, educators, and businesses might all claim that such an arrangement is in the best interests of the student. However, this was (and is) the form of argument used by slave owners (de facto or by proxy) with respect to that which they considered to be their chattel, and this was (and is) the form of argument used in controlling native peoples through the Bureau of Indian Affairs, and this was (and is) the form of argument used in denying women the full status of being considered a person until, at the very least, toward the middle of the last century, and this was (and is) the form of logic that is advanced by every colonial government that exists or has existed.

The 14th Amendment, passed in 1868, indicates in Section 1 that:

"No state shall make or enforce any law which shall abridge the

privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."

Children are citizens. Therefore, children inherit the promise of the Preamble, along with the protections afforded by the 1st Amendment in relation to governments making laws respecting an establishment of religion (i.e., the imposing of a public policy that dictates how one should engage, think about, or evaluate the nature, meaning, purpose, and significance of reality).

In addition, the provisions of the both the 13th and 14th Amendments are applicable to the treatment of children in conjunction with issues of: (a) slavery, (b) involuntary servitude, (c) the abridging of those privileges (among which are the right to life and liberty, as well as intellectual, emotional and spiritual property) which are consonant with the promise of the Preamble -- and in order for a process of law to be considered "due" that process cannot be unconstitutional -- as well as, (d) equal protection of the law. Parents no more have the right to aid and abet governments in depriving children of these rights, than do governments.

Children are not the chattel of parents. Ownership is not logically implied by the existence of biological kinship.

Parents have an even greater fiduciary responsibility with respect to children than do governments. Moreover, part of the job of governments is to establish procedural forms of assistance and regulation that will enable parents to observe the fiduciary responsibilities that parents have toward their children so that, together, both parents and government can help children to realize the promise of the Preamble according to the assisted choices of the child and not as a result of the fiats or forced impositions of parents and/or governments.

The framers of the Constitution might not have had children primarily in mind when they spoke about the rights, privileges, powers, and protections of people or when the framers set down any number of the rules and principles that are given expression through

the Preamble, Articles, Sections, or Amendments of that document (although the age requirements needed to hold certain public offices is an oblique reference to the existence of people who fall below a certain number of years lived). Nevertheless, one might add to the foregoing considerations that no prima facie case can be advanced demonstrating that the powers that are protected and reserved for the people through the 9th and 10th Amendments should not encompass children.

Furthermore, one has good reason to suppose that at the top of this list of powers that should be extended to children as well as adults are powers that involve control over the process of learning. Dictating to children what they should learn, or how they should learn it, or when they should learn it, or why they should learn it, or where they should learn it, is antithetical to the whole spirit of the revolution in thought and political arrangements that led to the signing of the Declaration of Independence as well as to the framing the Preamble and the principles and rules of the Constitution that were intended to be subservient to that Preamble. More specifically, trying to control how, what, why, when, and where students learn is in direct violation of the 1st, 13th, and 14th Amendments, and, consequently, this causes one to take a very long, reflective pause in relation to the potential for transgression of fundamental rights with respect to both the 9th and 10th Amendments.

Unreasonable Search and Seizure

One might also throw in the 4th Amendment to the foregoing discussion. This Amendment stipulates:

"The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the person or things to be seized."

Part and parcel of what constitutes a person is the emotional, ideational, spiritual, creative, moral, experiential,

motivational, and intellectual contents that reside in that person. This is as true for children as it is for adults.

Children have as much right to be secure in their persons from "unreasonable searches and seizures" as do adults. Schooling, testing, and grading all constitute – at least potentially -- unreasonable instances of search and seizure because the agency doing that searching and seizing has no authority to do so under the Constitution, and the nature of the underlying argument for this contention has been stated in the foregoing pages.

Can "probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the person or things to be seized" be given in relation to beliefs, ideas, values, opinions, thoughts, intellectual systems, frameworks, paradigms, world views, creations, and so on of a student? Well, let's reflect on this matter a little.

What would constitute probable cause for the search and seizure of a person's cognitive life? Can one demonstrate that such search and seizure would lead to a more perfect Union? Absent a lot of contentious point-counterpoint -- and, probably, not even then -- this does not seem likely.

Can one show that such search and seizure would be consonant with the demands of justice? Whose theory of justice is one going to cite and why should anyone, let alone a child, be required to allow his or her cognitive domain to be the subject of search and seizure in order to serve such a notion of justice?

Undoubtedly, arguments can be made in this regard. However, the one who is giving an 'oath and affirmation' in support of such probable cause has a steep slope to climb in order to be able justify negating, undermining, compromising, and ignoring so many dimensions of the Constitution.

Can one demonstrate that one would enhance and secure domestic tranquility through such a process of search and seizure? Parents might think so, but anyone who has been in all too many modern schools with their propensity for violence, fear, shootings, the presence of weapons that terrorize through their mere presence, gangs, antagonistic cliques, drugs, extortions, dehumanizing practices,

stresses, depression-inducing formats, anxieties, sources of humiliation, alienation, arbitrariness, and oppression -- all of which are directly tied to the compulsory nature of the process -- knows otherwise.

Can one prove that the 'Blessings of Liberty' will be preserved through such a process of search and seizure? The whole concept is something of an oxymoron unless one can show that depriving people of the blessings of liberty in such a compulsory fashion will, in all probability, lead to an enhancement of the Blessings of Liberty for all concerned -- not just for the majority, but for the minority as well ... the ones for whom rights are primarily intended to protect, even as such rights also serve the needs of the majority.

Can one establish, with sufficient rigor, that underlying the search and seizure of cognitive contents of a student via schooling, testing, and grading, there exists a probable cause with respect to   the enhancement of the 'General Welfare'? Welfare is a term laden with conflicts arising from differing opinions, beliefs, ideas, values, priorities, interests, commitments, agendas, and worldviews. As such, these are precisely the kinds of issue from which a government ought to recuse itself because those issues tend to infringe upon, among other things, 1st Amendment rights.

Aside from the issue of laws respecting the establishing of religion, or the exercise thereof -- both of which are jeopardized by the search and seizure of the cognitive content's of a student's person – nevertheless, compulsory schooling (and the concomitant practices of testing and grading), seeking to search and seize the cognitive contents of a person's mind through compulsory education also interferes with the right to free speech (if one will be penalized for what one says, the speech is not free), as well as the right to peacefully assemble. With respect to this latter right, the process of peaceful assembly is double edged.

On the one hand, the aforementioned right permits assemblage for peaceful purposes (and learning according to one's own capacity, interests, needs and circumstances is a peaceful purpose), and, on the other hand, this right protects one against being compelled to assemble for purposes that, even if peaceful, are not consonant with one's way of engaging life. Moreover, the very act of compelling

attendance in any assembly is inherently not peaceful, and, therefore, does not satisfy the conditions of probable cause with respect to either enhancing domestic tranquility or promoting the general welfare, not to mention failing to secure the Blessings of Liberty.

Native peoples have a way of approaching the idea of the general welfare. Mystics have a way of engaging this issue. Religious frameworks offer a variety of modalities for deliberating upon this issue -- involving both some commonalities and numerous differences. Scientists, philosophers, psychologists, historians, anthropologists, sociologists, poets, novelists, political scientists, newspaper columnists, educators, movie directors, mathematicians, statisticians, bankers, economists, corporate executives, and jurists all have their own take on this issue of the general welfare.

Currently, we have no means of constructing a multidimensional regression line that is capable of linking all the foregoing points of view together into a consistent, common expression of what is, or should be, meant by the idea of the 'general welfare'. Whatever subset of themes, topics, contents, issues, and ideas that is selected from amidst the overwhelming mass of data concerning the problems surrounding and permeating the issue of the 'general welfare' and is proclaimed to be 'the' material that a person needs in order to be a cultured, educated, happy, moral, socially aware, well-adjusted, independent, critically thinking, contributing member of society who is ready for whatever the future might bring – all of this is entirely arbitrary and cannot possibly be proven to be true prior to the unfolding of history. This is why the choices concerning those issues should be left in the hands of individuals subject to the normal constraints that are needed to secure and protect, for one and all, the Blessings of Liberty, Domestic Tranquility, Justice, and the common defense.

Presumably, with an appropriate approach to preserving and securing the rights of both minorities and majorities, one would have gone a great distance toward forming a more perfect Union. However, notwithstanding such a hope, no one in America can establish probable cause as to why the search and seizure of the cognitive contents of a person (say, a student) through a forced process of schooling will establish the general welfare without simultaneously

transgressing the requirements of many other provisions of the Constitution.

Learning, Understanding, and Testing

Furthermore, even if one were able to create such an impossible dream concerning a legal or public policy argument to cover the foregoing issues, one faces another daunting task. More specifically, one cannot show probable cause that testing, grading, and degrees/certificates are the best means to attain such an end.

There is considerable documented evidence that has accumulated concerning the essential importance of not only intrinsic (rather than extrinsic) motivation as one of the key elements in how people learn, but, as well, the central role that is played by an absence of stress in relation to the successful formation of long-term memory. All such findings are at odds with the idea of compulsory, arbitrary schooling.

Moreover, the only long-term, well-constructed, valid study involving high school students who went on to college -- and is, therefore, known as the 'Eight year Study' -- demonstrates that students who, among other things, learn while attending high school in the absence of any system of grading either do better, or no worse, in college/university than do students who are graded. Once again, such evidence that has been available to us for quite some time (at least since the 1930s), all suggests that learners do quite   well   in environments   that   are   non-compulsory and un-regimented in nature, and that are rooted in intrinsic forms of natural motivation rather than externally imposed, arbitrary systems of motivation.

The fact of the matter is, tests (whether standardized or not), are fairly worthless as indicators of determining what a student might have learned. There are a variety of reasons for the absence of reliability and heuristic value with respect to testing as an indicator of what is learned. The present essay only will outline and allude to some of these reasons in passing, for such empirical findings are all extensively documented in an array of books, articles, and papers (some of which are cited in the bibliography at the end of this book).

First, for reasons alluded to previously, the very act of selecting what items, topics, ideas, themes, problems, values, judgments,

methods, and so on should appear on a test is inherently arbitrary, argumentative, biased, and an infringement upon basic Constitutional rights -- especially when those tests are of a compulsory nature. Nonetheless, even if one were to waive this not inconsiderable difficulty, there are a number of other fundamental problems entailed by the process of testing.

For example, most tests revolve around the issue of memory recognition rather than independent recall. If one is given a standardized test and asked to select which choice best reflects the most appropriate answer for a stated question, then, one doesn't have to necessarily recall any information ... one only has to recognize one possibility as being more correct than the other alternatives.

Being asked to recall who first proposed a general theory of relativity in the absence of any clues tends to probe the issue of potential learning in a different, more rigorous way of testing what might have been learned than if one only had to choose among already supplied names such as: Ptolemy, Galileo, Copernicus, Newton, Einstein and Hawking. Moreover, usually speaking, being required to recall something in the absence of hints is very resistant to guessing, whereas such is not the case in instances involving mere recognition.

However, tests of recall rather than mere recognition also tend to be much more difficult to assess. Due to a variation of the user-interface problem, people who are given space and an opportunity to write down whatever they want, often do, and trying to figure out if, under such circumstances, an answer is correct is not always easy, and, therefore, to make things as easy as possible on the person correcting the test, as well as to avoid as many arguments as conceivable (by the teacher, the student, or his/her parents) with respect to the degree of correctness in any given answer, much testing in high school is restricted to tests of recognition -- the most rudimentary, least meaningful, most nebulous index of what someone might know.

The term "might" is used above because getting something correct on a test of recognition does not necessarily mean an individual understands much about what has been recognized. Aside from the issue of pure guess-work, and returning to the example noted above, knowing who first proposed a general theory of relativity does not

necessarily mean one knows anything more about general relativity than a name.

Of course, one could augment the section of a test dealing with general relativity by asking other questions of a related nature. However, even if one did this, and even if a person did relatively well, none of this guarantees three further important indicators of learning.

Descriptive information concerning a theory is not the same as having critical understanding of the theory being described. In addition, having critical understanding concerning certain aspects of a given theory is not always the same as being able to solve problems using such a theory.

Furthermore, being able to apply the theory in the world beyond the horizons of a school setting does not necessarily follow upon good test scores. Lots of people test well only to fail in the non-school world because the nature of the tests and challenges often are constructed differently in the world outside of school than they are within an environment of schooling.

Finally, even if one has recognition, recall, critical understanding, and problem-solving capabilities with a transfer of learning to a non-school context, no test can determine how long one is going to remember what has been learned. Unless one has eidetic memory like the subject 'S' in the case studies compiled by the Russian psychologist Luria, the vast majority of us tend to forget most of what we learn – this often is as true for very bright students as it is for less-gifted individuals.

Medical doctors, engineers, lawyers, doctoral candidates, and so on all appear a lot smarter shortly after completing a test for which they have studied than they do as little as 6 months later, let alone years after. So, what is the point of a test that focuses on tasks of recognition, while ignoring issues of recall, critical understanding, problem solving, transfer of learning to non-school environments, and the fact that much of what is learned is relatively short-term?

The more complex and rigorous a test, the more complicated is the process of evaluation. Most teachers either don't have the time or will not take the time to probe these various dimensions of learning.

Universities are filled with scholars who are at odds about many of

the 'facts' and issues concerning any given topic. Journals, conferences, symposia, and libraries are filled with more of the same.

Does this mean there is no such thing as an undisputed fact or no such thing as the truth? No, not necessarily, but it does mean that what a teacher believes to be true is not always the same thing as such a belief being true.

Students tend to be held hostage by the paradigms through which teachers, school systems, governments, and scholars understand the latter's experience of the world. Teachers, school systems, governments, and scholars all tend to believe students should be held hostage to such paradigms because these world-views are the cultural heritage that is being passed on to them, but I believe the Constitution says otherwise.

Introducing learners to various ideas and sharing those ideas with learners is one thing. Compelling students to learn those ideas, under threat of penalty, is, constitutionally speaking, quite another matter.

However, even if the Constitution did not preclude such compulsory forms of imposition, there is a tremendous injustice done to students when they are forced to rub their faces in the arbitrary and personal conceptual meanderings of other people due to fear of being punished via grades, permanent notations in one's school record, suspensions, expulsions, letters of complaint to one's parents, or having a degree withheld, simply because out of a prudent cautiousness, a student resists such an onslaught or has not given her, his, or their consent to this sort of gross violation of the security of one's person that infringes on matters of personal conscience, meaning, belief, identity, purpose, and choice.

All the noble principles encompassed by the Declaration of Independence are paraded before students as a wonderful part of history but, of course, these students should not ever get the idea that those principles, documents, and history have any relevance to what goes on in classrooms and schools today. All that stuff about rights, liberty, the pursuit of happiness, despotism, oppression, involuntary servitude, why, that's all inapplicable to the current circumstances of students ... isn't it?

Students live in a brave new world where the foregoing sorts of

principles no longer apply -- except to the extent that teachers and schools, like King George, believe these sorts of principles ought to be applied in order to advance the purposes of the educational rulers. The need of students to become mature, free, self-aware, critically thinking, responsible, moral, independent constructive, co-operative participants in a community of like-minded and like-hearted individuals become sacrificial lambs upon the altars of educational orthodoxy.

The purpose of a test should be to determine strengths and weaknesses in order to shape subsequent learning -- nothing more ... unless, that is, there is a demand arising from someone's agenda (the teacher, principle, school board, superintendent, union, Department of Education, media, higher education, and/or business) which "must" be satisfied. Grading adds nothing but arbitrariness, stress, oppression, persecution, compulsion, meanness, ego-games (on the part of both teacher and student), inequitable standards, bias, prejudice, resentment, anger, as well as cruel and unusual punishment to a testing situation -- and all of these listed factors have been proven, time and again, to undermine a person's potential for learning.

None of the foregoing is rocket science. The fact that testing persists for reasons other than the only valid one noted above -- namely, to point out strengths and weaknesses -- indicates the underlying issues are not about learning, per se, but, rather, those issues are about what and how someone demands that someone else learn under considerable penalty for failure to do so.

From a pedagogical perspective, using testing as other than a transitory and very problematic means of assessing strengths and weaknesses is never justified. From a pedagogical perspective, using grading as an incentive for learning is almost invariably counterproductive except in relation to those individuals whose self-esteem is highly dependent on such forms of recognition – a condition that is not necessarily emotionally or psychologically healthy for those individuals.

From a constitutional perspective, compulsory schooling, testing, and grading are all antithetical to the principles that are inherent in the Preamble and Amendments of that document. Among other things, states have entwined themselves in the dubious process of

making "laws respecting an establishment of religion" as well as passing laws that "prohibit the free exercise thereof" by imposing a system of compulsory education upon people as a matter of public policy -- public policy that has all of the characteristics of an established religion to which children must pay obeisance at the risk of grave consequences for expressing resistance to such a demand for submission. In addition, there are all the other, previously mentioned amendments that are violated through the process of compulsory education.

<u>Is Compulsory Education Necessary?</u>

Finally, one should ask whether one can demonstrate that the notion of 'common defense' is capable of providing probable cause for the sort of search and seizure of cognitive contents that compulsory education (or its two ugly step-sisters -- testing and grading) tends to require -- Defense against what? ... Defense against whose version of reality? ... Defense in support of what vested interests or what agendas? ... Defense in support of which principles and at what costs to the future viability of our 'common defense'?

Moreover, even if one could agree on that against which we should be defending ourselves, in a common way, there is the very thorny issue of how best to do this without destroying, undermining, compromising, or prostituting the other principles that are at play within the Preamble to the Constitution.

Governments that try to assign priority to common defense above all other principles are very rarely democratic in spirit -- even though the appearances of form might suggest otherwise. The idea of commonality entails a community of people, not a community of government officials or jurists.

If only some groups benefit from a certain mode of defense, then, the whole idea of commonality has been lost. If only some individuals give their consent to a certain kind of defense, then, the thread of commonality is missing.

In the 'real world', one might never attain unanimity with respect to the issue of commonality. Nevertheless, at the very least, commonality implies that people should have a choice of opting out of

a proposed solution for common defense and to be able to do so without penalty or prejudice.

Therefore, to cite 'common defense' as the basis of probable cause for a government's authority to search and seize the cognitive contents of students via the agency of compulsory schooling, testing, and grading is suspect on a number of grounds. Most importantly, the alleged bridge that connects 'common defense' of a <u>particular</u> variety with a compulsory process of education of students that operates along <u>arbitrarily</u> chosen lines is a figment of the very active, self-serving imagination of government officials and jurists -- not to mention, once again, that it is a violation of the 1st Amendment.

Is there a need for learning? Yes, there is.

Is there a need for compulsory learning? Not only is the answer to this question no, the Constitution forbids it.

So, the question becomes: how do we proceed? How will children learn if someone doesn't force them to do so?

Very nearly every child learns one, or more, languages without ever being forced to do so. If given an opportunity, and left alone to proceed at his or her pace -- free from pressure, stress, and the expectations of others -- children will learn a great many things. If children are given help as they ask for it and in the way they ask for it and in accordance with their capacities and circumstances, they will fill in conceptual holes that they haven't been able to fill in for themselves with respect to the manner through which they engage and try to understand life.

Children never tire of asking questions about life, reality, and the world. Adults are the one's who almost invariably pull the plug on such generators of 'infernal' question.

Whether out of ignorance, or impatience, or preoccupation with other things, or low self-esteem, or too much pressure from too many sources, or personal unhappiness, or intolerance, or jealousy, or defensiveness, or lack of empathy and compassion, adults are the one who oppress and curtail a child's learning. Sometimes these adults are parents; sometimes they are neighbors; sometimes these adults are government officials, and sometimes they are teachers or so-called educators.

Kids will learn about cars, planes, trains, electronics, relationships, money, computers, games, sports, emotions, comic books, current events, jobs, their community, DVDs, movies, music, and pretty much everything else if they have an interest in those things. However, if they don't have an interest in such things, well, the truth of the matter is, they will tend to learn very little, and they will tend to learn even less if they are forced to do so.

Learning does not begin on the outside and have to be force-fed to a person. Learning begins on the inside, via intrinsic motivation (curiosity is part of this) and reaches outward toward the world.

Some people might worry that if there were no compulsory schooling, then, how would children learn? Children would learn through: parents, experience, libraries, clubs, community centers, mentor relationships (both friends and other adults), apprenticeship programs (whether technical, craft, scientific, or entrepreneurial), home schooling, the Internet, organized sports, life long learning courses, in-house education programs through their place of employment or volunteering, community service projects, and the list goes on.

The modern world has been made possible by people who learned because they wanted to and not because they had to. Adults have never taught children anything that the latter individuals didn't want to learn except when it comes to learning about the unpleasantness and problems that are entangled with issues of compulsion, force, and oppression.

For every hundred things for which force and compulsion are used as the wings on which learning is to take flight, the average child might not remember more than a few, and, only then, because such morsels of information are rooted in a context of resentment, anger, hurt, and sense of betrayal that tends to serve as the more dominant flavoring, coloring, and focus of what has been learned. Is the value of the former -- in terms of the costs of the latter -- ever, really worth it?

The Costs of Education

There are three keys to improving learning in America and, in the process, placing ourselves in a position to constructively address a

number of other overwhelming educational, social, economic, financial, and political problems. The first key is to end compulsory education, and the arguments for why this should be done have been outlined earlier.

By shifting the locus of control for learning from compulsory education to the individual, one will be establishing conditions that are conducive to, rather than antagonistic toward, learning. Equally important, by eliminating compulsory education, one will have provided a means for substantially reducing tax-related problems for individuals, communities, states and the federal government.

Almost all of the fifty states have huge budget difficulties. One of the major reasons for those problems is the inordinate, and quite unnecessary, high cost of public education.

Many communities are overwhelmed with the costs -- both financial and otherwise -- associated with trying to provide what is hoped to be a quality education in the midst of an onslaught of forces that often are antithetical to one another. Parents, students, teachers, principles, superintendents, school boards, media, tax payers, higher education, businesses, and government officials all tend to have very different goals, purposes, problems, stresses, and needs.

Consequently, one of the very first casualties of this on-going war tends to be learning. Like the Paris peace talks during the Vietnam War, everybody is so consumed with the politics and implications that surround the shape of the table, negotiations that might bring an end to death and destruction often come as an afterthought, if they come at all.

When one multiplies the number of participants, interests, perspectives, needs, and concerns present in the process of education, the result tends to be chaos. Education has become a modern tower of Babel in which everyone is speaking different languages of purpose, meaning, value, significance, goals, and means.

One wag has said that a camel is a horse designed by committee. One might also say that modern education is a toxic soup cooked up by too many chefs insisting they have the right to control the process of creating the broth of learning that is to nourish the development of children.

As outlined previously, control is not a right that any of them have. Once people understand only individuals have the right to control the character of their own learning -- as long as such control is consonant with preserving the integrity of the principles inherent in the Preamble for others – then, the idea of compulsory education disappears and with it the turf wars that have been vying for control of the monetary pie that compulsory education has generated also disappears.

The turf-wars will come to an end because, like all wars, once the money disappears that subsidizes those kinds of battles, then, the ones who have been living off the subsidization will have to move on to other well-watered pastures in the search for food and lodging. Furthermore, the way in which to make much of this money disappear is to not force people to have to underwrite the expense of compulsory education through their property, state, and federal taxes.

Although there would be substantial reductions in the amount of taxes that might have to be gathered to finance learning, one cannot suppose that with the demise of compulsory education, all community-sponsored learning-related activities would come to an end. Newer, better, cheaper, more learner-friendly, and more effectively flexible ways of education would have to be found through which to assist students to struggle toward taking control of, and having responsibility for, their own learning, but once one removes the dimension of compulsion one frees up the engines of ingenuity -- both individually and collectively -- to fire on all cylinders in a far more dynamic and constructive manner. However, the bottleneck for lowering the tax burden is to jettison the compulsory aspect of education.

As overwhelming and staggering as the monetary costs of trying to dredge the quick-sands of modern education are, the real costs associated with schooling and compulsory education are embedded in the lost opportunities for individuals to gain meaningful control over their own learning and, in the process, acquire the conceptual and methodological tools that are necessary for constructive forms of self-determination that would be heuristically valuable sources of contribution to the larger community or union of communities. By trying to forcibly control what forms such potential for contributing to

the larger community will assume, everyone loses.

Degrees Are Not About Learning

The second key to improving learning is to end the privilege of degree-granting status to all institutions of higher learning. Closely aligned with this second key is a third step which is intended to help improve conditions that are conducive to learning, and this third, key component requires a shifting of responsibility from schools to corporations, businesses, technical trades, industry, the healing professions, and so on, with respect to the process of finding, identifying, selecting, and, if necessary, training people who will be capable of performing in competent ways within a given job, career, or professional environment.

By rescinding the privilege of institutions, schools, colleges, and universities to grant degrees one opens up a number of possibilities, none of which serves to restrain commerce and trade or impede the free exchange of ideas. A degree is not about the quality of what has been learned, but, rather, is a statement that someone, somehow has managed to navigate -- through happenstance, hard work, good fortune, and/or social connections -- her or his way through a process of socialization that is, sometimes, associated with learning. However, what has been learned is often not what has been taught or what is needed for a young person to become a mature, productive member of society whose potential for learning has been enhanced in a way that is conducive to the mental, physical, or spiritual health of either the community or the individual.

Whatever grades a person receives pursuant to such a degree are virtually meaningless because the larger community does not know the circumstances of the testing, grading, or learning process surrounding those grades. More importantly, the community has no way of knowing what has been effectively retained from that process as opposed to what has been picked up independently of such a process.

Degrees, as also is true of grades, constitute tools of control. Degrees are the means through which one group of people manages to

leap frog over other groups of people -- not necessarily because of superior intelligence, learning, competence, ability, talent, or potential, but because a degree is a ticket of admission that has been paid for and, in accordance with a sort of cult-like mind-set, is expected to be able to transport one through the door of social, economic, and career opportunity.

Although particular universities and institutions of so-called higher learning might argue otherwise, the difference in quality of the learning experience from one place to the next is often negligible. Universities or colleges often like to think that it is the clothes that make the person, but, in truth, it is the person who makes the person, and the role that universities and colleges play is purely ancillary.

Undoubtedly, there are a small group of teachers in existence doing their version of Mr. Chips and who, as a result, touch a student's life in an essential, transformational manner that lasts a lifetime. In all likelihood, the vast majority of students never encounter such individuals -- although students might come across this or that teacher whom they find to be interesting.

This is so because the sheer logistics of resource allocation are at odds with such a possibility. There are simply too many students matched up against too few teachers (with too little time available) for teachers to be able to spend much quality time with students.

The vast majority of what is taught in universities can be picked up through methods that have nothing to do with the granting of degrees. Give someone access to a library and/or a bookstore, along with a computer with an ISP (Internet Service Provider), and that person has pretty much everything a university or college has to offer except, maybe, an arrogance which assumes that learning is not possible without the alchemical elixir that can only (so it is assumed) come through the occult understanding of a teacher or place of 'higher' learning.

There are very few professors who teach something other than what they have written in dissertations, books, essays, papers, or journals. If one can access the latter, one doesn't need to attend a class in order to be exposed to the same material one could read on one's own.

Of course, being able to question someone about what she or he has written is always nice, but most students never do (although they do discuss and argue such issues with friends) Furthermore, not all professors or teachers know what they are talking about so answering questions under such circumstances doesn't necessarily lead to enlightenment, understanding, clarity, insight, or truth. Finally, as far as those teachers are concerned that actually are knowledgeable and accessible (and the former group aren't always synonymous with the latter group), then, lots of luck trying to get much time with teachers beyond the largely impersonal confines of the classroom.

Degrees are, largely, about control, privilege, ego, status, money, appearances, expectations, careers, and jobs (those of the teacher as well as that of the student). Degrees are not primarily about learning, realization of human potential, self-determination, or freedom – even though such things might occur despite the presence of institutionalized, degree-granting processes.

If one were to take away the privilege to grant degrees from institutions of so-called 'higher' learning, one would not interfere with the process of learning in the least. In fact, quite the opposite would be the case.

With no issue of degrees and grades to murky the waters, then, the people who wanted to attend these institutions would be doing so for the purposes of learning and nothing else. If such institutions no longer become a mere ends to a degree, then, a degree is no longer a commodity in short supply, and, as a result, the price of a degree-less education will begin to fall -- perhaps, precipitously so -- because the focus switches from: politics, appearances, hype, egos, status, as well as a scarcity of resources and spaces as alleged gateways for success, to: learning.

If one were to deregulate the process of education so that individuals were free to pursue learning in the most cost-effective, expeditious, and personally satisfying manner, then, universities and colleges would have to do one of three things: (1) They would have to change to accommodate the transformations of the learning landscape; (2) they would have to cater only to the very wealthy; or, (3) they would have to cease to exist.

Despite the fact both public schools and higher education pay

considerable lip service to ideas such as the free flow of information and an open-ended search for truth, neither public schools nor higher education are committed to anything but their own take on these issues. They both fear a really free market of learning because in their heart of hearts they know that there are numerous avenues to quality learning that need not ever pass through their hallowed halls.

The ace in the hole of such institutions has always been the degree. Even if there are other qualitatively superior ways of learning, nonetheless, if people are required to have a piece of paper or parchment, then, such an entity becomes a sought after commodity that is quite independent of the issue of learning.

The existence of degrees – not learning -- is (along with other forces of compulsion) what forces people to the doorsteps of public schools, private academies, universities and colleges. One could have the requisite learning, but if one doesn't have the credentials or degrees, then, one is fighting an uphill, often unwinnable, battle, and schools/universities/colleges know this very well.

The whole move toward professionalization of so many disciplines is to institutionalize the need of people to seek officially sanctioned credentials, such as degrees, that require an individual to run through whatever idiotic hoops the ring masters of those academic circuses deem to be necessary. Professionalization has been central to the hegemony of higher education because the former enables arbitrarily selected individuals to set the rules of the game by which everyone must play, and whoever controls the writing and enforcing of the rule book exerts tremendous control over not only what can be learned, but how this can be learned, or even whether something is deemed worthy of learning.

Professionalization also has been a crucial force behind the narrowness, rigidity, controversy, politics, oppression, stagnation, and resistance to an unfettered examination of a great many issues that has entered into many circles of so-called learning. At the heart of any professional organization is the issue of control, and the nature of the degrees of freedom and constraints entailed by that control is given expression through the paradigm that dominates that process of control.

Changing paradigms is always a very difficult, controversial, and,

often, a very messy business. Those in control tend to resist such transitions, otherwise they lose control, and avoiding the lost of control often is considered more important to such individuals than truth, rights, justice, the general welfare, liberty or learning.

If one takes away the privilege of granting degrees, then, lack of access to higher education, issues of discrimination, reverse discrimination, and affirmative action are largely removed from the domain of learning. If learning is the only issue, and degrees have been retired to museums of unnatural history, and, therefore, are no longer a necessary ticket to opportunity, then, there are lots of very cost-effective, diverse, effective, and engaging ways of gaining access to the process of learning -- ways that, with a little bit of effort on the part of all of us, can put a set of quality learning experiences within striking distance of nearly everyone.

A Necessary Shift in Responsibility

However, in order to have a realistic chance of deregulating the whole industry of degree-granting privileges, one needs to have the world of business, careers, jobs, corporations, economics, and the rest of the so-called 'real' world take charge of, as well as assume financial responsibility for, the human resource methods that are used to identify and select competent candidates for available positions. Until now, the work-a-day world appears to have had a symbiotic relationship with the educational process. However, on closer examination, that relationship actually has been destructive both to the world of business as well as to the world of learning.

More specifically, whenever the world of jobs depends on public schools and institutions of higher education to sort out competence, learning, knowledge, and understanding, almost invariably this form of dependence leads to the institutionalizing of methods for not only differentially streaming, labeling, and grading students, but setting in motion an educational accountability version of three card Monte. All of this -- the streaming, labeling, grading, and accountability issues -- gets in the way of, and effectively compromises, the whole enterprise of learning.

Among other things, the foregoing methods unnecessarily put

critical emotional and pedagogical distance between a student and someone who is supposedly trying to help that individual learn. Most students, when they realize they are being evaluated for purposes other than determination of strengths and weaknesses concerning the facilitation of learning, tend to withdraw from environments in which critical evaluation constitutes a major sub-text of the relationship.

A teacher cannot help someone learn who has disappeared emotionally and conceptually from a learning relationship even if the body of the latter remains visible. Requiring teachers to differentially grade, label, and stream students adversely affects learning because it constitutes an inherent conflict of interest for both the teacher and the learner.

Moreover, placing pressure on teachers, students and school systems to kowtow to arbitrary measures of accountability also gets in the way of learning either by taking time, resources, and focus away from the process of learning, or by restricting learning to what is to be tested. Besides, what could be dumber than requiring students to take, say, a standardized test and, yet, not allowing students to be able to see what they did -- either correctly or incorrectly? How does a student learn from such an exercise except in some Kafka-like sense in which nothing makes sense, and nothing is supposed to make sense, and one is not permitted to ask questions, and, yet, one always stands accused of some unknown sin or crime?

If employers were to become fully responsible for assessing – and, possibly, educating their own candidates -- the locus of control would shift to where it belongs on a number of levels. Students would gain control over their learning, and employers would be able to devise their own criteria for what is going to best serve the needs of a given work environment.

However, in devising such criteria there needs to be at least one condition to which employers would have to adhere. Namely, while the human resource people of a place of employment would have the right to examine candidates for work-relevant kinds of learning, knowledge, and competence, they would not be entitled to inquire into where or how a candidate acquired such competence unless that acquisition was directly related to some previous form of work experience.

Probing for the nature and extent of a prospective employee's

knowledge, learning, and competence is directly relevant to issues of suitability for employment. Probing to discover how those capabilities were developed is not relevant to the issue of hiring -- other than to the extent that such capabilities have been gained through other work environments.

Similarly, licensing for jobs involving health, engineering, psychology, insurance, real estate, law, automobile mechanic, and any number of other job designations is entirely independent of how one came to know what one knows. All that is important is whether or not a candidate has that knowledge or competence and not how one obtained that knowledge.

An employer might wish to contract out this task of identifying and selecting potential candidates. Nonetheless, whoever performs this task should be constrained to focus only on what is known and what a person can do, and not on whether there are certain kinds of status-oriented processes associated with that learning.

Part of the methodology associated with any reliable and valid empirical activity is to eliminate as much bias from the selection process as possible. If one were to require employers to assess job-competence or suitability independently of the means through which such capabilities were acquired, then, this would be somewhat comparable to what, methodologically, is called a 'single-blind' experiment in which certain factors are removed from an experimental context in order to avoid tainting our understanding of any experimental results that might be forthcoming.

If one were to retain the privacy issues revolving about the source and means of one's learning, and, as well, if one were to use human resource facilities that were entirely independent (as far as its methods of assessment were concerned) from a given employer, then, this would be comparable to what is known as a 'double-blind' experiment in which an employer is not directly responsible for identifying suitable candidates but, rather, the process of selection is left to independent, objective, and unbiased third parties. Moreover, inherent in this kind of evaluation independence would be an absence of any reference to the color, gender, religion, ethnicity, socio-economic status, sexual orientation, or politics of a given candidate.

The more a place of employment reflects some of the qualities of a

double-blind experiment, the less likelihood there is for discrimination to enter into the selection process. The less likelihood there is for discrimination to be present in such a process of evaluation, then, the more level the playing field of life becomes and, therefore, the more likely that all candidates for any given position will be perceived through one and the same set of evaluative lenses that are relatively undistorted by irrelevant and prejudicial considerations.

In addition to the foregoing considerations, by taking the funding of the costs associated with assessing -- and, possibly, educating -- potential employees and shifting those costs from the community to the businesses that seek to make a profit through the use of such individuals, one could stop a form of public subsidization of businesses and corporations that has been going on for far too long – a cost that tends to be borne unfairly, for the most part, by those who are seeking employment rather than those who wish to make a profit from such a situation. There is nothing wrong with wanting to earn a profit from entrepreneurial activity, but this should not be subsidized by the public at large, and when such subsidization does take place, it distorts the actual cost and value of goods and, in the process, both warps and undermines the integrity of the market process through which those goods are released by putting the vast majority of the public at tremendous disadvantage – both as employees and as consumers.

A market that is rigged in favor of the owners of business is not guided by an impartial, invisible hand of competition but rather, is guided by the hidden hand of an unenlightened brand of self-serving interests that, ultimately, will prove destructive – economically, politically, and socially. Asking future employees to subsidize business by requiring the former to underwrite the lion's share of their own educational expenditures (whether considered in terms of money, time, intellectual effort, and/or material resources) in order to better serve the interests of businesses establishes an unjustifiable inequity between employer and employee. If a business needs a certain kind of resource – say, an educated worker – then that business ought to pay for such a resource just like it pays for all of the other resources it uses to generate its products and services … this is just part of the cost of doing business for which employees ought not be expected to pay, and, thereby, subsidize business owners.

A Few Possibilities

Only a few of the possibilities that might be generated as ways of dealing with the paradigm shift that is being proposed in this extended essay have been touched upon, or alluded to, in the foregoing discussion. A few additional possibilities are the following.

Public schools could be converted into community resource centers. Libraries could evolve in similar ways.

Businesses could offer in-house learning opportunities for employees and their children as one of the perks of, attractions for, working for a given company or business. Teaching could be deregulated so that the quality of a teacher was measured by how well she, he, or they taught and not by whether such an individual had certain degrees or was the member of a union or had been certified by a state or professional agency.

Improving learning in America is not a matter of better public schools, a more diverse array of charter schools, or creative voucher plans. Improving learning begins with: (a) the abandonment of compulsory education; (b) the elimination of degree-granting privileges by institutions of higher learning (a step that has nothing to do with the capacity of such an institution to deliver a set of quality learning experiences or to compete for learners who are seeking such experiences, as opposed to a status-drenched piece of paper that has had a great deal to do with the devaluation of the process of learning); (c) and, finally, a shifting of the responsibility for determining job-competency from schools to places of employment that are permitted to probe for purposes of determining the extent and nature of a prospective candidate's learning and knowledge but would not be permitted to try to discover the means through which such learning and knowledge were acquired. If one were to follow the foregoing three-part prescription, perhaps, a lot of what ails the learning process in America would begin to both heal and improve.

Among other things, such a prescription would have a major leveling effect on the playing field on which people compete for learning, career and job opportunities. If compulsory education is deregulated, and if degree-granting privileges are rescinded, and if

employers are required to look only at what has been learned and not seek to discover where or how this has been done, then, to a very large extent, issues of money, social-status, geographical location, and inequitable distribution of resources are attenuated -- perhaps completely in many cases – with respect to the way such practices distort the fairness of playing conditions with respect to learning and employment opportunities.

A person who, for example, buys a book on Kant's *Critique of Pure Reason* and sincerely engages this text need not be at any disadvantage with respect to understanding what is read than a person who goes to an upper-tier university and takes a course on Kant. One doesn't need money, social position, the right family lineage, power, or a university education to understand Kant. All one needs is the curiosity, intrinsic motivation, and perseverance to see the process through -- the same set of qualities that anyone who wishes to understand Kant needs no matter where she or he undertakes such a task.

The same logic extends to encompass much of what goes on within a school or university environment. The rigor and quality of an individual's search for learning has absolutely nothing to do with whether, or not, that quest takes place inside, or outside, a school environment -- the challenges and problems are largely the same irrespective of the venue used for learning.

There is, of course, one potential difference between someone doing studies independently of school and someone pursuing such activities within a schooling environment. This involves the element of free time.

In other words, whether through loans, scholarships, term-time work, and/or parental financial assistance, people who attend schools usually are able to do so because they, through one means or another, have the financial wherewithal to buy the time necessary to engage learning in a serious manner. The luxury of having such time for learning is something that might not be available to individuals from financially impoverished backgrounds.

Voucher programs usually have been thought of in terms of a process in which students, or their families, are given certificates that can be given to a school of their choice. The selected school, then, redeems that certificate from whoever is footing the bill for education.

Perhaps, the time has come to think about paying our youth for the work of learning. Naturally, some set of checks and balances probably will have to be set in place in order to ensure that such a direct system of payment would not be abusively exploited. This might include possibilities like directly paying a student's rent, phone, and other basic expenses. Or, perhaps, accounts of various kinds could be set up at particular bookstores, internet providers, supermarkets, clothing stores, and so on to look after relevant expenses through some sort of debit card program.

Ideally, whatever payment structure or framework is selected, the administration of that structure should be done as near to a student's normal living environment as possible. If schools, teachers, and other personnel can be paid through a given school district or municipal level of government, then, there is no reason why the same cannot be done for students in order to afford the latter the free time needed to pursue learning in a serious fashion while by-passing the tremendous expenses and problems entailed by maintaining multiple levels of bureaucracy.

Quite frankly, a system involving some sort of direct payment system to students that would look after their basic living expenses while such students go about the process of learning, probably would be a lot cheaper to fund, while, simultaneously, producing qualitatively better results than underwriting the costs of a full-blown system of schooling would be. After all, individual programs of learning need not be subject to the same sort of costs as are associated with the bureaucratic wastes, gridlock politics, and self-serving agendas to which public and higher education seem to be inherently predisposed.

Summing-up and Some Lingering Issues

Near the beginning of the present essay, one encountered the following words:

"What if someone could offer a way to (a) substantially cut property, state, and federal taxes, while simultaneously: (b) revolutionizing the process of education so that the emphasis is on learning instead of accountability wars, political agendas, and a self-serving means for generating money for those whose primary

interest is other than the welfare of learners; (c) bringing an end to the, till now, interminable wrangling over discrimination-reverse discrimination and affirmative action debates by truly leveling the playing field for all concerned; (d) enabling citizens to gain complete control over their learning; (e) shifting the burden of responsibility for identifying learning competence to where it belongs and, thereby, ending a form of subsidization that has done nothing but undermine the process of learning; (f) reducing the costs of both public and higher education by billions, if not trillions, of dollars; (g) re-thinking the meaning and purpose of the Constitution; (h) and, doing all of the foregoing by requiring only nominal expenditures for underwriting the transition entailed by such changes? Does this all sound like a Rube Goldberg device, a perpetual motion machine, a quixotic quest, and/or the ranting of someone who, without proper monitoring of medication, has been dumped back into the community from a mental facility?

Read on. You might be surprised."

Well, now that you have read on, are you surprised? If you are, hopefully this is in a pleasant way.

Not much has been said with respect to the details concerning the "nominal expenditures for underwriting the transition entailed by such changes." The primary reason for this is because the financial bottom line really depends on how creative, committed, co-operative, and entrepreneurial a given community might be, as well as what kinds of resources (in human terms, as well as material and financial) are available to a community.

There is no question the transition costs associated with such a paradigm change will not be zero. There is, on the other hand, considerable likelihood that those costs might be fairly nominal -- at least relative to the soaring costs of education today as well as related cost projections into the future.

Instead of continuing to fund schooling and school systems, we might begin to rethink the role of libraries and other similar resource centers with respect to the process of learning. Instead of continuing to hire teachers and become tied into long-term financial commitments that might not be conducive to enhancing the quality and flexibility of learning that individuals, society and the future might require, we could begin to explore alternative approaches to the way

in which learners engage the process of learning, discovery, critical understanding, problem-solving, and transfer of knowledge.

Obviously, there will be costs associated with any such choices. But, the issue is not about eliminating costs altogether but, rather, the issue is a matter of learning how to spend money more wisely, justly, and efficaciously in order to enhance the quality of what is learned and, therefore, potentially, enhance the quality of life for both the individual and the surrounding community. With respect to those vested interests that might feel threatened by, and therefore, resistant to, what is being proposed within the pages of this chapter, there is only one word to say: "Adapt!" This capacity is part of the wonderful set of tools with which human beings have been endowed, and this has been the watchword throughout history.

Furthermore, at the heart of adaptation is the capacity to learn. Educators have been preaching this lesson to students more and more as modern society enters into rapidly changing conditions, environments, needs, and problems. Perhaps, educators need to listen to what they are preaching and apply the underlying lesson to their own lives.

If the foregoing considerations were taken seriously, then, everyone in America would have to adapt in one way or another. Hopefully, the collective set of adaptations would form a constructive synergy that is conducive to enhancing the process of learning and giving each of us greater control over her or her life without necessarily compromising, or infringing upon, anyone else's opportunity to do so as well.

There is another thought that might be added to the foregoing. One question that well-intentioned, and not-so-well intentioned, people are likely to ask is the following. What happens if we permit our youth to seek out their own way and own style of learning according to their own timetable, and as they approach their late teens are still not doing well ... What then?

Perhaps the most crucial facet of being able to gain control over the locus of learning is through being able to read. Through enriched library programs, schools that have been converted into community resource centers, the establishing of literacy volunteer programs, as well as mentor-learner relationships being forged with business and

corporation participation, one has the potential for helping every child in a community to develop reading and literacy proficiency.

Much of this literacy work would take place when an individual is young -- before society has had an opportunity to compromise, if not destroy, the natural curiosity, wonder, openness, and excitement that most children have in relation to life. During this period of life, perhaps more so than any other, the natural tendency of a child is to want to co-operate with someone who is perceived as willing to assist a child -- in a warm, supportive, encouraging, non-judgmental manner -- to learn, and therefore, during this stage of life, a child has more teachable moments than do most people who are older. A child's natural curiosity, together with the forces of intrinsic motivation that vary from person to person, plus a learning environment that offers stress-free, grade-free, labeling-free support is likely to significantly enhance learning for most, if not all, of the children in any given community.

Once a solid foundation of literacy has been established, a child has been given many of the tools that are necessary for her or him to be able to gradually struggle toward assuming greater responsibility for, and control of, the process of learning. The obligation that educators -- whether parents, professional, volunteer, or otherwise -- have is to do whatever is possible to bring a child to this stage where they can begin to fly solo in their own ship of learning.

From time to time, a child or youngster might need to get additional help, of one kind or another, as he or she encounters new challenges for, and problems associated with, learning. Nevertheless, once a child learns how to fly in the foregoing sense, this is like riding a bike, a person never forgets how to do it -- although people, as they grow older, often stop themselves, for one reason or another, from continuing on with the learning process.

However, if after all is said and done, there are still individuals who have not taken advantage of the opportunities given to them and, as a result, have resisted developing even minimally acceptable levels of literacy competence, then, the door is open for exploratory discussions directed toward, on the one hand, the responsibilities that accompany rights, and on the other hand, the right of the majority to

not have to shoulder the burden of another person's irresponsibility. Where such exploratory discussions might lead is uncertain, but wherever they go, the principles inherent in the Preamble to the Constitution apply to everyone -- both with respect to the implied rights and the concomitant responsibilities.

When some Native communities are at an impasse with respect to certain, seemingly, irresolvable problems that are confronting them, the idea of a 'Healing Circle' comes into play. If issues of child molestation, sexual abuse, domestic violence, rape, and murder can be resolved through the qualities and properties of such Circles -- and they have been, and there is documented evidence to this effect -- then, surely, similar Circles could be established to resolve problems surrounding the issue of the right to have control over what one learns and the responsibilities to oneself and the community that are attendant to such a right.

A Possible Source of Constitutional Obligation

There are, at least, two questions that remain. These questions were raised fairly early in this essay -- namely, (1) why should one feel obligated to comply with a document (i.e., the Constitution) which was written over two hundred years ago, and (2) assuming there is such an obligation, what kind of an obligation is it?

Most people might tend to agree that no one should feel obligated to honor a contract or covenant that someone else entered into several hundred years ago. Whatever arrangements people made then is their affair -- that was then, and this is now.

On the other hand, the themes, issues, and problems that are addressed by the Constitution (and, especially, the Bill of Rights and certain other Amendments ... such as, the 13th and Section 1 of the 14th Amendment) are not restricted to what went on more than two hundred years ago. The same political and social challenges are still with us.

The same human needs remain in effect. The same kind of oppressive, authoritarian, anti-democratic dangers to freedom of choice with respect to the pursuit of life-quality are threatening our existence, both individually and collectively.

Whatever the structural faults and shortcomings of the Constitution might be, the essential idea of the Constitution (especially in the form of the Bill of Rights and several other Amendments such as the 13th Amendment and Section 1 of the 14th Amendment) gives expression to universal themes that resonate with all of us. Which person isn't interested in issues of justice, tranquility, security, welfare, liberty, and struggling to establish a more perfect Union ... a better place in which to live? Which individual is indifferent to matters involving procedural fairness? Which person doesn't see the benefits that might accrue from a system regulated through a set of checks and balances that are intended to serve the community? Which individual can afford to be blasé about the threat of oppression, tyranny, and involuntary servitude? Which person does not have an abiding interest in a procedural framework that considers the concept of a right, that buffers the individual against the changing tides of majority whims, something to which everyone is entitled consistent with due care for the protection of other democratic principles?

Those who crafted the Declaration of Independence were dead-on when they said: "Governments long established should not be changed for light and transient causes; and accordingly all experience has shown, that mankind is more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed." The one change that might be made in the foregoing is to substitute "Constitutions" for the word "Governments", because, in truth, what makes any form of government worthwhile is the quality of the rules and principles to which such governments give expression.

The Constitution is a working arrangement that, when successful, permits a collective to get rid of governments that bring suffering to the people whom are to be served without, necessarily, being forced to throw the baby out with the bath water. The baby in this case is the Constitution -- especially, the Bill of Rights and certain amendments -- and this is what is most precious, not any particular form of dirty bath water ... i.e., this or that politician, or this or that government administration.

Nonetheless, even in the matter of the Constitution and even though changes to that document should not be made too easily, there

should be an understanding that the original framers of the Constitution and framers of the subsequent amendments, were not gods. They were fallible, limited human beings … as we all are.

One's moral obligation is not to those individuals or to the words that they wrote. Rather, one's moral obligation is to the process to which those individuals were committed – namely, to critically reflect on what is, in order to discover ways of improving on the principles of justice, rights, and freedoms that might enhance the general welfare of everyone and not just for the benefit of a few or even for a simple majority of the people.

The obligation a citizen has to the Constitution -- especially the Bill of Rights -- is a commitment to the universal themes of existence. The nature of this commitment is not derived from the past, but is at the heart of what being human entails, no matter when one might live and no matter where one might live.

Consequently, the obligation a citizen has to the Constitution -- especially the Bill of Rights and certain other amendments -- is an on-going one. In our hearts, both collectively and individually, there is a plea for justice, liberty, rights, peace, security, and welfare. The Constitution -- especially, the Bill of Rights along with other addendums such as the 13th, 14th – Section 1, 15th, and 19th Amendments -- offers us all a means of seeking and struggling toward the deepest yearnings of our being.

The obligation a person has to the Constitution -- especially the Bill of Rights and the aforementioned amendments -- is the obligation a person has to oneself and others as human beings who have a constructive potential and intrinsic integrity that should not be denigrated. The obligation we have to the set of principles that underlie and give direction, meaning and value to the Constitution -- and that are given better expression through the Bill of Rights and related amendments than through the Constitution per se -- is the obligation we have to want the same sort of rights, freedoms and justice for others that we wish for ourselves.

None of the foregoing essay should be construed as grounds for advocating violent revolution or the violent overthrow of governments. Nevertheless, the fact of the matter is, everything that has been discussed in this essay can be accomplished through a

peaceable shift in the paradigm that is used to actively pursue the general welfare provided we begin to look at the Constitution through the lenses of the Bill of Rights and associated amendments rather than look at the Bill of Rights and associated amendments through the lenses of the Constitution. For, of the two – that is, on the one hand, the Constitution considered independently of the amendments, and, on the other hand, the Bill of Rights (and affiliated amendments) considered independently of the Constitution – the Bill of Rights goes much more to the heart of the sort of inspirations, aspirations, concerns, values, and interests that shaped the historical context out of which the Constitution emerged than do any of the Articles that form the body of the Constitution sans amendments.

The Constitution was ratified because a 'Bill of Rights' had been in the air, so to speak, and promised before the former – that is, the Constitution --had become a concrete reality. In other words, the idea of a 'Bill of Rights' – at least in terms of the kind of general principles that were believed necessary to protect and promote the general welfare of the people quite independently of the Constitution – permitted the Constitution to be ratified, and if such an idea as a 'Bill of Rights' had not been present to nurture the birth of the Constitution, the latter might have been stillborn or died in infancy. As such, it is the spirit and honoring of a 'Bill of Rights' that makes democracy possible, not this or that set of constitutional articles.

The paradigm shift that is being suggested here is one that can save lives, money, and the integrity of the democratic principles inherent in the Constitutional protections directed toward preserving and helping to realize the promise of the Preamble -- especially as expressed through the Bill of Rights and other critical additions to the Constitution such as the 13th, 14th – Section 1, 15th, and 19th Amendments). The paradigm shift being advanced is one that could permit people to regain control of the leaning process while, simultaneously, enhancing everyone's opportunity to participate in the rights, privileges, powers, liberty, justice, tranquility, security, and welfare that has been set forth, as principles, in the Preamble to the Constitution as we collectively, and, hopefully, cooperatively, strive for a more perfect union of people.

There is a peaceful way to accomplish all of the foregoing. The question is: do we, as a people, have the will to realize such a potential?

If we do not have such a will, then, unfortunately, the only option that is left points in the direction of violence – a possibility to which all of us might be condemning ourselves as, individually and collectively, we help to construct what are known in psychology as 'social traps' – that is, situations which arise when everyone fights for what they believe are just ends but which involve ends and means that are at odds with one another and, as such, lead to gridlock and endless, mutual misery.

Oppression, exploitation, injustice, and abuse in relation to others are not inalienable rights – either of individuals or governments. In our hearts, we all know this, but, of course, we tend to always consider others -- rarely ourselves -- as the source of such oppression, exploitation, injustice and abuse … and time is running out for us to come to understand the nature of the problems to which we all have contributed and that we all have helped construct.

The 'other' is not the one who generates social traps. We – individually and collectively -- are the architects of our own problems when we engage in a relentless pursuit of that which does not secure the rights of everyone and which does not seek to secure a general welfare, tranquility, and defense for all facets of society – whether in relation to justice, politics, economics, ecology, or education.

Appendix A - Sovereignty

Many people – on all sides of the issue – have been consumed with the: 'Who', 'why', and 'how' of the events on 9/11, but some seventeen years later, those questions – however important they continue to be -- are not foremost on my mind. Instead, I am concerned with what the events of 9/11 have set in motion with respect to the systematic stripping of rights, freedoms, and sovereignty that occurred in relation to American citizens, not to mention the millions of individuals who were adversely affected elsewhere in the world because of the unjustifiable collateral damage that ensued as a result of the political, economic, and militaristic forces that were set loose as a result of the events surrounding 9/11.

Due to a variety of factors, Americans – as well as individuals and communities elsewhere in the world -- have been swindled out of sovereignty by an array of scoundrels both known and unknown. For example, in many respects – and despite claims to the contrary -- America has become a failed nation because none of its essential institutions -- such as the three branches of federal government, the military, the Federal Reserve Bank, the media, or academia -- have, for the most part, done anything to prevent tyranny, oppression, and injustice from conducting a blitzkrieg of America and much of the rest of the world.

While the events of 9/11 helped pave the road to the foregoing sort of dissolution, the problem actually began more than 225 years ago with the coup d'état that was set in motion in the summer of 1787 in Philadelphia when a group of people -- sometimes referred to as the 'Founding Fathers' or 'Framers' -- decided to deprive Americans of an opportunity to work toward establishing something that was far better than what transpired. Those venerated historical figures – who, in my opinion, are largely undeserving of that veneration -- helped to establish a republic, and, unfortunately, from the very beginning they betrayed the idea of a republic by failing to live in accordance with the moral principles of republicanism that are at the heart of the form of governance that was allegedly brought into existence by means of a manipulated process of ratification that was set in motion by an array of Machiavellian partisans who referred to themselves as Federalists (For details concerning the foregoing claims, please refer to: *The*

Unfinished Revolution: The Battle for America's Soul as well as: *Democracy: Lost and Regained*).

The so-called 'Founding Fathers' -- especially James Madison who came up with the Virginia Plan that, to a considerable degree, served as the template for the Constitution – were appalled by the idea of democracy. Among other things, the latter mode of government often tended to oppress minorities (consisting of people from among the ranks of the Founding Fathers and their colleagues) in order to appease majorities who -- from the perspective of individuals such as Madison -- were inclined to operate out of arbitrary, volatile perspectives.

One should keep in mind that the mode of government known as a republic is not necessarily synonymous with the notion of a democracy ... representative or otherwise. A republic is supposed to be grounded in principles of morality that govern the actions of those in authority, while democracy, for the most part, is about determining – quite apart from any issues of morality -- who gets to control what goes on within any given context (and how they get to do this).

By the mid-to-late 1790s, democracy had overrun republicanism as the form of governance that became dominant in America. One of the signs of that transition revolves about the formation of political parties within America during the last years of the eighteenth century.

More specifically, the whole notion of political parties tends to be inconsistent with the moral principles of republicanism that is given concrete expression in the guarantee present in Article IV, Section 4 of the Constitution. The republican form of government that is guaranteed in the aforementioned section of the Constitution (and it is the only guarantee that is present in the foregoing document) requires people in government to be impartial, objective, and unbiased in their deliberations and, therefore, such a moral philosophy indicates that belonging to political parties – which are inherently partisan in nature -- constitutes a conflict of interest with respect to the ethical duties that are expected of members of the federal government who are supposed to operate in accordance with republican principles of political morality.

Relevant to the foregoing considerations is something that might be referred to as: The *Anaconda Principle*. This notion refers to the way

in which most, if not all, governments – federal, state, and local -- engage in a process of increasingly and progressively squeezing the political, emotional, spiritual, social, educational, economic, and physical life out of citizens over a period of time. More specifically, each time the citizenry exhales in relief from having survived some arbitrary, unjustified, problematic exercise in public policy that was imposed on those citizens by government – and before those individuals can fill their lungs back up with the oxygen of self-determination -- the coils of power become wrapped even more tightly about the people through the next round of arbitrary and unjustified policies that are leashed upon the citizenry.

Since 9/11, we have witnessed the introduction of: The Patriot Act (2001 – plus its reauthorization in 2005 that made many of its provisions permanent); The John Warner Authorization Act (2006); the Military Commissions Act (2006); as well as the National Defense Authorization Acts of 2010, 2011, 2012, 2013 and continuing on. In addition, there have been a slew of Executive Orders (e.g., 10990, 10995, 10997, 10998, 10999, 11000, 11001, 11002, 11003, 11004, 11005, 11921, and more) that authorize the government to control virtually every aspect of American society whenever the government deems this to be appropriate.

The Anaconda Principle is being applied ever more rigorously and persistently to the American people. In the process whatever constructive elements of republicanism and democracy that might still be hanging on for dear life after several hundred years of abuse have been squeezed, for the most part, from political existence.

The following set of principles outline a possible social/political framework of self-governance that goes beyond the possibilities inherent in tyrannies, republics, and democracies. The time for change is upon us, and I believe that the kind of change to which I am alluding – monumental though it might be – can be accomplished peacefully and without violence.

Implementing the idea of sovereignty does not require force. However, that process does require individuals to broaden and deepen their understanding concerning the human condition, and when properly understood, sovereignty has a natural appeal to human

beings because it reflects something that is integral to their own identity and sense of being human.

There is a significant difference between, on the one hand, the ways of power, republicanism, and democracy and, on the other hand, the way of sovereignty. We each have a duty of care to carefully and critically reflect on the nature of the choices we might make with respect to the foregoing possibilities.

The following principles are in response to a question that someone once asked me – namely, "What is sovereignty?"

(1) Sovereignty is indigenous to, and inherent in, the potential of human beings. It is not derived from society or governments but, in fact, exists prior to, and independently of, the formation of society and governments.

Sovereignty is not a destination. Rather, sovereignty constitutes a form of negotiated social space that is necessary for human beings to be able to have the best opportunity through which to come to terms with what it means to be a human being.

(2) Sovereignty is the right to realize essential identity and constructive potential in ways that are free from techniques of undue influence (which seek to push or pull individuals in directions that are antithetical to the realization of sovereignty). At the same time, sovereignty requires individuals to conduct themselves in ways that do not infringe on, or undermine, the right of other human beings to make full use of the opportunities that sovereignty makes possible.

(3) Sovereignty entails the human capacity (and corresponding duties of care) to be able to push back the horizons of ignorance concerning the nature of reality.

(4) Sovereignty encompasses the right of each human being to have ready access to a quality of food, shelter, clothing, education, and medical care that is minimally necessary to seek and, if possible, realize identity and constructive potential through the process of pushing back the horizons of ignorance.

(5) Sovereignty is rooted in the duties of care that are owed to others to ensure that the sovereignty rights of those individuals are established, protected, and nurtured.

(6) Sovereignty is the right to choose how to engage the complex boundary dynamics entailed by the idea of: 'Neither control, nor be controlled' that is at the heart of sovereignty.

(7) Sovereignty entails establishing local councils that constructively establish, promote, develop, and protect principles of sovereignty. When and where necessary, those councils would help mediate disputes that arise along the boundary dynamics involving the principle of: 'Neither control nor be controlled'.

The composition, selection, and nature of the council would be similar to that of a grand jury. In other words, council members would not be elected but chosen through an agreed-upon random-like selection process and, then, those selected individuals would be subject to a vetting process (conducted by the community) to determine the suitability of a given individual for taking on the responsibilities of the aforementioned council ... much like prospective jurors go through a voir dire process.

The length of service would be for a limited time (e.g., 6 months to a year) before new members would be selected through the same sort of non-manipulated manner and vetting process that was noted earlier. Like a grand jury, the members of a local sovereignty council would be empowered to investigate whatever issues and problems seem relevant to the issue of sovereignty, but, unlike a grand jury, that council would have the authority to research issues, subpoena witnesses, and present their results directly to the community for further deliberation without having to go through the office of a prosecutor, attorney general, or judge.

(8) Sovereignty is the responsibility of individuals to work toward collective sovereignty, and collective sovereignty is nothing but individual sovereignty writ large.

(9) Sovereignty is rooted in economic activity that serves the principles of sovereignty, not vice versa. Consequently, among other things, this means that corporations should be permitted to exist only as temporary charter arrangements devoid of any claims of personhood, and they should be designed to serve specific purposes that can be demonstrated to be of value with respect to both individual and collective sovereignty. Whatever profits accrue from corporate

activity should be shared with the communities that are affected by corporate activity.

The idea that corporations are persons is nothing but a legal fiction. Yet, this fiction is being advanced as something that should have legitimate standing in the real world.

Legal fictions are stratagems invented by lawyers and judges for dealing with certain legal issues. However, neither the lawyers nor the judges can put forth tenable arguments for why the rest of society should accept, and subordinate itself, to those sorts of fictions.

Sovereignty existed before law came into existence. Law is only constructively effective when it serves the principles of sovereignty, and when law is permitted to enthrall sovereignty – as is done when corporations are treated as persons -- then sovereignty becomes diminished if not extinguished.

Nowhere do: Congress, Supreme Court Justices, federal courts, corporations and, most importantly, the Constitution, ever put forth defensible arguments about why corporations should be considered to be people. There is no underlying set of principles that justifiably and reasonably demonstrates how such a position – i.e., corporations are people – could be defended in a way that clearly demonstrates, beyond a reasonable doubt, why that sort of a position should be accepted and why sovereignty should become subordinate to the idea of a system of law that is independent of, and not guided by, the principles of sovereignty.

(10) The constructive value of money is a function of its role in advancing the principles of sovereignty for everyone. The destructive value of money is a function of the way it can be used to undermine, corrupt, and obstruct the principles of sovereignty.

Money acquires its value through the service it provides in relation to the establishment, enhancement, and protection of sovereignty. The money-generating capacity of banks should serve the purposes of sovereignty both individually and collectively.

Banks should be owned and regulated by local communities as public utilities. Moreover, whatever profits are earned in conjunction with bank activities should be reinvested in the community.

(11) Capital refers primarily to the constructive potential inherent in human beings and only secondarily to financial resources. The flow of capital (in both human and financial terms) should serve the interests of sovereignty for individuals and the collective.

(12) Sovereignty is not a zero-sum game. It is about co-operation, not competition.

(13) Sovereignty is rooted in the acquisition of personal character traits involving: Honesty, compassion, charitableness, benevolence, friendship, objectivity, equitability, tolerance, forgiveness, patience, perseverance, nobility, courage, kindness, humility, integrity, independence and judiciousness.

(14) Sovereignty is not imposed from the outside in but is realized from the inside out by means of an individual's (and the collective's) struggle to come to grips with the meaning of the idea of: 'Neither control nor be controlled'.

(15) Sovereignty is rooted in struggling against: Dishonesty, bias, hatred, jealousy, greed, anger, selfishness, intolerance, arrogance, apathy, cowardice, egocentrism, duplicity, exploitation, and cruelty.

(16) Sovereignty is the process of struggling to learn how not to cede one's moral and intellectual agency to anything but: Truth, justice and character in the service of realizing one's identity, and constructive potential, as well as in the service of assisting others to realize their identity and constructive potential.

(17) Sovereignty can never be defended, protected, or enhanced by diminishing, corrupting, co-opting, or suspending the conditions necessary for the pursuit, practice, and realization of sovereignty. Sovereignty should not be subject to the politics of fear.

(18) Sovereignty is rooted in the principle that no person can represent the sovereign interests of another individual unless the sovereign interests of everybody are equally served at the same time.

(19) The activities and purposes of: Governments, nations, institutions, and corporations should always be capable of being demonstrated -- beyond a reasonable doubt – to be in the service of the sovereignty of the people, taken both collectively and individually. This requires transparency of process on a variety of levels.

(20) Centralization should not be the default position through which individuals interact with one another. Whenever doing so can be demonstrated to serve the interests of sovereignty, de-centralization should be given priority, and only in very limited, temporary instances – if at all -- should some form of centralization be given preference over the idea of decentralization.

(21) Efficiency and wealth should be measured in metrics that are a function of sovereignty and not ways of power.

(22) The principles of sovereignty should be rooted in the notion of sustainability. Therefore, those principles should not be pursued or realized at the expense of endangering or destroying the environment ... either with respect to either the short term or the long term ecological health of the environment ... both for human beings as well as in conjunction with other species of life.

(23) Sovereignty is rooted in the cautionary principle. In other words, if there is a reasonable doubt about the safety, efficiency, judiciousness, or potential destructive ramifications of a given activity, then that activity should be suspended until a time when those doubts have been completely, successfully, and rigorously addressed.

(24) The defense of sovereignty is best served through the co-operation of de-centralized communities of sovereign individuals ... with only occasional, limited, and secondary assistance from centralized institutions and groups.

(25) Standing armies do not serve the interests of sovereignty but, rather, serve the interests of the bureaucracies that organize, fund, equip, and direct those standing armies. Being able to defend one's country and communities from physical attack does not require standing armies but, instead, requires sovereign individuals who understand the value of defending the principles of sovereignty that help a community and network of communities to flourish.

(26) The police should not be considered to be law-enforcement officers but should serve as guardians and protectors of sovereignty – both individually and collectively. In many respects, systems of law tend to serve the interests of the ways of power and, therefore, tend to operate in opposition to the ways of sovereignty.

(27) When done correctly, the practice of sovereignty creates a public space or commons that is conducive to the pursuit and realization of the principles of sovereignty by everyone who is willing to struggle toward that end.

(28) Sovereignty is rooted in the principle that the commons – that is, the resources of the Earth, if not the Universe – cannot be proven, beyond a reasonable doubt, to belong to anyone. Therefore, the commons should be shared, conserved, and protected by all of us rather than be permitted to be treated as individual, institutional, corporate, or government forms of private property.

What is being proposed in the foregoing paragraph is neither a form of communism nor socialism. Communism promotes the idea that the means of production are owned by the people, whereas socialism proposes that production should be done in accordance with some form central, government controlled planning for the benefit of all citizens.

If no one can prove – beyond a reasonable doubt – that they are entitled to the resources and lands of the Earth – or specific portions thereof -- then, neither the proletariat nor a central government is justified in claiming ownership of anything, nor are they justified in claiming the right to determine how lands and resources should be used.

Human beings do not own the Earth. At best, human beings have a fiduciary responsibility to the Earth and its inhabitants, and, therefore human beings must engage the Earth like someone would do if that individual were to chance upon resources of unknown provenance.

(29) Whatever forms of private property are considered to be permissible by general consensus, that property should serve the establishment, enhancement, and protection of the principles of sovereignty ... both individually and collectively.

(30) All business must be conducted with the idea of helping to establish, promote, or protect sovereignty. All businesses must be conducted from the perspective that since no one is capable of successfully demonstrating -- beyond a reasonable doubt – that they have the right to ownership for the land and resources of the Earth, then all business arrangements are temporary and subject to the

consensus agreement of the community concerning the potential of that sort of a business to serve the interests of sovereignty.

Aside from what is necessary to operate a business in an effective and productive manner, as well as what is necessary in the way of resources to be able to improve that business through research and development, and/or is necessary to provide a fair return for the employees of such a business for their collective efforts, then any profits that are generated by a business should be shared with the community or communities in which that business resides. The shareholders of a business should always be the entire community in which a business is located and not just a select number of private shareholders.

In exchange for foregoing kind of arrangement, there should be no taxes assessed in conjunction with businesses. At the same time, both businesses and the community become liable for whatever damages to individuals, the environment, or other parts of the community that are adversely affected by the activities of those businesses.

(31) A market in which all of its participants are not sovereign individuals is not a free market. Markets that exploit the vulnerabilities of participants are not free. Markets that are organized by the few in a way that undermines, corrupts, or compromises the principles of sovereignty are not free.

Markets in which the participants are all equally sovereign are free. Nonetheless, the freedom inherent in those markets should serve the interests of sovereignty for those who are both inside and outside of those markets.

(32) Sovereignty is only realizable when it is rooted in a collective, reciprocal, guarantee that we will all treat one another through the principles of sovereignty.

(33) Violations of sovereignty are an impediment to the full realization of the principles of sovereignty. However, those violations should not be primarily or initially be subject to punitive forms of treatment.

Instead, violations of sovereignty should be engaged through a process of mediated, conflict resolution and reconciliation intended to restore the efficacious and judicious functioning of sovereignty

amongst both individuals and the collective. This mediated process is, first and foremost, rooted in a rigorous effort to determine the facts of a given situation before proceeding on with the process of mediation, conflict resolution, or reconciliation.

A community has the right to defend itself against individuals who violate, and show a disregard for, the sovereignty rights of other individuals. The aforementioned right to self protection might assume the form of: Treatment, exile, incarceration, paroled supervision, community service, and other forms of negotiated settlement with respect to those who undermine the principles of sovereignty.

(34) Alleged scientific and technical progress that cannot be rigorously demonstrated beyond a reasonable doubt to enhance the pursuit and realization of principles of sovereignty by everyone is subject to being governed by the precautionary principle.

(35) Sovereignty is not a form of democracy in which the majority rules on any given issue. Rather, sovereignty is a process of generating consensus within a community that can be demonstrated, beyond a reasonable doubt, to serve the sovereignty interests of everyone.

(36) Sovereignty is rooted in the principle that with respect to any given practice, then, before making a community decision concerning that practice, then a community should take into consideration what the impact of that practice is likely to be on generations seven times removed from the current one.

(37) Everyone should underwrite the costs of pursuing, establishing, enhancing, realizing, and protecting sovereignty -- both individually and collectively -- according to his or her capacity to do so.

(38) Sovereignty is not a function of political maneuvering, manipulations, or strategies. Rather, sovereignty is a function of the application of: Reasoned discussion, critical reflection, constructive reciprocity, creative opportunities, and rigorous methodology in the pursuit of pushing back the horizons of ignorance and seeking to establish, enhance, realize, and protect sovereignty, both individually and collectively.

(39) Sovereignty is not about hierarchy or leadership. Advisors and technical consultants who are capable of lending their expertise and experience to a given project that serves the interests of

sovereignty in a community are temporary facilitators whose responsibilities do not extend beyond a given project or undertaking. Those facilitators often tend to arise in the context of a given need and, then, are reabsorbed into the community when a given need has been met.

(40) Education should serve the interests of establishing, developing, enhancing and protecting the principles of sovereignty – both individually and collectively – and not serve the interests of the way of power. Education should not use techniques of undue influence that push or pull individuals toward accepting, or rejecting, specific philosophical, political, economic, or religious perspectives.

(41) To whatever extent taxes are collected (and the issue of taxes needs to be considered and justified – to the extent that this can be accomplished -- in a critically, rigorous fashion), those taxes should be assessed only on a local basis and only after all sovereignty needs of an individual for a given period of time have been addressed. Those taxes should be proportional -- within generally agreed upon specific limits -- to a person's capacity to pay those taxes without undermining a person's ability to fully pursue realizing the principles of sovereignty.

Whatever taxes are collected can only be used in conjunction with projects of which the individual taxpayer approves. Disputes concerning the issue of taxation should be handled through mediated discussions and not through punitive or coercive policies.

The foregoing statements of principle concerning the idea of sovereignty mark the beginning of the exploratory process, not the end. We all need to critically reflect on the foregoing set of principles because what we have today is working for just a very small number of individuals that follow the way of power and, as a result, seek to prevent people in general from being able to pursue, establish, enhance, realize, and protect the principles of sovereignty,

Sovereignty is not something new. The idea of sovereignty has been inherent in human beings for a very, very long time, but, unfortunately, as events have demonstrated again and again for thousands of years, people's aspirations for sovereignty have been

thwarted persistently and rigorously by the way of power at nearly every juncture of history.

A person can commit one's moral and intellectual agency to the cause of sovereignty or an individual can cede that moral and intellectual agency to those who belong to the power elite – economically, militarily, socially, intellectually, politically, and religiously. A great deal hangs on the nature of the judgments one makes with respect to the issue of how one decides to cede one's moral, intellectual, and spiritual agency.

Appendix B – Qualities of a Teacher

There might be many individuals within education who have the qualities that are to be described in what follows. However, I tend to doubt that this is so, for, if such were true, then education -- public, private, and higher -- would be vastly different than, unfortunately, is the case.

On a personal level, there are only a precious few individuals with whom I have had the good fortune to come in contact who gave expression to all the qualities outlined below. Moreover, of this select group, only one came from within formal education.

My sample, of course, is limited and, possibly, skewed by my own biases. Nonetheless, I have been exposed to school systems in a number of countries, and on a variety of levels -- both as a student and teacher -- and I wish, with all my heart, I could report that the sort of qualities about to be explored were far more prevalent than what I have been able to observe.

If the foregoing claim accurately reflects the condition of formal education, there are a number of factors underlying this sad state of affairs. In the last part of this essay, a few words will be directed toward addressing some of those contributing factors.

There is much that could be said about any of the following list of qualities. The intention here is merely to offer an overview of each one ... something of a thumbnail sketch. Furthermore, the qualities being described are introduced in no particular order of importance since all of them are, in many ways, equally important.

Honesty -- Although always guided by a sense of propriety concerning circumstances, a teacher is someone who bears witness to the truth as she, he, or they understand it, and does so without preaching rancor, or being overbearing. More often than not, this honesty is given expression according to the perceived need of the one(s) who is (are) listening with respect to what is being said or done, as well as according to the ability of the one(s) with whom the teacher is interacting to handle and make use of what is being said or done. As required, what is said and/or done might be issued in a diplomatic fashion, or it might be expressed more directly and openly.

Committed -- The duty of care is always directed toward the needs of the one who is seeking after learning and understanding. The commitment is not to society, government, business, parents, or school, but to the individual, and this is done with the knowledge that if the needs of the individual are properly attended to, then, society, business, parents, and the school will all benefit as a result of the primary directive being served. A corollary of the foregoing principle is that a teacher would never sacrifice the needs, interests, and potential of learners for the self-centered, self-serving, and arbitrary whims of politicians, officials, administrators, or unions.

Flexible -- A teacher is not tied to any preconceived way of doing things. He or she is open to the possibilities of the moment and is prepared to pursue whatever avenues appear to be most resonant with the needs, interests, and circumstances of those who are seeking after knowledge and understanding. If something is tried and is not working -- in the sense of lacking heuristic value for participants – then, the teacher will be ready to switch gears.

Humility – Such people do not think of their abilities, talents, accomplishments, or experiences as reflecting something special about them as individuals. They are quick to acknowledge the help, guidance, efforts, and support of other people as being more responsible for what they are and have than anything that comes from them as individuals.

Balanced – Such teachers bring emotional, cognitive, community, interpersonal, economic, physical, and spiritual dimensions together in due proportions. They recognize human nature as complex and that the health of that nature depends on the integration of various potentials within human beings.

Democratic – These individuals are not necessarily right or left of center, or even involved in political life, but they have an abiding devotion to issues of freedom, justice, fairness, equality, and truth as benchmarks that are crucial to the viability and success of both learning and community. These issues are not just theoretical entities to them, but, instead, those principles shape teacher practice in order to benefit all participants. Yet, the manner of implementation is not only non-authoritarian or non-coercive in character, but seeks to find

paths to either consensus or ways of operating within a framework of acknowledged and accepted differences of perspective.

Respectful – The teachers I have in mind do not intrude into the lives of people and will accept the boundaries that are established. At the same time, they are ready to respond in whatever way they can when invitations are extended.

Character -- They offer models of values, ethics, and/or spirituality through who they are and what they do, not by lecturing. They do not necessarily speak about kindness, generosity, love, tolerance, patience, or compassion -- rather, they are these things and give expression to them through the way they go about life.

Consistent -- What these individuals say is reflected in what they do and vice versa. They are not different in different circumstances but always centered within their sense of self, although often in low-key ways. They are sincere in everything they do and say without being annoying in the process.

Given to Reciprocity -- Such qualities as trust, openness, warmth, respect, and friendliness are treated as two-way streets for which the teacher has a primary duty of care with respect to establishing precedents in each instance.

Tolerant -- A teacher recognizes that people come in all manner of shapes, sizes, colors, temperaments, interests, needs, personalities, beliefs, and values. The goal is not to change people in ways that are pre-determined but to work with individuals -- according to their capacity and ability -- to help them realize their potential.

Realistic – These people understand the ways things are … politically, socially, economically, biologically, and emotionally. Yet, without trying to persuade others to adopt any particular point of view, they do whatever they can to help prepare individuals to deal with these realities in a manner that will not open either individuals or society to the destructive potentials that are inherent in human beings, both individually and collectively.

Idealistic -- They are committed to such qualities as: truth, freedom, justice, equality, fairness, love, compassion, kindness, and honesty. In addition, while they realize that these qualities are often only approachable as a limit, nevertheless, they spend their lives

seeking to realize these qualities in deeper and more refined ways so that others might benefit through the teacher being the best that he or she can be.

Sense of Self – These teachers know who they are. They are aware of both their strengths and their weaknesses. They appreciate their history, and they have a destination toward which they are striving, as well as a means through which to undertake the journey.

Not Ambitious -- They are unconcerned with achieving career status, monetary rewards, or recognition by others. Teaching is not a means to something else, but a way of sharing whatever they have with others.

Independent -- The 'road less traveled' seems to be their preferred path. They do not operate according to the expectations of others, nor do they change themselves to suit the likes and dislikes of those around them. Yet, they tend not to be confrontational, arrogant, or belligerent in the manner through which they give expression to their independence.

Supportive -- They offer a context of security within which individuals can explore possibilities without fear of ridicule or adverse consequences for making mistakes. They encourage people to find out about themselves and the world around them, but to do so at their own pace, as well as in accordance with their particular package of capacities, talents, and interests.

Humanitarian – These individuals love people and believe in people. Such teachers want others to realize whatever potential the latter have and to be happy in doing so. These teachers care for people and will do whatever she or he can to assist them along the path of life.

Courageous -- In a very unassuming way, these teachers have faced the 'stings and arrows of outrageous fortune' and have opposed them -- not with arms -- but with steadfastness, optimism, and being willing, if necessary, to fail while committing all that one has and is to the process of life.

Self-critical -- They are very aware of their own weaknesses or limitations, and they are aware of the need to continually make efforts to improve as a person. Moreover, they are open to receiving criticism

from others -- accepting what is true, discarding the rest, and using what is true to try to become better human beings.

Challenging -- They have an aura about them that -- to slightly paraphrase Jack Nicholson's line to Helen Hunt -- 'makes you want to be a better person'. Their very mode of being in the world inspires people and, in the process, induces others to seek to explore, learn, discover, and make efforts toward self- realization.

Friendly – These individuals do not assume a posture of being teachers, educators, or instructors when they approach other people, but, rather, approach the latter individuals as friends who wish the best for such people. They are present for people when the latter need them. They are protective, faithful, and non-judgmental. They listen and care about what they are hearing.

Rigorous -- They operate in accordance with a set of standards that critically probes experience in a deliberate, thorough, considered, and patient manner. They are not inclined to accept facile or shallow answers -- either from themselves or others. They enjoy pushing the envelope on matters of critical inquiry.

Teachable – These teachers demonstrate a willingness to learn from their interactions with others. They are aware of the many facets of their own ignorance and treat the insights and abilities of others -- including those of so-called 'students' - as so many 'found treasures'.

Optimistic-- This is not the optimism of Voltaire's Dr. Pangloss, but that of someone who has faith in human beings when the latter are provided with the degrees of freedom necessary to explore, develop, and realize one's potential. This optimism is committed to the idea that when opportunity arises in a context free from exploitive, authoritarian, and manipulative influences, then such opportunity will be embraced by those who are trusted with the duties of care that accompany those possibilities. Such teachers know there will be exceptions to this principle, but they do not let this sort of risk get in the way of that which would benefit the many.

Open – These teachers are guileless. On the one hand, they are people of integrity and tend to treat others as people of integrity as well ... an integrity that entails respect, honesty, sincerity, and the absence of duplicity. On the other hand, such teachers are not inclined

to be people who provide one with more personal information than one wished to hear.

Forgiving – The individuals who I have in mind understand that mistakes and errors are part of what being human involves. They recognize that mistakes and errors form an important part of the fabric of experience out of which learning arises. They are inclined to help people to develop maturity through encounters with such problems and, then, move on to other issues without letting interpersonal history interfere with opportunities for learning.

Unassuming -- They are not pretentious with respect to what they know or have done. They are comfortable with what they understand, but they have no need to impose this on others or force others to acknowledge such things. Furthermore, they have no expectations concerning how others with whom they interact should approach learning.

Appreciative – These teachers have gratitude for the gift of life and embrace the many levels of opportunity that life offers human beings. They appreciate the efforts and struggles of anyone who sincerely seeks to take advantage of such opportunity.

Inquisitive – These individuals are inclined to ask important, essential questions about: Truth, justice, freedom, equality, purpose, identity, love, commitment, beliefs, values, and understanding. They do not have an idle curiosity but are inquisitive about human nature and what it means to be rather than not at all. More often than not, they represent a model of how to ask questions, and what kinds of question are important to reflect upon, but allow people to be free to find their own way to solutions to these questions that make sense within the framework of a given individual's circumstances, interests, and abilities.

Generous -- They are very free with their knowledge, time, help, personal resources, and encouragement. They are forthcoming in their praise and appreciation of others without trying to flatter people or give them a false sense of accomplishment.

Patient – Such teachers know that understanding and learning do not always come easily for everyone in all situations. They are cognizant of individual differences in relation to circumstance,

development, ability, temperament, interest, and aptitude. They have some degree of insight into the many factors that need to come together in order for important kinds of learning to occur. They wait, observe, listen, and try to be receptive to the advent of so-called 'teachable moments', but, in the meantime, they do whatever they can to pave the way to such moments or to make them more likely to occur, than not. They do not have a hidden agenda, nor do they feel the need to cover so much material, of a particular kind, in a given time.

Sense of Humor -- They do not take themselves too seriously. They can enjoy the lighter side of life, as well as poke fun at some of the absurdities that are disclosed through the locus of manifestation known as a human being (including in relation to themselves). In addition, without being disrespectful or insensitive to circumstances, they often take some of the edge away from life's darker side through laughter.

Fair -- More often than not, essential learning and understanding arise out of circumstances in which an individual is comfortable with, and trusts, those circumstances. An important component in the development of such a sense of comfort and trust is to feel that one is being treated fairly. The sort of teacher I have in mind acknowledges this and does whatever is possible and feasible to create such circumstances by, among other things, removing as much arbitrariness, artificiality, bias, favoritism, prejudice, and irrelevancy as possible from the context of would-be learning -- all of which serve as cultures conducive to the growth of unfairness.

Pragmatic – Such teachers make do with what is reasonably available to those who are seeking to learn and understand. These sorts of teachers encourage students to do so as well, but, in addition, encourage the latter to be resourceful and creative in relation to discovering what is amenable to being used in the pursuit of learning.

Gentle -- As much as possible, the sort of teacher I have in mind employ non-intrusive means for stimulating opportunities for learning and understanding. This means that, whenever possible, they employ learning modalities that are devoid of influences that are: Punitive; destructive to self- esteem; rooted in extrinsic rewards; competitive, or steeped in stress -- all of which have been shown, experimentally

and clinically, to interfere with learning, both short-term, as well as long-term.

Competent – These teachers have 'got game' in relation to life. Whatever they know in the way of facts, methods, history, names, formulae, and/or ideas is secondary to their grasp of the principles of how to engage life in order to work toward the realization of individual potential. This is not to say that the former sorts of things (i.e., facts, methods, etc.) are necessarily unimportant (although they often are), but the priorities must be clear. To possess the former (i.e., facts, methods, and so on) in the relative absence of the latter (the realization of individual potential) is, for the most part, extremely limited and limiting, if not altogether useless.

Uncompromising – Such teachers are uncompromising when it comes to abiding by the truth, but they do so without making anyone else feel, in the process, that the latter are expected to follow suit or are being judged according to whether, or not, the latter go along with what the 'teacher' says or does.

Self-sacrificing -- They are willing to take a 'hit' in order to protect, support, and serve their students, and, yet, such a teacher often does this in private and without others knowing that it is being done. Such teachers do not see such behavior as being self-sacrificial, but as being part of the duty of care that any friendship deserves.

Protective-- They understand, all too well, what awaits learners once the latter are removed from the sanctuary that arises within the sphere of influence that has been established through a teacher's manner of giving expression to the duties of care entailed by the vocation of teaching. The kind of teacher I have in mind tries to preserve the aforementioned sanctuary and protect its inhabitants for as long as possible -- considering every moment spent within the sanctuary as providing students with that much better chance of surviving in the wild where many kinds of two-legged predators roam.

At the beginning of this appendix a claim was made that there might be few people in formal education who exhibit all of the foregoing qualities -- although there are likely to be individuals who

might have this or that characteristic or some small sub-set of such qualities. If this is so, then, why should this be the case?

One crucial reason for this state of affairs is that there are few places of learning that have the resources or competence necessary to teach people how to be 'teachers' in the foregoing sense. You can't teach what you don't know, understand, appreciate, or aspire to.

A second, fundamental reason for the set of circumstances existing vis-à-vis the absence of 'teachers' in the sense being outlined here is that many different elements within formal education tend to conspire together, knowingly and unknowingly, in order to drive out anyone who demonstrates the quality of being a teacher in the previously noted ways. This is done because teachers in the sense outlined above threaten too many vested interests that seek to initiate students into the modern form of indentured servitude within certain kinds of political, economic, and philosophical ideologies, and, as such, teachers in the sense specified earlier are largely antithetical to the agendas being pushed in much of elementary, secondary, and post-secondary education. As such, 'teachers' in the foregoing sense are considered to be 'loose cannons' who cannot be relied on to serve political, economic, social, and expedient interests that are not capable of serving an individual's essential potential for self-realization.

Occasionally, in spite of the prevailing mind- and heart- set within formal education, one comes across someone who reflects the qualities of a teacher as outlined above. However, my experience has been that, more often than not, to the extent one comes across such people at all, one will find them outside the hallowed halls of formal education -- and, even there, they might be an endangered species, for the same destructive forces that are shaping much of modern education are also present outside the classroom, and such forces wish to be rid of the influence of such 'teachers' for the same reasons as were indicated above.

Appendix C – Mapping Mental Spaces

<u>Preface</u>

The set of statements -- collectively and individually -- in the main body of *Mapping Mental Spaces* constitutes something of a mental exercise. Perhaps, what is most important about this exercise – as with any such exercise -- is that an individual engages the indicated process and critically reflects on not only what is being said by me but, as well, critically reflect on what is going on within you, the reader, as you work your way through the material.

Whether one agrees or disagrees with what is being expressed through the following material is, in many ways, irrelevant. The object of the exercise is to induce a reader to engage, analyze, question, reflect upon, critique, and improve on (where necessary) the process of mapping mental spaces.

There are no definitive answers given here. There are, however, a lot of possibilities that are presented for consideration.

One cannot read this document like a novel. Any given numbered premise or set of premises might require considerable time and effort, so, the engagement process is best pursued through rigor, diligence, and patience.

The format of *Mapping Mental Spaces* is, in part, homage to, or an acknowledgment of *Tractatus* Logico-Philosophicus by Ludwig Wittgenstein. However, there is no one-to-one mapping correspondence between the numbered premises in *Mapping Mental Spaces* and Wittgenstein's system of numbering premises in his work.

More than forty years ago, I engaged the *Tractatus*. Because there were many issues in Wittgenstein's work that I considered problematic, *Mapping Mental Spaces* is, in a sense, something of a response in kind to the *Tractatus*.

Going through Wittgenstein's exercise induced me to begin thinking about a variety of issues that have continued to haunt the corridors of my mind over the more than three decades that have passed since my initial reading of the *Tractatus*. Perhaps, the present work might help prompt this or that reader to become involved in a process of a similar nature.

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1. The only point(s) of possible contact between understanding and reality is (are) experience(s).

1.01 Initially, we do not know if this possibility is given expression through an asymptote-like relationship (never quite touching although, in some sense, approaching one another as a limit), a tangential link (touching at only one point), multiple-points of contacts, or if understanding and experience constitute the sum total of reality (with nothing independent of such understanding and experience).

1.0101 The term "manifold" refers to the structural character of such points of contact.

1.0102 Contact constitutes junctures of engagement, interaction, transaction, or contiguity between that aspect of reality that is capable of experience and those facets of what is that makes experience at such junctures possible.

1.0103 Interaction, engagement, transaction and/or contiguity at the junctures of contact between that which is capable of experience and that which makes experience of such structural character possible gives rise to points or clusters of data that are processed by different dimensions of understanding as information of one kind or another concerning the possible nature or structure of such junctures of contact.

1.01031 The term "identifying reference" is a way of alluding to focal and intentional dimensions of experience. By attending to a dimension or facet of experience and communicating the nature of that attention to another individual, we seek to inform the other person about some aspect of what we are intending in relation to that to which we are attending. The communication that involves conveying the nature of the link between attending and intending gives expression to the process of identifying reference.

1.01032 The process of identifying reference tends to involve pointing toward, or descriptions of, or attempting to draw attention to, the structural character of various kinds of qualities, properties, states of affairs, contexts, experiences, modalities of consciousness, events, objects, and phenomena.

1.01033 The idea of "structural character" refers to the nature of the form, logic, framework, format, pattern, figure, latticework, set of

relationships, and/or set of degrees of freedom and constraints, through which a given aspect of experience, or that which makes such experience possible, is given expression or is manifested.

1.011 Solipsism is a perspective which maintains that reality is generated as a function of an individual's states of consciousness and all that can be known are those states and, possibly, the nature of the self that gives rise to them.

1.012 The term "relationship" gives expression to the linkage, connection, interface, association, or affiliation of two or more aspects of experience, understanding, or what makes experience of a certain structural character possible. There are many kinds of relationships that are possible, ranging from: Temporal, to: Spatial, logical, dialectical, ecological, moral, causal, conceptual, hierarchical, physical, and spiritual.

1.1 Kant might have been wrong, for, it could be possible, after all, to know things in themselves. However, this might be true, if at all, only to extent that we have the capacity to understand the nature, logic, or structural character of those 'things', and only to the extent that these 'things' are expressed through manifestations that can be experienced.

1.11 The phenomenology of the 'manifold' serves as that realm where understanding, experience, and reality are brought into conjunction with one another. Another way of referring to this 'manifold' is by the term: Phenomenological field.

1.111 Phenomenology gives expression to a being's capacity to engage experience in a conscious manner.

1.121 Consciousness is a priori – that is, all experience presupposes its existence. Indeed, consciousness is the ground through which experience is given expression. One cannot deny the existence of consciousness without affirming the very reality that is being denied.

1.122 Consciousness is the awareness of experience.

1.123 Reflexive consciousness is the awareness of such awareness and that such awareness gives expression to different kinds of experience.

1.124 A phenomenological field is a framework whose structural character gives expression to the presence of awareness or consciousness (basic or reflexive) concerning experience at any 'point' (simple or complex) one cares to examine, test, or challenge within the context of

that framework. The lines of force that are manifested in such a field are expressions of the dynamics of experience, awareness, understanding, and the impact, if any, of that which lies beyond the horizons of the phenomenological field but which interacts with and affects, in one way or another, the structural character of that field.

1.125 Neither awareness of experience nor reflexive consciousness can guarantee, in and of themselves, that one's understanding of the nature of that of which one is aware, or that which makes possible that of which one is aware, will be correct or accurate.

1.126 Consciousness might, or might not, be shaped by contingencies that lie beyond present or all future modalities of awareness.

1.127 Experience gives expression to the sum total of an individual's interaction with reality.

1.128 Reality is synonymous with whatever is, together with whatever makes being possible, including the being of that which is capable of experience and understanding, on whatever level.

1.1281 Truth refers to an accurate, correct, or non-distorted reflection of one, or another, dimension or facet of reality or what is.

1.1282 Truth might rarely, if ever, be acquired in an ultimate, absolute, definitive, and all-encompassing manner among human beings.

1.1283 For the most part, and at best, human beings tend to acquire truths in tangential, asymptotic, or limited ways. Furthermore, rather than grasping the truth of the entire realm of being, we tend to grasp, within varying degrees, limited aspects of truth involving this or that dimension or this or that facet of experience and/or that which makes experience of such structural character possible.

1.129 Understanding is the process one uses to try to map out the possible relationship between experience(s) and reality.

1.1291 The nature of understanding is to construct mental spaces or possible worlds and compare the logic or structural character of such spaces and worlds with the logic or structural character of experience.

1.13 A possible world gives expression to hermeneutical space.

1.131 Hermeneutical space is a logical form that is generated through understanding.

1.1312 Logic arises through conscious construction, or appears ready-made in awareness, or is a combination of conscious construction and ready-made components that arise from beyond the realms of consciousness.

1.13121 Logic concerns: (a) the structural character of a form or process; and/or (b) the relationships of similarity and difference between, or among, structural characters; and/or (c) the causal, temporal, contiguous, dependent, associative (i.e., correlation), and/or theoretical, linkages that are believed to be operative in and/or among different structural forms and processes.

1.131212 Logic is a way of organizing, arranging, relating, valuing, exploring, traveling, and/or generating the structural character of hermeneutical spaces.

1.1312121 Logic gives expression to the degrees of freedom, constraints, operations, functions, rules, principles, relationships, and laws that govern a given hermeneutical space or that are manifested through such a space.

1.312122 Thinking, reflection, inference, interpolation, extrapolation, implication, induction, deduction, abduction, analogy, insight, conceptualization, abstraction, mapping, questioning, believing, assuming, creativity, language, interpretation, hypothesizing, fantasizing, dreaming, feeling, judgment, analysis, evaluation, critical inquiry, and understanding each gives expression to hermeneutical spaces of one kind or another, and logic seeks to chart the structural character (both static and dynamic) of those spaces.

1.322 An idea or concept is a particular kind of hermeneutical space. The structural character of such a space reflects the nature of the idea or concept. Larger hermeneutical spaces are often constructed or generated using various ideas and concepts as 'points', somewhat akin to the manner in which geometric points are said to give expression to, say, a line.

1.3221 The structural character of ideas and concepts tend to be far more complex than the points of geometry -- even the curved points of Riemann geometry -- but are closer in nature to the latter

than the former, since the idea of 'curvature' in Riemann's geometry suggests the possibility of an internal structure of varying degrees of complexity that might change with circumstances and conditions.

1.3222 Reason is the capacity to grasp the structural character of a given hermeneutical space or to follow and/or to predict the flow of artificial and/or natural systems of logic as these are given expression through the structural character of such a system being manifested.

1.3223 What cannot be followed through rational means is either irrational (without logical form or unintelligible or trans-rational (that is, beyond the capacity of reason to grasp but not necessarily without logical form, truth, and/or intelligibility).

1.3224 Methodology is a process of evaluation concerning the nature of understanding, experience, and/or what makes experience of such structural character possible.

1.32241 Evaluation involves the use of reason, hermeneutical spaces, and various systems of logic to establish the value of various aspects of experience or what makes experience of such structural character possible.

1.32242 The value of an experience or what makes an experience of such structural character possible is an expression of the way an individual is assisted to understand, adapt, or benefit, in some manner, through such an experience or through that which makes an experience of such structural character possible.

1.32243 The significance of 'value' might be relative to: a given perspective, an individual, a community, or a reflection of the possibilities inherent in a given facet or dimension of the way things are.

1.133 One of the essential questions at the heart of seeking an understanding is to ask: What might give rise to experiences of the structural character that are being experienced through consciousness.

1.134 One form of mapping gives expression to operations and processes that seek to chart the structural character of one, or more, hermeneutical spaces.

1.1341 Another form of mapping gives expression to those attempts of understanding to establish relationships of congruence, matching, resonance, reflection, and/or similarity between (among) the

logical character of possible worlds being constructed and the logical character of experience(s).

1.1342 A third form of mapping gives expression to operations and processes that seek to establish relationships, connections, and links among the structural features of a given hermeneutical space, a given set of experiences, and various aspects of that which makes experiences of such character possible.

2. Facts constitute a logical space that gives expression to and/or represents and/or describes various dimensions of the character of experience.

2.01 Different kinds of experience might, or might not, give rise to different kinds of facts.

2.1 Facts might accurately reflect the structural character of some facet of experience, but this need not entail those facts accurately reflecting the structural character of that which makes experience of such character possible.

2.2 Facts require context and interpretation in order for their significance to be evaluated.

2.3 The context of facts is the catalog of experiences out of which those facts arise.

2.4 A fact might be: A feeling concerning, a belief about, a reflection on, a description of, a reference to, and/or an insight into some aspect of experience.

2.41 Feelings are certain kinds of modality of relating to, and interacting with, various aspects of experience and/or that that makes experiences of such structural character possible. These modalities are non-rational in nature (which does not necessarily mean they are irrational), varying in intensity with circumstances and conditions, and often underwrite, orient, shape, and direct one's commitments and actions.

2.411 Feelings (emotions) must be tasted or experienced in order to grasp something of the structural character of their nature. Just as one can have only very limited understanding concerning the nature of an orange if one has never seen, touched, smelled, or tasted such a fruit, so, too, one can have only very limited understanding concerning the

nature of any given emotion, if one has not experienced that emotion from the inside out, as it were.

2.412 Feelings can both help one to better understand the nature of experience, as well as interfere with one's attempt to understand the nature of experience. In the former case, they are complementary to the use of reason and help bring balance to hermeneutical activities. In the latter case, they are antagonistic to and obstacles for, one's attempt to seek understanding.

2.413 When the presence, or expression, of certain kinds of feelings (emotions) dominates or orients hermeneutical activity in a destructive, problematic, or distorting manner, then, one of the biggest challenges to generating hermeneutical spaces that are congruent with, reflect, or mirror the structural character of various dimensions of reality is to find ways of eliminating, containing, or modulating the presence of such feelings in order to limit the extent of bias and error that affects the construction of heuristically valuable hermeneutical spaces.

2.414 A methodology, belief, idea, or activity has heuristic value when it aids the process of discovery with respect to coming to understand the structural character of some aspect or dimension of experience or that which makes experience of such structural character possible.

2.421 Beliefs give expression to hermeneutical spaces that often are not amenable to proofs but, nonetheless, tend to be concerned with the relationship among understanding, experience, and the nature of that which makes experience of such structural character possible. Beliefs are a way of orienting oneself within phenomenological and hermeneutical space.

2.4211 Beliefs are ideas and/or values to which a hermeneutical commitment, of some kind, has been made - the nature of this commitment is to accept or treat the focus of this commitment as if it were true.

2.42112 Beliefs involve commitments that are considered to have some sort of value to the one holding the commitment.

2.42113 Discussions concerning belief frequently involve descriptions of the structural character of the nature of a given belief, or belief system, together with explorations of the assumptions, evidence, arguments, explanations, consistency, coherency, validity,

heuristic value, strengths, lacunae, problems, and questions that are, or might be, associated with such a belief or belief system.

2.42114 The use of data, evidence, arguments, demonstrations, and proofs in conjunction with beliefs or belief systems is often, at best, suggestive or leads to inconclusive results as far as verification of the belief or belief system is concerned.

2.42115 In general, showing a belief or belief system to be untenable or problematic tends to be easier to accomplish than showing either of the foregoing possibilities to be plausible, probable, or true.

2.431 Insight is the capacity of intelligence to understand, to varying degrees, the structural character of some aspect, facet or dimension of experience and/or that that makes experience of such structural character possible.

2.5 The possible worlds of hermeneutical space consist of a series of facts, assumptions, interpretations, beliefs, values, and relationships that are arranged into a structure that give expression to both form and process of a given character - namely, the logical character of that hermeneutical space.

2.6 The logical character of a hermeneutical space gives expression to the principles, rules, laws, possibilities, forces, processes, and/or limitations inherent in such a space.

2.7 Objects are forms of a given logical kind that populate a hermeneutical space.

2.8 The logical kind to which an object gives expression is a reflection of the structural character of the role that such an object plays in a given hermeneutical space.

2.81 The role played by an object is an expression of the principles, rules, laws, possibilities, forces, processes and limitations that are operative in a given hermeneutical space.

2.82 The role played by an object is the locus of manifestation through which the logical character of the hermeneutical space is given expression by means of the convergent interaction of the principles, forces, forms, processes, rules, laws, and so that are inherent in that hermeneutical space at a given point in time and at a given location within that space.

2.83 Time and location are a function of the logical character of a given hermeneutical space.

2.9 Language is a species of hermeneutical space.

2.91 Hermeneutical space might not be coextensive with language.

2.92 Emotion, sensation, dreaming, aptitude, interests, motivation, movement, fantasy, creativity, insight, thinking, and spiritual knowledge might, or might not, be expressible, to varying degrees, in terms of language, but the former are not necessarily reducible to the latter.

2.921 Feeling, sensation, dreaming, aptitude, interests, motivation, movement, fantasy, creativity, insight, thinking, and spiritual knowledge might all take place quite independently of language and, in most cases, predate the appearance of language.

2.922 Making experience a function of, and dependent on, language, is to render the process of language completely amorphous and, therefore, oblique to understanding.

2.923 Sometimes language determines what we feel, sense, dream, like, do, create, think or understand, but sometimes the use of language is directed and shaped by what we feel, sense, dream, like, do, create, think, or understand.

2.924. Language is a way of giving public expression to certain dimensions of experience and hermeneutical spaces concerning such experience.

2.925 Language is a tool that can assist in the construction of hermeneutical spaces, and, in turn, hermeneutical spaces can inform the way(s) in which language is used as a tool.

2.926 Language is one mapping medium, among many, through which understanding, experience, and reality might be probed.

2.927 Language without a conscious operator does not have the capacity, on its own, to serve as tool for helping to construct or map hermeneutical spaces.

2.9271 The syntax and semantics of a language are static entities until brought alive through use within a context of consciousness and understanding.

2.9272 Language serves as a catalyst for the constructing and mapping of hermeneutical spaces by conscious beings of some minimal level of understanding and hermeneutical capability.

2.9273 Language serves as a medium of public analysis and comparison for different modalities of hermeneutical space.

2.93 Among those beings who are capable of experience, some degree of understanding concerning such experience, and who have developed a certain proficiency with language to be able to describe both experience and understanding, are some beings who say that the propositions or statements of language constitute a picture of experience and/or understanding and/or those facets of reality that are given expression at the junctures of contact where experience, understanding, reality come together.

2.931 This tends to lead to the questions: What is the nature of a picture, and do the descriptions of language constitute a picture, and, if so, what kind of a picture?

2.932 There are many kinds of pictures - photographs, holographs, mental images, magnetic resonance imaging, art works, positron emission tomography, cartography, X-rays, optical illusions, radio wave imaging, sketches, dreams, hallucinations, stills, movies, television, and so on.

2.933 All pictures involve a methodology (well-conceived or otherwise) for engaging the junctures of contact that bring experience, understanding, and reality together.

2.934 Methodology is an ordered process of understanding whose purpose is to engage experience and that which makes experience of such structural character possible in order to probe, within the capacity of the methodology to do so, the nature, structure, or logic of the relationship, if any, between these two dimensions of being.

2.935 Pictures are generated through a process that affects the quality and character of the images that are produced, as well as imposes a limiting context on the mode of engagement to which the methodology underlying the picture gives expression.

2.936 Pictures are an interpretive mapping of some given juncture, or set of junctures, in which experience, understanding, and reality come together.

2.937 Interpretive mapping gives expression to a methodology's manner of constructing hermeneutical spaces.

2.938 Pictures are hermeneutical spaces that are filled up by the data that is generated through the way the methodology of the picture taking engages experience and that which makes experience of such structural character possible.

2.94 Language, to the extent it constitutes a modality of generating pictures, does so according to the methodological properties of the language in question.

2.941 The methodology inherent in any given language is an expression of the rules and principles of syntax and semantics that differentiate one language from another.

2.9411 The rules of a language establish the boundary conditions that cannot be violated without removing one from the way the given language permits one to communicate with others who use the same language. Linguistic rules are like the motor vehicle codes that govern the operation of motor vehicles within a given locality in order for traffic to move smoothly with as few problems as possible.

2.9412 The principles of a language establish the degrees of freedom through which an individual can move creatively and hermeneutically within a given language in order to adapt the rules and principles of syntax and semantics of that language to one's individual desires to communicate about issues that are either meta-linguistic or extra-linguistic. Linguistic principles are like road maps that show you places to which travel is possible but do not specify where one has to go or what routes one must take in order to arrive at one's desired destination.

2.9413 The rules and principles of a given language's syntax and semantics serve as mapping tools that enable an individual -- to whatever extent possible -- to be able to translate between personal, extra-linguistic hermeneutical spaces and public linguistic hermeneutical spaces.

2.942 Different languages have varying degrees of flexibility concerning the extent to which the syntax and semantics of such languages are able to serve as vehicles of transmission for forms of thought, logic, creativity, understanding, and, methodology that are extra-linguistic.

2.943 Languages and pictures are similar to the extent that each uses mapping methodologies to link together junctures of contact among experiences, understandings, and that which makes experiences and understandings of such structural character possible.

2.944 Languages and pictures are dissimilar to the extent that their respective methodologies give expression to different sets of rules and principles for linking together junctures of contact among experiences, understandings, and that which makes experiences and understandings of such character possible.

2.945 Methodology -- whether linguistic, pictorial, or other -- does not create, construct, or understand per se. Rather, methodology establishes the limits (or boundary conditions) and degrees of freedom for what can be created, constructed and/or understood using that form of methodology.

2.946 The value of a given form of methodology -- linguistic or otherwise -- is in direct proportion to the capacity of the set of rules and principles inherent in that methodology to enable an individual to probe the relationship between experience and what makes experience of such character possible. Through this process of hermeneutical probing, one seeks to establish an understanding that accurately reflects the structural character of that which makes experience of a certain nature possible. The greater this degree of accurate reflection is, then, the greater is the heuristic value of the methodology.

2.95 Methodology, language, understanding, hermeneutical space, logic, and mapping are different ways of making reference to the process of creating and constructing epistemological mirrors that are capable of reflecting, with varying degrees of accuracy, the nature of the relationship between experience and that which makes experience of such structural character possible.

2.96 The medium of measurement for reflective accuracy is congruency.

2.961 In mathematics, two geometric figures that can be superimposed on one another in a precise fashion are said to be congruent.

2.962 In hermeneutics, two spaces that are being compared are said to be congruent to the extent that one can establish mapping relationships

that link aspects of respective facets of being in a way that does not generate more problems and questions than the congruency is capable of demonstrating in the way of mapping relationships of a reflective nature.

2.9621 The greater the degree of congruency between spaces being compared, then, the greater will be the degree to which those spaces will be said to merge horizons.

2.9622 A horizon is an expression of the logical nature of some facet of manifested structure. Horizons are boundaries that tend to differentiate what is within a structure from that which is external to such a structure.

2.96221 However, frequently, horizons are not static but shift with perspective, experience, interpretation, and understanding. Facets of experience that, at one time, might have been considered to be separate and independent, might be discovered, at a later time, to have a relationship that requires one to re-work one's understanding of how to differentiate between what is within a structure and what is external to that structure. Like the physical horizon of landscapes, hermeneutical horizons tend to move with us and are shaped and influenced by the nature of that movement.

2.96222 Horizons might be simple or complex. In other words, the boundary conditions that are given expression through the way horizons differentiate between what is within a given structure, and what is external to that structure, might consist of relatively few elements and/or forms of transaction between the 'internal' and the 'external' realms. On the other hand, such boundary conditions might consist of many facets and dimensions -- both with respect to the number and character of elements, as well in relation to the extent of the transactions that transpire across the boundaries marked by the horizons, thereby making it difficult to determine on which side of the boundary a given phenomenon (whether event, object, process, and so on) falls.

2.96223 Most of us have a considerable backlog of experience with, information about, understanding of, and insight into the process of establishing congruency. More specifically, whenever an individual seeks to translate feelings, experiences, thoughts, beliefs, states of consciousness, and other facets of the phenomenological field into public discourse via a language (spoken, written, signed, mathematical,

coded), one goes through a process of trying to create logical spaces through the way we utilize and weave together the syntax and semantics of a given language so that the structural character of this space is congruent with, or accurately reflective of, or able to mirror the structural character of whatever aspect of the phenomenological field one to which one is making identifying reference by means of the language.

2.96224 When there is a mismatch between the structural character of the two hermeneutical spaces (one being: that which is meant, intended, understood, or experienced, and the other being: the language used to describe or convey what is meant, intended, and so on), then, the one who is communicating with someone else tends to amend the character of the syntax and semantics being used to better reflect the meaning or sense one wishes to convey to the recipient of the communication.

2.96225 Similarly, when someone receives communication from another individual, and the recipient does not understand the sense of what is meant or intended by the other individual, then, the recipient tends to use the modality of the interrogative imperative to query various facets of what has been communicated. Here, again, there is a mismatch between hermeneutical spaces -- namely, the understanding of the recipient and the structural character of the linguistic spaces generated by the one who is seeking to communicate about some aspect of the latter individual's phenomenological field.

2.96226 Most of us do not tend to think of these processes of translating between phenomenology and language as instances of congruence operations, but, this is what is transpiring irrespective of whether, or not, we use this term.

2.963 The notion of "spaces" need not be restricted to geometric, mathematical, physical, or material modalities. A "space" is anything that has a logical or structural form of whatever kind.

2.964 Since we don't, yet, know where or how creative, interpretive, epistemological, and/or linguistic processes take place, we do not know what the precise nature of the space is through which these phenomena are given expression. However, what we do know is that all of these processes have a logical form or structure to them.

3.01 There are multiplicities of logical systems.

3.011 Some logical systems are invented or created and other logical systems are given expression through the structural character or nature inherent in some dimension of reality being the way that it is.

3.012 Whether created or natural, logic gives expression to the structural character of the forms and/or processes governing a given facet, aspect, dimension, level, or plane of being.

3.0121 All created systems of logic constitute hermeneutical spaces.

3.01212 Created systems of logic involve a hermeneutical process of mapping that is governed by a set of assumptions, principles, rules, and propositions that are ordered in accordance with the constraints and degrees of freedom permitted by the set of assumptions, principles and rules that constitute the given system of logic.

3.0122 Natural systems of logic involve the manner in which some facet, aspect, dimension, or plane of being is manifested or unfolds over time.

3.0123 When the structural character of a created system of logic reflects the structural character of a natural system of logic, then, congruency exists between the two systems of logic to the extent that the reflection of the latter by the former can be shown to be accurate.

3.1 'Characterization' refers to the process of placing an aspect or dimension of experience within hermeneutical space. Assumption, abstraction, categorization, definition, description, belief, faith, and modeling all give expression, in one way or another, to the process of characterization.

3.11 How we emotionally respond to experience forms an important dimension of the characterization process. Liking, attraction, repulsion, hostility, fear, pleasure, pain, trust, avoidance, and so on are all expressions of characterization.

3.112 Characterization is something human beings, along with various other species of life, do in order to help orient oneself within hermeneutical space. Characterization relates us to experience through the construction, creation, and/or generation of modalities of classification concerning such experience.

3.1121 Different systems of created logic employ a variety of mapping techniques -- included among these are: Induction;

deduction; analogy; abstraction; dialectic; implication; inference; entailment; tautology; validity; consistency; necessity; coherency; assumptions; possibility; plausibility; correlation; probability; causality; conjecture; interpolation; extrapolation; hypotheses; theory; law; formulae; equations; arguments; evidence; demonstration; proof; description; explanation; belief; insight; models; world-making; frames of reference; paradigms, and world-views.

3.1122 Some of these mapping techniques are applied to one, or another, created system of logic as a means of analyzing and/or evaluating such systems. Some of these techniques are applied to the data of experience in order to either map out the structural character of such experience or to generate maps that are intended to account for how experience of such structural character is possible.

3.1123 Induction is a process that uses some set of data as a basis for generating a conclusion concerning the proposed character of similar instances of data not yet encountered. For instance, if all the swans one has seen are white, one might use this base set of data about swans to conclude that all future instances of swan-encounters are likely, as well, to involve white swans.

3.11231 The risk one runs in using induction is that the conclusion one has formed on the basis of what has been observed or encountered might not be correct. For example, black swans do exist, and, therefore, the belief that all future instances of swan-encounters will involve white swans will fall with the first black swan that is encountered.

3.113 Deduction focuses on the kinds of conclusion one can draw about some facet of experience or about a system of logic given certain information concerning both the nature of that facet of being as well as a background of information about a variety of experiences in general. Such conclusions usually are limited to unpacking or delineating the set of constraints and degrees of freedom that are inherent in the available information. Thus, if I know that human beings are capable of carrying on a conversation, and if I am carrying on a conversation, via a telephone, with a voice that is located elsewhere, then, I might deduce that this other voice belongs to a human being.

3.1131 Conclusions reached through the exercise of deduction concerning a given set of data, propositions, experiences, and so on aren't

always correct. For instance, if the voice with whom I am having a conversation is part of a complex and sophisticated system of software and hardware that constitutes a framework of artificial intelligence, then, the deduction that the other voice belongs to the human being with whom I am having a conversation might not be warranted. Among other things, one might have to determine whether one could extend the category of human beings to include systems of artificial intelligence before making such a deduction. Moreover, whether such a deduction would, then, be correct might depend on whether, or not, the determination concerning the relationship between human beings and any given system of artificial intelligence is warranted.

3.1132 Interpolation is a form of mapping that inserts or computes intermediate values within a given sequence, series, or set of events, operations, or calculations. The individual who is operating in accordance with the process of interpolation believes those values are related to the rest of the series or sequence in the same way as elements in the present set of events are related to one another. Interpolation might give expression to either inductive and/or deductive processes.

3.1133 Extrapolation is a form of mapping that seeks to determine or estimate the identity of values that extend beyond the horizons or range of some given set of data, and, yet, retain the structural character of the relationship that links the elements within the known set of data. Extrapolation might consist of induction, deduction, or some combination of the two.

3.114 Mapping techniques involving analogy use the structural features and/or relationships within one context to direct attention to possible similarities of structural character and/or relationship within a different context. For example, rivers and arteries constitute different contexts, but they share a variety of similarities. More specifically, they both involve: Liquids; the flow of materials within a delimited framework; pressure; currents; a possibility for transport; are part of a larger ecological system; and so on. One might key in on one, or more, of the foregoing features to establish a relationship of analogy between rivers and arteries for purposes of description, explanation, analysis, modeling, and the like.

3.1141 The value of an analogy depends on both the strength of the similarity that is being proposed with respect to the contexts that have been selected for comparison in this manner, as well as the nature of the purpose for which such an analogy is being established and whether, or not, the similarities are capable of sustaining the purpose for which the analogy has been drawn.

3.1142 An analog is a logical system that purports to reflect the structural character, in some way, of some other logical system -- either artificial or natural. Often times, an analog focuses on the manner in which some other system operates or on the kind of relationships that tend to govern the other system, and, usually, the form of an analog keys in on the idea of using the continuous modulation of one, or more, variables as its manner of establishing congruency with the structural character of that system to which the analog makes identifying reference.

3.115 Abstraction is a process of stripping away the details of a given: Event, object, phenomenon, experience, process, or context, and so on in order to focus on a limited aspect, facet or dimension of such an event, object, phenomenon, experience, process, or context ... often times such abstractions are embodied within systems of symbols (e.g., linguistic, mathematical, logical) that are said to represent, or give expression to, the properties or qualities that have been pared down or abstracted in one way or another.

3.1151 Although thinking about objects, phenomena, events, and so on, in the simplified way made possible through abstraction often helps make analysis, evaluation, exploration, experimentation, and/or gaining insight into such objects, phenomena, or events easier to do, the value of such a process tends to depend on the nature of the abstraction, how such abstractions are used, and remembering that simplified systems cannot hope to manifest all of the qualities, properties, and possibilities inherent in the more complex context from which the abstraction has been extracted. As a result, various kinds of error might be introduced into one's mapping program when using data, ideas, information, and so on that have been generated through processes of abstraction.

3.1152 Symbols are often used to signify the presence of certain modalities of abstraction. A symbol is not the same as, or synonymous

with, that to which it makes identifying reference but, instead, is part of a system of logic that gives expression to a set of abstractions through which hermeneutical spaces are generated that are intended to establish varying degrees of congruency with certain aspects or dimensions of the structural character of experience, or that which makes experience of such structural character possible.

3.11521 Symbols do not necessarily remove one from the context being explored. Rather, they give expression to characterizations of such contexts -- characterizations from which certain details, themes, and so on of the original context have been removed. Symbols permit one to simply the ways in which hermeneutical spaces are described.

3.115211 Some forms of the foregoing sort of simplification have heuristic value while other forms do not.

3.116 Dialectic is a process of hermeneutical mapping that gives expression to a form of argument that links ideas, events, objects, processes, propositions, phenomena, and/or situations in accordance with some rule or principle or set of such rules and principles. One cannot know the nature of the dialectic involved until one understands the character of the rules and principles being used to shape the linkages among ideas, events, objects, and so on, but, usually, the linkages of a given form of dialectic have to do with the manner in which structural relationships are said to direct the flow of unfolding or manifestation of some given set of ideas, events, objects, and so on.

3.1161 The Hegelian dialectic is different from that of Marx's dialectical materialism, and both of these are different from the dialectic of a Socratic dialogue. Each of the foregoing forms of dialectic uses different sets of rules and principles to establish linkages within their respective systems of thought.

Furthermore, the epistemological value of a given instance of dialectics depends on the extent to which the set of rules and principles shaping the flow of hermeneutical linkages within a given kind of dialectic is capable of reflecting the structural character of the way some aspect, facet, dimension, or plane of being actually operates or is manifested and with respect to which the dialectic is being used as a means of explicating the structural character of the aspect or dimension to which the dialectic is giving reference.

3.117 Implication is a process of mapping that points in the direction of other possibilities being connected or related, in some way, to the context out of which the indication of implication arises. The extent and character of such a connection or relationship depends on the nature of the implication and the possibilities to which the implication is being juxtaposed.

3.1171 For example, if one were to enter into a house and find dinnerware and food on the dining room table, then, this information implies there might be a group of people somewhere, nearby, who are preparing to eat. On the other hand, one might have wandered into a nuclear test site in which an atomic bomb is about to be exploded and the table has been set to see what, if any, effects (both short-term and long-term) might result with respect to such a house that contains a dining room with a table set with food and dinnerware.

3.11711 Implications might be strong, weak, or unwarranted. In the latter case, although someone has proposed that a relationship or connection exists between two contexts, events, processes, and so on, in reality, no such relationship or connection exists.

3.118 Inferences are conclusions drawn by an individual concerning some given set of data or body of information or array of propositions. Such conclusions might be causal, relational, hierarchical, or associational in nature.

3.1181 Inferential conclusions are not always correct or warranted.

3.119 Entailment refers to mapping processes that purport to establish that one fact, proposition, event, phenomenon, idea, context, object, or process supports the truth, validity, reality, or existence of some other fact, proposition, event, phenomenon, idea, context, object or process. The nature and strength of such support will depend on the structural character of the entailment relationship that is being proposed.

3.1191 Similar to mappings that involve processes of inference, implication, dialectic, abstraction, analogy, deduction, and induction, so too, entailment proposals might, or might not, be warranted.

3.120 A tautology is a special form of entailment proposal. According to this kind of mapping technique, if one unpacks or

delineates the structural character of some given fact, proposition, state of affairs, context, process, event, phenomenon, or object, then, the truth of a given tautology is contained within the structural character being unpacked or delineated. Tautologies are merely re-statements, in altered form, of what is already known about the structural character of some fact, proposition, or issue.

3.1201 Thus, one might say that a spherical tennis ball is yellow, and, then, go on to say that the ball is round and colored. Once one understands the general properties of tennis balls, then, one is able to grasp that the first statement entails the second statement since the latter statement is merely re-stating, in altered form, what is known by means of the first statement, and, therefore, is tautological with respect to the first statement.

3.1202 Tautologies are not necessarily about the nature of what makes the structural character of some given experience possible. Tautologies might be part of artificially constructed logical systems (e.g., models, paradigms, frames of reference, world-view, theories, beliefs) which although true in the context of such logical systems have no reference to anything beyond the horizons of those systems.

3.121 Validity is a mapping operation that focuses on the relationship between a given set of data or information and one, or more, deductions, implications, or entailment proposals that are made in conjunction with that set of data or information. The nature of this relationship concerns the degree to which deductions, conclusions, implications, entailments, and/or inferences are warranted as one goes from a given set of data or information to certain deductions, implications, and so on, involving that set of data. Relationships that are warranted, or follow from, or are evidentially supported tend to be referred to as valid.

3.1211 Determining whether, or not, the aforementioned relationships are warranted, or follow from, or are evidentially supported is not always easy or straightforward.

3.1212 Determining validity within artificially constructed systems of logic tends to be an easier problem to solve than trying to determine the validity of statements involving the relationship between ideas or statements about certain dimensions of experience and that which makes experience of such structural character possible.

3.122 Consistency is one test of validity. In order for a series of ideas, propositions, experiences, understandings and so on, to be consistent with one another, there must not be anything within any of the given ideas, propositions, etc., which contradicts -- in part, or in whole -- any aspect, dimension, or facet of any of the other ideas, experiences, or propositions that are in the set or series being considered. In addition, one must be capable of showing there is some degree of relationship among the ideas, propositions, or experiences that ties together, in some fashion, the various items in the series or set.

3.1221 Unrelated ideas, issues, experiences, events, or propositions are neither consistent nor inconsistent. However, there might be varying degrees of consistency -- depending on how weak or strong the relationship is that is said to tie the set or series of ideas, experiences, events, propositions, and so on, together.

3.123 Coherency is an indication of the internal validity of a system of logic. Coherency refers to the manner in which a hermeneutical space hangs together to serve as an account, story, description, narrative, or explanation and, as such, appears to possess few, if any, lacunae or gaps in its structural structure -- gaps that would tend to discredit the possible value of the account, story, description, or explanation.

3.123001 The reliability of a methodology, measurement process, or modality of hermeneutical activity points in several directions. On the one hand, reliability concerns the capacity of, say, a given form of methodology to produce results that are relatively consistent with respect to a given phenomenon under similar conditions of engagement. On the other hand, reliability raises the issue of whether, or not, a given methodology or form of measurement has the capacity to accurately reflect, mirror, or establish congruency with some aspect or dimension of the structural character of some given experience, or that which makes experience of such structural character possible.

3.123002 Replication, confirmation, and verification are all different ways of referring to the issue of reliability in both its inward pointing sense (the first aspect noted above), as well as its outward pointing sense (the second aspect outlined in the foregoing.)

3.124 Necessity gives expression to the way logical systems manifest themselves such that the manifesting could not have been other than what it is. The necessities associated with artificial and natural

systems of logic are both functions of the structural character of such systems.

3.1241 The necessity of artificial systems of logic might not extend beyond the horizons of that system.

3.1241 Necessary conditions refer to those facets of a logical system - whether artificial or natural - which, if not present, will impede something within that system from taking place or being manifested or continuing or proceeding, but, if present, might help provide for the possibility of something transpiring without necessarily guaranteeing such an outcome. Thus, with respect to the lighting of a match, all of the following considerations – e.g., oxygen; a match head with the right composition and quality of sulfur and phosphorus; a minimal degree of dryness; a striking surface of the appropriate properties, and the presence of someone or something to strike the match against such a surface – have a role to play in the lighting of a match. All of the foregoing conditions are considered necessary since if any of them are absent, the lighting of the match might be impeded, and, yet, if they are all present, there is no guarantee that the match will light since the person or device used to strike the match might not be active, or even if active, the match might not strike the surface in the way that is required for the match to light.

3.125 Assumptions are mapping operations that serve as starting points for exploration, analysis, evaluation, measurement, methodology, and, in general, constructing or creating hermeneutical spaces. Initially, assumptions tend to be not provable but provide one with conceptual direction with respect to subsequent hermeneutical activity and one proceeds 'as if' the assumption were true in order to see where -- conceptually or hermeneutically speaking -- one might journey from such a starting point.

3.1251 Assumptions might, or might not, accurately reflect -- partly or wholly -- the structural character of some aspect, facet, or dimension of experience or that which makes experience of such structural character possible. However, assumptions -- even if not true -- might be utilized for their heuristic value in suggesting possible avenues of hermeneutical consideration that, eventually, might lead to results that do bear on some dimension, facet, or aspect of being in an accurately reflective manner. Thus, the idea of a geometric point that is without

dimension does not necessarily have any counterpart in reality, but it serves as a starting point of considerable heuristic value in relation to constructing artificial systems of geometric logic.

3.126 Possibility refers to mapping operations that entertain various facets of a logical system and treat these facets as if they might be true because nothing that is known to be true contradicts such a consideration.

3.1261 Just as experience, belief, understanding, and knowledge change, so too the character of what one will entertain as being possible might also change. However, what one considers possible might, or might not, accurately reflect what, in reality, is actually possible.

3.1262 Plausibility is a mapping operation or process that renders a judgment concerning not only the validity, consistency and coherency of a given hermeneutical space, but, as well, maps out a degree of confidence one might have with respect to whether, or not, such a space might serve as a candidate that has congruency with some given aspect of experience and/or that which makes experience of such structural character possible.

3.1263 The foregoing sort of judgment assigns a value that is greater than mere possibility but less than certainty. Consequently, depending on circumstances, there are many values of confidence that might be assigned to such a judgment, and while all such judgments have some degree of reflective capacity or sense to them, not all such judgments are equally plausible.

3.127 Correlation involves mapping operations that seek to establish the degree to which, say, two objects, events, phenomena, processes, or contexts are manifested, occur, or appear together -- either simultaneously, or contiguously, or sequentially.

3.1271 Correlation says nothing about the structural character of the relationship between such objects, events, phenomena, and so on. Rather, it is a measure of the likelihood that if one encounters one of these objects, events, etc, one also will encounter the other object, event, etc -- whether simultaneously, contiguously, or sequentially. Thus, although night and day have a high degree of correlation, night does not cause day, nor does day cause night, but, instead, both are related to a further set of phenomena concerning, among other things, the rotation of

the Earth, the movement of the Sun, the propagation of photons across a vacuum, the dispersion of such photons by the atmosphere of the Earth, and the existence of beings capable of discriminating between light and darkness.

3.128 The idea of randomness is an assumption that alludes to the presence of a principle within reality that says there are no dimensions of hidden variables governing a given system and that the structure of such a system is entirely the result of events and processes that, although caused, are not ordered in accordance with any pre-existing pattern that is imposed on those events and processes -- other than the fact that such events and processes having the character that they do.

3.1281 An algorithm is a determinate array of operations that are performed on a body or set of data. Although the array of operations is determinate, the outcome might not be predictable (as in non-linear and chaotic systems) because of the synergy -- both negative and positive -- with which the operations feedback into themselves and the data on which they operate.

3.1282 Randomness is an assumption that can never be proved since there is always the possibility that the series or array or set of events that are being called random is a function of an algorithm whose presence and nature has not, yet, been detected.

3.129 Probability encompasses a variety of artificial systems of logic that seek to assign degrees of likelihood to expectations concerning the way a given system or hermeneutical space will be manifested over time. The manner in which these degrees of likelihood are determined and assigned depends on the structural character of the methodology governing a given framework of probability. Irrespective of the method used, the assumption of randomness is often used to establish base lines against which expectations and outcomes might be compared for purposes of analysis.

3.1291 Probability is a way of modeling certain dimensions of a system -- for example, the likelihood that various kinds of event or process will be given expression at different junctures as the system is manifested during its operations or functioning.

3.1292 As is the case with all models, the value of a given probability framework depends on the tenability of mapping processes such as

assumptions, abstractions, deductions, analogs, and so on, which are being used to create the structural character of the hermeneutical space that constitutes a probability model.

3.1293 Statistics is a form of mapping that seeks to quantitatively describe, analyze, organize, and interpret a given body of data and/or information, especially in relation to issues of average, frequency, distribution, and distance from some standard feature, correlation, trends, and reliability of such quantitative treatments. Statistics is often used as basis for informing, shaping, and directing various kinds of inductive, deductive, and modeling processes, as well as serving as a possible approach to the interpretation and evaluation of experimental data.

3.1294 Although related, in various ways, to probability frameworks, statistics is a different kind of quantitative description than the latter. However, statistics shares many of the same strengths and weaknesses as do mapping operations involving probability.

3.130 Information refers to the ways in which the structural character of experience is characterized, analyzed, interpreted, and organized. Information does not exist in what is being characterized, rather the structural nature of the logical form of that which is being explored and delineated through the process of characterization serves as the focus of engagement for various processes, operations, functions, and methods that are artificially generated. Each of the foregoing has its own modality for creating the data that become the points -- simple or complex -- from which the hermeneutical space of some system of logic is constructed.

3.131 Information might, or might not, be accurately reflective -- in part or in whole -- of that to which the information makes identifying reference.

3.132 Objectivity is a process that seeks to eliminate as many sources of bias, prejudice, distortion, undue influence, obfuscation, corruption, misunderstanding, and error from the construction, creation, or generation of hermeneutical spaces in conjunction with both experience, as well as that which makes experience of such structural character possible.

3.1321 Hermeneutical filters are used to process experience, data, information, and so on in a way that emphasizes, or brings out, some

features of that experience, etc., while eliminating other facets of such experience. Photographers use various kinds of lenses to filter out certain wavelengths or conditions of lighting. In chemistry, one uses filters to eliminate certain ingredients whose size is larger than the holes of the filter. Audio technicians filter out noise to enhance the quality of sound.

3.13211 All filters have a bias to them that is inclined to some forms, or aspects, of experience, to the exclusion of others, according to the structural character of a filter.

3.13212 Sometimes such biases serve a useful function in conjunction with the quest for objectivity, and sometimes they do not. In either case, one needs to make note of the filters in use and how they shape, color, and orient experience.

3.132121 Calibration is a process that is intended to enable some form of methodology, instrumentation, or hermeneutical activity to function in an optimal way. Being 'optimal' is a function of the capabilities inherent in the given methodology, instrumentation, or hermeneutical activity, together with the skill and artistry of the individuals who are using such methodology, etc.

3.132122 Part of the process of calibration involves establishing -- under specified conditions -- base lines of performance and outcomes against which subsequent performance and outcomes generated through such methodology, instrumentation and hermeneutical activity can be compared and assigned meaning and significance.

3.132123 A given base line is not necessarily a reflection of the structural character of some aspect or dimension of experience, or what makes that sort of experience possible that is independent of such as base line. Rather, base lines are established in order to give one a place of known properties and conditions from which to operate and through which one can explore, probe, and experiment with various facets of experience.

3.132124 Base lines and calibration are part of a filtering process.

3.132125 Measurement is a process that seeks to quantify the extent to which some aspect or dimension of experience, or that which makes experience of such structural character possible, gives expression to some quality, property, state, activity, value, or feature in which one is interested. Generally speaking, measurement depends on the existence

of some kind of standard unit that either remains consistent over time and across conditions, or fluctuates in known, regular ways according to circumstances.

3.132126 Measurement is another kind of filtering process. The properties of this filter will vary with: (a) the modality of measurement; (b) the nature of, and the problems surrounding, the 'standard unit used by a given form of measurement; (c) the extent to which such a modality interferes with the way in which that which is being measured is manifested; (d) the capacity of the modality of measurement to generate relevant data that serve as hermeneutical entry points through which one might gain insight into the structural character of that which is being measured; (e) the degree of resistance inherent in the structural character of that which is to be measured to the modality of measurement being employed (i.e., some modes of measurement are more compatible with certain dimensions of experience, or that which makes experience possible, than are other modes of measurement.

3.132127 Unobtrusive measures are those forms of measurement that do not interfere with, or influence, the way some given phenomenon, event, process, object, condition, state, or the like, is manifested during the time in which the modality of measurement engages such a phenomenon, event, etc.

3.132128 At least since the work of Heisenberg, there has been an awareness that the very act of observing a system, phenomenon, and so on, can alter the way in which the system, phenomenon, etc., is given expression during the process of observation. The nature of those alterations might mask, to varying degrees, the actual character of certain dimensions or facets of the system being observed, and, as a result, affect the quality and accuracy of the hermeneutical spaces generated with the assistance of such processes of observation.

3.132129 Quantifying a given property has at least two aspects. The first aspect is to establish a modality of measurement that is capable of reflecting relevant data concerning such a property. The second aspect involves the mathematical treatment of that data.

3.13212901 Methodology, measurement, quantification, and mathematics do not guarantee that the experience or data that is processed through those means will be understood. As Richard

Feynman is reported to have once told a student who was anguishing over the nature, meaning and significance of quantum mechanics - 'Look, no one understands it, just do the calculations."

3.1321291 Relevancy is not a matter of what is of value to a given form of methodology, measurement, or hermeneutical activity. Relevancy is determined by the actual nature, logic, or structural character of that which is being explored.

3.13212911 The ultimate baseline for all methodology and measurement is reality itself.

3.132130 Not all facets or dimensions of experience, and/or that which makes experience of such structural character possible, are amenable to processes of measurement and/or mathematically tractable.

3.133 The interrogative imperative refers to a dimension of human existence that is, on the one hand, rooted in curiosity and the desire to know the truth concerning the nature of experience and/or what makes experience of such structural character possible. On the other hand, the interrogative imperative is rooted in the awareness that there are many ways in which objectivity can be compromised during the process of engaging, exploring, characterizing, analyzing, interpreting, evaluating, modeling, understanding, and applying experience - such awareness contains the desire to eliminate as many of these kinds of problems as possible.

3.1331 Much of the focus of the interrogative imperative is to determine the extent, if any, to which a claimed insight is possible, plausible, probable, or accurately reflective with respect to that to which the alleged insight makes identifying reference.

3.134 Ockham's razor stipulates that one should not multiply terms, concepts, and assumptions beyond what is necessary to explain or account for a given phenomena. An alternative way of alluding to the same sort of principle is that when comparing two explanations, ideas, assumptions, etc., then, all other things being equal, the simpler of the two is to be preferred.

3.1341 Some of the problems with the foregoing are as follows: What is necessary is often at issue; moreover, 'all other things' often are not equal and how such inequalities affect the process of identifying

what is necessary or simpler is not always easily, if at all, capable of being sorted out; in addition, finding reliable measures of simplicity that are independent of the eye of the beholder (i.e., some artificially constructed system of logic) is a complex and difficult process.

3.135 Evidence refers to the set of assumptions, data, information, facts, beliefs, values, judgments, interpretations, understandings, methodologies, mappings, questions, and so on, which have been woven into a framework of reference through which certain kinds of experiences are considered to have some degree of congruency with either an aspect of experience or an aspect of that which makes experience of such structural character possible.

3.136 The manner or modality of weaving together such evidence is often given expression in the form of a mathematical, logical, or rigorous argument, demonstration, proof, or explanation, of some kind. These 'forms' are ways of ordering, structuring, arranging, and/or relating the elements of evidence so that the structural character of such a form might be seen, or understood, to have a certain degree of congruency with the structural character of that to which the form of evidence makes identifying reference.

3.137 Forms of tenable argument, demonstration, proof, or explanation are ones that are capable of standing up under the scrutiny of the interrogative imperative over time.

3.1371 Allegedly tenable arguments, and the like, are not necessarily true, for the value and strength of a given judgment of tenability is dependent on the strength and value of the questions that are asked. If the right questions are not asked, then, a given argument or explanation is only as good as the quality and rigor of the questions that have been raised concerning it ... which might, or might not, be all that good depending on circumstances.

3.1372 Proof can be a relative thing that depends on an individual's acceptance of the assumptions, evidence, arguments, propositions, mapping operations, and conclusions contained in the proof.

3.13721 The fact someone accepts a proof as valid, adequate, consistent, coherent, and so on does not, in and of itself, confirm the proof as true, logical, substantiated, and/or legitimate.

3.137211 Before Riemann and Lobachevski, people, generally, accepted Euclid's geometric proofs and made the latter the cornerstone of a great deal of subsequent work in both mathematics and science. After the work of the two aforementioned mathematicians, people approached the idea of geometric proof differently.

3.137212 Prior to the time when Gödel's notions of incompleteness and inconsistency arrived on the scene, many people regarded the proofs of mathematics as certain and reliable. After Gödel, people looked at the idea of proof very differently.

3.13722 The fact most people believe something to have been proven does not, in and of itself, mean the proof is beyond warranted criticism. Similarly, the fact few people believe in a given proof, does not, in and of itself, negate the value of such a proof.

3.137221 Some proofs are entirely about the internal properties of a given system of artificial logic, and have little, if anything, to do with reality beyond the horizons of such a system.

3.137222 Some proofs focus on seeking to determine the structural character of various facets, aspects, or dimensions of experience.

3.137223 Some proofs are concerned with the relationship among understanding, experience, and the nature of that which makes experience of such structural character possible.

3.138 Falsification is an idea introduced by Karl Popper which, in simplified terms, stipulates that while only one contraindication with respect to some given conjecture, hypothesis, principle, or the like, is enough to falsify claims concerning the correctness or truth of such a conjecture or hypothesis, no amount of positive evidence is sufficient to prove the truth of a given conjecture or hypothesis because there is always the possibility that some form of contraindication with respect to such a conjecture or hypothesis might arise in the future.

3.139 Human beings seek out certainty, but, in general, are immersed in uncertainty, unanswered questions, inconclusive evidence, and problematic proofs.

3.140 Hermeneutical spaces can be divided up into linear and non-linear systems. Linear systems are those that tend to be tractable to mathematical treatment because of the regularity or repetitive nature of the patterns and features to which such a system gives expression The

task, then, becomes one of trying to establish some degree of congruency between the structural character of some form of mathematical system of logic and the structural character of the facets of hermeneutical space and/or phenomenology of experience that one seeks to understand. One uses such congruency as the manifold of commonality through which one generates abstractions, models, logical frameworks, and so on, as a basis for mirroring the properties, structure, and logical nature of a given linear system.

3.141 Non-linear systems refer to contexts in which the forms, patterns, and structures to which such systems give expression tend to be irregular in character and oftentimes exhibit anomalous behavior of one kind or another. The properties manifested by those systems over time are said to be self-similar rather than self-same (as in the case of linear systems), and, consequently, such systems are not easily, if at all, tractable through most mathematical systems.

3.142 Non-linear systems are determinate in nature. This means that those systems are governed by a set of principles of identifiable nature, but the systems in question tend to be unpredictable because of the manner in which the various dimensions of the system are extremely sensitive to fluctuations taking place within that system (as well as around the system). Therefore, such systems exhibit complex forms of feed-back loops that are not readily amenable to mathematical treatment, and even when such treatments are available, the latter tend to be limited to very specific contexts and subject to a considerable amount of constant manual adjustments in the formulae and equations of such treatments in order to keep up, somewhat, with the changes being manifested in non-linear systems.

3.1421 Most of life consists of non-linear phenomena.

3.15 Mathematical formulae and equations are expressions of different facets and dimensions of the structural character of the artificial systems of logic to which they give expression.

3.151 The value of a formula, equation, or set of formulae and equations, lies in the degree of congruency that can be established or exists between the structural character of a formula or equation (or set of them) and the structural character of the aspect of experience to which such mathematical forms make identifying reference in a given context.

3.1511 Mathematical and non-mathematical languages, alike, seek to establish congruency among understanding, experience, and that which makes such experience possible.

3.1512 In some cases mathematical language accomplishes the task of establishing congruency far more precisely and rigorously than non-mathematical languages do. In other instances, the reverse might be true (e.g., in the realms of, say, creativity, love, emotion, morality, spirituality, poetry, identity, justice, faith, art, community, belief, purpose, parenting, psychological therapy, and so on).

3.16 All methodologies are subject to the limitations of incompleteness. In other words, no methodology is self-contained and self-sufficient, but, instead, one must journey beyond the horizons of any given methodology in order to discover the value of that methodology.

3.161 Methodology tends to stand in need of, and presupposes, experience and/or that which makes experience of such structural character possible.

3.162 Although methodology arises out of experience, not all experience is necessarily reducible to such a methodology or capable of being grasped through such a methodology.

3.163 Methodology, like language, and systems of logic in general, does not move itself. They require the presence of consciousness (basic as well as reflexive) and intelligence to invent, generate, create, construct, apply, understand, and critique them.

3.17 Frames of reference, belief systems, hypotheses, theories, models, paradigms, and world-views are the hermeneutical spaces created or constructed by intelligence as it engages experience through the phenomenological field -- which is the point of conjunction of understanding, experience, and that which makes experience of such structural character possible.

3.171 A hypothesis is a conjecture concerning the way in which certain facets of experience, or that which makes experiences of such structural character possible, are related.

3.1712 Oftentimes, the nature of this relationship is expressed in terms of independent and dependent variables.

3.17121 Something is considered an independent variable when: (a) it can change in value under different circumstances, and (b) the value is not affected by changes to the dependent variable with which it is associated by means of the hypothesis.

3.171211 Among various possibilities one might cite, global economics, chaotic systems, and mysticism as tending to suggest that few things in the universe might actually be fully independent of changes elsewhere in a given context or system. As such, there are degrees of relative independence and relative dependence.

3.171212 Causation refers to the idea that the relationship between two events, objects, contexts, states, and so on is governed by the manner in which one pole of the relationship is prior to (both logically and physically), as well as, directs, shapes, orients, alters, transforms, changes, and/or helps give rise to the other pole of the relationship.

3.171213 The interdependent nature of many facets and dimensions of experience and/or that which makes experience of such structural character possible - as is suggested by, among other things: life, Bell's theorem, quantum physics, the stock market, politics, gravitation, education, peace, cybernetics, ecology, jurisprudence, consciousness, intelligence, understanding, illness, and happiness - indicates that isolating something as 'the', or even 'a' cause, might not be a straightforward matter, and might be, in many instances, quite arbitrary.

3.1713 A theory is a belief or set of beliefs concerning the structural character of some facet of experience and/or what makes experience of such structural character possible.

3.17131 Some theories are more rigorous than others in the sense that the former: (a) Tend to be supported by more well-considered evidence than the latter; (b) might be more coherent and consistent; (c) might have been subjected to closer and more exacting scrutiny through the interrogative imperative than have weaker theories; (d) are more likely to be accepted as heuristically valuable guides to subsequent exploration by the prevailing community of experts who deal with such matters; (e) tend to have a more precise, and less problematic, ability to describe and/or account for certain phenomena than do weaker theories.

3.17132 However, rigorously developed, a theory is still a belief system that embodies a certain amount of knowledge and has, within limits, a capacity to accurately reflect various facets of experience and/or what makes experience of such structural character possible.

3.17133 Hypotheses are used to help confirm or refute various dimensions of a theory by stating issues in a narrow fashion that is both capable of becoming actively operational in the form of testable proposition (or set of them), and, as well, is likely to lead to results that provide data that can serve as evidence to help confirm or refute some aspect of a given theory.

3.17134 Theories rarely stand or fall due to the outcome of a single experiment that is devised to test a given hypothesis. Oftentimes, if experimental results are inconsistent with a particular theory, the theory might be revised or reinterpreted in order to accommodate the new data.

3.17135 Theories, however, might come into disfavor as the result of a series of contraindications that arise from experimental data. A certain theory also might come into disfavor because there some other theory, seeking to account for similar phenomena and/or data, which is considered, rightly or wrongly, to be more heuristically valuable, in some sense, than is the previously accepted theory. One theory might gain in general acceptance over a competing theory because of the influence of certain centers of learning in setting hermeneutical trends that tend to propagate such perspectives to the next generation of researchers. The popularity of one theory might increase at the expense of a competing theory due to the politics of hiring and publishing. Finally, one theory might gain in ascendency relative to a competing theory because the proponents of one theory die off, leaving the field relatively clear for another theory to establish itself and begin to flourish through the activity of its still living proponents.

3.17136 A paradigm is a theoretical framework that serves as a work in progress that shapes the methodology, experimentation, understanding, interpretation, politics, and education of those who come under its influence. A paradigm is the hermeneutical filter through which certain facets of experience -- and/or that which makes experience of such structural character possible -- are engaged, processed, and understood.

3.172 Some people argue that one cannot derive 'ought' from 'is'. In other words, just because some dimension of experience, and/or that which makes experience of such structural character possible, has a certain nature does not, in and of itself, necessarily warrant the inference that one ought to behave in certain ways that are said to follow, or are derivable, from experience or things being the way they are.

3.1721 Whether, or not, the foregoing contention is correct really depends on the extent to which some form of 'ought' is inherent in the logical character of that which makes experience possible.

3.17211 If there is a dimension of 'ought' to what is, then, there is a directional potential that is built into being and existence.

3.17212 In one sense there is such a directional component inherent in being -- namely, reality is what it is. If one wishes to have any hope of understanding various facets and dimensions of that reality, then, one <u>ought</u> to seek generating hermeneutical spaces that have a structural character that has congruency with the structural character of the aspect of experience to which identifying reference is being made through the hermeneutical space and/or the structural character of that which makes such experience possible.

3.17213 If there are one, or more, dimensions of ought to being, then, this, in and of itself, does not necessitate what one will choose to do with respect to such an 'ought'. Ought is a suggestion with a certain degree of moral direction and force (or warrant) with which one complies or ignores at one's own risk - just as truth, knowledge, and understanding (of whatever kind, and on whatever level) are hermeneutical vectors with a certain degree of moral direction and force (warrant) with which one complies or ignores at one's own risk - the risk one runs in the latter case is ignorance, misunderstanding, error, bias, or the like.

3.18 The primary task of education is to provide a means for individuals to explore, gain facility with, learn how to critique, and generate (or adopt) useful applications as a result of the capacity, and inclination, of human beings to generate hermeneutical spaces. The essence of this generation process is a function of the interplay of the following processes: identifying reference; characterization; the interrogative imperative; mapping operations; and establishing congruencies.

3.19 As such, facts, per se, are less important than being able to understand the processes that gave rise to, shaped, colored, and oriented those facts. Information, per se, is less important than grasping the structural character of the processes that generated data of such structural character. Facts and information, together with their perceived value or reliability, often change over time, but the general features of the structural character of generating and evaluating the nature of hermeneutical spaces do not change with time.

3.21 Logic is an expression of the manner in which the different, aforementioned components involved in generating hermeneutical spaces are employed by a given intelligence within the context of engaging the phenomenology of the experiential field in the attempt to understand what makes experience of such structural character possible.

3.211 There are many kinds of logic and one of the challenges with which all human beings are confronted -- and with which education ought to be concerned -- is to try to discover which system(s) of logic is (are) most congruent with, or reflective of, the structural character of various realms of experience, together with the nature of that which makes experience of such structural character possible.

3.3 Education is a medium for learning about the possibilities, problems, and methods that are associated with trying to understand the logical nature or structural character of hermeneutical spaces that arise in conjunction with various kinds of experience, together with that which makes experiences of such structural character possible.

Appendix D - Hermeneutical Field Theory

The purpose of this Appendix is to provide an introduction, within a relatively short framework, to the basic ideas, principles, and logic that are given expression in hermeneutical field theory, and, as such, there will be aspects of this introduction that stand in need of elaboration and clarification.

The themes and concepts being giving expression through hermeneutical field theory do not fit into a tidy, neat, linear package. These principles form strange attractors.

As such, they are ordered and determinate in character. However, strange attractors generate self-similar determinate processes rather than self-same determinate processes.

The structural character of such self-similarity is often recognizable when encountered, but that structure is, for the most part, not reducible to a convenient set of rules or methodological steps. Consequently, the principles of hermeneutical attractors do not easily lend themselves to being summarized.

One can provide, nonetheless, something akin to the sort of photograph album one puts together after one has taken a trip. The pictures one takes on the trip do not give an accurate, running account of everything that happened on the trip. Furthermore, these pictures do not constitute a record of each of the places one visited.

On the other hand, such photographs do give one a sampling of certain aspects of the trip. Therefore, the photographs can serve as a series of focal points around which a more extended and detailed discussion can take place.

In line with the foregoing comments, the following statements constitute a sort of photographic album. The conceptual snapshots contained in this overview provide one with a sampling of some of the essential themes, issues, questions, and ideas within various aspects of hermeneutical field theory. While the following statements do not exhaust what can be said about this approach to the problems of learning, 'knowledge', and 'understanding', they do provide some guidelines an individual can use as a reference map with respect to some of the conceptual terrain covered during the overview's excursion through the hermeneutics of experience.

(a) The fundamental text or work with which everyone is preoccupied, either knowingly or unknowingly, is that of individual experience or the phenomenology of the experiential field. The works, intentions and meanings of all human beings reflect, as well as presuppose, the reality of that field. When one attempts to understand the nature and meaning of the contents of experience, one is engaging in the hermeneutics of experience in order to journey toward the absolute metaphysical reality that surrounds, underlies, permeates and extends beyond the realm of individual experience.

(b) The central issue of hermeneutics is about making sense of experience. One seeks to determine the significance of something in someone else's eyes in order to be in a position to ask the following sort of questions: (1) What is the significance that a work in question has for a given individual? (2) To what extent do individual conceptions of significance (whether one's own conception of that of other individuals) reflect the structural character of that to which such conceptions attempt to give identifying reference? (3) What relevance do individual conceptions of significance have for helping one to understand the structural character, or portions thereof, of the reality that makes possible the sort of experiences through which conceptions of significance are generated?

In order to ask these kinds of questions, one necessarily must be concerned about the extent to which one can understand 'understanding'. One also must be concerned with the extent to which understanding is capable, under the right sort of circumstances, of accurately reflecting or grasping some aspect of absolute metaphysical reality- i.e., that which defines the parameters not only of understanding but of that which engages, or is engaged by, understanding.

(c) The ultimate goal of hermeneutics is one of seeking to merge -- as much as is possible -- the horizons of an individual's understanding in relation to the horizons of whatever aspect of reality is being engaged.

(d) Learning is a process through which memories are generated or constructed. Unless the structural character of those memories represents a total fabrication of a given dialectical engagement, memory contains traces of previously encountered horizons. So although, in one sense, horizons are fleeting in character and disappear or recede as soon as one approaches them, in another sense, we, continually, are recording bits and pieces of the horizonal relationships that are being encountered.

Indeed, these bits and pieces of previously encountered aspects of the phenomenology of the experiential field that have been recorded as memory, become part of the ongoing horizonal dialectical relationship. Through recall, one actually can extract horizonal elements, examine them through focal analysis, and, then, by switching focus to some other aspect of experience, return the previous elements to a horizonal status where they will continue to exert a certain pressure or force with respect to on-going focal activity.

Considered as a whole, the horizon is always receding and being displaced. Nonetheless, there is a way for certain aspects of previously encountered horizonal relationships to be temporally deactivated as horizonal components.

When this occurs, these deactivated horizonal components sometimes emerge as components of focal activity. As aspects of focal activity, they can be explored, probed, analyzed, queried, altered, and shaped, before being returned to active duty as horizonal components.

(e) A further aspect of the interactional dialectic between focus and horizon concerns inferential activity or inferential mapping. In this dialectic, phase relationships are established between, and among, various aspects of the constraints and degrees of freedom of focus and horizon.

During such states of phase relationship, semiotic quanta, sensory quanta and phenomenological quanta are exchanged. These quanta give expression to inferential currents linking focus and horizon in the form of entailment relationships, implicational relationships and inferential relationships.

(f) The horizon forms one part of a complex, multi-dimensional phenomenological and hermeneutical membrane-manifold. This manifold dialectically links the individual with ontology. This membrane-manifold consists of a spectrum of ratios of constraints and degrees of freedom on a variety of levels of scale.

Furthermore, the hermeneutical membrane-manifold marks the boundary through which focus and horizon together enter into shifting phase relationships with various aspects of the world or with various aspects of the phenomenology of the experiential field. The phenomenological/hermeneutical membrane-manifold is the boundary across which, and through which, there is an exchange of quanta of various kinds (such as: chemical, biological, sensory, emotional, spiritual, behavioral, and semiotic quanta).

(g) Reflexive awareness does not seem to be reducible to being a function of any of the other components of the hermeneutical operator (consisting of identifying reference, characterization, interrogative imperative, inferential mapping, congruence functions and the already mentioned dimension of reflexive awareness) -- taken either individually or collectively. Reflexive awareness seems, simultaneously, to accompany the other components as it illuminates them, joins them, surrounds them, permeates them, and so on.

Indeed, there is a sense in which reflexive awareness is sort of a glue that holds the hermeneutical operator together. In addition, it is a medium through which the various components of the hermeneutical operator communicate with one another or exchange semiotic quanta with one another.

(h) The various sensory modalities perform different sorts of transform operations by way of the transduction process with respect to the waveforms of incoming stimuli. However, one cannot necessarily argue that the structural character of the post-transformation, transduced form is purely a function of what the transduction transforms bring to the situation. The post-transformation, transduced forms are also a function of the spectrum of ratios of constraints and

degrees of freedom that the incoming waveform stimuli bring to the transduction process.

Seen from this perspective, the task of hermeneutical field theory becomes two-fold: (1) To develop a set of <u>qualitative</u> 'equations' that are capable of translating from one inertial framework to another with respect to a given event. This ensures that certain basic principles, laws and so on, are preserved from system to system; (2) to determine whether or not one can make contact with aspects of noumena. If one can accomplish this second aspect, one might be able to use methodology to preserve certain law-like relationships that are not entirely dependent on, or merely a reflection of, methodology.

The idea behind this second aspect is that although methodology puts one in contact with the structural character of a given object, state, event, condition, process, and so on, once one has made contact, there is an exchange of phase quanta. This exchange has the potential for opening one up to an understanding capable of transcending the constraints and degrees of freedom of the methodology that provided one with an opportunity for such access. As a result, one would be in 'contact' with, in some sense of this word, at least an aspect of the structural character of noumena in itself.

(i) Any understanding that is restricted to the confines of the parameters of the horizon and which does not reflect something of that which makes possible a horizon of such structural character is, at the very best, extremely limited in the amount of truth to which it gives expression. In fact, only by gaining access to the truth lying beyond the limits of present horizons can one be said to be expanding one's horizons in any non-arbitrary and legitimate sense.

(j) Phase transitions and morphogenetic transformations constitute a selection from, or alteration in, the spectrum of ratios that constitute a given structure. Such transitions or transformations occur by means of phase relationship states in which phase quanta are exchanged.

Phase quanta are the carriers of force that bring about a change in the way a given spectrum of ratios gives expression to itself, or that brings about

a change in the very character of the spectrum itself. This is done by adding ratios, or taking away ratios, or by modifying the existing ratios in some new way.

Phase quanta represent vibrational modes of temporality. In other words, they are temporal waveforms whose structural character specifies a ratio of constraints and degrees of freedom but which is coded for in terms of phase relationships.

The order field acts on structures by – along with other dimensional means – transmitting its effects through the phase quanta that are the carriers of temporal force. As such, temporal force becomes a transmitter of certain aspects of the underlying order-field (i.e., the structural character of ontology or Being).

(k) A field manifests itself continuously, but not necessarily in the sense that every point of a given space is under the sphere of influence of that field. The field is continuous because one, or more, of the ratios of constraint and degrees of freedom characterizing that field's structure is (are) being manifested at any given instance of time.

The continuity is a function of how a certain latticework of order manifests itself and preserves itself across time. This does not necessarily require the latticework to be able to express itself at any given point of space.

Inference is not necessarily about truth. Essentially, it is about the issue of continuity. That is, inference is about: (a) What links one idea with another; (b) the way this continuity manifests itself, and (c) the degree to which it manifests itself. Consequently, inference really is about the process of proposing, or seeing, mappings that one believes accurately describe the structural character of the phase relationships between one focal/horizonal point and other such points.

Hermeneutical strings, sheafs, and fiber bundles all might be different ways of referring to how inferential mappings operate. A hermeneutical string, for example, might refer to the compressed or focused character of the set of ratios of constraints and degrees of freedom constituting a single phase relationship.

Hermeneutical fiber bundles, on the other hand, might be thought of as a group of phase relationships or hermeneutical strings that have a

common focus or common set of linkages. Thus, the fiber bundle represents a set of multiple mappings that interact to strengthen the proposed phase relationships between one point-structure (neighborhood, lattice or latticework) and other such point-structures (neighborhoods, lattices or latticeworks). As such, a fiber bundle, under normal circumstances, constitutes a stronger argument than does a hermeneutical string. Of course, this will not be the case if a hermeneutical string gives expression to a better insight than does a given fiber bundle. The latter might be powerfully coherent but, nonetheless, it could be incorrect or less accurate relative to a given hermeneutical string.

Finally, hermeneutical sheafs might be construed as a way of organizing a variety of hermeneutical strings and fiber bundles in order to 'cover', or account for, the structural character of a given aspect of the manifold of the phenomenology of the experiential field. In this sense, hermeneutical sheafs give expression to models or theories.

However, the perspective of hermeneutical sheafs is in terms of the way that a model or theory is held together by a set of phase relationships between, and among, a variety of point-structures, neighborhoods, lattices and latticeworks with the purpose of 'covering' the phenomenological manifold. Therefore, the perspective of hermeneutical sheafs looks at a model or theory in terms of the inferential mappings that lend a theory or model its structural character or logical qualities.

Seen from the foregoing perspective, entailment exists when one can show that the structural character of the continuity that links two (or more) point-structures, neighborhoods, or latticeworks, has a particular kind of vectored mapping character. More specifically, in order for entailment to be present, one must be able to show: (a) the structural character of, say, a given point-structure is largely shaped and determined by the structure(s) with which it is linked through mapping; and (b) the reverse is not the case. Under these circumstances, one would say the point-structures being shaped and determined are entailed by the structure(s) that is doing the shaping and determining. Therefore entailment suggests a vectored component to the mapping process.

The last five or six paragraphs all tend to point in the same general direction with respect to the structural character of logic. In effect, logic is the study of continuity, structural form, and mapping relationships.

(l) If one characterizes entropy in terms of the ratio of constraints to degrees of freedom in a given context, then one can speak of the entropy spectrum for a structure. Such a spectrum constitutes the envelope of ratio values that are possible for that structure under a variety of circumstances … whether induced or spontaneously manifested.

In general terms, if there is a change in the ratio of constraints to degrees of freedom for a given structure, then there has been a change in the entropy character of that structure. Or, said slightly differently, another aspect of the structure's entropy spectrum has been manifested.

If the nature of the ratio change is to shift the manifestation of the structure's entropy spectrum in the direction of more constraints relative to degrees of freedom, such a change is said to constitute an increase in the entropy of the structure. This is so since -- relative to the entropy state prior to the change in question -- the structure is less able to give expression to its degrees of freedom. This is comparable to the case in traditional thermodynamics when an increase in entropy is marked by a decrease in the free energy of the system, together with an increase in the bound energy of the system.

One should note that neither an increase in entropy, nor a decrease in entropy, affects the 'order' of the structure or system undergoing a transition in the way the entropy spectrum is being manifested. Ordered is a reflection of the fact that there is some kind of ratio of constraints to degrees of freedom.

(m) One can measure the continuous mapping of the lines of force between oppositely charged poles in an electrical field by inserting into the field a test probe that is connected to one of the poles. This test probe allows one to derive an indication of the electrical potential that has been created at the point of insertion.

Similarly, one can sample something of the flavor or character of the continuous mapping of the lines of force that have been generated

between a given focus and horizon through inserting a test probe into the phenomenological field. This probe is rooted in one, or the other, of the poles of focus or horizon. The probe permits one to derive an indication of the hermeneutical or phenomenological potential that has been created at the point of insertion.

In the context of hermeneutics and phenomenology, the character of the test probe will come in a variety of forms. These include: questions; emotionally charged issues; conceptual structures capable of eliciting, evoking or inducing various kinds of response; appropriate sorts of sensory stimuli; language structures; motivational vectoring, and so on.

(n) Reflexive awareness, identifying reference, characterization, the interrogative imperative, inferential mapping, congruence functions, and emotions are all vector quantities. Experiential intensity is a scalar quantity. An order-field is generated through the dialectic of a set of dimensions. The structural character of these dimensions is an expression of a spectrum of various ratios of constraints and degrees of freedom that have been established through that order-field.

An order-field induces different aspects of the spectrum of ratios to engage one another. The ensuing engagement generates a further spectrum of ratios that give expression to the character of the dialectic between, or among, different dimensions. This dialectic of dimensions generates, in turn, a further spectrum of ratios of constraints and degrees of freedom that give expression to point-structures, neighborhoods, and latticeworks on different levels of scale.

(o) At the heart of any field theory (whether it is rooted in: Faraday's idea of a force, or in Maxwell's model of the mechanical ether, or in the geometry of Einstein's general theory of relativity) is a resistance to the concept of Newton's idea of action-at-a distance. Field theories are all predicated on the principle that the dynamics of the field, the dialectical activity of the field, is a function of contiguous events. Field theories differ from one another in the manner in which they attempt to account for the structural character of the contiguous relationship among various aspects of the field and how effects are propagated through the field by means of such contiguity.

Consequently, an order-field constitutes a field due to the way the order has contact, in some sense, with, or is contiguous with, each aspect of the fundamental dimensions that have been established. The order-field also gives expression to field properties through the way it has contact with the dialectic that it induces in these basic dimensions, and from which emerge various point-structures, neighborhoods, and latticeworks.

All of this contact is accomplished through the spectrum of ratios of constraints and degrees of freedom out of which dimensionality and dialectical activity initially arise. Thus, the order-field is present at each and every point of these spectrums, on whatever level of scale one cares to consider -- from the microcosmic to the macrocosmic. This presence manifests itself as a field that organizes, arranges, shapes, directs, orients and generates all structures and structuring activity.

The order-field is continuous in the sense that a relay race is continuous. In other words, despite the presence of discrete elements (i.e., the runners for the different teams competing in a race), these elements are organized or arranged in such a way that one or more of the runners is always running throughout the race ... although not all the runners will be running at any given instant during the course of the race.

The integrity of the continuity of the race is preserved because of the way the runners, taken as discrete elements, are ordered within the context of the rules governing the running of the race. The primary characteristic of this ordering is that there should be an overlapping of one discrete element with another discrete element at different points of the race. This is the region within which the baton is passed on from one runner to the next.

Similarly, an order-field is continuous because the spectrum of ratios on any given level of scale will always be giving expression to one or more particular instances of the ratios that form that spectrum. Moreover, there is an overlapping of events that occurs between the expression of one ratio and a subsequent expression of another ratio drawn from the same spectrum.

This region of overlap is contained either in the phase relationships linking the two ratios that are being expressed, or it is

contained in the mere contiguity of the events. In either event, as one ratio, for whatever reason, ceases manifesting itself, then other ratios will spontaneously -- or be induced to -- manifest themselves, even though there might be no causal link between, or among, such contiguous events.

(p) On a given level of scale, a particular ratio of constraints and degrees of freedom expresses itself as a point-structure. A group of related ratios manifest themselves as a structural neighborhood.

In a hermeneutical context, neighborhoods tend to build-up (e.g. through learning and memory) around points of phenomenological engagement to which attention is directed and identifying reference is made. Indeed, attention and identifying reference mark the beachhead landing of the hermeneutical operator with respect to various aspects of the phenomenology of the experiential field. Whether -- and, if so, to what extent -- a neighborhood will bind the hermeneutical operator or whether the hermeneutical operator will remain relatively unbound will be a function of the dialectical engagement between (or among) the hermeneutical operator and a given neighborhood or neighborhoods.

Hermeneutical point-structures are not geometric points. In other words, they are not necessarily simple in character. Thus, unlike geometric points, hermeneutical point- structures cannot be construed as necessarily lacking an internal structure.

A point-structure is a ratio of constraints and degrees of freedom giving expression, when taken all together, to a form that can have multiple facets and themes. This suggests a potential for complexity of structural character.

A further flavor of complexity comes from the fact that what is a point-structure on one level of scale, could, on another level of scale, give rise to a neighborhood of point-structures or even a variety of latticeworks. As such, point-structures have the capacity to manifest fractal-like properties when engaged on different levels of scale.

Latticeworks are the result of a collection of neighborhoods that are held together by a set of phase relationships. These phase relationships establish identifiable patterns of activity, as well as

identifiable patterns of horizonal boundaries, within which the collection of neighborhoods interact with one another.

Ratios of constraints and degrees of freedom are related to one another by means of phase relationships. In other words, ratios are linked to one another by a spectrum of constraints and degrees of freedom that establish parameters within which phase quanta are exchanged between interacting ratios. Phase quanta are discrete arrangements of constraints and degrees of freedom that are drawn from the spectrum of arrangements that are possible in the context of interacting point-structures, neighborhoods, and/or latticeworks.

At any given time, if two point-structures, neighborhoods or latticeworks are linked to one another, the structural character of the link is an expression of one aspect of the spectrum of ratios that is generated by the underlying dialectic of dimensions. When such a link manifests itself, this is known as a phase quanta exchange. This exchange gives expression to a state known as a phase relationship.

Thus, the phase relationship state encompasses the following sequence of activity. (a) It begins with first engagement of specific ratios; (b) proceeds through phase quanta exchanges; (c) includes the alteration of the ratio character of the point-structures, neighborhoods and/or latticeworks involved in the engagement process; and, (d) ends with the disengagement of previously interacting ratios.

Both the process of phase quanta exchange, as well as the state of phase relationship in which that exchange is embedded, are subject to the influence of differential, vectored pressure components. Sometimes the structural character of the way these vectored pressure components interact is complex. When this is the case, these components give expression to tensor components that constitute a source of stresses capable of simultaneously pushing, pulling, twisting and stretching any given phase quanta exchange or phase relationship state.

(q) Suppose one has a set of homeomorphic analog mapping latticeworks that preserve the invariance or symmetry of the laws or principles of understanding independently of the state of dialectical engagement of any given hermeneutical observer with respect to some

given event or phenomenon. Such a set constitutes a continuous hermeneutical transformation group.

The methodology of special relativity theory might be a special limiting case of the more general principle of hermeneutical relativity. This principle is directed toward establishing invariance of structural character in the context of dialectical engagement of ontology by a number of different observational frameworks.

One encounters the social community of knowers and interpreters in the context of the continuous hermeneutical transformation group. In order for the invariance or symmetry of a given law of understanding to be preserved, one must establish congruence with that which makes phenomena of such structural character possible.

For the various hermeneutical latticeworks of different observers to be analogs of one another, is not enough. They also must preserve symmetry through generating congruence functions in relation to the structural character of the phenomenon to which all observers are making identifying reference. To demonstrate that these different frameworks are analogs for one another is significant but only in the context of each hermeneutical framework having established defensible congruence functions with respect to some aspect of the structural character of ontology.

At the same time, through the dialectic between, or among, different hermeneutical frameworks, members of the community can work toward uncovering facets of invariance in different aspects of the structural character of reality or ontology. In this sense, the hermeneutical activity of the community -- considered as a whole -- takes on the form of a hermeneutical operator. This operator engages the point-structure products generated by individuals through the activity of the latter's own hermeneutical operator.

In other words, the hermeneutical activity of the community as a whole establishes a latticework in which the hermeneutical activity of individuals forms complex point- structures or neighborhoods (in the case of a number of people whose hermeneutical positions are similar but not entirely the same) within that community latticework. Thus, the hermeneutical activity of the community is an expression of the hermeneutical operator considered from a different level of scale than that of the individual ... and there might be either self-same or self-

similar linkages between the two levels of scale (i.e., the individual and the community).

All of the basic components inherent in the individual's hermeneutical operator also are inherent in the community run hermeneutical operator. Furthermore, just as one finds different kinds of attractors on the individual level of scale, one also finds various kinds of attractors on the community level of scale.

(r) The hermeneutical coupling constant is an index of: (a) the way a given structure's spectrum of ratios of constraints and degrees of freedom holds together as an integral unit; (b) the way a given structure's spectrum of ratios can either spontaneously manifest different aspects of its spectrum of ratios, or be induced to manifest different aspects of its spectrum of ratios. Each structure has its own, unique coupling constant. This constant differentiates that structure's spectrum of ratios from the spectrums of the set of ratios of constraints and degrees of freedom that give expression to other kinds of structures.

If a given structure loses its coupling constant, the integrity of that structure is violated and it will no longer manifest itself in characteristic ways. A structure whose coupling constant has been disrupted will no longer manifest itself in terms of the spectrum of ratios that normally establish the set of parameters within which, and through which, and by which that structure's character is given expression.

Structural character is a function of the following elements or aspects: (a) The ratio of constraints and degrees of freedom; (b) the pattern of the emphasis/de-emphasis format of phase relationships that give expression to a particular ratio of constraints and degrees of freedom; (c) the orientation of a phase relationship as a manifestation of the property of hermeneutical isomerism; (d) the coupling constant that brings together, and maintains, the components of (a), (b) and (c) as a spectral character of one sort, rather than another. The coupling constant is a function of the dialectic of the dimensions that has been set in motion by an order-field.

One of the tasks of hermeneutical field theory will be to identify those spectra of ratios of constraints and degrees of freedom in which,

despite undergoing a variety of local gauge transformations, nonetheless, remain invariant with respect to structural character. In other words, some of the phase relationships, which give expression to the various ratios of a particular spectrum, will undergo phase shifts or phase transitions, and such phase shifts will alter the character of the ratio of which they are apart.

Despite these phase transitions and despite the concomitant alteration in some of the ratios of the spectrum being considered, the structural character to which the spectrum gives expression remains, largely, intact and conforms to the law of structural identity. This occurs when one can identify the post-transformational structure as being, effectively, the same structure as existed prior to the transformation.

The more complex a structure is, the more allowances one has to make for the degrees of freedom exhibited by the structure as a result of either spontaneous activity, induced activity or the dialectic between spontaneous and induced activity. Seen from this perspective, the fact certain phase relationships or ratios of constraints and degrees of freedom are not preserved across transformations (whether spontaneous, induced or dialectical) is not evidence that symmetry, with respect to structural character, has not been preserved.

In fact, just the opposite might be the case. Such alterations in ratios might be part of the fluidity or flexibility of a given structure's character.

Consequently, part of the task of hermeneutical field theory is to differentiate between critical instances of symmetry failure and non-critical instances of symmetry failure. In a sense, a given structure can go through a multiplicity of states as various phase relationships undergo phase transitions. As long as these phase transitions are of the non-critical variety, then symmetry is preserved with respect to the structure's coupling constant character.

(s) The hermeneutical operator or semiotic quantum is an intrinsic part of the phenomenology of the experiential field. Indeed, it gives expression to the "curvature" of the different levels of scale of the n-dimensional character of the phenomenological manifold.

When the hermeneutical operator generates a structure that accurately reflects some aspect of the phenomenology of the experiential field or some aspect of ontology that makes an experiential field of such character possible, the hermeneutically-generated structure has zero curvature. That is, the structure does not distort what it reflects.

When the structure that is generated does not accurately reflect the structural character of that to which identifying reference is being made, then, the curvature of the phenomenology of the experiential field, due to the presence of such distorting semiotic quanta, will be some non-zero quantitative and/or qualitative value. The greater the degree of distortion, the greater will be the magnitude of the non-zero curvature value.

A hermeneutical gauge field is unique in the sense that the hermeneutical gauge is itself a field. In fact, a hermeneutical gauge field is a field within a field.

More specifically, the hermeneutical operator is a semiotic quantum that generates a hermeneutical gauge field. The properties, characteristics, strength, orientation, and so on, of the hermeneutical gauge field are a function of how the six components of the semiotic quanta (i.e., the 6 dimensions of the hermeneutical operator – namely: identifying reference, reflexive awareness, characterization, interrogative imperative, inferential mapping, and congruence functions) dialectically playoff against not only one another, but with the phenomenology of the experiential field as well.

The depth of penetration of the semiotic quanta as a carrier of force is a function of the focal/horizonal dialectic. Usually, however, this depth of penetration is limited to just one or two levels of scale at any one time. The range of the semiotic quanta depends on the quality, complexity and number of horizonal features that are drawn into, or become projected onto, a given instance of focal activity.

(t) The various aspects of the semiotic quantum (such as reflexive awareness, identifying reference, characterization, etc.) are comparable to a complex form of isotopic spin. The proton and neutron are alternative versions or states or expressions of a single particle known as a nucleon that, depending on its internal spin

characteristics, will manifest itself either as a proton or as a neutron. Similarly, the semiotic quantum is a phenomenon that, depending on its internal spin characteristics, will manifest itself in different ways.

However, the internal spin characteristics of the semiotic quantum are far more complex than is the case for the isotopic spin of the nucleon. The character of hermeneutical isotopic spin is like a tensor matrix in which the individual cells of the matrix weave together covariant, contravariant and transvariant currents from the other five aspects, orientations or spin states of the semiotic quantum.

The term "transvariant tensor" is a term that has been coined in order to be able to refer to multi-dimensional tensions, stresses, and dialectical activity that modulate the ratio of constraints and degrees of freedom of a given orientation of the hermeneutical operator. However, these transvariant tensors do not conform to the characteristics of neither a covariant tensor nor a contravariant tensor or a mixed tensor of the usual sort in mathematics. Among other things, they are nonlinear in character.

This dialectical process of weaving together the different currents of the hermeneutical operator takes place in a context of specific experiences, ideas, values, beliefs, actions, desires, emotions, motivations, needs, sensations, and so on. With the passage of time, there is a stream of semiotic quanta.

Individual semiotic quanta are generated through focal/horizonal dialectical activity. Said in another way, focal/horizonal dialectical activity is the gateway through which semiotic quanta are emitted.

Focal/horizonal dialectical activity is rooted in the phenomenology of the experiential field. However, because the hermeneutical field is embedded in the phenomenological field as a potential for structure, this potential is activated, or turned on, in one of two cases: (a) inducement and (b) spontaneously.

In the former case, semiotic quanta are generated or released when certain thresholds of the phenomenology of the experiential field are surpassed (much as happens with the photoelectric effect when incoming photons sometimes cause electrons to be emitted as a result of raising the energy level of the electron). Such thresholds do not exist just with respect to sensory stimuli, they also exist with respect to issues

such as: motivation, memory, fantasy, interests, likes, dislikes, and so on.

On the other hand, when semiotic quanta are spontaneously generated or released, this is an expression of an underlying attractor (whether indigenous or learned) that aperiodically releases semiotic quanta in a self-similar manner. Such spontaneously generated semiotic quanta can lead to shifts in attention as choices are made from among a group of horizonal candidates.

In the spontaneous process of transition in the orientation of intentionality, once the semiotic quantum arises, an investment is made in a given horizonal attractor, while investment is withheld from other horizonal attractor candidates. The selection of investment venue is made on the basis of a series of brief dialectical interludes (a sort of mini-sampling process) with different horizonal attractor candidates.

This interaction brings together a number of dimensions such as: time, space, materiality, energy consciousness, will, and understanding. However, the primary variable of the semiotic quanta concerns the hermeneutical operator that is rooted in the dimension of understanding.

(u) A gauge, in field theory, refers to a standard of measurement capable of undergoing change as a result of being transported to different points of the field. If the value of measurement of the gauge changes during the process of transportation, those changes are said to be due to the effect of the field on the gauge.

For example, since a field gives expression to a vectored quantity, the strength of the field has the capacity to register on the gauge both with respect to magnitude of intensity as well as with respect to orientation or direction of that intensity. Therefore, if one's measurement gauge is a dial that contains a pointer, then the pointer will take on different orientations -- depending on, say, the varying strength of the field -- as a gauge is moved about the field.

Any field capable of bringing about the foregoing sorts of changes in the gauge, as the latter is transported about the field, is known as a gauge field. A gauge field involves the dialectic between a measuring methodology and a given ontological field.

A gauge field incorporates a set of rules and/or principles permitting one to describe, as well as keep track of, the transitions undergone by the gauge. This property of the gauge field enables one to make comparisons of, for example, the strength of the field at different points in that field.

The hermeneutical operator's dialectical engagement of the phenomenology of the experiential field satisfies the conditions that indicate the presence of a gauge field. In short, the dialectics of this engagement involve a standard of measurement capable of being affected by variations in the strength (both qualitative and quantitative) of the field through which the gauge is moved. Moreover, the hermeneutical gauge operates according to a set of rules or principles that permit one to describe and keep track of changes in field strength as the gauge is transported about the phenomenological field.

However, the hermeneutical gauge is not just a passive recorder of fluctuations of the phenomenological field. The hermeneutical gauge also is capable of actively operating on that field and generating interpretations of the significance or meaning of the changes in field strength that are registered. Consequently, as is the case with any mode of measurement (but especially in light of the active, interpretive, projective character of the hermeneutical operator), the hermeneutical operator is capable of distorting the structural character of that which is being measured.

In line with the foregoing comments, one might suppose there will be something like a Humpty-Dumpty Effect in the context of hermeneutical field theory. In other words, as a result of the impact of ontology on methodology, as well as a result of the impact of methodology on ontology, fracture zones or zones of stress will emerge in the realm of understanding.

More specifically, where the manifold of methodology comes into contact with the manifold of 'reality', the stresses, forces, frictions, limitations, and so on, occurring as a result of the dialectic of these manifolds, will prevent perfect congruencies from being established. Consequently, on one or more levels of scale, there will be lacunae and/or stress bumps that act as obstacles to a total merging of horizons.

In fact, the limitations that, inevitably, are inherent in any given methodology, have a distorting, squeezing, pinching, and/or shearing effect on the congruency process. This is because of the tendency of such methodologies to try to impose a structural character onto an aspect of reality that does not really fit.

This attempt to force-fit reality into preconceived categories -- of whatever description -- causes the hermeneutic of the phenomenology of the experiential field to develop wrinkles, bumps, lacunae, and so on. These get in the way of achieving a complete congruency relationship or merging of horizons.

(v) During the hermeneutics of experience, dissipative structures arise when problems are generated in relation to: reflexive awareness, characterization, identifying reference, the interrogative imperative, inferential mappings and congruence functions. One of the primary modes of creating conditions conducive to dissipative structures is through the interrogative imperative.

The interrogative imperative has the capacity to push a given hermeneutical context, which previously had exhibited dynamic equilibrium, too far from equilibrium conditions. Dissipative structures might arise out of these far from equilibrium conditions. Over time, these dissipative structures might serve as seeds for the development, construction, generation or emergence of new hermeneutical attractors.

(w) An individual's temporal identity gives expression to both biological rhythms, as well as, hermeneutical rhythms. Indeed, temporal identity is a manifestation of the structural character that is generated, in part, by the dialectic of biological and hermeneutical rhythms.

In addition, temporal identity consists of oscillating ratios of constraints and degrees of freedom. These oscillating ratios are generated by the different levels of scale of dimensional dialectics that give expression to a human being.

One way to construe brain activity is in terms of the way such activity helps generate a variety of attractor basins of varying biological rhythms. These basins are capable of shaping behavioral

currents involving: motivations, emotions, sensations, dreams and so on.

Thus, early in life, intrinsic or innate attractor basins dominate focal activity and form the primary components of the horizon of focus. As the individual develops, focal activity that is not a strict function of the intrinsic biological attractors begins to take on an increasingly active role across a wide range of issues and situations.

As a result, the hermeneutical operator begins to pick up steam and generate a variety of hermeneutical themes, attractor basins, and so on. These also become part of the horizon.

Consequently, part of the maturational process shows a change in the ratio of purely biological rhythms to hermeneutical rhythms. This change in the ratio of hermeneutical to biological rhythms might be reflected, to some extent, in various stages of development.

By and large, however, existing attractor basins tend to overshadow these later emerging attractor basins. These already existing attractor basins tend to have a hefty amount of inertia associated with them.

On the other hand, the new attractor basins often have the advantage of improving the heuristic quality of the individual's dialectical interaction with the environment. This is accomplished through extending and deepening the individual's range of competent interaction with the environment. Moreover, these new attractor basins frequently provide the individual with a series of strategies that provide better, faster, as well as more satisfying ways of approaching and resolving a whole host of issues and problems.

Consequently, the old and new attractors compete, in a sense, for the attention of focal activity. The process of transition from one developmental stage to another reflects this competition. In addition, the process of transition reflects the changing character of the way focal activity orients itself toward, as well as permits itself to be influenced by, the aforementioned competing attractor basins.

Ideally, the attractor basins that become dominant will be those that are most efficient, heuristically valuable, and far-reaching in their capacities to solve problems or deal with the world. However, the

inertia of already existing attractor systems must be overcome in the process, and this does not always occur, for any number of reasons.

(x) If one wants to: establish, dialectically engage, preserve, question and/or, eventually, improve upon any given set of ideas or values, one must generate hermeneutical mapping algorithms. These algorithms are capable of arranging or combining the six basic hermeneutical operations into a methodological latticework that can be applied to the phenomenology of the experiential field.

The hermeneutical operator is an analog for Mandelbrot's function: $f(x) = x^2 + c$. As such, it is capable of generating attractors whose boundary properties will depend on: (a) The experiential seed values that are fed into the operator, together with (b) the hermeneutical orientation and character of the algorithm that has been constructed by the individual. The latticework generated by applying the hermeneutical mapping algorithm to the phenomenology of the experiential field is the hermeneutical counterpart to the notion of a path or orbit in dynamical systems.

Hermeneutical mapping algorithms also are recursive. In other words, the products generated by applying hermeneutical operations can be fed back into the hermeneutical algorithm. This recursion process alters the character of the way the algorithm operates on future point-structures in the phenomenology of the experiential field.

Hermeneutical orientation, together with that to which a given orientation is making identifying reference, constitute the two ends of the mapping process that is being constructed through, in part, the operational activity of the algorithm. The mapping itself is an expression of the dialectic between, or among, the phase relationships of the latticeworks involved in the dialectical engagement process.

In the hermeneutical algorithm each of the operational components contributes to the overall structural character of the algorithm by giving expression to envelopes of constraints and degrees of freedom. These envelopes establish a latticework of phase relationships that will engage the 'object', event or condition in a way that is characteristic of that operational component.

Thus, the character of an interrogative latticework is to induce questions about phase relationships and structural themes. On the other hand, the character of the inferential function latticework is to lay down tentative links between, or among, different aspects of one or more point-structures. Each of the other components of the hermeneutical operator has, as well, features that are uniquely characteristic of those components.

However, one must not forget that these operational latticework components cannot really be separated from one another. They are dialectically entangled. As a result, each component forms part of the horizon of the other components. Therefore, they modulate, vector and tensor (in a hermeneutical, not a mathematical, sense) one another on a constant basis.

All of these operational components constitute complex point-structures in the larger, whole, integrated latticework of the hermeneutical mapping algorithm. Thus, one has latticeworks within latticeworks. Indeed, one could discover new point-structures and latticeworks as one went either up or down across various levels of scale.

The basic function of the hermeneutical mapping algorithm is to generate phenomenological structures capable of reflecting, in analog fashion, the structural character of various aspects of ontology being engaged. The hermeneutical mapping algorithm is a methodological means of working toward the unraveling of certain ontological structural themes that are given expression through the phenomenology of the experiential field. A hermeneutical algorithm is successful to the extent it terminates in a merging of structural horizons between: (a) understanding and (b) that to which the understanding is making identifying reference in the phenomenology of the experiential field, as well as that which makes something of such phenomenological structural character possible.

(y) Any ratio of constraints and degrees of freedom gives expression to an attractor. The dialectical character of such a ratio determines the properties of the attractor basin or sphere of influence that has arisen as a manifestation of the attractor.

Therefore, hermeneutical structures -- which can be constructed in terms of a complex dialectic of various ratios of constraints and degrees of freedom -- give expression to attractors and, therefore, attractor basins. Some hermeneutical structures form fixed-point structures. Other hermeneutical structures form limit-cycle attractors, while still other such structures form chaotic attractors.

In general terms, there is a dynamic dialectic occurring along the boundaries that emerge among two or more hermeneutical attractor systems. Each attractor has a basin.

This basin serves to shape and orient the forces that are characteristic of that attractor. The basin gives expression to the vectored and tensored components that establish the parameters marking the outer limits of the hermeneutical attractor's sphere of influence.

Not all dynamical systems are governed by just one state of equilibrium. Some systems have two equilibrium states, and others might have more than two states of equilibrium. This is especially true in the case of hermeneutical systems.

Each equilibrium state constitutes an attractor, and each attractor gives expression to a set of boundary properties. Where two or more attractors come together, the boundary separating them can be, but might not be, both complicated and turbulent.

Moreover, even if the long-term character of a given instance of dialectical interaction is not chaotic, chaotic properties might surface along the boundary regions separating one hermeneutical attractor basin from another. As a result, predicting the direction in which the system will go can become extremely difficult.

Consequently, the study of hermeneutical attractor fractal basin boundaries is like its counterpart in nonlinear dynamics. Each of these is concerned with the phase transitions occurring at certain threshold values along the boundaries of interacting hermeneutical basin attractors, as one goes from laminar flow to catastrophic behavior to a final, non-chaotic equilibrium state.

In a sense, constraints and degrees of freedom have a sort of yin and yang relationship. Just as there are constraints within a set of degrees of freedom, there are degrees of freedom within a given set of constraints.

In this respect, one really cannot separate the ratio of constraints and degrees of freedom. The integrity of a latticework's structural character requires both.

Indeed, the yin/yang relationship of constraints and degrees of freedom is reminiscent of the relationship between information and noise that Mandelbrot discovered in relation to messages communicated over telephone lines. As a result, irrespective of the level of scale through which one engages a given structure, there will be a ratio of constraints and degrees of freedom that gives expression to the character of that structure.

(z-1) Any methodology involves, as part and parcel of its being a methodology, a means or technique for locating or establishing a point of origin or a reliable point of reference. Such a point of reference is one that is rooted in the structural character of reality or that reflects an aspect of that structural character.

Through this point of reference, one can locate or orient oneself in relation to a wave's or latticework's (considered as a complex or compound waveform structure) current expression of its phase spectrum. As long as one's methodology is unsuccessful in establishing this referential point of engagement, one will have no means of locating, identifying, determining or establishing what the phase spectrum of a latticework is.

Moreover, one will have no means of determining where one is in that phase spectrum when one experientially engages that latticework. In addition, if one selects an incorrect, distortive or problematic point of reference as a basis through which to engage a given latticework, the difficulties surrounding the initial selection process will be transmitted throughout the whole subsequent engagement and orientation process.

Symmetry relationships in a given coordinate system reflect, or are alleged to reflect, the structural character of some aspect of ontology or some aspect of the phenomenology of the experiential field, or both, to which the coordinate system is making identifying reference. Consequently, there will be tensors on each side of the

hermeneutical equation that purport to reflect congruence between ontological and hermeneutical/phenomenological structures.

One side of the hermeneutical tensor equation consists of the aspect(s) of ontology that help make possible an experience of a given structural character. The other side of the hermeneutical tensor equation consists of the aspect of understanding/orientation that the individual has with respect to, or has toward, the aspect of the phenomenology of the experiential field to which identifying reference is being made.

The tensors on each side of the equation must have the same structural character. If this is not the case, the equation will have limited epistemological value or meaning. This is so since the equation will not give expression to a tenable, if not accurately reflective, relationship between certain aspects of the ontology and the hermeneutics of the phenomenology of the experiential field that are being linked through the hermeneutical tensor equation.

Thus, hermeneutical applications involving the idea of tensors is a matter of seeking symmetry -- that is, relationships of invariance -- which are preserved across different contexts of change and transformation. In the hermeneutical frame of reference, these contexts do not necessarily represent geometric coordinate-ordinate systems. Nonetheless, one needs to discover tensors with structural characters that remain invariant as one moves from the context of the phenomenology of the experiential field to the context of ontology to which that phenomenology is making reference but which is, to some extent, independent of that phenomenology.

In other words, hermeneutics involves, among other things, a study or exploration of the structural character of the properties of change occurring in, and around, a structural-point expression of, or the neighborhood of an aspect of, the phenomenology of the experiential field. This exploration is done in an attempt to determine the structural character of the forces of stress, strain and so on that are being exchanged with different aspects of ontology.

(z-2) There are two different kinds of bijective mapping that are possible. One kind of bijective mapping is between: (1) A neighborhood

of the experiential/phenomenal field, and (2) a given neighborhood of noumenal points along the boundary structure separating phenomenological neighborhood point-sets from noumenal neighborhood point-sets.

One must keep in mind here, however, that the idea of "separation" is dialectically complex. As a result, one is not always in a position to distinguish where the phenomenal neighborhood leaves off and the noumenal neighborhood begins. This first kind of bijective mapping emphasizes the role of the merging of horizons as well as the removing of methodological veils interfering with the establishing of such bijective mappings.

The other kind of bijective mapping is between two different neighborhoods of experiential or phenomenal points such that one neighborhood is mapped onto the other by means of imagination. In other words, the hermeneutical operator is in its projecting/construction mode rather than in its merging mode.

Naturally, there can be various kinds of combinations of the two sorts of bijective mapping. However, the more the ratio of the two kinds is dominated by the projection mode rather than the merging mode, the more will the individual be removed from a true understanding of either phenomenology or that which makes phenomenology of such structural character possible.

Consequently, all methodology constitutes a mapping process that attempts to establish various degrees of homeomorphism between phenomenal and noumenal neighborhoods. Difficulties arise, however, when: a given methodology identifies a phenomenal neighborhood as a noumenal neighborhood and, therefore, assigns an incorrect set of boundary parameters to that phenomenal neighborhood of points.

Although the ideal case in hermeneutics or epistemology would exist when a homeomorphic relationship held between two structures, one is not likely to achieve the ideal in very many, if any, cases. One reason for this is that, with the exception of all but the simplest issues, the ontological context tends to have an inherently richer structural character than does the hermeneutical context.

Often times, the most one can hope for is to establish congruence functions. In a sense, congruence involves a special, limited case of homeomorphism in which only certain key or essential neighborhoods are linked together through mapping relationships.

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