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**Innovation in Societal Evolution:
Some Thoughts on Evolving Culture**

By Maury Seldin

The Body and Mind of Society

Innovation in societal evolution may come from altering the structure of the body and the mind of society. The body of society, as with the bodies of humans that make up our somewhat human society, is composed organs and supporting networks which carry out the functions of the system. These organs of society result from the interaction of individuals at various levels of networks that lead to the emergence of the organs and the body as a whole. [See chapter 3, An Analogical Model Using Human Biology. It is in the *American Democracy* treatise; the third book of this three book series.]

The body as a whole for the society under discussion is that of American civilization. However, the focus is on the functioning of American Democracy as a critical organ of Americana. That functioning is heavily influenced by the patterns that evolve in the process of the evolution. Patterns are key characteristics in the process of emergence. They arise from the interactions of the agents (the people and their organizations). The hope for the next round of innovation rests heavily with the role of the younger generations, particularly the millennials.

The mind of society is an emergent property of the brains (such as they are) at work. The brains of society are composed of the brains of individuals as though they were neural networks with interactions analogous to the interactions of neural networks in the human brain of an individual. As with the human mind, the system is quite complex with actions resulting from the memes and genes imbedded in the system. But the system evolves over time. Our concern here is with fostering an evolution that would improve the quality of life prevalent in American Democracy, especially with the values espoused in the Declaration of independence.

Since this appendix was first written, democracies around the world have been eroding, in large measure because they have failed to deliver what was expected. American Democracy is no exception. Indeed, of great concern for the future of humanity is that American Democracy is not doing well as *The Great Experiment* setting a path for the Human Species.

The Structure as a Critical Element in the Process

In attempting to foster an evolution that would better serve the quality of life, we are engaged in the process of what may be called *harnessing complexity*. A seminal work in harnessing complexity is the book by Robert Axelrod and Michael D. Cohen titled is *Harnessing Complexity: Organizational Implications of a Scientific Frontier*. The basic concept of harnessing complexity is described as "...deliberately changing the structure of a system in order to increase some measure of performance, and to do so by exploiting an understanding that the system itself is complex. [p. 9]" The index lists fourteen ways to influence complexity including dealing with variety, slack in the system, affecting types in the system, and leadership. The holistic view is that complex systems are not amenable to solely relying on the linearity analyses that are used to run a hierarchical structure, but need to include efforts to channel "...the complexity of a social system into desirable change, just as a harness focuses the energy of a horse into the useful motion of a wagon or a plow. [p. 9]" (This excerpt is from an appendix (titled Divineness in America) to the main treatise, *American Democracy: Declaration, Pursuit, and Endangerment*.)

Some Historical Changes in Societal Structure

American societal structure has evolved in many ways since the Declaration of Independence. The first 18th century structural change was the Declaration of Independence by a confederation of states through a successful war for independence. In about a decade later there was an evolution from a confederation to a federation marked by the Constitution of the United States. That change is well described in a recent book by Joseph J. Ellis, *The Quartet: Orchestrating the Second American Revolution, 1783 - 1789*. The roles of George Washington, Alexander Hamilton, John Jay, and James Madison (the quartet) are discussed in the book.

The remarkable structural change in the 19th century was the American Civil War. It marked a major turning point in the move towards the ideals expressed in the Declaration. That freedom from slavery

was a step towards a wider participation in the pursuit of the unalienable rights espoused in the Declaration. It still took until the 20th century to make substantial additional changes in the right to vote, including overcoming the gender based discrimination. All of these changes evolved through a cultural evolution and an emergent process that changed the structure of the system.

The first structural change in the 20th century emerged from the Great Depression. As a result of the disastrous economic conditions the role of the federal government underwent substantial changes. It was accompanied by an evolution of the cultures that supported the great transition. As expected, in a multicultural society not all segments were accepting of the transition.

Our concern here is with the second major change in the 20th century. That change was the creation of the great unity of Americans during World War II (WWII) and then the subsequent erosion of that unity evolving to a very self-oriented society. That great unity of American society created an amazing quantity of social capital by uniting for the war effort. In the decades of the latter part of the twentieth century the prevalent behavior of Americans in the economic and political arenas has become so individualistic as to erode the social capital.

Much of this was in the wake of the tapering of the century of economic growth from 1870 to 1970. That tapering of economic growth is discussed in detail by Robert J. Gordon, in his book *The Rise and Fall of American Growth*. In my notes for an April 2016 presentation at Books and Ideas at ASPEC, focused on the Gordon book, I provided a really short summary of the message. It is from a paragraph on the second page of his Postscript (what amounted to an additional chapter beyond the basic structure of the book). That Postscript starts with the sentence "The timing of the stream of innovations before and after 1970 is the fundamental cause of the rise and fall of American growth." He continues with " In recent years, further downward pressure on the growth has emerged from the four headwinds that are slowly strangling the American growth engine." Then, he goes on in the same paragraph summarizing his concluding chapter. That chapter is titled "Inequality and the Other Headwinds: Long-Run American Economic Growth Slows to a Crawl."

My restatement of the four headwinds is noted in the rest of the paragraph is as follows:

1. Rising inequality diverts what would have been spending by the bottom 99 percent;
2. Slowed educational attainment in recent decades is a source (and result) of rising inequality;
3. The demographics of a smaller proportion of the population in the work force is reducing the aggregate number of hours worked, per person; the calculation based on total hours worked (counting non-workers as well as workers) of the total population; and
4. The burden of the federal debt and obligations.

He used the traditional perspective of the level of economic output as measured by Gross Domestic Product (GDP). There are some serious shortfalls in the reliance on that measure, some of which are noted in my notes for the ASPEC presentation. In any case, the innovation from 1870 to 1970 was

typically based on advances in the physical sciences. That focused on goods and services traded in a marketplace for financial considerations.

Innovation for the twenty-first century needs to tilt towards changes in societal structure – changes that alter the body of society as it structures its relationships, not only for equality in the sense of equity in the reciprocity of the system, but also through the realistic access to the tools of government. That change in the body of society can come about only with a change in the mind of society – each change being dependent on the other. It is a feedback system.

Part of this process is the evolution of culture. The social capital created in World War II for common interest of societal survival eroded. The decades of the last half of the twentieth century spawned at least a couple of patterns of cultural evolution. One was in the sixties best labeled by the quip “if you remember it you were not part of it.” The other was identified by a comment in the movie *The Big Short* developed out of the Michael Lewis book *The Big Short: The Doomsday Machine*. It was in a discussion following the discussion between two of the protagonists having just received the disclosure from a couple of the mortgage banking players on how they were screwing the public. One of the protagonists expressed surprise at being told of the injustices being committed. The other said there was no surprise, “They were bragging.”

The culture of the last half century has gone well beyond the old saying of *buyer beware*. It has gone to a culture in which the function of business in the societal structure has been subsumed to the rigging of the system to favor those with the power to alter the structure. The result is that professions that focused on client welfare evolved to businesses that exploit the markets at the expense of the consumer. The management philosophy espoused by Professor John Mee when I was a doctoral student in the late fifties focused on business having a societal function that called for management to focus on goals relating to the consumer. The best example of a company that did that, according to my memory, was Ben & Jerry’s Ice Cream Company.

Changes in the Body of Society

The change in the body of society is heavily dependent on the education of the individuals in a democracy, not only for the participation in the body politic, but also the economic participation in enhancing the productivity of the society. The globalization that affords the availability of cheap labor abroad, leading to outsourcing abroad and establishment of factories abroad, puts great pressure on the domestic job market. It has generated movements toward protectionism reminiscent of earlier era – protectionism that did not work well for the country as a whole over the long run.

Since this essay was first written, that protectionism is rearing its ugly head and is significantly contributing to the endangerment of *American Democracy, The Great Experiment*.

The education for the new opportunities in the job market has been a very expensive matter generating a new set of problems. A South American country, unable to afford publically provided technical education, generated some of the most productive computer hackers and other technicians through a self taught system operating through informal networks. The self-education process is critical to innovation as well as playing an important role in structured educational systems. Educational systems need to adapt to changing environments. (See the discussion in the *Appendix to the Prolegomenon: Evolution in Higher Education.*)

Although the first great restructuring of the American political economy came out of the desperation of the Great Depression (the change in the role of government in the operation of the economy), the first great restructuring of the American political-economy in the 21st century may come out of the Great Recession, sparked by the housing market bubble and capital market freeze; or so I thought when this was first written. But, that is not turning out to be the case. My best guess is that the process is going to take a cultural change that takes generations to evolve. It may have already have started with the Z generation exemplified by what evolved with the protesting of some high school students around the country after the shooting at the Stoneman Douglas High School in Parkland Florida on February 14, 2018.

If it takes a disaster to accelerate what is starting as a slow process, a disaster may be provided under the leadership of President Donald Trump, stemming from a variety of policies mentioned in the first book of the trilogy. In any case, the evolution is a gradual process and the latest markers include the changes in voter turnout 2018 midterm elections resulting in the substantial change in the composition of the House of Representatives. Another marker is being indicated by the stonewalling by President Trump of investigations by the House of Representatives in their pursuit of their oversight responsibility.

What started to evolve in the few decades before the turn to the 21st century, and continues into the first couple of decades of the 21st century, was an obvious increase in the disparities in equality ranging from income and wealth distribution to power that influenced the structure of the political-economy. The Occupy Wall Street Movement was a signal from the disenfranchised. But, some of the franchised (the very wealthy) made commitments for philanthropic disposition of substantial portions of their wealth. That amounts to a change in the structure from whence the resources come for societal change. In a sense, it was reminiscent of the philanthropy in another era; that of the Captains of Industry, also known as the Robber Barons. The evolution of systems sometimes takes the route of great discontinuities; but sometimes the change is a gradual shift inducing other gradual shifts and an ensuing feedback system. Such gradual changes, over time, can make a substantial difference in the quality of life alluded to in the Declaration without a drastic discontinuity of a revolution that created the confederation of states, the civil war that settled the slavery issue, and the Great Depression that drastically altered the role of the federal government.

The challenge is to harness the increasing complexity of an ever evolving political economy. It is a bit like racing the Red Queen as discussed in the my 2016 ASPEC presentation notes quoting from a Matt Riley book, *The Red Queen*, "The concept that all progress is relative, has come to be known in biology by the name of the Red Queen, after a chess piece that Alice meets in *Through the Looking Glass*, who perpetually runs without getting very far because the landscape moves with her [p. 18]." So, now let us explore the evolutionary process of American societal structure.

Some Elements in the Evolutionary Process

Many societal segments may be involved in making substantial progress. However, three heavily interrelated elements appear to be salient. One is education as an element in different arenas including productivity and democracy. The other is the nature of goods and services provided in the economy in both the market and non-market arenas affecting the quality of life. The third is a culture change that hosts an evolving human nature and in turn feeds future change. That culture change is especially important as it relates to morality and social justice that in turn affect the extent of social capital that in turn affects progress in the first two societal segments, education and productivity.

These societal segments, partially alluded to in the discussion of the body of society, are interrelated to the mind of society. It is through the mind of society that the body of society evolves. Then, as the structure in the body of society has emerged with changes there is an impact on some of the minds in society. Interactions among the individual minds generate an emergent change in the mind of society. The discussion now turns to some elements in the evolutionary process that are rooted in the mind and transformed into behavior that may alter the structure of society.

A Couple of Arenas of Knowledge

The relevant arenas for knowledge obviously include knowledge essential for gainful employment. The structure of production in America having shifted from predominance of manufacturing to service industries is further evolving to require more technical ability in the mix of abilities in the labor force. Dissatisfaction with employment opportunities is a condition that may breed evolutionary changes, but even people with good jobs may breed societal change. Their qualities of life may not comport with their values because the societal structure may foster behavior not in accordance with their values, or may deter the pursuit of the qualities of life they cherish for themselves and believe others ought to cherish.

Going beyond the level of knowledge required for gainful employment, we have knowledge (or absence thereof) of how the political-economy really operates. What is even more destructive of quality of life than absence of knowledge on how the system operates is conviction that its operation in accordance with principles that are unrealistic. Simply put, it is not so much what people don't know that get them in trouble it is what they know that is not so.

The main treatise on democracy and its endangerment, especially its opening chapter, and its supporting chapters and appendices, deals with nascent disciplines, as does all three books of this trilogy. These advancements in knowledge of nonlinearity in complex adaptive systems provide a better understanding of reality than the traditional models that rely only on linear reasoning even though the system operation that is relevant to the issue at hand is nonlinear in nature. This arena of knowledge is centered on some nascent disciplines especially complexity science, network science, and cognitive science.

The Nature of Goods and Services Provided in the Economy

The second element in the evolution of societal structure is the nature of goods and services provided in the economy in both the market and non-market arenas affecting the quality of life. Those provided in market transactions for financial considerations typically provide the bulk of the employment opportunities. That changing structure of employment opportunities was mentioned in the discussion of education.

Additional opportunities for employment for financial compensation are present in organizations that operate on a not-for-profit basis. However, some of the employment in not-for-profit organizations is by volunteers, for which there is no pecuniary compensation.

Economic growth is often considered as it relates to standard of living. So, the non-market provision of goods and services are not included in the standard of living measures even though there may be substantial increases in standard of living provided through charitable services. The aging population and the lower workforce participation rates are altering the societal structure that provides the standard of living for some segments of the population.

In addition, the standard of living as measured by GDP (Gross Domestic Product) is not a measure of *Quality of Life* (QOL). A twenty-first century view of the state of the art of QOL from *The Economist Intelligence Unit's quality-of-life index* in THE WORLD IN 2005 lists nine QOL factors as follows: 1. Material wellbeing; 2. Health; 3. Political stability and security; 4. Family life; 5. Community life; 6. Climate and geography; 7. Job security; 8. Political freedom; and 9. Gender equality.

Take climate warming and the natural environment as an element in the quality of life; and, consider damage to the environment as a loss in standard of living. It is not measured in the economy. Indeed, costs to cure may be included when they qualify as market transactions in preventing pollution, but the unmeasured negatives of pollution are not included in the Gross Domestic Product when they are not part of market transactions.

So, the losses from air pollution provide unmeasured negatives to the values added through the operation of the economy. Indeed it is ironic that natural disasters emerging from the global warming

that are causing increasing expenditures for relief count the production of goods and services domestically produced to provide aid as part of the gross national product, while not subtracting the negatives of the losses adversely affecting the quality of life. The latest indication of a force that will breed a pressure to come for cultural evolution is a backtracking of the scientific process dealing with the analytics of a range of potential outcomes and time horizons. By happenstance, on the day that this essay is being updated, Tuesday, May 28, 2019, the lead article in the right hand column of the New York Times is titled "IN CLIMATE FIGHT, TRUMP WILL PUT SCIENCE ON TRIAL", with subtitles of "DEBASING THE RESEARCH", and "Proposed Advisory Panel Would Sow Doubt On Risks of Warming.". The article authored by Coral Davenport and Mark Lander has two items in a very lengthy article that I have selected to make the point that forces will build to foster a cultural innovation not only from resistance to the domestic terrorist disasters using military grade weapons against people in schools and houses of worship, but also the corruption of science to fuel financial benefits to the politically powerful. The first excerpt is "The attack on science is underway throughout the government...." with the discussion in the paragraph indicating that an administrator "... has ordered that that the scientific assessments produced by that office [United States Geological Survey] use only computer-generated climate models that project the impact of climate change through 2040, rather than through the end of the century, as had been done previously." The second excerpt is the entire second paragraph of the text under the subheading of "**Mocking the Consensus.**" The paragraph in its entirety is as follows:

"His [Mr. Trump's] views are influenced mainly by friends and donors like Carl Icahn, the New York investor who owns oil refineries, and the oil and gas billionaire Harold Hamm - both of whom pushed Mr. Trump to deregulate the energy industry."

These and other quality of life factors take us to the third element in the evolution of societal structure.

The Culture Change that Hosts an Evolving Human Nature

The third element for discussion of societal evolution is culture changes that host an evolving human nature. America has a wide diversity of cultures within its borders, most of which ascribe to Isaiah Berlin's concept of pluralism, "...the conception that there are many different ends that men may seek and still be fully rational..."

There are many commonalities among the variety of subcultures and varying degrees of tolerance of the values of others. Within the subcultures there are memes impacting the evolution of human natures and behavior. The democratic structure facilitates an evolution of structure, but the power distribution, as exercised, falls well short of the ideals espoused in the Declaration of Independence and in some degree has been receding from the ideals as espoused in that remarkable document.

This essay in the form of an appendix is looking toward the innovations that may in the twenty-first century take America back on track towards the ideals espoused in the Declaration of Independence.

Some Historical Innovational Opportunities Relying on the Mind of Society

Some innovational opportunities relying on the mind of society may be viewed in the context of a paradigm of a unified field of social science. Such a field integrates many disciplines, especially political science, economics, and sociology as well as a variety of interdisciplinary fields including cognitive science and others that go beyond the social sciences. In this unified field, segments of activities often studied in separate disciplines are viewed as organisms linked with a commonality of interests in some societal network.

Among the various uses of the word *territory*, there are a few particularly relevant to this discussion. One, obvious from the previous paragraph is the field of study as defined by various disciplines. But, as Kuhn has noted, a physicist and a chemist looking at the same phenomenon may see the same thing differently and be correct in their respective disciplines. The perspective that is being used here is that of organic function as discussed in John H. Holland's book, *Signals and Boundaries: Building Blocks for Complex Adaptive Systems*. The opening sentence on the book jacket provides the concept being used in this discussion. It is as follows: "Complex adaptive systems (cas), including ecosystems, governments, biological cells, and markets, are characterized by hierarchical arrangements of boundaries and signals."

The Arlington Case

Within that context, we may also use the physical concept of land as a territory, the boundary being the perimeter. It is the signals within the boundary, the communication among agents in the system, which is the first case used to demonstrate an evolution in the mind of a society starting with a 1960s case in Arlington, Virginia.

That case happens to be my first research project at my arrival at The American University in 1965, where I had been recruited to occupy a partially funded chair in real estate and urban development planning. A section of Arlington contiguous to the Potomac River, separating it from Washington D.C., had undergone a transition in land use where within a few years in which prevailing land prices had skyrocketed from a couple of dollars per square foot into the twenties. There was great interest in the process by which land values could increase ten-fold in such a short period of time.

A conference was held that had representatives of various parties interested in the phenomenon. In network science we call them *agents*, meaning ingredients taking action rather than fiduciary representatives, which they might be; but that is merely a matter of representation. The conclusion was that interactions of three governmental authorities, each with different responsibilities, had coordinated to effect a mutually agreed upon outcome. The outcome was an emergent phenomenon of a complex adaptive system that produced land use for high rise residential and commercial developments. The results included open space and other balances such as parking and access to transportation.

The salient authority was the local planning authority that not only devised a plan that would be generally acceptable, but that had density incentives that would induce voluntary compliance by the developers. This was done through zoning ordinances. However, there was also coordination with the transportation and utility authorities responsible for physical facilities so that the system would be in balance as the development unfolded. Additionally, help from the taxation authorities was solicited. The idea was that the land values were taxed at their potential uses under the plan, not according to their current use.

Markets as an Emergent Phenomenon from Interactions

The markets for the land use in Arlington were an emergent phenomenon not only from the variables just discussed, but heavily from what was going on in the Washington D.C. Metropolitan Area in the sixties. Those exogenous forces, actions of agents beyond the territorial boundaries, which may generate a market demand, are part of another layer of networks. Four decades later, in my research support efforts dealing with the Subprime Crisis and Capital Market Freeze, the multiplicity of layers made for an exceptional complexity of the system of housing market finance rooted in global capital markets.

Over those four decades the complexity in the political-economy increased dramatically. But, so did the nature of the analytics involved and what was conceived as being amenable to market analyses. Innovation in the analytics took place as well as the disciplines included in the analyses.

Two Environmental Cases

Also in the sixties, there was a pet project of Ladybird Johnson. It was the improvement of the pocket parks in Washington, D.C., typically triangular shaped islands formed by roads intersecting at angles other than right angles. The National Park Service, in a grant to The American University, funded a study to better understand how the design and development of the pocket parks that might improve quality of life. I headed that study, and included an architectural firm with strengths in landscape architecture.

The paradigm for the market analyses was in the use of the parks, even though there were no financial transactions involving the users. It was based on the nature and extent of use. Aside from the design of beneficial uses, there was consideration of avoiding unfavorable uses such as providing cover that might hide a potential assailant.

The other environmental case was the damage of the Exxon oil spill to the natural environment. *The Appraisal Journal*, a publication of the American Institute of Real Estate Appraisers, had published conflicting articles about the value of the damaged land. The Exxon retained experts argued along the lines that those lands were not being exchanged in markets so that there was minimal if any damage.

The experts retained by the representatives of the indigenous people argued along the lines that there was value to the land because it served an environmental purpose.

I was retained, through the firm that I headed, to be an expert rebuttal witness on the part of the plaintiffs to shed some light on the issues. With key support of my lead colleague, we prepared a study that showed that there were markets in which preservation land was acquired in open markets for financial consideration and then donated for preservation. That testimony was the final testimony in the plaintiffs' case, and the plaintiffs won their case.

A Civil Rights Case

A civil rights case was simply a byproduct of the development of an Urban Development Information system for Fairfax County, Virginia. Shortly after the Arlington study I submitted a proposal to the Department of Housing and Urban Development (HUD) to develop a Market Information System. My doctoral dissertation was on the impact of the business firm on urban plant problems. The *urban plant* refers to externalities of networks that serve land use, especially roads, water/sewer facilities, schools and other freestanding land uses. The thesis was that there is a commonality of interests and that exploration of those commonalities can ameliorate problems of inadequate facilities for a balance in the urban grow situation. That was in the late 1950s where the problems of urban sprawl were a hot topic.

It seemed to me that an additional component in the Arlington case could have been a formalized market information system. Even in the Arlington case, more information, especially at an earlier date, would have been useful so as to anticipate the location of market strengths. My proposal was for the development of a unique parcel identification system that could be aligned with the different boundaries used by different authorities. They would then have compatible information for their different maps and a significant aid for cooperative planning. HUD sat on the proposal for a couple of years. Although the proposal was not area specific, it simply offered the idea that market information was critical for coordination of urban plant facilities (externalities of networks that served land use, especially roads, water/sewer facilities, schools and other freestanding land uses.

The proposal received no constructive response for a couple of years, after which I asked for an in person meeting. I showed up to HUD to meet with Mr. M who was handling the application on behalf of HUD. I was ushered into a conference room, where he and some other suits were seated. After some discussion, I stood up and directing my comments to Mr. M I said what I recall as the following: "Mr. M..., you do not understand this proposal. You may turn it down; but if you do you will have to defend its rejection.

After some time, measured in weeks, I received a formal response to the effect that they did not want a study that would sit on a shelf. They would be interested in a demonstration project for an urban development information system, not simply a market information system.

It occurred to me that the idea was applicable to problems in Fairfax County where the main road systems went generally in the east-west direction while the watershed was generally in the north-south direction. This put conflicting directional pressures for public facilities construction essential for residential development. It was another case of getting coordination. The short version of the long story is that I made contacts with Fairfax County, they submitted the proposal for a demonstration grant for an Urban Development Information System. To staff it they hired to head the project included a doctoral student of mine who carved out a dissertation from the project, and a recent MBA student, also from the programs that I headed in the American University School of Business Administration. I provided a newly formed consulting firm to assist in developing the system.

The civil rights case came because there were law suits against the county asserting discriminatory zoning. I, through my newly formed consulting firm, provided testimony, using the urban development information system, that the zoning process was exclusionary. All those cases were won by the plaintiff. Furthermore, after one of the cases the state law of Virginia was modified as a measure of averting the exclusionary zoning.

A More Recent Environmental Case

A more recent environmental case is a plan in progress to balance conservation and development in Coachella Valley, a rapidly growing desert area in Southern California, popularly identified as containing Palm Springs. It also contains a desert ecosystem "home to 27 endangered and threatened species..." according to a PBS report on March 30, 2016 from which this discussion is drawn.

The plan ten years in the making has made progress, but its realization still needs to emerge. It is a modern version of the Arlington County case and its follow-on Urban Development Information System, but with private as well as public sectors participating in the structuring of the system. My assessment, based on the information that I have, is that a trigger for the self-organization among diverse interests was a nonprofit organization that purchased 600 acres to prevent development of a resort hotel and associated golf course. (Recall my expert testimony as the last witness in the Exxon Valdes case that there is a market for conservation land and the allusion to private sector leadership in evolving societal structure.)

The plan is managed by a local government agency that is part of the Coachella Valley Association of Governments and is described in the story as "... a huge compromise between government agencies, private land owners and developers, scientists, and environmental groups." The compromises were feasible because instead of looking at each case for development as an individual case, an approach with a great deal of uncertainty, taking a holistic view could provide a structure in which diverse interests can be better accommodated. Without a holistic view, the case by case approach could lead to an emergent pattern in which the various interests would be poorly served.

The structure of the system was designed so that selected areas would be conserved and that underpasses were constructed that would allow wildlife to have corridors under Interstate 10. Conservation land was purchased at market prices without the threat of eminent domain. Development on non-conservation land is expeditiously permitted. In short, the complexity of the complex adaptive system was harnessed by innovation.

Having not seen the humongous report, I have no knowledge as to whether the terminology of the nascent discipline was used. But, what is clear is that it is an innovation a long time in coming, and there is hope for more, maybe even with the United States Congress, but probably not until after the societal structure evolves to have better leadership not relying on shadows on the wall as in Plato's Allegory of the Cave.

Opportunities Relying on the Mind of Society

The Transition Just Reviewed

The transition just reviewed relayed some historical opportunities with which I was involved. They were based on applications of concepts now imbedded in complexity science, and it was before complexity science even had a name. It exemplifies how some ideas come to mind, and over time the mind society results in altering the activities. The case is just happens to be related to land use, part of the arena in which much of my work is the has been done.

Earlier in the trilogy, there is substantial discussion of mortgage finance in the early 21st century some of my colleagues and I were applying complexity economics is the analytics for dealing with the complex adaptive system that produce the Financial Crisis of 2008 and the Great Recession that followed. It is not unusual for disciplines to evolve splitting off from explorations; and it usually take substantial amount of time, as was the case for the application of complexity economics.

What takes even more time is the evolution of societal structures. As discussed in the second chapter of this second book of the trilogy, under the sub topic of Enlightenment Roots is the following:

The seminal work for the Enlightenment, as the intellectual mood of eighteenth century Europe, was rooted in the seventeenth century with ideas that led to transitions in state structures. The early ideas interacted to produce the emergence of new structures. Some of the ideas were those of Franks Bacon (1561-1626), Rene Descartes (1596-1650), John Locke (1632-1704), and Baruch Spinoza (1632-1677).

I started thinking and writing about a New Age of Enlightenment after the 9/11 catastrophe. That's when I was introduced to complexity science by reading *Harnessing Complexity: Organizational Implications of a Scientific Frontier* [1999] by Robert Axelrod and Michael D. Cohen. My work is described in the monograph, [The Challenge to Our Thought Leaders - The Hoyt Group,](#) It was simply a case of research going beyond the paradigm.

Thinking out-of-the-box was represented in my leadership of the Hoyt Group where I contributed a series of essays published as supplements to the newsletter encouraging my colleagues to focus on relevance rather than rigor. It made more progress than I thought at the time, especially as we came to deal with the Subprime Crisis and its aftermath.

My shift from what appeared to be a specialized area of study to the broader context of the social sciences came shortly after the 9/11 terrorist attack in 2001 with my starting the Strategic Decisions Interest Group at ASPEC. That now continues under the leadership of Dr. Jack Lillibridge (who earlier became the co-leader of the seminar). Since I moved from Florida to North Carolina my focus has led me to the Academy in the Cloud Enterprise which was designed to include a research component as well as an educational component. As discussed elsewhere the trilogy, that exploratory program led to what is now identified as the Motivated Learner Enterprise Division of the Maury Seldin LLC through which this trilogy is being published.

The point of all of this discussion is leading to a desired expectation of societal evolution.

A Desired Expectation of Societal Evolution

The progress being hoped for, as discussed in the main treatise, is to get a Declaration of Reform. The path is heavily dependent on education of the populace to get closer to reality and to get leadership that is not only more knowledgeable, but better attuned to compromises that are part of the tradition of American Democracy.

Whether or not the desired expectation of a Declaration of Reform and a subsequent transition occurs in the nature of what amounted to be America's second Revolution, the transition from a confederation to a federation, is a matter of great uncertainty. However, as discussed in the first book of the trilogy, I expect there will be a third American Revolution in one form or another, hopefully not one that occurs to dethrone an autocrat who currently is tempting to overcome the exercise of congressional oversight responsibilities. How far it has to go before some dramatic change occurs, it's hard to say. But the trilogy is shedding some light on the situation.

The prologue to this trilogy's first book, *Common Sense Revisited: America's Third Revolution* introduces a discussion that suggests the seeds of a great cultural change were sown starting about the second quarter of the 20th century, in the sense of a third burst of creativity in the arena of Western civilization. In that prologue's opening section, Some Directions from the Pamphlet (referring to Thomas Paine's *Common Sense*) the series of subheads is as follows:

- Consciousness and Moral Principles Grounded in Common Sense
- The Importance of a Selection of Principal Concepts
- Now for the First Part of Tietjen's Introduction [to the edition used]
- Moving on to Specialized Knowledge

From my discussion in the third subsection, we have a paragraph as follows:

The era of Socrates, Plato, and Aristotle is the marker for the heart of the first burst of creativity in which "...philosophy flourished within Western civilization during two bursts of creativity that lasted about 150 years each." [See *The Origins of Creativity* by Edward O. Wilson pages 195-196.] The second was, according to an excerpt from Anthony Gottlieb's *The Dream of Enlightenment* quoted by Wilson [on page 196] as follows: "The second... stretches from the 1630s to the eve of the French Revolution in the late eighteenth century. In those relatively few years, Descartes, Hobbs, Spinoza, Locke, Leibniz, Hume, Rousseau, and Voltaire -- most, that is, of the best-known modern philosophers -- made their mark."

After skipping a paragraph, that selection concludes with four paragraphs as follows:

A third burst of creativity may have started early in the second quarter of the twentieth century. My case for a third burst of creativity starts with Alfred North Whitehead in the late 1920s, writing *Process and Reality*. Using the corrected edition edited by David Ray Griffin and Donald W. Sherburne, the passage that marks, for me, the beginning of a third century-and-a-half philosophical and analytical era may well be the following: "The philosophy of organism in its appeal to the facts can thus support itself by an appeal to the insight of John Locke, who in British philosophy is the analog to Plato...this doctrine of organism is the attempt to describe the world as a process of generation of individual actual entities, each with its own absolute self-attainment [page 60]."

Also in that same second quarter of the twentieth century, Mordecai Kaplan wrote about the organic nature of Judaism as a civilization. The first edition of *Judaism as a Civilization: Toward a Reconstruction of American Jewish Life* was published in 1934, but in the preface to the 1967 edition he wrote the following: "Organismic thinking is the latest stage in the maturation of the human mind. First came mythology, then philosophy, then science, and now we are learning to think organismically [page xxv]." Kaplan discusses the concept in his concluding chapter with a discussion analogizing Judaism to an organism in which there are elements that are maintained in the adaptation to a changing environment much the same way that organic systems adapt while retaining some essential ingredients as they are being integrated in a pluralistic society. *Otherness works in pluralism* was his approach to Eastern European Jewry's adaptation to the new environment of a free society, American Democracy.

Most of us educated in the twentieth century are accustomed to looking for cause and effect in a linear relationship. It works well for linear structures, but for complex adaptive systems, systems that are characterized by nonlinear relationships in dynamic structures that evolve over time, it is much too simplistic. Such is the case identified in the opening discussion of this re-visitation of *Common Sense* that started with a focus on the 2017 tax reform.

Shortly to be discussed in this prologue is the progress made towards further conceptual development of looking at societal systems as organic being heavily relied on nonlinear

relationships. Additionally, the epilogue serves as a transition to the second and third books in the trilogy.

As just noted in a listing of subheads in this opening section, the next subhead is titled "Moving on to Specialized Knowledge." The point in the first book, *Common Sense Revisited: America's Third Revolution*, is to raise the level of consciousness - an awareness of the public of what is really going on.

This trilogy's second book, *Perspectives for a Sense of Place: Voter Empowerment*, starts with a brief overview of the trilogy. It is in the boxed item that follows.

Introductory Note for the Trilogy. This the second book of the trilogy designed to shed light on processes that have a chance to improve outcomes. America is losing its leadership of Western civilization developed over the last three quarters of a century in part because rivals seek to undermine it, but a great measure because we are doing it to ourselves.

The trilogy shares an understanding of process and structure that blends nascent disciplines with mainstream disciplines in an interdisciplinary approach to improve outcomes. The books are titled as follows: (1) *Common Sense Revisited: America's Third Revolution*; (2) *Perspectives for a Sense of Place*; and (3) *American Democracy: The Declaration, Pursuit, and Endangerment*.

The first book of the trilogy seeks to raise the level of consciousness in the tradition of Thomas Paine's pamphlet, *Common Sense*. The second book, *Perspectives for a Sense of Place*, seeks to empower the electorate in order to contribute to a self-healing process of American Democracy. It is divided into three parts: Part I - *An Overview of the Trilogy*; Part II - *A Sense of Place in Perspective: Science and Religion*; & Part III - *A Sense of Progress*.

The main treatise is in the third book, *American Democracy: The Declaration, Pursuit, and Endangerment*. It calls for a Declaration of Reform that could have the potential to lead to the emergence of a third revolution of American Democracy as an encore to the Second American Revolution, the Constitution of the United States of America.

This second book, *Perspectives for a Sense of Place: Voter Empowerment*, was created because it was obvious that for American Democracy to function properly it was essential to have educated electorate. The future of American Democracy's is thus dependent upon the cultural evolution that needs to take place, that is in turn is dependent upon third burst of creativity that may have started about a century ago; and if it did, if you take a generation or two to get us back on track towards the ideals articulated in the Declaration of Independence.

It is scary to think about not only what is going to happen to America, but what will happen to Western civilization, if we don't resume the progress that we've made for two centuries, but have failed to pursue in recent decades.