

## Theories and Paradigms of the Future

*"It's all a question of story. We are in trouble just now because we do not have a good story. We are in between stories. The old story, the account of how the world came to be and how we fit into it, is no longer effective. Yet we have not learned the new story."*

*Thomas Berry*

*"If there is anything we have plenty of, it is belief systems."*

*Walter Truett Anderson*

*"...the future is usually a combination of all the stories you can construct to anticipate it."*

*Joel Garreau*

### Introduction

In this final chapter, I present an overview of the broad range of general theories and paradigms of the future. Theories and paradigms of the future often begin with the belief that humanity is in the midst of a pervasive world transformation and attempt to explain the transformation and where the big changes may be taking us. There are, though, significant differences among theories on these basic questions. I describe a variety of the debates and conflicts between these different points of view and conclude the chapter with a summary of key themes and issues.

I define a **theory** as an abstract description and explanation of some set of related facts or dimension of reality. A theory of the future both describes and explains present contemporary facts and trends and presents a variety of hypotheses regarding the future; it identifies the direction reality is taking into the future. Theories of the future often provide an interpretation of both the past and the present, suggesting trends and directions in our history that may continue into the future. A theory of the future may make specific predictions or describe some set of plausible possibilities for the future.

As noted earlier, theories of the future are prescriptive as well as descriptive. Theories do not simply explain the present and predict the future, but they also prescribe what we should and should not do in effecting the future course of events. A theory often proposes a general plan of action for tomorrow. Theories of the future are prescriptive because they are usually connected with values and ideologies; contemporary conditions and trends are evaluated as to their negative or positive qualities, and desirable or preferable future directions and goals are identified and argued for, all relative to a set of values. Further, a theory of the future provides a sense of inspiration also based on a set of values. Finally, the facts and predictions highlighted within a theory strongly influence the values prescribed and vice versa. Vision and value are connected.

Theories of the future are also often connected with stories – stories that describe in narrative and chronological form the great drama of time relating together events of the past, present, and hypothetical future. Such stories give a futurist theory psychological and social force, inspiring those who believe in the theory. The values of a theory are usually expressed within the story. In essence, a story is a theory put into dramatic form.

A **paradigm** can be described as a theory plus a way of behaving and living consistent with a theory. Living a paradigm not only involves understanding the world in a certain way, but attempting to practice the values and prescriptions for action within the core theory. Living a paradigm involves attempting to create the preferred sense of direction identified in the theory. Since a theory usually points out problems and challenges for the future, living the paradigm will involve ways to address and solve these problems and challenges. Following Thomas Kuhn, who popularized the concept of a “paradigm,” following a paradigm will not just influence how we think and what we believe, but how we perceive the world and how we behave. Followers of different paradigms for the future often perceive the contemporary world around them very differently and because of such different perceptions respond differently to things.<sup>1</sup>

When a number of people live a paradigm for the future, a **social movement** may emerge. Within contemporary times there are a variety of social movements concerned with the future that profess different theories and express through their behavior different paradigms for the future. Within a social movement, believers in a theory collectively organize together, often with the intent of influencing others to adopt their ideas, values, and lifestyles. A social movement is a theory put into collective social action.

Our present world is multifaceted, with multiple meanings and dimensions – reverberating and evolving through our intricate communication systems as people debate and dialogue on different issues and points of view. Theories of the future attempt to provide explanations and synoptic descriptions of our present conditions and fundamental trends, but there are many different theories – each with its own slant on things – emphasizing one or more of the fundamental dimensions of change. The theories themselves are in a state of mutual amplification and development, both in competition and collaboration. There are many answers to the question of the meaning of our times – for we live in an era of multiple and complex theories and stories – and this kaleidoscopic array of views is in fact an essential feature of the answer to the question of the meaning of our times. We live in a pluralistic world – a competitive reality of different points of view and different social movements.<sup>2</sup>

We are in the midst of a fundamental world transformation, with a set of different theories and values systems of the future attempting to define and guide the direction for tomorrow. The future, in fact, will be greatly influenced by these theories and paradigms. Clearly though, there are fundamental disagreements, perhaps some of which can be reconciled and some of which probably can not. Further, social movements, as expressions of different paradigms, will clash, often violently, in this competitive and creative process. As noted in the previous chapter, history is filled with wars over opposing theories of the future and will probably continue to be so in the years to come. Theoretical conflicts can be healthy though – promoting dialogue and an ongoing evolution of our understanding of where we are and where we are going. The

disagreements among those holding these theories highlight the different possibilities for the future and the different values for the future.

Theories of the future often focus on some particular theme or themes considered of central importance in the nature and organization of future events. I have grouped theories and paradigms according to a set of basic themes. Some theories, because they are broad and comprehensive and integrate several themes, could be listed under different themes. The theories are organized according to the following general themes:

- Theories that Highlight Time and Change
- Theories that Highlight Science, Technology, and Rationalism
- Theories that Highlight Ecology and Nature
- Theories that Highlight Psychology and Human Relations
- Theories that Highlight Society, Culture, and Morals
- Theories that Highlight the Spiritual, Religious, and Mystical
- Integrative Theories

The descriptions of theories included below provides a general overview of contemporary futurist thought; I have attempted to identify what I think are the most important, influential, and distinctive theories. The list is not intended to be definitive or complete – there are simply too many theories. The list does, however, provide a broad sampling of different approaches and areas of focus. Each theory usually teaches something important, adding to the richness and wonder of reality and the future. Further, the theories presented are not all mutually exclusive; various writers and futurists often combine various theories in their particular view of the future.

### **Theories of Time and Change**

**Stasis, Traditionalism, and the Return to the Past:** Included within this theoretical perspective would be viewpoints that see modernism and continued growth and change as negative and destructive to humanity and which promote a move backward in time to a simpler, more stable and uniform way of life. Ray, in his study of American sub-cultures and values, identifies the traditionalist group in America as “Heartlanders,” accounting for approximately thirty percent of the total population. Heartlanders tend to believe in the literal truth of the *Bible* and believe that the *Bible* provides a moral foundation for assessing the present and a moral compass for guiding the future. In general, they emphasize the importance of virtue in life. In particular, Heartlanders support small town, rural values, and believe that modern urban life is, in many ways, immoral. They tend to be anti-science, anti-technology, and pro-naturalistic. They are also often patriotic and antagonistic to foreigners. Aside from being culturally and religiously conservative, “Heartlanders” also show a strong belief in traditional domestic roles for women.<sup>3</sup> Because Heartlanders attempt to practice what they believe and form a relatively big organized group, they constitute a strong social movement in the United States.

Along similar lines, Virginia Postrel describes the fundamental conflict of our times in terms of a clash between “stasis” and “dynamist” points of view. According to Postrel, advocates of stasis believe that the world has gone terribly wrong and that

someone needs to take control of the situation to set things right. Postrel argues that supporters of stasis fear the unpredictability of the future and uncontrollable change. Hence, the stasis viewpoint emphasizes the need to control the future, usually by maintaining the status quo or returning to some idealized and better way of life in the past. Postrel would include both conservative cultural reactionaries and technocrats in the stasis group.<sup>4</sup>

The themes of stasis, tradition, and returning to the past are also strong features of various cultural and nationalist movements around the world. Again the perceived threat is the fast changing modern world and the forces of globalization, but from the point of view of many non-Western people, it is the West, and in particular the United States, that threatens time honored ways of life. Hence, interestingly, from within the United States, traditionalists tend to be patriotic and pro-United States, whereas from the outside, traditionalists are often anti-United States. Both Barber and Friedman describe various anti-Western, antiglobalization reactions of local indigenous cultures that are attempting, in opposition to the forces of Western modernism, to preserve their traditions and ways of life.<sup>5</sup>

**Fundamentalism:** Fundamentalism is any theory of the future that adheres to a strict and literal interpretation of some traditional religious text and doctrine, e.g. Christian or Islamic fundamentalism, and rejects as invalid and morally incorrect any deviation from these ideas. Fundamentalism assumes an absolutist theory of truth and value – arguing that its particular belief system is unquestionably true and all other belief systems are wrong insofar as they conflict with it. It is usually based on a singular cultural framework and tends to be grounded in past ideas and values.<sup>6</sup>

Walter Truett Anderson describes one of the central conflicts of our time as between relativists and absolutists. He argues that twentieth-century developments in science and culture destroyed many “classical truths,” yet with the “triumph of science” old religious belief systems did not go away. In fact, the rise of fundamentalism with its emphasis on absolutist thinking emerged in counter-reaction to the growth of science and liberal, relativist thought. Fundamentalism is therefore a recent development in reaction to the threat of modernism. Its appeal is that it provides a sense of security and stability in a world of ambiguity and flux and clearly and cleanly divides reality into good and evil forces.<sup>7</sup>

In his book, *Powerful Times*, Eamon Kelly identifies “the sacred and the secular” as one of the fundamental dynamic tensions in our contemporary world and highlights religious fundamentalism in his discussion of the sacred perspective on human life.<sup>8</sup> What Kelly emphasizes about fundamentalism is its divisive quality. In reaction to the perceived threatening nature of modern secularism, fundamentalist social movements (such as Christian and Islamic) are often openly antagonistic and at times even violent in their counter-reactions to secularism. For example, terrorism coming out of the Middle East is strongly connected with Islamic fundamentalist groups. Among its followers, fundamentalism generates strong feelings of separateness and exclusivity and a “tribal” mentality, and the future is literally conceptualized as a war between believers and non-believers. This warlike mentality is understandable since at least for Christian and Islamic religious traditions, the future is described as involving a great final conflict between good and evil. Fundamentalists believe that they are on the side of good and that the secular way of life embodies all that is evil in the world.<sup>9</sup>

Although fundamentalism is a recent development, its vision of the future is unequivocally rooted in the past. For both Christian and Islamic fundamentalism, the truth about the meaning and purpose of life was revealed long ago and recorded in the sacred texts of their religion. The struggles and problems of modern times and the eventual resolution of our present challenges are likewise interpreted in terms of fundamentalist doctrine, presumably anticipated by their great religious prophets in ancient or earlier times.

**Creationism:** Christian fundamentalists tend to support a “creationist” view of nature and the origin of humankind, arguing that God purposefully created the universe and humans, as explained in the Book of *Genesis*. Creationists believe in the possibility of a literal and singular, unequivocal reading of the Bible; they believe that this literal reading provides the “Truth,” and they believe they know what that correct reading is; hence, they are absolutists. Strictly speaking this theory concerns the past rather than the present or future, but adopting this viewpoint carries with it certain implications regarding the future. Because creationists vehemently oppose the theory of evolution, they believe that life and humanity in the future will not be determined by natural evolutionary processes – humankind will not transform biologically. Creationists see different forces than evolution at work in history and the future. Generally, they are skeptical or antagonistic to science, believing science and evolution, in particular, do not provide any answer to the meaning and purpose of life and do not provide any moral guidance. Creationists find purpose in life (a sense of direction for the future) through God. They object to evolution because evolutionary theory seems to imply that chance plays a significant role in the origin of humanity; creationists believe that there is a divine purpose behind the existence of humanity and a divine purpose to the future. They see humankind as a special creation, rather than just part of the overall evolutionary process. They are also dualists, objecting to a materialist view of reality, and instead believe that there is an “immaterial” soul within each person as well. Creationists associate evolution and science with materialism. They also associate evolution with a competitive, violent vision of life, which undermines, in their view, a moral vision of the universe. Though creationists would argue that they base their position on religious tradition and the principles of a time-honored ancient text, the modern rise of creationism, as with fundamentalism, is based on a strong counter-reaction to recent trends in thinking in science and culture. Creationists often support the “**Intelligent Design**” argument for humanity and the universe, but the “Intelligent Design” argument does not necessarily imply creationism and can be formulated in ways that involve neither a Christian God nor any kind of God whatsoever.<sup>10</sup>

**Dynamism and Rapid Change:** As noted above, Postrel believes that the most basic clash within approaches to the future is between those who emphasize change and those who emphasize stability; as she puts it, the conflict of “dynamism” versus “stasis.”<sup>11</sup> Postrel supports a dynamist view and literally believes, as indicated in the title of her book, that those who support a stasis view are the “enemies” of the future. According to Postrel, instead of trying to control and direct the future from a top-down authoritarian position, we should allow free-flowing creativity and diverse points of view to generate the future. Postrel, following the popular view in contemporary open systems thinking, argues that new order arises out of chaos.<sup>12</sup> Freedom, creativity, and

diversity all stimulate growth and change which, in her mind, is the preferable type of future. She sees an infinite and never-ending array of forthcoming inventions, new ideas, and achievements if we embrace a “dynamist” approach to the future.

Most social and technological observers would agree that we live in a world of rapid change. Yet, I think Postrel is correct in her assessment that there is a divide between those who believe change is good and those who believe that change is bad or at the very least excessive in our times. Toffler offers a related distinction in comparing the conflict between “the fast” and “the slow.”<sup>13</sup> There are many individuals, as well as cultures, that seem to embrace change and want to move full speed ahead, and other individuals and groups who want to move much more slowly, if move at all. Within the United States, following Ray and Anderson’s research, modernists by and large find change a positive thing, whereas Heartlanders do not. In the following review of theories that highlight change in some manner or form, we will find some views that emphasize the positive features of contemporary change and some views that stress the negative aspects of change.

**Future Shock:** The Industrial Era was marked by a significant increase in the rate of change as measured by population growth and economic, technological, and scientific developments. Change proceeded much more slowly during the earlier Agricultural Era.<sup>14</sup> Toffler, in his first book *Future Shock*, proposed that a new jump in the rate of change is occurring in present times. We are living within an unsurpassed technological and informational explosion that is coupled with a social reality of increased transience and turnover in products, friends, spouses, neighborhoods, and vocations. The first main section of *Future Shock* is titled “The Death of Permanence” – as Heraclitus argued, everything is flux – nothing stands still. We live in an era where change and growth are hot topics of study, discussion, debate, and concern.<sup>15</sup> Media, government, business, and pop culture all play up the importance and value of change.<sup>16</sup>

According to Toffler, things in our lives are changing so fast that we are being pushed to the limits of our abilities to adapt. We are experiencing future shock. We live in an era of stress and overload. The world around us is changing faster than humans -- psychologically, physically, and culturally -- can keep up. Future shock does not simply impact modernized countries where technological advancements are more pervasive and readily embraced, it also impacts less-developed countries where old ways of life are quickly being disrupted, if not destroyed, as new ideas, products, and technologies move into these regions. Toffler contends in *Future Shock* that a balance needs to be achieved between stability and change. Accelerative change needs to be recognized and controlled.

In his later book *Power Shift*, Toffler points out that the fast rate of change in modern life has instigated various counter-reactions that emphasize the importance of tradition and conservative values.<sup>17</sup> Such traditionalist movements can be seen as a way to cope with future shock – in this case to retreat into the past. Yet, this negative reaction to change provokes the question of whether rapid change is inevitable or not. If the future is a matter of choice, then perhaps we have some control over the pace of change. But if rapid change is inevitable, it makes more sense to try to understand it and make the best of it, rather than resist it. Many evolutionary theorists, such as Gregory Stock and Ray Kurzweil, think that evolution is inevitable and that an increasing

rate of change in our world is a necessary consequence of this natural law.<sup>18</sup> And even regarding Toffler's distinction between "the fast" and "the slow," which, among other things, contrasts the pace of life in modernized versus less-developed countries, the wave of rapid change (the transformation of cultures from the "slow" to the "fast") is spreading into more and more regions of the world, seemingly engulfing all of us, and sending everyone into future shock.

**Hyperculture:** As discussed in both Stephen Bertman's *Hyperculture* and James Gleick's *Faster*, modernized human society is increasingly obsessed with speed, efficiency, and short-term goals.<sup>19</sup> Not only is everything moving faster, but also we increasingly attempt to squeeze more information, tasks, activities, and experiences into the now. We pay less attention to both the past and the future, as our attention span shrinks to ever-smaller, more-compressed units of time. As Gleick notes, our attention jumps quickly from one thing to the next, continuously distracted and immersed in the "buzz," and as a population living in such a maniacal reality, we collectively suffer from a lack of sustained focus, a social attention deficit disorder. Bertman is particularly concerned that we are losing our sense of history; that we are suffering from a form of cultural amnesia. And if we lose our sense of history, then we will lose our sense of the future. Due to the hyperculture in which we live, we have become lost in an overpowering present.<sup>20</sup>

Howard Didsbury, adding to Bertman's ideas, argues that the speed and efficiency of high technology increasingly supports the immediate gratification of our needs. Technology speeds up communication, production, and delivery. More and more of our wants and desires are taken care of through our gadgetry. We need neither patience nor foresight if our every want is quickly provided for us, and thus, according to Didsbury, we are seeing a "death of the future" in our modern world.<sup>21</sup>

**Accelerative Change:** There are many theorists who highlight the idea of accelerative change in their writings. Scientists-inventors, such as Ray Kurzweil and Hans Moravec, present the two-fold argument that the information processing speed and information storage capacity of systems in nature have exponentially grown throughout the history of the universe and that in the last century the speed and storage capacities of computing machines, in accordance with Moore's Law, have also increased at an exponential rate.<sup>22</sup> The second accelerative trend in computing power is simply an extension and expression of the first accelerative trend in nature as a whole. Extrapolating on these accelerative trends, they predict continued exponential growth in computational complexity in the future. In the near future, following from Moore's Law, computer intelligence will take the lead over humans in computational complexity and create a world, involving both artificial intelligence and technologically amplified humans, of continual and exponentially increasing complexity and mentality.<sup>23</sup>

Without particularly focusing on the exponential growth in computer capacities, other writers point out that along many diverse parameters of human life there has been accelerative growth and change and that this trend is especially noticeable within the last century. As noted earlier, Christian cites accelerative growth in human productivity and energy usage, Moore and Simon cite the measured accelerative growth in patented inventions and innovations in the last century, and Gleick, in his detailed commentary of contemporary life, describes the "acceleration of just about everything."<sup>24</sup> John Smart

and his *Acceleration Studies Foundation* focuses on the study of accelerative change, why it appears to be occurring in the world around us, how it connects with technological growth, as well as with cosmic evolutionary and developmental processes, and what we can do to selectively guide the process.<sup>25</sup>

Peter Russell, in *The White Hole in Time*, presents a general theory of accelerative growth and change that connects human history with cosmic evolution.<sup>26</sup> Russell traces the development of intelligence and complexity from the beginnings of the universe to the present time, and draws the general conclusion that evolution is speeding up. There is an increasing level of novelty and complexity being created within the universe and the growth of human intelligence and culture is the latest expression of this overall cosmic process. (In this regard he is in general agreement with writers such as Kurzweil and Moravec.)<sup>27</sup> Russell sees the accelerative growth of intelligence and complexity connected with increasing freedom and the capacity to control nature. He predicts, based on this historical analysis, that accelerative change will continue into the future, but because change is coming faster and faster, we will become increasingly uncertain regarding the direction of events; we will approach an “information horizon” pass which we will not be able to see. Yet, in spite of this general trend toward increasing change, according to Russell, humans tend to resist change, fearing the uncertainty of the future, and hence they attempt to control it. Russell believes that if humans can let go of this need to control themselves and the world around them, they will realize a much more flexible and liberated state. He thinks that if humans can move beyond “ego-centric,” time-bound, and materialist thinking - present modes of thought that are leading to our extinction - and embrace an inner-focused evolution of consciousness and the mind, the accelerative rate of change within our lives will continue forward at an even faster rate. Mental evolution will accelerate more quickly than our present materialistically focused evolution. As our evolution speeds up, we will approach an asymptote of the evolutionary process, “a white hole in time” or “omega point,” where human consciousness will achieve a sense of eternity and cosmic oneness.

**The General Theory of Progress:** The general idea of progress – that life will improve in the future - extends back in time to ancient Greece, Zoroastrianism, the salvation theology of Judaism, and early Christianity, especially as espoused in the writings of St. Augustine.<sup>28</sup> The modern theory of progress derives from thinking in the Age of Enlightenment in Western Europe during the seventeenth and eighteenth centuries. As described by Nisbet in his history of the idea of progress, the modern view of progress is that human history exhibits an overall direction of advancement along numerous parameters (social, technological, ethical, and epistemic) and that humanity can realize further improvement in the future, especially through the use of reason, science, and modern economic and political principles, such as capitalism and democracy. In the nineteenth century, progress was often seen as an inevitable law of nature – that is, it was proposed by writers, such as Spencer, Comte, and Marx, that there was a “law of progress” within the universe and the historical growth of human civilization was simply a manifestation of this cosmic law. Also, in the nineteenth century, the idea of progress became connected with Darwin’s theory of evolution. It was popularly believed that evolution provided the natural mechanism by means of which progress occurred. Evolution was a progressive process. In general, although

early in its history the idea of progress was frequently grounded in metaphysical and religious visions, such as in Zoroastrianism and Augustine's Christian theology, in modern times, progress took on a secular and naturalistic emphasis. However interpreted, the theory of progress is an optimistic view of the future based on the idea that the present is better than the past and the future will be better than the present.<sup>29</sup>

There are innumerable debates concerning the idea of progress. Does human history actually show progress, or is it just "one damn thing after another"? Isn't progress basically just a Western idea – a culturally biased grand narrative of the past and future? Is evolution in any objective sense really progressive? And if we were to define progress in secular terms, as many of the philosophers of the Enlightenment did, have our lives really improved in the last two centuries while we have pursued this ideal? Are things really "getting better all the time"? Is it that the old secular concept of progress is too narrow, missing what is really important in life, and needs to be revised?<sup>30</sup>

**Contemporary Evolutionary Theory:** The general idea of evolution is usually associated with a naturalistic or scientific perspective of reality and the future, but the concept of evolution has been applied to numerous dimensions of reality including natural forms, technology, civilization, mind, ethics, spirit, and the cosmos.<sup>31</sup> Still, following from Darwin's original formulation of the theory, the process of evolution is usually seen as due to forces and causes at work within nature, rather than being imposed or guided from some supernatural source toward some predetermined end – hence evolution is often contrasted with teleologism. Evolution is seen as a fundamental law of all nature and consequently the future will be a result of this pervasive natural process. Evolution is often connected with a progressive direction to time and nature as a whole, but there is ongoing debate regarding whether evolution necessarily implies progress.<sup>32</sup>

Although Darwin's theory of biological evolution through natural selection is usually seen as the modern starting point for contemporary evolutionary thought, the theory of evolution has continued to evolve over the last century and a half.<sup>33</sup> As Walter Truett Anderson has aptly titled one of his books, "*Evolution isn't what it used to be,*" or at the very least, it is much, much more.

As mentioned above, the theory of evolution has been applied to the cosmos as a whole. According to advocates of this point of view, the entire history of the universe can be described as an evolutionary process, with the continued and ongoing "emergence" of new natural forms arising out of simpler forms; even the laws of nature have presumably evolved. The idea has even been suggested, by the contemporary physicist and cosmologist, Lee Smolin, that the creation of our universe is due to an evolutionary process.<sup>34</sup> In general, the cosmic theory of evolution proposes that evolution produces increasing complexity across time and this overall trend defines a progressive direction to the process.

Gould and Eldredge have hypothesized that evolution (at least in biology) is not a smooth and steady process, as Darwin believed, but occurs in spurts or relatively rapid transformations "punctuated" by periods of relative stability.<sup>35</sup> This idea has been applied to physical and social evolution as well.

Scientists such as Ilya Prigogine, Lee Smolin, and Stuart Kaufmann have attempted to demonstrate empirically that evolution involves the creation of new order

out of chaos, and in fact, in general, chaos, accident, and chance play a significant role in contemporary evolutionary thinking.<sup>36</sup> Evolution appears to involve an interplay or reciprocity of order and chaos.

Kaufmann, following the lead of Prigogine, has argued that along with natural selection, a second fundamental principle is at work in natural evolution, usually referred to as the principle of “self-organization.” Whereas natural selection involves competition among individuals (and perhaps also groups), self-organization involves an integrative or synthetic process where natural entities come together to form more complex wholes. Writers, such as Lyn Margulis, John Stewart, Robert Wright, and Howard Bloom, argue along similar lines that evolution not only involves competition but cooperation and symbiotic merging. In general, evolution throughout nature seems to produce the complementary and reciprocal trends of increasing integration and differentiation.<sup>37</sup>

One final noteworthy contemporary development within evolutionary theory is Richard Dawkins’s argument that ideas or units of meaning actually evolve according to the principle of natural selection. Units of meaning or “memes” (the term Dawkins coined) compete with each other within the minds of humans and reproduce by passing from one mind to another. Through this process of competition and reproduction, memes evolve.<sup>38</sup> For Dawkins, evolution through natural selection can explain the dynamics and development of both life and the growth of ideas.

**Fraser’s Evolution of Time:** The philosopher-physicist J.T. Fraser, founding president of *The International Society for the Study of Time*, has proposed, in a series of books on time, the general theory that time itself evolves in complexity through an ascending hierarchy of levels from the primitive to the more advanced, and this cosmic process is open-ended and never-ending.<sup>39</sup> For Fraser, this means that there are levels of complexity to time, beginning in the simplest form within light and subatomic particles and becoming more intricate and complex as we move upward in evolution through the chemical, biological, and psychosocial realms. According to Fraser, time is not an absolute or universal constant across the entire panorama of existence, as in Newton, but a variable of the universe that undergoes transformation. At each new level of time, new patterns and structure emerge; for example, according to Fraser, only humans and animals exist in a reality of a past and future. At the primordial level of light there is neither past nor future, only a timeless present. Hence, a direction to time is an evolutionary development – there is no direction to time at the most basic level of the cosmos.

In essence, Fraser turns most classical metaphysics and religious doctrines (for example, Platonic, Christian, and Hindu philosophies) on their head. Instead of thinking that the most advanced or highest level of reality is the timeless realm of eternity, Fraser believes that eternity is the most primitive level of reality and that through the evolution of time we are moving away from what is most primitive – the eternal. The evolution of time embodies an ascent to higher levels of reality.

Since Fraser believes that the evolution of complexity in the universe adds increasing structure to the cosmos, there is a sense in which the universe becomes more deterministic as it evolves. As the universe has evolved structure, it has evolved new types of forms and processes, enriching its temporal complexity. Each level of evolution has also brought with it an additional range of possibilities of behavior. Therefore, though things have become increasingly more structured through the

evolution of time, the universe realizes more possibilities of behavior. Increased determinism has brought with it more freedom. The future will contain possibilities that would seem incomprehensible or impossible relative to the present. For Fraser, evolution is truly creative.

A key feature within Fraser's evolutionary thinking is his theory of order and chaos. In his book, *Time as Conflict*, he argues that the basic driving force behind the evolution of time is the irreconcilable conflict of order and chaos. Each level of time is a uneasy synthesis of these two basic cosmic forces – yielding dimensions of both stability (derived from order) and change (derived from chaos) – that eventually spills over into a jump forward to a new level of time and increased complexity. Yet each new level of time carries with it the conflictual synthesis of order and chaos thus perpetuating the process of evolution without end. In a basic sense there is time because of this irreconcilable conflict at the heart of existence.

Fraser believes that our contemporary world is in a period of transition from one level of time to a new level. This new level of time that is struggling to emerge is a global "sociotemporality." As our world increasingly integrates into a global society, time is being further standardized and controlled, so that all the people of the world can function as a coordinated whole. Computerization and the networking of computers into a global system are contributing to the creation of a "time compact world." Various forces though, such as governments, international corporations, and local cultures, are in competition to define a unified sense of humanity. Further, there is a struggle over defining a singular history for all humanity – a collectively agreed-upon sense of the past. Presently, we have multiple stories of our past competing with each other. Fraser believes that only if we can arrive at some unifying vision of our past, can we create a clear sense of our future. The future of the sociotemporal world is uncertain.<sup>40</sup>

In summary, within Fraser's theory, evolution is the basic form of time and the fundamental law of the universe – reality lawfully changes by evolving. Time moves from the simple and undifferentiated to increasingly higher levels of complexity – hence time is progressive. The process of evolution is generated by an ongoing conflict of order and chaos, which cannot be resolved – consequently it is never-ending. Further, the evolution of time leads to increasing degrees of freedom and potentiality. Each new level cannot be understood from lower levels of reality. Because of this upward and expansive motion, it is in principle impossible to predict and understand the future in its entirety.

**Wright's Cultural Evolution:** Robert Wright, in his book, *Nonzero: The Logic of Human Destiny*, argues that there is a discernable progressive general direction to all of human history.<sup>41</sup> He believes that a scientifically valid conception of cultural and historical evolution exists that can be applied to all human societies. This directionality provides a basis for making general predictions about the future evolution of humanity, society, and culture.

According to Wright, the general evolutionary direction in human history is toward increasing social complexity based on the development of mutually beneficial relationships or transactions among people, individually and collectively. Although we all possess a basic need to serve our own individual interests, we repeatedly find that we can establish "win-win" transactions among us that also benefit us individually. These arrangements, both supported and fueled by technological innovations, add to the

complexity of our societies. In essence, although Wright does not highlight the term, social complexity grows through the evolution of “reciprocities” that mutually support the individual lives of those involved. Other futurist theorists such as Henderson and Eisler<sup>42</sup> use a similar concept of “win-win” relationships in articulating a new philosophy for human society – in contrast to “win-lose” relationships that they argue have presumably dominated Western thinking in the past - but Wright’s argument is that non-zero or win-win transactions have been evolving throughout human history, as well as even prehistory.

Wright contends that if we look at human history we find that cultures do not remain static, but at different rates, invariably move in the direction of establishing more and more “win-win” relationships among the members, and consequently move in the direction of increasing complexity. There are, of course, many cases where individual societies collapse or disintegrate, e.g. the Roman Empire, the Egyptian Empire, and the civilizations of the Aztecs, Mayans, and Incas, but the overall direction across the entire globe has been increasing complexity and “win-win” relationships. Wright contends that when cultures collapse, the accomplishments and advancements of the culture are not totally lost – they are discovered and passed on, to different degrees, to emerging cultures. The overall effect is growth, even in the repeated and frequent demise of civilizations. Even the most primitive cultures show a history of progress – while they remain viable - and our increasing understanding of pre-history demonstrates that progress was occurring throughout our evolution running back millions of years.<sup>43</sup> Although he is aware that universal histories and grand narratives of progress fell into disfavor during the twentieth century, with the rise of cultural relativism and Postmodernism, Wright contends that this basic pattern of evolution or progress applies to not only all individual human cultures, but also to the total global panorama of humanity. As a social species, our world is more complex and filled with “win-win” reciprocities than in the past, and we are increasingly integrated and tied together via these transactions and arrangements.

As a final point regarding Wright’s theory of cultural evolution, he clearly sees the importance of technological and material advance in understanding human history and progress. Throughout our history, new technologies have repeatedly served the function of improved connectedness among us (e.g. writing, the printing press, radio, TV, and the Internet). Technologies have also served the function of destruction, but in so far as evolution moves toward the enhancement of mutually beneficial reciprocities, then technology will be pushed in this direction as well.

**Stewart’s Evolution of Evolvability and Cooperation:** John Stewart, in his book, *Evolution’s Arrow: The Direction of Evolution and the Future of Humanity*, argues that the fundamental pattern of change throughout the history of life (if not the cosmos) has been evolution.<sup>44</sup> Over the last couple of centuries, discovering this general form and the details of this pattern has been a highly momentous advance in the evolution of life. Life has become conscious of its own direction and the *modus operandi* of its existence. For Stewart, this discovery required the emergence of conscious thought and the capacity to abstractly model reality. In articulating various concepts, models, and theories of both the past and the future throughout history, earlier humans laid the groundwork for this relatively recent scientific achievement.

Coming to understand evolution has been part of a general process in the history of life away from a narrow sensitivity and adaptability to the “immediate here and now” toward an expanding awareness of past and future. Stewart argues that becoming increasingly aware of both past and future, of the pattern of evolution and how humans fit into the grand evolutionary saga, amplifies human freedom. For Stewart, humans should use their knowledge of evolution as a foundation to guiding their development into the future.

One particular future development Stewart foresees will be the conscious and intentional enhancement of “evolvability.” In tracing the evolution of life he notes that increasingly more complex living systems find ways to evolve more quickly and efficiently. Their evolvability evolves. For example, the capacity to model reality in thought and imagination provided a mechanism for consciously considering the different possible consequences of changes in behavior. This was an advance over genetic mechanisms that operated through trial and error across generations. The development of culture provided a mechanism for passing on knowledge acquired within one generation to the next generation. Each stage in evolution brought with it some new more enhanced mechanism for evolving further. Understanding the process of evolution itself and consciously using this knowledge to evolve is, in Stewart’s mind, a quantum leap forward in evolvability.

Using the concept of evolution to guide our actions will further move the human mind from short-term goals to longer-term goals. The human self will become less present-focused and less self-centered. Stewart believes that the general goal for future humans should be to contribute to the overall evolutionary success of the species; in fact, extending the sphere of awareness further outward, future humanity should guide its thinking and behavior toward contributing to the overall evolution of the cosmos. This shift to cosmic dimensions within the human mind is a natural extension of the overall evolutionary direction of moving from the immediate here and now to the broadest expanses of space and time and the general trend from short-term evolutionary success to increasingly longer-term evolutionary success.

Another key feature of Stewart’s thinking is his emphasis on the principle of cooperation in understanding the dynamics and direction of evolution. Although Stewart acknowledges the role of competition in evolution, he believes that the overall direction of evolution (“evolution’s arrow”) is toward increasing cooperation. Cooperatives are more adaptable and capable than individuals and can successfully deal with more complex, larger scale environmental challenges. Yet, individuals will not cooperate unless it serves their own self-interest; hence the evolution of cooperation always involves ways that benefit the individual. Cooperation is only naturally selected for when it helps individuals.

Stewart argues for the emergence of a planetary civilization where the benefits of cooperation are shared by all individuals. He believes that a planetary civilization organized in this way would show a high level of innovation and evolvability. In fact, Stewart thinks that evolvability (the capacity for progressive change) should be the central focus or value of future human societies. Societies should have a transformative or dynamic self-image instead of a static one. Similarly, individuals within such transformative societies should guide their lives toward making themselves more evolvable. In essence, the connected goals should be to make human societies and

individuals more flexible, innovative, cooperative, and focused on continual long term success.

**Purposeful and Conscious Evolution:** For scientists like Stewart and many others, especially those involved in the area of biotechnology, humanity will soon gain control over evolution and learn to guide it. We will probably be able to amplify, improve upon, and accelerate evolution. Although part of this new level of control will be within the biological sphere, in a more general vein there are futurists who think that evolution and its purposeful control should be the guiding principle in all aspects of human life. Two contemporary writers who take this position are Barbara Marx Hubbard and Mihaly Csikszentmihalyi.<sup>45</sup> They think that evolution should be the guiding theme in the development of the human mind and human society. Csikszentmihalyi, a world famous psychologist who has extensively studied creativity and the experience of “flow” in individuals, believes that becoming active, conscious agents in the evolutionary process is the best way to find meaning and happiness in our lives. He contends that the central task of the new millennium is to control the direction of evolution.

Introduced in the last chapter, Hubbard, who uses the expression “conscious evolution,” has developed a network of writers and social activists sympathetic with her cause – in essence, she is spearheading a paradigm and social movement resonant with her theories.<sup>46</sup> According to Hubbard, humanity should purposefully guide its evolution, using both scientific and technological knowledge and spiritual and humanistic values. She also believes that a new creation story is needed to inspire and unite us. Hubbard believes that the old stories of our origins don't work very well any more – they have lost credibility. As noted earlier, she feels we are at a crisis point and in a confused state in human history; we need to define and create a new direction and story for tomorrow. She proposes a core set of values necessary for guiding our future ethical evolution: higher consciousness, freedom, love for each other, unitive aspirations, reverence for what is higher, and synergistic thinking.

Hubbard sees herself as facilitating a new social architecture for implementing the cultural and philosophical changes she sees ahead of us. She is presently working on the development of futurist communities that will network and participate in the contemporary social transformation. Toward this end, she has constructed an “innovation wheel” where innovations from around the world are collected together, providing a central source for cross-fertilization, mutual inspiration, and dialogue. Her hope is that this social and organizational effort will facilitate the purposeful evolution of humanity. The innovation wheel is divided into the following categories:

- Government and Law
- Education
- Economy and Business
- Health/Relationships/Personal
- Science and Technology
- Spirituality and Religion
- Environment
- Culture

Within each category, Hubbard highlights certain key themes and values. For example, under “Government and Law” she lists participatory democracy, equality, and justice as important ideas being addressed. Under “Health/Relations/Personal” she lists personal harmony, growth, and partnership as basic values and goals. Although Hubbard presents her ideas as both innovative and future focused it should be noted that most of her main values and goals are reflective of long-standing ideals in human history. Perhaps these ideals haven’t been realized – perhaps in fact, their opposites have held sway, but most of the basic goals of Hubbard’s philosophy can be found among the values of the major traditional religions and those of Enlightenment philosophy. In part, this is not surprising, for Hubbard draws a good deal of her inspiration from what she considers the positive contributions of past traditions, both secular and spiritual.

Aside from Csikszentmihalyi and Hubbard, Frank Tipler should also be mentioned. Tipler presents a theory of purposeful evolution that is cosmic in scope, encompassing the total future of the universe.<sup>47</sup> In essence, Tipler thinks that through the use of advancing technologies and the spread of humanity throughout space we will intentionally direct evolution toward the creation of a cosmic mind. Evolution has an ultimate purpose and we will be involved in its realization.

Finally, the connected social network of The Evolution Research Group, The Club of Budapest, and The Darwin Project should be included. Under the leadership of Ervin Laszlo and David Loye, among others, this network advocates for an evolutionary view of tomorrow, involving the conscious and purposeful guidance of humans in the process. They have published a variety of books on this theme, including *Evolution: The Grand Synthesis* by Erwin Laszlo and *The Evolutionary Outrider: The Impact of the Human Agent on Evolution* by David Loye in which they discuss evolutionary theory in depth and examine its implications for the future of humanity.<sup>48</sup> More recently, Loye has published a collection of essays titled *The Great Adventure: Toward a Fully Human Theory of Evolution* where the argument for purposeful, ethical evolution is developed and connected with Darwin’s original thinking on the nature of evolution.<sup>49</sup>

**Sustainability:** Versions of this theory of the future are often presented as critiques of the modern concepts of progress, growth, and accelerative change. The general emphasis within this point of view is on developing ways of life that will ensure for a continual high quality of life for all humanity. The fear is that the present modern pace of life is leading to an exhaustion of our natural resources and environmental catastrophe – we are moving too fast, motivated by the greed of the moment, and we are going to collapse or crash. As Dennis and Donella Meadows and The Club of Rome have argued, we have exceeded the resource capacities of the planet earth in our drive toward continued industrial and economic growth<sup>50</sup>. Richard Slaughter, who is an advocate of this perspective, believes that our modern high production – high consumption world is too present-focused and that seriously dealing with the issues and challenges of sustainability is a much more future-focused mode of thinking and living than our present general mindset and behavior.

Many ecological thinkers believe that we are exhausting the resource base of the earth with our massive and ever growing industrial and technological developments.<sup>51</sup> There is a call to return to a simpler way of life - to cut back on our modern obsessions with economic growth, technological advance, and extreme consumerism.<sup>52</sup> Of special

note, sustainability theorists highlight that we need to consider much more the type of world we will leave to our descendants and children. The argument for a sustainable human society can be stated with various degrees of emphasis. Sometimes it sounds like what is being called for is a regression to a more primitive way of life; sometimes the position simply calls for a slowing down of growth. At its most basic level, the sustainability argument emphasizes “foresight” regarding our present ways of life and the possible negative consequences of overextending our environment and ourselves.<sup>53</sup> We need to think ahead to ensure a quality existence for humanity in the future.

**Catastrophe, Decay, and Extinction - The End of World Civilization - A New Dark Age - The End of Humanity - The End of Everything:** This perspective on the future, which actually includes a whole variety of different theories, encompasses all those views that predict a decline or extinction of human civilization, if not humanity as a whole. Included within this perspective would be theories that predict biological or ecological catastrophes, scientific and technological disasters, social and economic collapse, moral decline, and spiritual failure.

At the opposite extreme of progressive and optimistic theories of the future is the general attitude of impending doom. This pessimistic perspective on the future can take different forms. One possibility involves a great and cataclysmic Third World War.<sup>54</sup> As discussed earlier, the threat of a global nuclear war over the last half-century spawned a wave of science fiction novels, stories, and movies depicting an age of barbarism or a new Dark Ages after the Third World War.<sup>55</sup> Wagar provides a review of governmental and scientific projections regarding a third world war and the possible consequences.<sup>56</sup> A third world war could conceivably spell ecological disaster, wiping out many forms of life, including humanity.

Aside from a third world war, there are many other negative possibilities for the future. Many of these possibilities have been captured in popular science fiction or disaster movies: 1) Humanity irrevocably pollutes or unsettles the environment and/or uses up most of the earth's natural resources - people die by the millions or billions, and our present world civilization collapses – *The Day After Tomorrow* or *The Core* scenario; 2) A great plague sweeps over humanity, perhaps due to biological experiments gone out of control – the *Twelve Monkeys* scenario; 3) Humanity is invaded, conquered, and enslaved by some powerful alien life form – the *War of the Worlds* scenario; 4) A powerful dictator gains control over the world and humanity is enslaved under a sinister totalitarian government – the *1984* scenario; 5) Governments lose control over the growing crime, violence, terrorism, and disorder sweeping the globe, and global humanity collapses into a "dog-eat-dog" lawless existence – something akin to the *Snow Crash* scenario; 6) The earth is hit by a huge comet or meteor and we go the same direction as the dinosaurs – the *Armageddon* or *Deep Impact* scenario. We are victims of bad luck; 7) Humanity creates a technological intelligence that decides to wipe out or enslave our species – the *Terminator* or *Matrix* scenario.<sup>57</sup>

Richard Moran, in his comprehensive overview *Doomsday: End-of-the-World Scenarios*, identifies and discusses ten basic types of possible catastrophic future events:

- Disasters due to Weapons of Mass Destruction

- Asteroid Impacts on Earth
- Massive Volcanic Eruptions
- The Greenhouse Effect and Global Warming
- A New Ice Age
- Mega-Tsunamis
- Plagues
- Cyber-Terrorism
- Insect Invasions
- Bioengineering Mistakes

According to Moran, all of these types of doomsday scenarios are scientifically plausible and could possibly occur. Such events could spell the end of humanity and conceivably even wipe out all life on earth.<sup>58</sup>

The cosmological scientist, Sir Martin Rees, in his book, *Our Final Hour*, focuses on scientific and technological disasters that could wipe out humanity. It may not be natural disasters that constitute the worst threat to our continued existence; humanity itself may be the greatest threat. He includes, as potential disasters, the emergence of super-intelligent machines; biotechnological terrorism and bioengineering error; nanotechnologies that get out of control; scientific experiments at the sub-atomic level that accidentally create black holes or expanding disruptions in the structure of space; cascading environmental disasters due to our technology and industry; and the continuing threat of nuclear weapons, especially if such weapons fall into the hands of terrorists. Rees sees the potential annihilation of humans as having cosmic significance if it turns out that humanity is the only intelligent life in the universe. If humanity is indeed the only intelligent life form in the universe, a view supported by a number of scientists, our destruction would cut off the chance of intelligence spreading throughout the cosmos. With our death, the life of the mind in the cosmos dies as well.<sup>59</sup>

The extreme cosmic expression of a pessimistic or doomsday view is the “Heat Death of the Universe” scenario. Inspired by the discovery of the three laws of thermodynamics in the nineteenth century, many scientists came to the conclusion that disorder in the universe is going to continually increase in the future. Eventually the universe will run out of available energy and consequently the capacity for creating new order, and all existing order and complexity will crumble. Along similar lines of thinking, perhaps the universe will continue to expand, spreading matter and energy ever more thinly so that the universe will die a slow death in a “Big Chill.” Or, if there is enough matter and gravitational force to reverse the expansion sometime in the distant future, the universe will start to collapse, shrinking back to a pin-point, which would destroy all structure, life, and intelligence. Everything would end in a “Big Crunch.”<sup>60</sup>

**Destiny and Determinism:** As a general perspective on the direction of the future, many religious and scientific thinkers have argued that the future is destined or determined. There is no element of possibility in the future. Either the flow of time is being orchestrated and controlled by God or supernatural beings, or all the events in nature occur in a predictable sequence due to the laws of nature and the deterministic connection of causes and effects. The destiny or “teleological” view of the future can be found in both Western and Eastern religions, such as the Christian theory that God has

a divine plan for the universe and there are a set of pre-determined events that will inexorably come to pass, and the Hindu theory that the universe is a dream in the mind of *Vishnu* and that the God *Shiva*, in his dance of creation and destruction, will bring the universe to an end in a great cosmic conflagration. From the scientific end, writers such as Pierre-Simon Laplace in the eighteenth century popularized the view that given a complete knowledge of the laws of nature and a complete description of the present conditions of the universe, the entire future history of the universe down to the smallest details could be predicted.

**Possibility, Freedom, and Uncertainty:** As noted earlier, after World War II the philosophy of existentialism, especially as espoused in the writings of Jean Paul Sartre, became a popular and influential way of thinking, first in Europe but eventually in the United States as well.<sup>61</sup> A central tenet of existentialism is that humans are free agents and that our future is a matter of choice, rather than due to destiny or determinism. According to Sartre, to anchor one's identity, one's values, one's life, or one's future to some fixed, pre-determined conceptualization, especially involving authoritarian doctrine or authority figures, is to live in "bad faith" and abdicate one's self-responsibility and self-determination. For Sartre, we freely create our future and freely create ourselves.

The philosophy of determinism has also been criticized from within science, especially with the development of quantum physics. According to contemporary interpretations of quantum physics, for example in the writings of Murray Gell-Mann, the future of the universe is probabilistic rather than entirely determined. The principle of indeterminism, a key concept within quantum physics, seems to imply that at the sub-atomic level the behavior of particles can not be completely predicted and this lack of predictability is not a limitation in our knowledge but an inherent property within quantum reality. Many contemporary writers, such as Kenneth Miller, argue that the indeterminism at the quantum level opens the door for human freedom, though not everyone agrees with this conclusion. But as a general theory of the future, quantum physics implies that the future of the universe (which of course includes human existence) is open to different possibilities.<sup>62</sup>

A common position held by many members of the World Future Society is that the future is a set of possibilities rather than one definite trajectory. Because the future is possibilities, humans have a choice in what future will be realized. Most futurists in fact talk as if they believe that the decisions made today will influence what our future will be like. We are not passive victims of supernatural destiny or natural laws.<sup>63</sup>

Finally, I should mention those contemporary "cultural edge" writers who emphasize chaos, creativity, and freedom in describing the nature of our modern world and how we should best approach the future. For example, in the essays of the anthology, *Mondo 2000*, arguments are made that nature is filled with chaos and creativity and that humans should embrace these principles in their lives.<sup>64</sup> Such views resonate with Postrel's argument that the best path to the future involves free creativity and a rejection of top-down efforts to control the world – the future is (or should be) open.

## Theories of Science, Technology, and Rationalism

**The Second Scientific Revolution:** Twentieth century science has introduced many fundamental changes regarding the way scientists think about reality.<sup>65</sup> Among the most noteworthy scientific developments have been relativity theory, quantum physics, cosmological evolution, open systems, chaos and complexity theory, and string theory. Over the last century, there has been a Second Scientific Revolution. These changes in thought, as well as our very perception of reality, are beginning to have an impact on how people view human society, psychology, business, and other areas of life. It may be that our total mindset is in for a fundamental transformation in ideas, attitudes, and values as a consequence of this second revolution of science.

A popular argument is that the Industrial Age was based on Newtonian science and, consequently, with the transcendence of this earlier scientific perspective, a new age will emerge based on the newer concepts of science. Some classic examples of this argument are Zohar and Marshall's *The Quantum Self* and *The Quantum Society*, Fritjof Capra's *The Turning Point*, and Hazel Henderson's *Paradigms in Progress*.<sup>66</sup> Zohar and Marshall propose that we reorganize our society and psychology in terms of the principles of quantum physics; both Henderson and Capra suggest an open systems approach to society and social planning. More recently, Sally Goerner, in her book, *After the Clockwork Universe*, has provided a systematic comparison between Newtonian and contemporary science and the social implications of each system of thinking. Central to her position is the thesis that contemporary science emphasizes the theme of connectivity and networking in nature, which is a fundamental shift away from Newtonian science with its emphasis on linear thinking.<sup>67</sup>

In general, this theory of the future is that due to a re-conceptualization and re-organization within the scientific community regarding the nature of reality, science is going to drastically alter the collective mind of all human society. This transformation will not just involve technological changes; the revolution will be psychological, philosophical, and social as well.<sup>68</sup> As we will see below, many theories of the future that incorporate contemporary scientific ideas also draw the implication that the human mind and society will fundamentally change as various new ideas of science increasingly impact everyday human life.

**Wilson's Neo-Enlightenment Philosophy:** The socio-biologist E. O. Wilson supports the basic principles of the Western Enlightenment in his vision of the future. His theory of progress rests on a belief in the powers of reason and science and a materialistic philosophy of reality. For Wilson, humanity is empowered through reason, science, and a belief in progress. Wilson believes that the basic tenets of the Enlightenment were that the universe was lawful and could be understood through science; that all human knowledge could be united through a set of fundamental scientific laws - laws that gave order to nature; and that through understanding and applying these laws of nature the potential for infinite progress in humanity could be realized.<sup>69</sup> Further, he believes that nature ultimately can be understood in materialistic or physical concepts, and his theory of ethics and values is naturalistic rather than supernatural or absolutist; he conceives of morality as having evolved in a social and natural context.<sup>70</sup> Wilson thinks that the great goal of the Age of Enlightenment and the West's greatest contribution to the world was the idea that secular knowledge (science and rational philosophy) could facilitate and drive the evolution of human rights, ethical and moral advancement, social development, and human progress. Although Wilson's

theory of reality is materialistic, he does think that it is important to address humanistic issues and values and connect them to materialistic science. He believes that the evolution of human culture and human psychology can be understood and explained within a biological framework.<sup>71</sup>

**The Technological Revolution and Technological Evolution:** The technological perspective on the future includes those theories and paradigms that emphasize computer technology, robotics, energy and resource development, technological super-structures and macro-industrial projects, micro-technology (nanotechnology), transportation, biotechnology, and space technology.<sup>72</sup> Technology is seen as the central driving force in the evolution of the future and, in particular, the accelerative rate of change in present times is viewed as primarily caused by technological innovation and development.

According to Michael Zey, although humanity in the last three centuries has made great progress in technological and industrial development, perhaps this is simply a prelude to what lies ahead in the coming centuries. Perhaps, as Zey suggests, we are on the verge of a “Macroindustrial Revolution”<sup>73</sup> that will dwarf in scope, complexity, and size the physical inventions of the last few centuries. Some strong possibilities in the very near future include mile-high buildings housing hundreds of thousands of people, tiny machines and motors the size of single molecules, intelligent houses and automobiles (that drive themselves), global mega-projects including transcontinental highway systems, and a multitudinous variety of robots performing a thousand different types of tasks for humanity.<sup>74</sup> Michael Zey, a strong spokesman for the future promises of technology, argues that the recent exclusive emphasis on information technology has been both misleading and counterproductive. Industry and manufacturing are not lessening up, but rather accelerating in complexity, scope, and efficiency. We are moving into an era of hyper-progress in all types of technology and industry.

The technological revolution is multifaceted and the innumerable areas of development cross-stimulate each other. Michio Kaku identifies three fundamental “scientific revolutions” in the twentieth century critical to the growth of new technologies in the world around us. These three revolutions are the quantum, computer, and biomolecular. According to Kaku, these three areas of research and study are mutually reinforcing, and technological developments based on scientific ideas in one area frequently instigate technological innovations coming out of another area. Walter Anderson particularly emphasizes how the growth of computer technology and biotechnology are not independent of each other; without computer technology, progress would have been much slower in identifying the human genome, and the study of biological systems has provided a host of ideas in the development of computer processing systems. Many of the newest innovations in biotechnology involve computer information processing systems, often implanted in or connected with biological organisms.<sup>75</sup>

Still, with the possible wonders of technology comes a sense of anxiety and apprehension over where it is all leading. There is the fear that we will lose control of our biotechnological or nanotechnological creations.<sup>76</sup> Perhaps we will literally integrate and merge with our technology?<sup>77</sup> More and more parts of our bodies are becoming replaceable with technological devices.<sup>78</sup> More and more of the activities within our lives are becoming dependent on the use of technology. As Naisbitt notes, at least in the

United States, we are becoming “technologically intoxicated.”<sup>79</sup> Perhaps worse still, at a more insidious and deeper level, our values and our purpose in life are being re-defined and ultimately controlled by the technologies we are creating.<sup>80</sup> Beginning with the Industrial Revolution, humanity has expressed a fear and concern over technology and machines. Are we becoming slaves to our machines? Are we being taken over by them? Yet, will our relationship perhaps turn out to be more symbiotic than submissive?<sup>81</sup>

**The Information – Computer Revolution:** In the last few decades, the emergence and spread of computer technology into many spheres of human life has both stimulated our sense of fascination and excitement, as well as our fear and apprehension over modern technology. The rich and varied set of interdependencies between computers and human life continues to escalate. The ever-growing pervasiveness, complexity, and capacities of computer technology can be seen as a real threat to our sense of power and superiority. According to some predictions, computers will become more intelligent than humans in two or three decades. Yet, equally, computer technology promises to vastly increase our abilities and power.<sup>82</sup> Never has there been such an intelligent and complex machine; never has a machine become so integral to so many different features of human life so quickly. Are we going to become totally dependent upon and swallowed up within an exploding technology of computers? Or are we going to emerge empowered in ways presently beyond our imagination and grasp?<sup>83</sup>

The computer unites two different paradigms for the future. First, the creation and development of computers is an extension of the manufacturing and industrial mindset. Computers are machines and, in the last couple of decades, mass-produced machines, that embody scientific and technological advances that have been taking place over the last three centuries. But the computer is a unique type of machine in that it stores, represents, processes, and communicates information. It is a higher-order machine, one step removed from earlier machines that harnessed physical forces and energy and manipulated, molded, and moved physical matter. As the steam engine was a central icon of the Industrial Age, the computer has emerged as the central icon of the Information Age. More and more of our professions focus on the manipulation of information, rather than the manipulation of physical matter, and the computer is the primary tool in these information professions. Thus, according to many writers, the computer ushers in a new type of human society – an Information Society. And computers are even transforming our Industrial Age machines. As computer technology works its way into more of our instruments, artifacts, and machines, our manufacturing becomes more intelligent and information-driven.<sup>84</sup> All told, computer technology is becoming the integrative “nervous system” for all our other technologies.

One very popular view regarding the contemporary transformation is that humanity is moving from an industrial society into an information society. Alvin Toffler, particularly in his books *The Third Wave* and *Power Shift*, subscribes to this theoretical view.<sup>85</sup> To a great degree, so does John Naisbitt in *Megatrends* and *Megatrends 2000*.<sup>86</sup> Of particular, more recent note, Manuel Castells, in his three-volume work *The Information Society: Economy, Society, and Culture*, highlights the unique features of the Information Age and how it embodies a qualitatively different way of life than previous eras in human history.<sup>87</sup> Although neither Peter Drucker nor Daniel Bell, two

well-known and influential theorists of contemporary times, explicitly advocate for an “Information Age” theory of the future, both strongly emphasize the passing of the Industrial Age and the growing significance of information technology, information professions and disciplines, and knowledge as wealth and power.<sup>88</sup> Basically, the Information Age theory states that humanity is moving from a society ruled by Newtonian machines and philosophy to a society ruled by knowledge and information. The information revolution is being supported by computer and communication technologies which store, process, and transmit information.

In discussing computers and the Information Age theory of the future, the sudden and ubiquitous expansion of the Internet, the World Wide Web, and other communication technologies must be included as an essential part of the big picture of things. The Internet, the largest machine humans have ever built, globally connects the ever growing population of computers worldwide. The Internet supports collective thinking and discourse, increased collaboration among the people of the world, and ties all the world’s computers into a global brain and mind. It has been just as critical in the development of the Information Age as the computer. It facilitates financial, economic, scientific, and personal transactions, at a whole new scale, among the myriad businesses, research institutes, social organizations, and people across the globe. The World Wide Web provides an electronic platform for creating a global visual presence. Coupled with the Internet, other communication technologies such as cell phones and wireless transmission are intensifying the exchange of ideas, information, and an immense torrent of small talk. In the Information Age, information is being broadcasted and received at a level that dwarfs all previous eras in human history. Projections are that this trend of “information overload,” for both better and worse, will continue to accelerate in the future.

The promises and possibilities of computer technology and the Information Age are frequent topics in the media and the news. *The Futurist* magazine routinely covers new developments and projected trends in computers, the Internet, and life changes in the Information Age. Over the last decade there have been many popular books which look at how computer technologies will change human life in the future. Nicholas Negroponte, in his book, *being digital*, presents a fascinating picture of how information and communication technologies will transform our lives in the relatively near future.<sup>89</sup> The information revolution is impacting education, business, politics, culture, and many other spheres of human reality. Michael Dertouzos, former head of the Laboratory of Computer Science at MIT, in his *What Will Be: How the New World of Information will Change our Lives*, describes in rich detail how computer technologies could affect healthcare, entertainment, the arts, government, the economy, and numerous aspects of everyday life. Dertouzos looks at both the potential benefits and negative effects of computer technology.<sup>90</sup> Ray Kurzweil in *The Age of Spiritual Machines* and *The Singularity is Near* discusses the evolutionary possibilities of computers and artificial intelligence, and how such technologies could transform the very essence of human nature.<sup>91</sup>

**Robotic and Human/Robotic Evolution:** Connected with the ongoing development of computers over the last fifty years is the evolution of robotics. Robots require computer circuitry, and as computers have become more compact and powerful, robotics has benefited from these advances. There is an ever growing robotic industry

and the Japanese, in particular, are enthusiastically pursuing both robotic research and the marketing of robotic companions and toys.<sup>92</sup> The world wide population of robots is increasing at a faster rate than humans.

Two of the main spokesmen for the great promise of robotics in the future, Rodney Brooks and Hans Moravec, foresee robots becoming more capable and intelligent in the coming decades and working their way into many aspects of human life. Brooks, in his *Flesh and Machines: How Robots Will Change Us*, and Moravec, in *Robot: Mere Machine to Transcendent Mind*, anticipate that robots will steadily approach the full set of capacities of the human mind and body in the coming century. Robots will show purposeful, goal-directed behavior, thinking and abstract cognition, and even emotionality. In fact, robots will exceed human abilities in many respects. In essence, both Brooks and Moravec predict a robotic revolution that will transform human society and the nature of humans.<sup>93</sup>

Brooks and Moravec trace both the history of robotic development over the last century, including their own work in the field, and present a set of detailed predictions for the future of robotics. Moravec is somewhat more optimistic about when robots will reach human intelligence and capabilities, anticipating that this milestone will happen in this century, whereas Brooks believes it will take longer. Brooks argues that there are still some fundamental insights regarding the nature of mind, intelligence, and consciousness that are missing in our understanding. Brooks does not believe that creating a robotic intelligence equal to humans is simply a question of sufficient storage and processing capacity. Moravec presents his more optimistic predictions based on his extrapolations of when we will be able to create reasonably compact computer systems that have the speed and storage capacity of human brains. Brooks and Moravec also see themselves as approaching the challenge of creating more capable robots from different directions. Moravec has been working on creating powerful central processors that perceive, calculate, and guide the behavior of robots, whereas Brooks has designed robots with multiple parallel peripheral processors – that is, with artificial nervous systems that approximate simple mobile creatures like insects. (In fact, Brooks's robots often resemble insects.) Moravec takes a top-down approach to design, whereas Brooks takes a bottom-up approach. Yet, where they both agree is that sooner or later, robots will achieve high level mentality, consciousness, and even a sense of self.

Robots in the future will come in all sizes and shapes with different abilities and levels of intelligence, depending upon the particular tasks they are designed for. Special purpose robots are already extensively used in manufacturing and are becoming increasingly popular in the toy industry. Household cleaning robots are already available and the promise that robotic visionaries such as Brooks and Moravec make is that robots will become commonplace and ubiquitous in human society in the next few decades.

Although Brooks anticipates great debate and uneasiness over the coming rise of robots, he believes that we will eventually achieve a symbiosis with robots and be transformed both psychologically and physically in the process. As robots become more capable and intelligent, they will alter how we conceptualize and relate to machines. Brooks is presently working on robots that mimic emotional behavior and interact with humans psychologically. Further, as biotechnology, computer technology, and robotics

advance, we will transform our own bodies, replacing bio-systems with robotic systems. In essence, we will become more robotic. In the future we will merge with our machines.

Moravec, though not discounting bio-robotic integration, presents a long-term, highly cosmic and visionary view of the future of robots. He foresees robots eventually exceeding human intelligence and moving into the exploration and colonization of outer space. Robots will become capable of reproducing themselves and will dramatically advance their own evolution in the centuries ahead. According to Moravec, robots are our future evolutionary children and descendants.

**The Biological and Biotechnological Transformation of Humanity:** Modern genetics and biology are fast approaching the time when humanity will be able to alter and manipulate its genetic make-up.<sup>94</sup> Not only will various diseases and obvious genetic infirmities be eliminated or diminished, but design improvements will also occur as well. New types of humans will probably emerge, not through the long-term process of natural selection, but the short-term process of purposeful genetic manipulation (germline therapy). How will such new humans transform human society? Will such new humans signify the end of our present species? Clearly a technologically engineered biological transformation in humans would be a highly dramatic event with all manner of implications and possible consequences - a paradigm instance of an evolutionary jump.<sup>95</sup>

Not everyone finds the prospect of enhancing humans through genetic engineering appealing or desirable. There is great controversy surrounding this growing possibility.<sup>96</sup> But as Gregory Stock argues in his book, *Redesigning Humans: Our Inevitable Genetic Future*, the general population, for a variety of reasons, will decide to genetically enhance their children as the technologies become available and affordable. Still, as Freeman Dyson notes, there will probably be great ethical controversy and even open conflict in the centuries ahead with the appearance and increasing number of genetically modified humans. A central issue in the debate will be over the very definition of human nature.<sup>97</sup>

The genetic engineering of humans is only one piece of the Biotechnological Revolution. The biotechnology industry, in general, is rapidly growing with research and production in new drugs, enhanced food products, medical treatments and technologies, artificial body parts, genetically modified life forms, and a host of other creations and innovations. Biotechnology even promises the possibility of slowing or stopping aging and opening the door to human immortality.<sup>98</sup> As a general future trend, biotechnology promises to significantly transform the entire ecosystem of the earth.<sup>99</sup> As many futurists predict, biotechnology will become one of the biggest and most profitable sectors of the economy. Many writers foresee the twenty-first century as increasingly dominated by biotechnology.

One highly stimulating overview of the area, which integrates biotechnology with ecological, evolutionary, and open systems theory, is contained in Kevin Kelly's well-known book, *Out of Control: The Rise of Neo-Biological Civilization*. As the models and metaphors of physical science dominated the Industrial Age, the coming era, according to Kelly, will be dominated by the ideas and applications of biology and ecology. We will develop various new biological and ecological technologies, e.g. life forms that eat pollution and waste, clean the house and enhance our health, and we will increasingly model our society on a biological philosophy. It is not simply that we may evolve

biologically, but the whole ecological system of life on the earth may evolve with us in a new era of enhanced cooperation and interdependency. Further, the distinction between the "born" (life) and the "made" (machines, tools, artifacts) will increasingly blur, as technology and biology intertwine in numerous ways.<sup>100</sup>

**Transhumanism:** One paradigm, if not social movement, concerning the future that integrates many of the above-cited technological and scientific theories is transhumanism. One definition offered of transhumanism is philosophies "that seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values."<sup>101</sup> Literally meaning "to transcend humanity," transhumanism emphasizes the value and central significance of using technology and science in creating the future. Humanity – psychologically, biologically, and socially – can and should be transcended.

**Extropianism** – One strong version and early expression of transhumanism - lists the following seven basic principles of its philosophy: Perpetual Progress, Self-Transformation, Practical Optimism, Intelligent Technology, Open Society – Information and Democracy, Self-Direction, and Rational Thinking. The term "extropy" is defined as "The extent of a living or organizational system's intelligence, functional order, vitality, and capacity and drive for improvement."<sup>102</sup>

Transhumanism is clearly a pro-growth theory of the future and decidedly pro-evolutionary in its thinking. In fact, transhumanism argues for infinite or limitless evolution and growth. Humanity is a step in the grand evolutionary process and not an end point. Many of its advocates see the transcendence of humanity as involving the integration of biology and technology. Although the original transhumanist site was American-based, there is now a World Transhumanist Association and a global "transhumanist culture." Both the World Transhumanist Association and the Extropian Institute hold periodic conferences.<sup>103</sup>

**The Technological Singularity:** As introduced earlier, in a well-known article published in 1993, the science fiction writer and computer scientist, Vernor Vinge, hypothesized that, given the present growth rate of computer storage and processing power capacities, computer intelligence would probably exceed human intelligence sometime within the next fifty years or soon thereafter. Once computer intelligence reached the human level, it would quickly move beyond it and within a relatively short period of time would vastly exceed in complexity and power the capacities of the human mind. At this point, we would have passed through the "technological singularity" where our machines would become incomprehensible to us. We would be – so to speak - left in the dust. In so far as such super-intelligent computers would orchestrate and direct the future evolution of technology and all those operations and activities of society, the world around us would become increasingly impossible to understand and keep pace with. The only conceivable solution to this looming problem, short of halting further computer technology development before it's too late, is to technologically enhance ("Intelligence Augmentation") the mental capacities of the human mind (or brain). Vinge sees this option as only a short term solution, however, since to keep pace with the accelerative growth of computers after the technological singularity the human mind would have to be so drastically and continuously modified and upgraded that, in a short

period of time, what constituted the human part of us would be miniscule in significance compared to the technological component.<sup>104</sup>

There are various other scientists and writers who agree with Vinge's general prediction of an impending technological singularity, though there is variability in estimates of the approximate date of its occurrence, how sudden and dramatic its onset will be, and what humans can (or should) do in dealing with this cataclysmic event. Both Kurzweil and Moravec agree that it is coming, but whereas Moravec believes that super-intelligent robots will thereafter become the leading edge of further evolution in intelligence, Kurzweil thinks that human minds will be able to download their personalities, intellect, and consciousness into computer systems and benefit from innumerable enhancements within such systems. There are also futurist organizations, such as the Transhumanists and the Acceleration Studies Foundation, that are very interested in exploring the different possibilities and consequences of the technological singularity. The science fiction writer Charles Stross has written two noteworthy novels, *Singularity Sky* and *Accelerando*, which explore in realistic narrative detail how human life may change as a consequence of the technological singularity. Humans may benefit from various advances in computer technology connected with approaching the singularity, such as living virtually within computer systems, or having multiple selves or lines of consciousness. As Stross speculates, humans may have to vacate the solar system if advanced artificial intelligences gains control over our world.<sup>105</sup>

**Radical Evolution:** Joel Garreau, reporter and editor for the Washington Post, in his book, *Radical Evolution: The Promise and Peril of Enhancing Our Minds, Our Bodies – And What it Means to be Human*, attempts to synthesize the various social, psychological, and even spiritual implications of the technological augmentation and modification of the human species.<sup>106</sup> He highlights four basic technologies – genetics, robotics, information technology, and nanotechnology – which he collectively labels “GRIN technologies” and discusses how the application of these technologies could transform the nature of humanity. In essence, Garreau pulls together many of the ideas and theorists discussed above, including Kurzweil, Vinge, Kelly, Stock, and the transhumanists. What he particularly wants to emphasize is that humanity, if not life in general, is at a critical point in history and that the potential technological enhancement of humans will represent a monumental step forward in evolution. For humans, this looming transformative event will create the biggest change in our species in the last 50,000 years. According to Garreau, the technological transformation of humans is the defining social, cultural, and political issue of our time.

Instead of presenting one possible future for humanity, Garreau identifies a variety of different conceivable scenarios for the future: The Curve, the Singularity, Heaven, Hell, Prevail, and Transcendence. These different scenarios are not absolutely distinct; the Singularity and Heaven scenarios build on the Curve scenario and the Transcendence scenario builds on the Prevail scenario. Both the Heaven and Hell scenarios assume the Curve scenario, but describe diametrically opposite consequences resulting from the Curve. Briefly, the Curve scenario predicts continued exponential technological growth; the Singularity scenario predicts (as inevitable) the emergence of super-human intelligence – an “intelligence explosion” - resulting from technological exponential growth; identifying Kurzweil as one of the strongest proponents of the following view, the Heaven scenario predicts “unimaginably” good

and positive results for humanity, achieved as a consequence of exponential technological growth and the realization of the Singularity – immortality and the capacity to guide the future evolution of the entire universe are two significant developments within this scenario; the Hell scenario predicts “unimaginable” human disaster and possible extinction as a consequence of continued technological growth and the emergence of super-human technological intelligence; the Prevail scenario, contrary to both the Heaven and Hell scenarios, predicts that humans will gain control over technology and guide its development and its applications to human enhancement – this scenario assumes an uncertain future filled with surprises, as well as various mistakes committed along the way; and finally, the Transcendence scenario predicts, building upon the Prevail scenario, that humans will transform their nature through technological enhancement - Garreau cites the transhumanists as supporting this vision of the future.

Although Garreau discusses all these different scenarios, his preference, as the ideal and perhaps most realistic future, is the Prevail/Transcendence scenario, where humanity, though “muddling” through the uncertain and dangerous waters of the future, guides its own evolutionary development. For Garreau, we have a degree of control over our future. Contrary to those who would argue that humans should not attempt to enhance or significantly modify our nature, Garreau believes that human nature is not fixed but rather dynamic and transformative. Technological enhancement does, though, greatly increase our power to change ourselves. Because of the competitive advantages of human enhancement, he thinks that advances in this area will continue to emerge and that many people will enthusiastically embrace these possibilities for improvement. Within the Prevail/Transcendence scenarios, we need to stay conscious of the potential dangers of technological growth (highlighted extensively within the Hell scenario), yet it is part of human nature “to steal fire every chance we get.” We are inclined, if not driven, toward self-improvement. Further, quoting Václav Havel, “transcendence [is] the only real alternative to extinction.” We grow or we die.

Garreau supports the general theory of purposeful evolution. Though it is GRIN technologies that will empower us to change ourselves, hopefully humans will guide the evolutionary process through sound ethical values and thoughtful decision making. He is particularly concerned over whether humanity, socially and psychologically, will catch up with the rate of technological change, understand it, and intelligently guide it. Can we make sense of all the new possibilities in front of us? Can we foresee which technological advancements will be of benefit and which will be too dangerous to pursue? How do we find meaning and happiness in this new world? Garreau foresees the need for a new Enlightenment, with new theories and new stories that will provide us with the wisdom to appropriately manage our impending transformation. In general, Garreau emphasizes the human element in our potential evolution. Following the ideas of Jason Lanier, Garreau argues that it is more interesting and valuable to consider how humans will change, rather than how computers will change in the future. For Lanier, the main thrust of our transcendence will be social and psychological rather than technological.

**The Cosmic Adventure of Outer Space:** Within this general perspective, the future of humanity is envisioned within a cosmic context. The emphasis within this perspective could be on identifying the general principles and processes of the evolution

of the cosmos and how we fit into the universal scheme – perhaps finding inspiration and meaning within this cosmic context and our possible role in the future of the universe.<sup>107</sup> Or, more concretely, the future of humanity could be seen as involving the exploration and colonization of the cosmos – either alone or in cooperation with other forms of intelligence within the universe.

Traveling into outer space became a popular idea with the emergence of science fiction and the writings of Jules Verne and H. G. Wells. Many of the greatest science fiction novels have been about humans venturing outward to the planets and the stars.<sup>108</sup> In the images of science fiction, humanity spreads outward through the cosmos, colonizes other worlds, perhaps encounters and battles alien intelligences, and, if fortune favors, truly becomes citizens of the universe. Within contemporary popular culture many of the challenges of this cosmic adventure were captured and brought to the screen in the *Star Trek* TV and movie series.

The exploration and colonization of outer space has not simply been an interest of science fiction writers though. Scientists, engineers, and visionary futurist thinkers have been developing plans and designs for space craft and space settlements over the last hundred years. A good overview of past efforts and future possibilities is contained in Nikos Prantzos's *Our Cosmic Future: Humanity's Fate in the Universe*.<sup>109</sup> Progress in moving out into space has not been altogether successful, with various financial, political, and technological problems slowing down or even halting efforts. Yet over the last fifty years, humanity has reached the moon and sent probes and, in some cases even robots, to many of the planets and moons in our solar system.

Different writers, both fiction and non-fiction, have presented a variety of reasons, including economic, technological, cultural, psychological and even spiritual, as to why humanity should and will move into outer space.<sup>110</sup> According to such advocates of space travel, in the long run, space exploration will pay itself back a thousand, a million, a billion fold; the cosmic adventure will be fueled by humanity's ceaseless desire and need to explore. Perhaps it is as necessary and inevitable as the baby bird leaving the nest to find its place in the world. Dorian Sagan, in his *Biospheres: Metamorphosis of Planet Earth*, presents a biological-ecological explanation of which factors are moving us toward outer space and its colonization.<sup>111</sup> *The Mars Society* has actually compiled a detailed list of reasons, as well as plans and proposals, for traveling to Mars and creating a permanent human settlement. Kim Stanley Robinson, in his award-winning Mars trilogy, has described, in vivid detail, the possible challenges in terraforming Mars to make it habitable for human life. Closer to home, *The Artemis Project* has articulated reasons and plans for a settlement on the moon.<sup>112</sup> And for a cosmic and dramatic argument for the exploration and colonization of the entire universe, based on scientific and spiritual grounds, including technological proposals for how to do it, see Frank Tipler's *The Physics of Immortality*.<sup>113</sup>

Metaphorically, humanity's journey to the stars is a realization of the ancient dream of the journey into heaven.<sup>114</sup> For many writers who enthusiastically support the great coming adventure into outer space, it is our destiny and ultimate calling to realize this dream. Perhaps, in retrospect, the coming century will be most remembered for our transition from terrestrial, earth-bound creatures to creatures of the heavens.<sup>115</sup>

## Theories of Ecology and Nature

**The Return to Nature - The Green Movement - Environmentalism:** Achieving a renewed sense of interconnectedness, balance, and appreciation of nature is central to Green and environmentalist thinking. Preserving or restoring the natural environment is a top priority. The raising of ecological consciousness across the globe among all people is a fundamental goal. The Green movement, which is the strongest and most conservative form of environmentalism, is clearly more than just a theory concerning the future; it is a paradigm with a whole set of values and guidelines for how to live; it is also a social movement, for many people attempt to live by its principles and organize to further its cause.

Anderson and Easterbrook<sup>116</sup> provide summaries of the Green movement and Green ideology, and Ray discusses the correlations between Green and environmentalist thinking and the basic American subcultures of Modernism, Cultural Creatives, and Heartlanders.<sup>117</sup> Environmentally conscious thinking and living is a strong theme within the Cultural Creatives culture.

Lovelock's Gaian hypothesis – that the earth is a single living organism - is often used as theoretical and ideological support for Green thinking. We should see ourselves as part of Gaia. We should treat the earth as alive and care for it, rather than abuse it.<sup>118</sup> In fact, the earth or Gaia may be worshipped as the “mother goddess” for, in effect, we are the children of Gaia. At the very least, we should see ourselves in a partnership relationship with the earth, rather than attempting to dominate or control it.

Green thinking tends to be reactionary to many modern trends in social and industrial growth – it is often highly anti-technology and anti-big business. Within Green thinking there is an emphasis on stability, harmony, and sustainability over growth in the future, and often a more local or regional vision of human life.<sup>119</sup> Additionally, the high production/high consumption way of life in modernized countries is frequently criticized as being the main cause of environmental and ecological problems. According to many environmentalist and Green thinkers, we should adopt a non-intrusive, light-touch approach to nature, rather than trying to control or change it.<sup>120</sup> The high consumption way of life is also blamed for being one of the main causes of psychological stress and life dissatisfaction in the modern world.<sup>121</sup> We should learn to use less and consume less. Living more in tune with nature creates a happier, more peaceful life. For radical Greens, humanity, including technology and modern civilization, is often seen as a scourge on the environment, the earth, and ecological balance. Perhaps the Industrial Era was an aberration in human history; the conquest of nature is about to fail, and we must learn to live in a way reminiscent of our pre-industrial ancestors.

Environmentalist thinking has clearly raised the ecological consciousness of humanity. In particular, there has been a focus on documenting and measuring various environmental problems and challenges, such as climate change, species extinction, pollution, depletion of resources, and the disruption or destruction of ecosystems across the globe.<sup>122</sup> There have been repeated publicized warnings, based on evidence collected and extrapolation on this data, that our high production/high consumption, highly intrusive modernized way of life is leading to ecological and human disaster.<sup>123</sup> Yet there is also considerable debate and controversy over the validity and value of such predictions and “doom and gloom” visions presented by many environmentalists.<sup>124</sup>

**Ecology and Holism:** Theoretical views within this general perspective emphasize ecological and open systems concepts and a holistic, integrative, and interdependent view of humanity, technology, and nature. Frijof Capra's vision of the future, the Integral Culture movement, and the New Age movement are illustrative examples of this perspective. From a holistic perspective, all the pieces and dimensions of life and existence fit together into a whole – everything is interdependent and interactive. Holism is usually contrasted with the analytical view of nature and human life associated with the Industrial Age and Newtonian thinking; holism highlights the properties of the whole rather than the parts. The concept of ecology is decidedly holistic since nature is described in terms of systems of interdependent living forms.<sup>125</sup>

The holistic and ecological themes are often combined with evolutionary thinking in theories of the future, for example, in the ideas of Barbara Marx Hubbard, Hazel Henderson, Elisabet Sahtouris, David Loye, and Erwin Laszlo. In fact, Lovelock's Gaia theory also strongly supports both a holistic and evolutionary view of life and the earth. The open systems perspective on evolution emphasizes the interactive and interconnected dimension of change. Nature evolves through interaction and according to the scientist, Harold Morowitz, all "evolution is co-evolution."<sup>126</sup> Sally Goerner, in fact, uses the expression "ecological evolution" to highlight the idea that the universe and nature evolve as an interactive and mutually supportive cosmic ecosystem.<sup>127</sup>

Newtonian science emphasized analysis, dualism, and the control of nature. Newton described the physical universe as a set of distinct units of matter. Descartes, in his philosophy and psychology, argued for a dualistic separation of mind and body. The Scientific Revolution ushered in a clear division between religion and science.<sup>128</sup> Eighteenth and nineteenth-century Western philosophical thinking frequently emphasized the autonomous individuality of people. The Industrial Era fostered a sense of separation and alienation from nature, and also a philosophy of controlling nature to serve the goals of humanity.

Contemporary philosophy and science are moving in an opposite direction, emphasizing the interconnectedness and holistic nature of reality. Open systems theory, chaos and complexity theory, and quantum physics all point toward a holistic view of physical reality – there are no independent parts. The physicist Lee Smolin contends that increasingly all the basic properties and entities in physics are understood and described as relational rather than intrinsic and independent.<sup>129</sup> Holistic medicine and neuroscience point to numerous interconnections between mind, brain, and health. New Age thinking, which embraces the philosophy of holistic medicine and health, incorporates many ecological and holistic themes, as well as challenging the separation of religion/spirituality and science. J.J. Gibson has brought the ecological perspective into psychology, highlighting the reciprocity of the perceiver and the environment.<sup>130</sup> The science of ecology and the environmentalist movement emphasize the vast web of interdependencies and reciprocities among living forms and the humanity - earth relationship. In her overview of the transformation from Newtonian science to contemporary science, Goerner argues that the key new theme in scientific thinking is "connectivity" and that nature is now described as "networks."<sup>131</sup>

Ecological and holistic thinking about the future envisions a world in which nature and humanity co-exist in a spirit of cooperation, respect, and partnership, rather than humanity trying to dominate nature or humans trying to dominate each other.<sup>132</sup> The Integral Culture movement describes its main goals for the future as finding ways to

again integrate and connect individuals with each other, humanity with nature, and humanity with the cosmos.<sup>133</sup> If, for the last three hundred years, we have lived in an era of analysis, specialization, division of labor, mechanistic metaphors, and dominance over nature, we are now moving toward a philosophy of communion, holism, cooperation with nature, and organismic metaphors.<sup>134</sup>

## Theories of Psychology and Human Relations

**Psychological Evolution:** Speculative visions of humans in the future, for example in science fiction films, although often set in strange high-tech environments, usually portray humans, quite naively, as possessing the same type of psychology and mental make-up as they have today.<sup>135</sup> Even if humans are bio-technologically enhanced or have computer chips implanted in their brains, it is assumed that the essentials of human nature will remain relatively constant. Humans of the future are portrayed as having the same vices, the same desires, the same social relations, and the same psychological challenges as they do today. This assumption regarding the future of human psychology seems highly doubtful.

There are many reasons to think that human nature is transformative and evolving, and not some single unchanging reality. Recorded history demonstrates fundamental changes in all aspects of human existence, including society, technology, culture, belief systems, material artifacts, art, religion, and architecture.<sup>136</sup> All these types of change clearly have affected the human mind and the human self – we are not the same psychologically as our ancient ancestors. Based on evidence from archeology, paleontology, and anthropology, it appears that human mental capacities, behavior, and our sense of personal identity have significantly changed and evolved over time.<sup>137</sup> There are, in fact, many indications that human psychology is undergoing some basic changes in our contemporary world.<sup>138</sup>

Accelerative developments in biotechnology, the science of psychology, brain research, computer technology, education, and other areas promise to provide ways to enhance or improve human psychological capacities in the future. We can improve or transform ourselves by changing our biology through drugs or genetic engineering, by augmenting our intelligence with computer technology, by changing our environment, by enhancing or transforming our cognitive abilities, belief systems, behavioral habits, or way of life, and by modifying our culture and society, including our values and educational system. We may use technology to alter our minds and our selves, or we may transform our psychology through mental techniques and behavioral practices. We may purposefully guide psychological changes within us, or changes may be forced upon us in order to cope and adapt to a changing world.<sup>139</sup>

Many writers and leaders in the worlds of business, human organizations, social and political science, biology and information technology, and, most notably, psychology are talking about contemporary and potential future developments occurring in human life and human interactions. New principles of leadership, cooperation, and innovation are developing in the business world.<sup>140</sup> We have already noted that in the areas of biotechnology and information technology there is a great deal of attention being paid to how humans could be transformed in the future. Human diversity, global consciousness, and human empowerment are moving up the priority list of values in government, business, and social life. The New Age movement, the Human Potential and Social

Potential movements, renewed spiritual and religious concerns, the Feminist movement, and many other social developments are all contributing to the idea that humanity is about to transform psychologically, socially, and even spiritually.

There are many writers and futurists in psychology and the humanities who specifically focus on the theme of a new type of self emerging in the future. Barbara Marx Hubbard and others argue for a future self that moves beyond an egocentric mindset.<sup>141</sup> Walter Truett Anderson, in his *The Future of the Self*, besides providing an excellent overview of the concept of the self in history and contemporary times, also presents his ideas on a “postmodern person” that possesses a pluralistic self needed for our complex and changing world.<sup>142</sup>

Of special note, the psychologist Mihalyi Csikszentmihalyi, in his book *The Evolving Self: A Psychology for the Third Millennium*, proposes a new vision of the self for the future. His theory of the “evolving self” emphasizes the need to transcend the egocentric constraints within us. He believes we have the inherent capacity to see beyond the limits of our present condition and transcend them. Csikszentmihalyi argues for a new type of self in the future - one that does not identify with or accept the selfish needs of genes (the body), culture, or the ego.<sup>143</sup>

According to Csikszentmihalyi, the key to an evolving self is the experience of flow. Flow is a state of consciousness experienced during periods of creativity. Csikszentmihalyi presents a theory of “transcenders,” of people who pursue the experience of flow. Transcenders are evolving selves. Csikszentmihalyi sees the evolving self as a cosmic self that identifies and integrates with all humanity, nature, and the universe. The evolving self “flows” and “transcends” its own boundaries. It is a dynamic narrative growing and transforming with a sense of adventure and purpose. It is open to the world and to its own inner workings.

If the rate of change in our contemporary world is increasing, if things are moving faster and faster, how are we not only to survive, but, in fact, thrive in such a world? The psychologist Maureen O’Hara has developed a theory of human personality that addresses the issue of finding a balance of order and chaos in our lives.<sup>144</sup> According to O’Hara, there are three fundamental ways of dealing with change – defensive, psychotic, and growth responsive. The defensive response is “anxiety repressed,” the psychotic response is “anxiety unleashed,” and the growth response is “anxiety contained and transformed.” She refers to the growth-oriented self as a “transformative self.” For O’Hara, the transformative self shows flexibility, creativity, integration, balance, openness, interconnectedness, expansive consciousness, a synthesis of the rational and intuitive, a tolerance for ambiguity, a balance of cooperation and competition, empathy, and joy. The transformative self is the foundation for psychological and social evolution.

**The End of Material Progress and the Growth of the Human Psyche:** A view of the future that is basically the antithesis of materialist visions (technological or economic) is the theory that there will be a fundamental shift in focus toward mental development and away from physical development. C. Owen Paepke, in his *The Evolution of Progress: The End of Economic Growth and the Beginning of Human Transformation*, predicts that the recent accelerative evolution of physical technology is about to come to an end. We are about to exhaust our physical resources, which power our industrial and technological growth. Further, we are reaching the upper limits of our

technological abilities. In the near future, there will be a shift of emphasis from physical improvement to biological, psychological, and social improvement. We will turn increasingly toward the development of our minds and away from both economic and technological growth.<sup>145</sup>

Though this view of the future may seem rather radical or extreme, it does resonate with a popular line of thought in the minds of many people who think and write about the future. Although Hazel Henderson does not predict an end of material progress, she does think that our values are going to shift away from economic growth toward themes like national welfare, the quality of life, and the satisfaction of basic human needs.<sup>146</sup> Peter Russell believes that our focus on external material objects as the pathway to happiness and life satisfaction is counter-productive and that we need to shift toward the inner development of our minds, if we are going to achieve happiness in life. In fact, Russell believes that it is through psychological and spiritual development that we will realize a higher, more rapid-paced level of evolution and change. The key to continual growth lies in the mind and not in the world of matter.<sup>147</sup> In a set of articles for the *Encyclopedia of the Future*, William Van Dusen Wishard and Graham Molitor point out that one pervasive and growing criticism of the modern world is that our values are too materialistic and economic and that we need to shift our attention more toward the human spirit and psychological issues. Human civilization should change direction from a materialistic emphasis to a humanistic and psychological emphasis.<sup>148</sup> Finally, in looking at the research of Ray and Anderson, the rising Cultural Creatives subculture clearly seems to be putting more of an emphasis on psycho-social and spiritual values than technological and economic values.<sup>149</sup>

**Positive Psychology, Optimism, Happiness, and Virtue:** One of the most influential new developments in the science of psychology is the “Positive Psychology” movement. Instead of focusing on psychological problems and disorders, such as stress, anxiety, psychosis, and depression, the Positive Psychology movement focuses on human strengths, such as love, wisdom, self-respect, and hope, and how to further enhance such strengths.<sup>150</sup> Although in some ways an evolution of Self-Actualization Psychology, popularized by Abraham Maslow and Carl Rogers in the 1960’s, the Positive Psychology movement adds many important new elements and is highly relevant to futurist concerns and issues.<sup>151</sup>

Perhaps the most well-known spokesperson for Positive Psychology is Martin Seligman. The two topics that Seligman has studied over the last decade that are most noteworthy are optimistic versus pessimistic attitudes about the self and the future and the relationship between virtues (or character strengths) and happiness and purpose in life.<sup>152</sup>

Optimism and pessimism are two of the most fundamental themes underlying attitudes and theories about the future.<sup>153</sup> I have already reviewed a variety of theories that take an optimistic, a pessimistic, or some mixed perspective regarding present trends and potential future developments in human society. Supporting optimistic and pessimistic attitudes are the basic human emotions of hope and fear. Is the future approached with hope or with fear? What Seligman has studied are the causes and corollaries of optimism and pessimism and how to strengthen an optimistic attitude. Although pessimism can serve some value (pessimists are more realistic and accurate in their assessments of themselves and the environment and provide an important

function of hyper-vigilance to potential danger and disaster), pessimists tend to see themselves as helpless and suffer from depression, which leads to inaction and loss of hope regarding the future, and they behave in ways that fulfill and confirm their negative attitudes. Optimists think about the world differently than pessimists; they see themselves as much more capable of effecting positive change, are less likely to blame themselves for failures and bounce back much quicker from failure and misfortune. Seligman discusses the social trends and causes behind pessimism and depression and, in particular, is highly critical of the heightened level of individualism in contemporary society and the waning of community and social support, which he believes has significantly contributed to the more negative attitudes and feelings about life and the future.

In an extensive study of values and virtues across different cultures and historical periods, Seligman identified six fundamental character strengths or virtues that appear universal for all people in all times. These six virtues are wisdom, courage, love and humanity, temperance, justice, and transcendence. Seligman's argument is that "authentic happiness" in life is built upon the exercise and development of these character virtues. Seligman believes that authentic happiness is a relatively enduring quality and is not necessarily associated with short term pleasure at all. Momentary pleasures tend to diminish quickly, for people adapt to the frequent experience of a repeatable pleasure. Character virtues on the other hand require effort and challenges. Hence, authentic happiness is something that must be worked at and the pathway involves an ethical growth in the individual. Psychological happiness and mental health is achieved through ethical development.

For Seligman, meaning and purpose in life involve both the development of character virtues and the identification with some reality or goal "beyond oneself." The virtues serve a "transcendent reality" rather than just being self-serving. (Note the similarity with Csikszentmihalyi on this point.) Consequently, extreme individualism works against finding meaning and purpose. We should note that transcendence is one of the primary character virtues listed. In many ways, transcendence is anathema to our modern emphasis on the ego, self-gratification, and subjectivism – there is something beyond our private realities that needs to become our center of gravity and our standard of truth and value.

**The End of Male Domination and the Rise of Femininity:** For at least the last four or five thousand years, almost all of modern human civilization, East and West, has been male-dominated. In particular, religious, philosophical, and academic ideas have been, primarily, the creation of the male mind. In the West, as well as the East, we have had a male-controlled economy, government, and technology supported by a male ideology and mindset.<sup>154</sup>

Often presented as a challenge to the "masculine" domination of human history, human values, and society, feminist theories of the future argue for equality and justice for women in the future. One view frequently presented is that the supposed gender differences between men and women are a product of cultural indoctrination and stereotyping, and that women, given equal opportunities, will be able to perform in all spheres of life at the same level as (if not better than) men. Another view is that women possess special gifts and talents and that these qualities should be accorded equal status and value in the world. In the past, women have frequently been treated as

inferior to men and whatever unique qualities women possessed, these qualities were seen as less important than those presumed unique qualities of men.<sup>155</sup> Hence not only should women have equal opportunity and power, but if there are certain values and ways of thinking strongly associated with a woman's point of view, these values and ways of thinking should be given equal importance in future human society.

Just as men have dominated political and intellectual history, they have also dominated thinking about the future. Up to the last few decades, most popular theories of the future were created by men. Although not always the case, such masculine views of the future have frequently highlighted technology, economic growth, expansionism, and the conquest and control of nature. Visions of the future created by women put a different slant on things. In a survey of women's thinking on the future in the *The Futurist*, the dimensions highlighted by those women questioned were intuition, partnership, humanism, equality, community, and the family.<sup>156</sup>

Riane Eisler's theory of human history and the future is one good example of a feminist view of the future.<sup>157</sup> Eisler argues that human societies over the last few thousand years have been organized in terms of dominance hierarchies with men in the top positions of power and women relegated to subservient roles and inferior status. Eisler proposes that human society as a whole needs to move beyond this dominator mentality to a partnership model where women and men have equal status and that social relationships should be created in the spirit of mutual respect and cooperation, rather than domination and submission. Eisler sees men, as well as women, as victims of the dominator mentality; a partnership mentality is better for everyone. She believes that many, if not most of today's problems in the world are a result of a dominator mentality and social order, and that a shift to a partnership society would help in correcting environmental, political, and social ills.<sup>158</sup>

Presently modern human society is in a state of flux and revision. We may be reaching the end of a male-dominated culture and civilization.<sup>159</sup> Not only are women having an increasing impact on the economy and business practices and beliefs, but women are also challenging various practices and beliefs in social, psychological, religious and philosophical areas.<sup>160</sup> If the male mindset is one of hierarchical dominance and control, female writers are proposing a more participatory and cooperative ideology.<sup>161</sup> According to feminist futurists, we are moving into an era of balance between the sexes.<sup>162</sup>

**Wheatley, Human Organizations, and Leadership:** As human society is being transformed, business organizations and the world of work are changing as well. In the contemporary business world there is a strong movement away from the traditional philosophies and practices of the past toward new ideas coming out of science, technology, psychology, social thinking, and business and leadership theory.

The traditional model of business organizations, as Toffler notes in *The Third Wave*, was built on the hierarchical, top-down, standardization concepts of the Industrial Era. Managers stood at the top and directed the activities of workers in an organization. Freedom of thought, individual initiative, and group participation were not reinforced. The paradigm business was the factory and the paradigm job was assembly work.<sup>163</sup> As Margaret Wheatley emphasizes, in her book *Leadership and the New Science*, traditional business organizations were highly influenced by Newton's view of reality. They were analytical, mechanistic, and excessively rationalistic.<sup>164</sup>

In the last few decades, some of the most noticeable changes include businesses moving toward flatter organizations with less middle management, managers being transformed into leaders who coordinate and empower individuals, the movement from more local to more global economies, and the infusion of information technology into all aspects of business and work. Further, production is diversifying from standardized to more customized goods.

Wheatley proposes a new theory of business organizations reflective of contemporary trends and especially the new ideas of Post-Newtonian science. According to Wheatley, business organizations of the future need to become much more fluid and dynamic. Intelligent workers require more opportunity for creativity. Also, future organizations need to be able to keep pace with the rapid rate of change in human society. Obsessive predictability and control are out; businesses need to appreciate the value of chaos and loosen the reins of control. Order and purpose can grow from within a group of intelligent and empowered employees; order and purpose do not need to be imposed from above. And still, a certain amount of disorder within an organization is beneficial; it keeps the system moving and growing. Business organizations of the future should be learning organizations, more open to outside influences and ready to grow and transform.<sup>165</sup>

Also, Wheatley's image of future business organizations connects such organizations more intimately with human society and the needs and values of people. Wheatley, in fact, advocates for a strong humanization of future business. Not only is the employee to be seen as a thinking, self-directed individual rather than simply a "cog-in-a-wheel," but the business organization of the future must adopt a whole new set of humanistic values and ideals. There should be a concern over business ethics and social responsibility. Corporations and companies can no longer see themselves as simply economic realities - they are social institutions, integral to and necessarily part of human society.

Wheatley wishes to emphasize the importance of vision and culture within business organizations. Instead of an organization having rigid and specific rules for its employees, a business corporation should organize around a vision of its future. This vision should be the mutual creation of all its employees and should motivate and inspire its employees, rather than rigidly control them. Out of a vision arises a culture, an attitude, and a way of life within the organization. The culture provides both professional and personal meaning and a psychosocial atmosphere for the organization. In essence, the business corporation of the future must find positive and non-authoritarian ways to move its employees motivationally, personally, and emotionally.

**Humanism - The Compassionate Era - The Age of Light - The Solar Age:** Robert Theobald's "Compassionate Era" theory of the future<sup>166</sup> and Hazel Henderson's vision of the "Age of Light" and the "Solar Age"<sup>167</sup> combine an emphasis on humanistic values with criticisms of high tech, economically focused views of the future. Theobald is critical of the Information Age view of the future because it highlights the impersonal and the technological. Rather, he sees our changing world as calling for a new culture of honesty, responsibility, humility, love, and a respect for the mysteries of life. According to Theobald, we need to live with passion and care about our world and ourselves. Theobald calls himself "a courageous realist" rather than an optimist because

he thinks that the future is possibilities rather than certainties, and it will be our choices that determine tomorrow. Clearly acknowledging the great changes occurring around us, Theobald wants to stress the emotional, psychological, moral, and social dimensions of the future.

Hazel Henderson, who has been previously cited on numerous occasions, is an advocate of open systems thinking, a global perspective on humanity, and ecological - biological concepts and values. She is also critical of the Information Age theory because, as she says, "Information doesn't necessarily enlighten." For Henderson, the Information Age is a continuation of the Industrial Age mindset with its emphasis on hardware, mass production, consumption, efficiency, and competition. She believes that our future needs a philosophy and metaphorical language that underscores our connection with nature and the importance of mental wisdom and vision. Further, she advocates for a logic of complementarity - a *Yin-Yang* philosophy of both/and - to replace the either-or, dualistic logic of the West.

Henderson's approach to the future could also be classified under the ecological and holistic perspective. She strongly supports the Gaian hypothesis, arguing that understanding Gaia will provide moral and intellectual guidance for creating a global and planetary civilization. She thinks holistically, viewing all the basic dimensions of human and natural reality as interdependent. Further, she advocates for justice and equality among all humans, believing that the capitalist economic growth model has intensified human inequality and overall is having a negative effect on the quality of life. Henderson wishes to emphasize cooperation among people and stresses the importance of achieving greater harmony in the world. Finally, she sees the solar system as an ecosystem with Gaia embedded in the context of the radiance of the giver of life - the "mother Sun." Humanity needs to define itself within this broader, more cosmic context, rather than in terms of individualistic or nationalistic identities.

**Shlain's Word and Image:** Leonard Shlain sets his theory of the future in the context of a broad and systematic vision of human history. In *The Alphabet and the Goddess*, Shlain argues that there have been two fundamental and opposing forces in the history of human civilization. One force, which is more strongly associated with women and the female perspective, uses the image as the basic means of communication and symbolic representation. The second force, more strongly connected with males and the masculine mindset, is anchored to the use of the word and abstract language in communicating and thinking. An emphasis on the image brings with it a more concrete way of seeing the world and seems to support more egalitarian and peaceful societies, whereas, according to Shlain, the introduction and spread of linguistic literacy and alphabetic representation brings with it more violence, war, competition, and domination of men over women. Authoritarian and rule-governed societies seem to suppress the use of the image in culture and emphasize rigid memorization and adherence to sacred texts. Although the emergence of science, presumably a positive development in the history of human civilization, is connected with the rise of literacy in the West, the increasing persecution of women and children (the witch hunts) and the terrible wars among enlightened Western countries were also associated with increasing literacy.<sup>168</sup>

With the increasing influence of computer technology and the popular media, Shlain sees a decided shift going on in contemporary culture away from the word

toward the image. Although many modern writers bemoan the apparent loss in literacy and interest in reading and writing, Shlain believes that this trend may actually have a beneficial effect. In Shlain's mind, more of a balance is needed between the influence of the word and the influence of the image. (Shlain also supports a *Yin-yang* philosophy of balance.) He connects this shift toward the image with the increasing voice and power of woman in the contemporary world, as well as with their more concrete, cooperative, emotional, and peaceful mindset. The introduction and pervasive spread and influence of movies, TV, and most recently videos and DVD's, the growing ubiquity of screens and visual displays in our world, the rapid advances in computer animation, the rising popularity of video and computer games, and our youth's increasing visual-graphic intelligence over linguistic intelligence are all significantly connected with a new mindset and way of life that is emerging in modernized countries. Given these trends and the strong possibility that such trends will only intensify in the coming years, Shlain is very hopeful about the future.

### **Theories of Society, Culture, and Morals**

**Globalization and the Global Society:** One of the most popular and influential theories of the future is the view that a global society is emerging in contemporary times. According to advocates of this theory, humanity is moving from a set of relatively autonomous nation states to an integrated global organization, more ruled by international corporations and economic and ecological interdependencies than national and political ideologies and issues. The emergence of the global society is being fueled by global communication, transportation, economic exchange, and the growth and spread of a global culture.

As a starting point, it should be noted that various writers have argued that the process of globalization is not a recent phenomenon but has been building throughout human history. Wright discusses in considerable depth how economic interdependencies and exchange and communication information networks have been evolving for thousands of years, leading to the present global society – the global society has been in the making for centuries, if not millennia.<sup>169</sup> Howard Bloom, in *Global Brain: The Evolution of Mass Mind from the Big Bang to the 21<sup>st</sup> Century*, takes an even more expansive historical perspective than Wright and describes the emergence of communication and the networking of life on earth from its beginnings and traces the spreading of humanity across the face of the earth back to our hominid ancestors. Bloom discusses how the creation of cities and trade routes, built on conquest and economic reciprocities, laid the seeds for the development of ever expanding and interconnecting human societies and cultures.<sup>170</sup>

One of the most widely read early globalization theorists is Richard Naisbitt. According to Naisbit, human society is experiencing a global, economic boom. There is a steady, ongoing increase in international trade and commerce. Free enterprise and open economic exchange are increasing. National economies are disappearing because major corporations are more international; products are assembled from contributions from around the world. The world economy, in fact, overpowers the ideological differences of nations. For multinational corporations, the marketplace has become the entire globe. Telecommunication has provided a means and mechanism for complex, fast-paced global economic coordination. Through computerization and global

communication systems, worldwide data on resources, production, and consumption can be continuously monitored, analyzed, and disseminated around the world. Finally, more individuals in their own private businesses and personal concerns can become involved in the global marketplace and global community through personal computers and the Internet. We are becoming global citizens.<sup>171</sup>

Globalization also impacts culture, values, and belief systems. Due to the global economic exchange and marketing of local and ethnic products, the mass production and distribution of goods and cultural icons from modernized countries, and the ubiquitous advertising and promulgation of images, ideas, and icons through the global media, people all across the world are being exposed to the cultures, ideas, and ways of life of all humanity. There is a great intercultural mixing going on.

According to William Wishard, the defining new reality of our time is “the human community as a single entity.” We can no longer identify with a unique tribe, ethnic group, or nation; we must see ourselves as one single world community of humanity. He notes that for the first time we are incorporating planetary dimensions and considerations into our economical, political, and cultural beliefs and decisions. He also thinks that a unifying view of our origins and the universe is being provided by contemporary science that transcends individual cultures. According to Wishard, this overall shift toward a global world-view and global way of life is creating an upheaval in many aspects of human society.<sup>172</sup>

Writers as diverse as Hazel Henderson, Thomas Friedman, and Walter Truett Anderson see globalization as the most significant trend within our contemporary world. Henderson contends that all of the most significant changes from Industrial Age to Post-Industrial thinking will involve an enhanced global emphasis. Thomas Friedman argues that globalization is the most powerful and pervasive social, economic, and political force at work in the world today, replacing the Cold War as the defining theme of our times.<sup>173</sup> Globalization will change all aspects of human society. Anderson predicts that globalization will be the dominant reality of the twenty-first century.<sup>174</sup>

In *The Lexus and the Olive Tree*, Friedman sees the central challenge generated by the sweeping phenomenon of globalization as balancing worldwide integration with local cultures that feel threatened by globalization. He believes that a balance needs to be achieved between individuality and community. As a way to metaphorically capture these two opposing dimensions of human life, he uses the “Lexus” as the symbol for modernization and globalization and the “Olive Tree” as the symbol for local roots, family, and individuality. The “Lexus” represents the benefits of globalization, including increasing wealth and connectivity, but the “Lexus” also brings with it homogenization and standardization, and thus the regional and local traditions symbolized in the “Olive Tree” may be wiped out as modern globalization spreads across the world.

Overall, Friedman sees globalization as a positive trend. For example, he connects globalization with the spread of democracy around the world. Education and finance become democratized with globalization, and political democracy, according to Friedman, is a necessary condition for countries that want to globalize. He believes that modernized countries, and especially the United States, will benefit most from globalization and, consequently, such countries should take a disproportionate share in being responsible for the development and maintenance of a global society.<sup>175</sup>

In his more recent book, *The World is Flat: A Brief History of the Twenty-first Century*, Friedman further develops his ideas on globalization and its positive impact on

human society.<sup>176</sup> In *The World is Flat*, Friedman begins by outlining a three-phase theory of the history of globalization. In “Globalization 1.0,” which occurred during the period of 1492 to 1800, European nations explored, conquered, and settled many parts of the world, gaining power and control over territories, people, and resources across the globe; in “Globalization 2.0,” supported by falling transportation and telecommunication costs, during the period of 1800 to 2000 the process of globalization became increasingly driven by multi-national corporations in search of new markets and cheap labor; finally, according to Friedman, we have now entered into “Globalization 3.0” where individuals, with access to the Internet, computer and communication technologies, and new computer software, have become empowered to productively enter the global arena of business, social collaboration, and informational exchange. Hence, across these three phases there has been a shift in power from nations to corporations and now to individuals. As a general point in his book, globalization is now impacting the thinking, behavior, and livelihood of individuals – individuals have gone global.<sup>177</sup>

Based on this historical analysis, Friedman’s central thesis concerning contemporary times and the immediate future is that the world is “flattening,” where individuals around the world have the opportunity to enter a level playing field to create businesses and accrue wealth. Everyone, potentially, has access to the global marketplace and the tools and capacities to take advantage of this expanded economic arena. Friedman identifies the “triple convergence” of the recent development of a Web and technology-enabled global economic playing field, new software for horizontal collaboration, and the opening of new significant players or societies, such as China, India, and Eastern Europe into the global arena, as the primary instigating causes behind the flattening of the world. Where Globalization 1.0 and 2.0 were largely a result of European and American initiatives, Globalization 3.0 brings in many non-Western players. Friedman also describes a related set of ten factors or forces contributing to the flattening of the world. He includes the fall of the Berlin Wall, the advent of PC’s and Windows software, the emergence of public Web browsers, open-sourcing, outsourcing, off-shoring, supply-chaining, in-sourcing, and various “amplifying technologies.” According to Friedman, the triple convergence of new players, a new playing field, and new collaborative processes are the most important forces shaping global economics and politics in our time.

Friedman acknowledges, though, that there are problems and challenges regarding the flattening of the world. For one thing, the world has not become entirely flat; there are large regions and huge populations of people that are economically and technologically impoverished and unable to participate, as of yet, in the global economy. As one critic of Friedman puts it, “much of the world is flat – flat broke.”<sup>178</sup> (Also see Florida’s analysis later in this section.) Additionally, Friedman sees terrorist and antiglobalization groups as a significant threat to the flattening of the world; terrorists, in fact, are being empowered through globalizing technologies. In essence, the battle between the Lexus (globalization and flattening) and the olive tree (nationalism, ethnicity, religion, and identity) is still ongoing.

Still, Friedman clearly supports the movement toward globalization and is highly critical of “tribalism.” Within a flattened and global society, nations need to be open and not “build walls.” In this regard, he is concerned about recent trends in the United States toward protectionism and heightened security. America should be a “dream factory”

rather than a “fortress.” For Friedman, the defining event of our recent past should be the falling of the Berlin Wall (11/9) and not the terrorist attacks (9/11). He is also worried over negative trends in education in the United States, especially in science and engineering. According to Friedman, the United States is at a crisis point in its history; will the United States flounder, or will it continue to take a leadership role in the ongoing globalization of humanity?

There are various criticisms of Friedman’s ideas. Contrary to his “flattening” theory, the market is not free but dominated by a small group of countries – power is still highly localized; although Friedman blames the Middle East for not integrating into the globalization movement, it could be countered that modernized countries, under the banner of globalization, are actually attempting to impose their values on the Middle East; he puts too much faith in the power of technology to transform the world; and finally, he puts too much emphasis on economic and material factors in understanding human behavior and issues concerning the quality of human life.<sup>179</sup>

In an effort to be comprehensive regarding the nature of globalization, Walter Truett Anderson outlines a multi-dimensional theory in his book *All Connected Now: Life in the First Global Civilization*. Anderson not only discusses economic globalization, but also includes in his book treatments of cultural and political globalization; biological and ecological factors connected with globalization; the significance of the information network in the creation of a global society; the rise of global consciousness, increased human mobility and migration; and the huge growth in numbers of human organizations, and especially, international organizations. Anderson sees “a world of open systems” as the general theme running through all these dimensions of globalization. Although there is resistance to globalization, where some cultures and organizations wish to remain closed, according to Anderson, the overall world-wide trend is toward increasing openness and interactivity. In this respect, his view is similar to Friedman’s.

Some of Anderson’s main arguments and hypotheses include: There is a general ongoing trend toward multiculturalism, in spite of efforts to preserve integrated pure cultures; the twentieth-century discovery of ecology and the interdependence of the earth, life, and humanity has intensified global consciousness; there has been a significant rise in international corporations and a reciprocal rise in global governance to control and monitor these corporations; there has been a globalization of human rights and human laws; the global society is an “open society” that emphasizes individual responsibility and choice rather than dictatorial rule; a “cosmopolitan citizen” has emerged who does not identify with any particular nation; and the global society is multi-centric with many centers of power. Anderson predicts a series of global societies in the future, as the human community struggles with the challenges and inherent conflicts brought on by globalization. In the coming century, the big issue is going to be globalization itself – its pros and cons.<sup>180</sup>

**The Metaman Theory:** Gregory Stock, in his book *Metaman*, argues that life on earth has gone through three major evolutionary changes or jumps.<sup>181</sup> The first major change was self-replicating bacterial creatures (the origins of life); the second step was the symbiotic organization of nucleated single-cell animals and plants; and the third stage was the aggregation of single-cell life forms into multicellular organisms. In each case, the evolutionary jump involved a progressively higher order integration of

individuals into greater wholes. Order and complexity evolved through the formation of larger and consequently more intricate biological systems.

Stock's Metaman theory proposes that humanity is presently going through the fourth big jump in the evolution of life. Stock believes, as do many others, that we are integrating and merging with our technology. Stock goes even further though. Technology is integrating at a global level, forming a vast and intricate network of resource and information exchange. A global machine is forming. Collectively, humans are integrating with this global machine. Humans, together with information technology and computer network systems, are emerging as the functional nervous system of this world-wide system. Humans and the global machine are becoming so interdependent that they are synthesizing into a global super-organism.

This view of the evolutionary transcendence of humanity is presented in a very upbeat manner and style. The emergence of such a complex and intelligent global system is enhancing the individual lives of more and more people around the globe. This human-technological system brings with it increased affluence and material wealth, more freedom and opportunities, access to more information and ideas, and greater individual power. Stock's idea is that Metaman is spreading out, in a manner analogous to a growing web of living tissue, from the technologically modernized nations toward the less advanced areas. As Metaman grows, it will steadily assimilate more and more of humanity, bringing with it the benefits of the global society and economy.

In his Metaman theory, Stock combines the theme of globalization with ideas from technological and biotechnological theories of the future. The emerging global society will be like a single global organism, made up of both biological and technological components. Stock's ideas are also, in many ways, a natural extension of H. G. Wells's projection that the future will see the emergence of a Global Brain and a Global Mind. There is clearly considerable evidence that a Global Brain and Mind are emerging in our world, as human organizations, computer networks, and communications systems integrate into greater functional wholes. Such a system will vastly exceed the intelligence and complexity of individual nervous systems and minds.<sup>182</sup> If we were to take a Gaian perspective on the earth, assuming that the earth possesses many of the properties of a living organism, the emergence of Metaman adds an integrative layer on top of Gaia, providing a human-technological global system that monitors and coordinates Gaia.

Although such a pervasive and highly integrated global system might seem highly controlling and repressive of freedom and individuality, Stock presents the argument that the system will actually benefit human freedom and individuality. A similar argument has been made regarding the impact of a global society on individuality.<sup>183</sup>

**Bloom's Global Brain:** Howard Bloom presents the theory that life on earth has evolved as a collective global whole. He sees two fundamental processes at work in evolution. One process is integration, generating conformity and unity, and the other process is differentiation, generating diversity and individuality. Although these two processes are oppositional, integration and differentiation also work in tandem, mutually stimulating each other, and producing increasing complexity as a result. The two processes, in Bloom's mind, work toward the benefit of the whole. Integration produces coordination and order, while differentiation produces variability, which is necessary for creative experimentation in the evolutionary process. The rich and varied, yet equally

interdependent network of living forms on the earth is a result of these two processes. For Bloom, a complex and intricate global brain has been evolving on the earth since the beginnings of life.

Humanity is part of this multi-species network, requiring the presence and utilization of many other living forms. According to Bloom, it is a mistake and an illusion to see humans as “isolated entities.” Further, human history is filled with examples of both “conformity enforcers” and “diversity generators,” and he sees our modern day philosophies of individuality and freedom versus unity and order as simply intellectual expressions of these two opposing tendencies within us and all of life.

The contemporary conflict between rigid fundamentalist groups and multicultural modernized nations is also a reflection of these two forces within us. The great cultural mixing of the last century, due to multiple waves of migration and global communication and exchange, brought with it new freedom and opportunities and a sense of hope, but it also instigated counter-reactions out of fear, for the stability and security of the past seemed threatened by the Postmodern world. For Bloom, both Muslim and Christian fundamentalism are paradigm examples of “conformity enforcers” that wish to bring order and homogeneity through authoritarian control. He calls them the “new Spartans.”

Bloom believes, though, that a balance needs to be struck between integration and diversification. A police state that produces a regimented paradise would sap the inventiveness out of humanity. According to Bloom, the solution to our present problems and challenges involves a combination of self-control and social freedom. Bloom feels that the fundamentalist strategy is to control the other rather than the self and, in his mind, this approach will not work. Hence, although Bloom sees all of life and humanity as a collective whole, he believes that the further evolution of this collective whole, following the dialectic pattern of the past, is to balance conformity and diversity. He sees fundamentalism as a significant threat to this balance as well as a threat to human freedom and creativity.

Bloom describes living forms as “complex adaptive systems” and the whole global network of life as one vast “complex adaptive system” that learns and evolves. He particularly emphasizes that bacteria and microbial life, since early on in the history of the earth, integrated into a global adaptive system. With the development of human civilization and modern globalization, a new global mind, coordinated by humans and human technology, is emerging on the earth. Bloom foresees the greatest future challenge facing humanity as finding ways to more cooperatively work together with the primordial global brain of bacteria. Although he sees humans as “evolution incarnate,” Bloom argues that humans should see themselves as the “neurons of an interspecies mind” that will involve the participation of all living forms, and especially the bacterial underpinnings of all earthly life.<sup>184</sup>

**Economic Materialism:** This general perspective on the future includes those theories and visions that find their inspiration in the Western secular concept of progress, as well as physical science and materialistic-economic models of social growth and quality of life. This perspective is often associated with Industrial Age thinking, specifically as it applies to human society. Toffler, Capra, and Fukuyama provide a representative sample of social, economic, and philosophical discussions of the historical rise of this view of reality and society.<sup>185</sup> It is the central view and theme, however, that is criticized by numerous Post-Industrial and Postmodern theories of the

future; e.g. Toffler, Henderson, Slaughter, Elgin, Theobald, Eisler, and Zohar and Marshall all critique this worldview for various reasons as a starting point in the development of their alternative visions of tomorrow. It is frequently blamed for the various problems and challenges associated with modern times, including pollution, social conflict, depletion of natural resources, human inequality, Western imperialism, and dehumanization. Ray and Anderson, though, note that the largest sub-culture within the United States still most strongly identifies with the values, beliefs, and lifestyles of this perspective.<sup>186</sup>

As a philosophical doctrine, **materialism** states that all of reality is composed of physical matter – there is no second spiritual or mental reality, except perhaps as manifestations of the world of physical matter. In modern times, this all-encompassing theory of reality was inspired by the continued success of Newtonian physical science in explaining more and more features of reality. If everything is physical matter, then human progress can be defined as the increasing control of matter, the industrial production of more types of material goods, and the cumulative acquisition of such material goods by the general population. In general, progress is material economic growth, both in production and acquisition.

Presumably, all those important dimensions of human life, such as happiness and life satisfaction, meaning and purpose, human relationships and social well being will improve if material economic growth occurs. Further, the level of advancement of a human society can be measured in terms of its material economic output and wealth. For those future-oriented thinkers who support this theory, their vision of a bright and better future is continued materialist growth, usually facilitated through improvements in physical technology, and an improved quality of life measured in terms of material wealth and possessions.

**The Big Business – Corporate - Economic Growth Model:** The philosophy of secular progress promised continued growth and improvement in the material quality of life. As a reflection of this philosophical perspective, present measures of progress and the quality of life often emphasize financial, economic, and material wealth and luxuries.<sup>187</sup>

In the eighteenth and nineteenth centuries, the materialist-secular concept of progress became closely associated with the philosophy of capitalism. Capitalism provided a theory of how economic and material progress could be achieved through individual enterprise, competition among businesses, and a selection process involving the discriminative purchasing of competing products by consumers.<sup>188</sup> Though the practice of capitalism goes back much further than the eighteenth century, in the last two centuries it has become one of the most powerful driving forces in the growth of human civilization. Supported by continued advances coming out of science and technology, capitalist businesses have steadily grown in power and size. Of particular note, the spreading of modernization across the globe has critically involved a progressive expansion of free enterprise capitalist businesses and corporate organizations that produce and distribute products and services, driving an accelerative growth in the production and accumulation of wealth and material goods.<sup>189</sup>

In the last century, trans-global corporations have been growing in power and influence and developing into an international network that is weakening the centrality of nation states in human society.<sup>190</sup> This corporate-economic network not only brings with

it a set of standards of growth and progress, but it also supports a particular set of values and principles of human organizations. There are futurists such as Toffler, Drucker, and Wheatley<sup>191</sup> who argue that the principles and values of business corporations and organizations are changing, yet at present within the corporate world there is a clear emphasis on competition, profit, consumerism, and economic growth as the central defining values and features of human life. All of human life is reduced to economic and business metaphors and measures, and the promise, hope, and expectation of this approach is for continued development along the same lines into the future.

A theory of the future that integrates economic and capitalist concepts of progress with the themes of globalization, democratization, and high technology is presented in *The Long Boom: A Vision for the Coming Age of Prosperity* by Peter Schwartz, Peter Leyden, and Joel Hyatt.<sup>192</sup> The authors of this book argue that we are witnessing a long-term boom in economic growth around the world that hopefully will continue for many decades into the future. According to these three, technological change, rapid economic innovation, global integration, and spreading democratization are creating a new world economy that will impact all aspects of human civilization. The key principles behind this new economic boom are globalization, openness, lack of top-down control, a pro-growth philosophy, learning and adaptation, the valuing of innovation, establishing connections and being inclusive, and an overall sense of confidence in the future. This global economic trend will transcend nationalist concerns and overcome regional political differences and conflicts.

Schwartz, Leyden, and Hyatt see the “long boom” as a continuation and evolved expression of the modern vision of secular progress. They acknowledge, though, that the two world wars, the economic depression, and nationalist conflicts in the last century significantly unsettled the optimism of the nineteenth century and created much pessimism and nihilism about the future around the world. Yet, beginning in the 1980’s, there was a shift in attitude back toward economic and social optimism. Though there is still significant resistance to globalization and economic growth, especially from environmentalist, human-rights, and anti-American groups, the authors believe we are on a new upward swing in attitude and social development.

The authors contend that there are many positive features to this new global economic boom. It will produce more jobs, increased wages, and reduce the gap between the rich and the poor worldwide. In general, they think that economic growth and social justice are not in conflict with each other. Also, with the shift from an industrial to an information-knowledge economy and the introduction of cleaner, more advanced technologies, our economic system is becoming more in balance with nature. Presenting ideas similar to those espoused by Toffler and Wheatley, they see a new form of business organization emerging that replaces the centralized bureaucracies of the past with decentralized networks that empower individual workers rather than alienate and suppress them. The authors see the introduction of computer technology into the business and economic worlds as having many benefits, including better communication and the monitoring of trends. Additionally, education and learning have become more important within the new knowledge economy. In general, they believe that the only viable way to help the poor and the destitute around the world is with a pro-growth economic philosophy.

As one last point, Schwartz, Leyden, and Hyatt believe that the United States is in an ideal position within this new global economy. The United States has the largest economy and the largest market and is a leader in both research and education. According to them, the axis of innovation in the world has now moved to California, which embraces a multicultural and global mentality. In the long run, to adopt a more “selfless” attitude would be in the best interest of the United States. By helping to facilitate the spread and development of the new economy through more parts of the world, more consumers will be created.

**D’Souza’s Virtue of Prosperity:** Dinesh D’Souza, in *The Virtue of Prosperity: Finding Values in an Age of Techno-Affluence*, presents his views on past, present, and future in the form of a dialectic or debate between what he takes to be the two fundamental opposing viewpoints in contemporary times.<sup>193</sup> He refers to these two opposing viewpoints as the “Party of Yeah” and the “Party of Nah.” D’Souza believes that the conflict between these two views supercedes all earlier or more traditional conflicts, such as Left versus Right or conservative versus liberal. Though he acknowledges some valuable points put forth by the “Party of Nah,” D’Souza basically ends up supporting the “Party of Yeah” as the best approach to the future.

According to D’Souza, the “Party of Yeah” believes in the value and beneficial power of technological capitalism. The new leaders of this party (technologists and business entrepreneurs) want to direct and liberate the world, based on a renewed faith in capitalism and the power of technology. Members of this party value the making of money. They see themselves as optimistic and visionary about the future, believing that humanity is at a pivotal point in history, ready for a significant jump forward in human civilization and the quality of life. The “Party of Yah” believes that information technology empowers people and that the new economy will both solve social ills and eliminate scarcity and poverty. They think that the Internet will build new human communities and bring humanity together. Generally, they argue that technology and economic prosperity have done much more good than harm for both humanity and the environment. Technological capitalism will do the best job of improving the environment. And of special note, the modern world of capitalism, free enterprise, and technology has been responsible for many moral gains in human society, for the “Party of Yah” people in modernized countries live in the best society ever within human history, and their belief is that the future will be even better.

Basically, the “Party of Nah” believes that modern humanity has been in a state of moral decline for several centuries and that things are only getting worse. According to D’Souza, the “Party of Nah” consists of cultural pessimists, environmentalists, conservatives, religious fundamentalists, and techno-skeptics. The “Party of Nah” points out that the distribution of wealth is not evening out, but becoming more imbalanced – financial inequality is on the rise. Also, for some critics, we live in a “toxic culture” – a culture that no longer values literacy - and in the modern world we have become increasingly demoralized in spite of all the economic progress of the last century. Further, there has been a loss of community and a sense of neighborhood; the increasing mobility of modern humans has destroyed stable local communities. D’Souza, citing Daniel Bell’s classic work, *The Cultural Contradictions of Capitalism*, points out that another criticism of the “Party of Nah” is that our consumerist culture has become increasingly hedonistic. The right wing contingency of the party, in fact,

contends that modern affluence has produced moral degeneracy rather than moral advance. According to this faction, technological capitalism is motivated by greed and selfishness and is inherently evil, leading to materialism, the proliferation of vice, broken families, the vulgarization of culture, and uprooted communities. Because of the consumer lifestyle in the modern world, we value things more than ethical principles or other people. Overall, our earlier societies and communities of “solidarity” have been replaced by a society of commerce, and our personal relationships, once built on affection and caring, are now built on contract. For left-wing critics, capitalism, industry, and technology have hurt the environment and we have become more isolated and alienated from nature. Although not all members of the “Party of Nah” blame all the ills of the world on technology and capitalism, they don’t believe that the solution to our present social and moral problems lies in more technology or more wealth. As is frequently pointed out, after fundamental human needs are met, there does not seem to be any correlation between increasing wealth and human happiness. As a final criticism of the “Party of Nah,” which D’Souza thinks is perhaps the most significant, the techno-capitalist world has destroyed the connection between one’s purpose in life and the moral order of the cosmos. We no longer see or perhaps even care, how our lives and our vocations connect with the big picture of things.<sup>194</sup>

As noted above, after weighing the arguments of both the “Party of Yeah” and the “Party of Nah”, D’Souza generally supports the vision of the future of the “Party of Yeah.” He believes that modern humans can live both a good life and a life that is good and in so doing demonstrate the “virtue of prosperity.” As he points out, the poor are not morally superior to the wealthy; affluence does not generate increasing evil or vice. Further, before the modern rise of technological capitalism, people were not more moral than today; our modern world has not caused some significant moral decline. In fact, D’Souza agrees with the “Party of Yeah” that there have been great moral advances in the last couple of centuries in those modernized nations that have supported capitalism and technological advancement. D’Souza, in fact, believes that affluence is morally beneficial, for it enhances one’s power to help others or help the environment. (He cites that it is the rich who have done the most to improve the environment.) Further, he points out that selfishness – the psychological foundation of capitalism - is an inherent human quality and can’t simply be eliminated from the human psyche. Capitalism “civilizes” greed and makes it into something that can benefit the other; the capitalist is motivated to producing a product or service that others find desirable or appealing. Although grounded in the selfishness of the producer and consumer, a capitalist economy is built on reciprocities – of transactions of mutual benefit. D’Souza also notes that although there are many critics of techno-capitalism who live in the modern world, these very critics want to enjoy the benefits of the very system they find objectionable, and that the poor and destitute who live in undeveloped countries would, much more often than not, enthusiastically embrace the opportunity to live in the more affluent countries. Finally, D’Souza argues that it is only with financial wealth that individuals have the opportunity to seriously reflect on the meaning and purpose of life. Few could ask this fundamental question before, since basic survival needs dominated their lives and, generally speaking, the answer to this question was provided to them by authoritarian religious and political systems. With affluence and a democratic society, more of us now have the freedom and the time to ask the important big questions. Many find this freedom disquieting and, perhaps, would wish to retreat to the traditional and

idealized certainties of the past; they are thus critical of modern times. Although technology and capitalism may not provide the answers to the big questions, we can at least now ask them.

**Jihad versus McWorld: Integration and Unity versus Pluralism and Diversity:** Benjamin Barber in *Jihad versus McWorld* weaves together the issue of globalization versus regionalism and cultural pluralism with contemporary concerns over the influence of capitalism and the erosion of democracy and community in a consumerist society.<sup>195</sup> Barber's central argument is that the spread of global capitalism – of “McWorld” – through the growth in influence and geographical reach of international corporations is destroying democracy, homogenizing the world, turning citizens into consumers, replacing community values with selfish needs, and provoking a widespread counter-reaction – a “Jihad” – in an attempt to preserve local customs and values. Although the term “jihad” is frequently associated with Islamic terrorism, Barber uses the term in a more general sense to refer to all those regional counter-reactions, violent or not, to the spread of the global capitalist culture of “McWorld.”

Barber argues that “McWorld” presents the illusion of choice and self-determination in the great array of products and services it offers the consumer, but in actuality, it diminishes human freedom, individuality, and democracy. “McWorld” creates a homogenized mono-culture that threatens cultural and ethnic diversity, thus working against individuality and freedom. Through advertisement, marketing, and the control of production there is an ongoing manipulation and fabrication of human needs and lifestyles – hence, although the marketing message is to “have it your way,” – this is illusory, for advertising is a method for influencing people to believe and feel that they need or desire the products being advertised. Further, the increasing centralization and monopoly of control, in the hands of a smaller and smaller number of giant corporations and business leaders, works against a democratic and pluralistic distribution of power in the world. Barber, in fact, sees transnational corporations as totalitarian, determining all facets of human life, and the infotainment sector as the center or hub of this ubiquitous system of influence and control over people.

Within “McWorld” there is a subjugation of all values under profit and economic growth, and a trivialization and commodification of higher values. As all values are reduced to monetary worth, all people are reduced to customers and consumers. Barber is especially worried that the consumer has been elevated over the citizen. Instead of keeping abreast of the problems and challenges facing humanity and considering how to constructively participate in the improvement of human society, people in modernized countries spend their time attentive to new gadgets, products, and services and the purchasing and use of such commodities. Furthermore, trans-global corporations undermine the power of national states and government institutions which at least attempt to deal with social problems and challenges. Our most powerful human organizations are more concerned with making money, expanding and creating new markets, and generating economic growth than creating a better world.

Global capitalism is not producing equality, but rather is increasing the schism between the wealthy and the poor, both within individual countries and between modernized and undeveloped countries. “McWorld” leads to the exploitation and oppression of workers in poorer countries to support the lifestyles of those in wealthier countries. Fueled by a philosophy of continued economic growth, we are in a race

between escalating needs and limited resources. In Barber's mind, it is quite understandable why many people, especially those in undeveloped poorer regions, often react violently to the insidious spread and increasing power of "McWorld."

What Barber argues for to counteract the growing power of "McWorld" is neither terrorism nor regional authoritarian cultural movements. He believes that people in modernized countries need to become less self-centered and more socially conscious. Unless we re-energize our sense of citizenship and see ourselves more as members of a social community, then we really will end up in a world in some ways very similar to Huxley's *Brave New World*, addicted to pleasures defined by economic corporations, oblivious to our loss of freedom, and ruled by an elite few.

**Affluenza and Conscious Consumerism:** One of the most thorough-going critiques of our modern capitalist and consumerist society is contained in the book *Affluenza* by John DeGraaf, David Wann, and Thomas Naylor. The authors not only provide an analysis of the causes and main features of the "epidemic" of affluenza, but they also provide a "treatment plan" for the future – of how to change our modern lifestyle and values in a way that cures us of this disease and produces healthier and happier lives.<sup>196</sup>

DeGraaf, Wann, and Naylor believe that modern humans are literally afflicted with a psycho-social disease, which they label "affluenza", and define as "A painful, contagious, socially transmitted condition of overload, debt, anxiety, and waste resulting from the dogged pursuit of more." There are many causes behind the spreading of affluenza including human greed; the expansion of production and the creation of new needs; choosing work, money and consumption over leisure, liberty, and time; the planned obsolescence of products; the growth of credit and the advertising industry; the commercialization of everything; and the popular belief that consumption somehow equals freedom, self-actualization, and self-reward. The symptoms of this disease include "shopping fever" and "mall mania," shopping as a form of therapy, increasing debt and bankruptcy, unrealistic and swollen expectations, clutter and chronic congestion, stress and time urgency, a loss of community, resource exhaustion, obesity, and an overall loss of meaning in life – a "poverty of the soul."

What the authors propose as a treatment plan – as a new way to live in the future – includes the following: Recognizing and assessing the severity of the problem; learning to live a life of moderation and balance instead of excess; shifting from a materialistic philosophy of life to a life that emphasizes spiritual, aesthetic, and cultural values; becoming more environmentally conscious and getting back out into nature; interacting with people more and things and gadgets less; working less, slowing down, and spending more time in leisure; and, in general, reflecting on the question of "what is life for" and pursuing quality in life. The authors see the need to redefine the nature of progress, including more humanistic values in addition to the economic values that presently dominate measures of progress. Our lives and central defining values need to change in the future.

**Cultural Pluralism and Human Diversity:** The emphasis within this perspective on the future is the variability and uniqueness of human belief systems and ways of life. As noted above, there are strong regional and ethnic counter-reactions to the perceived homogenizing effects of globalization and global capitalism. Especially in non-Western

societies, many people are attempting to preserve the richness and diversity of their unique cultures. In particular, cultural and anti-globalization, nationalistic trends have emerged in Islamic, African, Asian and South American countries.

Non-Western advocates of the philosophy of cultural pluralism argue that Western visions have dominated thinking on the future (for example, the Western philosophy of secular progress), and that we need to open our view of tomorrow to the richness and variety of systems of thought and value within non-Western cultures. Cultural pluralism in this sense is not one theory, but many views – united in their opposition to the perceived myopia of Western futurists and social thinkers. The future should be pluralistic rather than dominated by one culture.<sup>197</sup>

There is evidence that there are certain fundamental differences among the cultures and people of the world. In his well-known study of world cultures, Harry Triandis came to the general conclusion that cultures tend to vary on the collectivist versus individualist dimension; some cultures put more of an emphasis on conformity and maintaining sameness whereas others emphasize individual freedom and uniqueness. Interestingly, it is Western cultures (those often accused of attempting to homogenize the world) that are more individualistic and it is Eastern cultures that are more collective.<sup>198</sup> In their ongoing survey of world values, Inglehart and Baker find another systematic difference among cultures. Modernized and economically developed countries value secularization, rationalism, and self-expression, whereas economically undeveloped countries put more value on tradition, religion, and survival needs.<sup>199</sup> A third important study, conducted by the psychologist Richard Nisbett, seems to indicate that Western people think differently in certain important respects from those in the East. For example, Westerners are more linear, analytic, and individualistic, whereas Eastern people tend to think more in circular logic, and are more holistic and communal.<sup>200</sup>

The importance of human diversity in the future is a theme that also gets highlighted in descriptions of modernized countries. In *The Third Wave*, Toffler argued that the mass media and mass society are disappearing, being replaced by a diversity of styles, tastes, philosophies, and ways of life within the modern world. Cultural and psychological human diversity are being more readily accepted, if not encouraged, for example, regarding race, religion, age, and sexual preferences.<sup>201</sup> As mentioned above, it is Western and modernized countries that value individuality and self-expression, and seem to value human diversity within their populations the most.

The argument is frequently made that modern globalization is actually a force that supports human diversity and individuality, and that cultures which resist globalization in the name of preserving their distinctive ways of life actually value conformity and homogeneity. Global theorists, such as Friedman, Anderson, and Henderson, see globalization as actually leading to a more democratic and liberal world – the exact opposite of what the anti-globalization forces say they fear. Hence, globalization theorists could argue that they are the ones who most strongly support human diversity and cultural pluralism.

Victoria Razak and Sam Cole, in their article “Culture and Society,” delineate three possible future scenarios for global human diversity. Cultural polarization would be a world of separatism and antagonism between different human cultures – a world of diversity with no unity; cultural assimilation would be a world of homogeneity and a single world culture – a world of unity with no diversity; and cultural pluralism would be a

world in which a single global society found a way to preserve and value the unique qualities of each human culture – a world of unity with diversity.<sup>202</sup>

**Conflictual Pluralism:** Samuel Huntington's *The Clash of Civilizations and the Remaking of World Order* is one of the most controversial recent books written on the themes of cultural pluralism and globalization. The central thesis of his book is that culture and cultural identity will be the primary determinant in the political dynamics of the near future. In particular, Huntington foresees significant political conflict among the main world civilizations, such as the West, Islam, and China. He does not believe that a universal or global civilization is emerging in our times – instead he sees tension, conflict, and division.<sup>203</sup>

Huntington presents a history of humanity as a foundation for his theory of contemporary and future society. According to him, in pre-modern times there was not a great deal of contact among the major world civilizations, but beginning around 1500, Western European countries, while continually fighting among themselves, began to conquer and colonize most parts of the rest of the world. After World War II a major global division emerged between Soviet Communism and Western countries, and the Cold War dominated world politics for the next fifty years. During the Cold War, the major “fault line” in the world was ideological – between collective communism and democratic capitalism. Although many nations won their political independence from Western dominance during this period, modernized Western countries simultaneously began to push for increasing economic and cultural globalization – as a way to maintain control over non-Western countries. According to Huntington, the philosophy of globalization is basically a Western creation with Western cultural ideals at its core. With the end of the Cold War and the collapse of the Soviet Union, a new central conflict has emerged in the world between Western modernized civilization and multiple non-Western civilizations. Global politics has reconfigured along cultural lines.

For Huntington, there are presently nine major world civilizations, including Western, Islamic, Latin American, Sinic (Chinese), Buddhist, Hindu, Orthodox, Japanese, and African. Each of these civilizations has at its core a relatively distinct culture and each of these cultures is most strongly determined by the religious traditions of that culture. Although nations are significant political entities in the world, nations will tend to align together along cultural lines and oppose other nations that fall within different cultures and civilizations. Culture both unites people and nations within a civilization and sets up oppositions between civilizations. The revitalization of religions across the globe, in particular, has reinforced cultural differences and created increasing world tension. The rise of terrorism, especially coming out of Islamic civilization in opposition to the West, appears to be an implication of Huntington's theory.

Although the West has been the dominant civilization in the world over the last few centuries, according to Huntington the power of the West is declining. Beginning in the twentieth century, a revolt against Western domination began, and especially over the last couple of decades the Western ideal of a universal global civilization is being actively resisted by other major cultures and civilizations. Huntington acknowledges the spread of modernization throughout the world, but he does not believe that modernization inevitably leads to Westernization or globalization. Even with the introduction of new technologies, capitalist economic principles, consumer products,

cultural icons, and global media coming out of modern Western civilization into non-Western countries, he thinks that the core culture, beliefs, and values in non-Western countries have not changed. Western products do not transform non-Western mindsets. Increasing interaction among world civilizations is not bringing more peace; there are still significant levels of conflict around the world. For Huntington, non-Western countries are adopting the benefits of modernization while still maintaining their regional cultures. And in fact, modernization may make non-Western civilizations more powerful and able to increasingly resist and challenge the supremacy of the West. In the final analysis, Huntington argues that the world is becoming more modernized but less Western.

**Postmodernism:** The philosophy of Postmodernism grew out of numerous critical reactions in the nineteenth and twentieth centuries against secular modernism. Steven Best and Douglas Kellner, in their multi-volume study of the rise of Postmodernism, argue that what all these reactions have in common is a rejection of reason as the authoritarian source of truth and value.<sup>204</sup> There have been romantic, conservative, mystical, and naturalist anti-modern movements, up to and including, the counter-culture 1960s movement. The dream of the Enlightenment – of a rationally ordered world – has been attacked and rejected by all these perspectives. In the second half of the twentieth century, Postmodernism, embracing many features of these critical movements, and especially Nietzschean and existentialist philosophy, mounted a multifaceted attack on rationalism and Enlightenment philosophy.

In general, Postmodernism involves a critique on the authority and power of modernist thinking. Aside from the anti-rationalism theme that runs through many reactions against modernism, the related theme of oppression and excessive control is another dimension of modernism that has been attacked. The rationalism of modernism has been seen as repressive by romanticists and mystics alike.<sup>205</sup> Further, according to Best and Kellner, many Postmodern thinkers see capitalism, industrialism, male chauvinism, commercialism, Western imperialism, and even objectivism as power-centered, oppressive features of the modern West. Robert Nisbet lists totalitarianism, racism, military conquest, and destruction of the environment, all forms of excessive control and domination, as additional negative consequences of progress that have been strongly criticized over the last century.<sup>206</sup> From a philosophical point of view, Postmodernism has attacked the ideas of “grand narratives,” universal theories, absolute truths, and even the progressive view of history as monolithic, constraining, and controlling.

Postmodernism, which by its very name means “after” or “against” modernism, has as one of its central values individualism. But it inherited this value from modernism. In fact, the Postmodern critics of the oppressiveness of modernism are in fact creations of the heightened individualism that modernism bequeathed to the contemporary world. Yet Postmodernists seem to think that the espoused individualism of modernism has actually been highly selective and restrictive. Modernism has been accused of being repressive and domineering toward women and all non-Western cultures. It is only Western males, and usually more wealthy ones at that, who have reaped the full benefits of individual determination and expression. Postmodernism also points out that in spite of the professed value of individualism and freedom, there are also other ideals in modernism that are more aligned with order and control. For example, reason and

science presumably lead to singular truths, and the idea of secular progress defines a particular and limiting mindset regarding the direction of the future. In its development secular modernism actually supported opposite ideals – both toward freedom and individuality and toward unity, order, and a single truth.<sup>207</sup> Hence, in spite of the fact that modernism instigated increased individualism in the West, it also pushed toward the constraint and control of humanity in other ways. Postmodernism argues that the constraints have to be further loosened up.

In general, according to Best and Kellner, Postmodern writers see a new society emerging in contemporary times. Although there are continuities with the past, the dominant philosophy and way of life of secular modernism is falling apart. The new paradigm of life reflects many recent changes and developments in the world, including computers and high technology, the rise of the media culture, decolonization, cultural fragmentation, and the decline of nations as centers of power. The new paradigm also reflects certain fundamental changes in thinking.

Best and Kellner identify four dominant themes in Postmodernism. The first theme is a rejection of unifying and universal schemes of thought. Postmodernism emphasizes pluralism, differences, complexity, multiplicity, and the end of any philosophies of life that apply to everyone. This first theme encompasses the Postmodern emphasis on individuality and the Postmodern rejection of reason and secular progress as universal and absolute guides for life. The rejection of “grand narratives” also falls under this theme. The second major theme involves an abandonment of closed, rigid, and fixed structures of meaning in favor of indeterminism, uncertainty, ambiguity, chaos, and contingency. The meaning of life is not certain – in fact, nothing is certain – and there are no literal or straightforward readings of any text or philosophical principle. Everything is ambiguous. The third theme involves a rejection of naïve realism in favor of perspectivism. All truths and values are relative. There is no absolute truth or objectivity – all beliefs are expressed from a perspective - historical, personal, and cultural. Finally, the fourth theme is a breaking down of discipline boundaries and absolutist distinctions. Fact and value, theory and practice, and science and society can not be separated from each other.

Many find the philosophy of Postmodernism liberating, exciting, and exhilarating, in its breaking free of the constraints of the past; others find Postmodernism threatening, confusing, nihilistic, irrational, and anxiety-producing. Interestingly, many of these criticisms of Postmodernism would actually be seen as strengths from within the Postmodern camp. For Postmodernists, it is a mistake to think that life is stable, secure, entirely rational, and perfectly orderly. As Best and Kellner note, even within the Postmodern movement, there are multiple interpretations of the meaning and significance of the movement. Because of its emphasis on individualism, multiplicity, and perspectivism, Postmodern thinking, by its very nature, does not yield unanimity of opinion. Is Postmodernism a relatively coherent philosophical position or a plethora of different views? Is Postmodernism an uplifting and liberating system of thought or a nihilistic and depressing point of view? Even among its advocates there is debate on these questions.

**Chaos, Creative Disorder, and Cyberpunk:** As noted above, not everyone believes that we are moving toward some great global society, global super-organism, or universal paradigm of thinking and living. Quite the opposite – according to many, we

are moving into an era of increasing diversity, freedom, anarchy, and invention. An idea that has gained increasing importance in contemporary times is chaos. Rather than chaos being seen as a "bad thing," for many writers humanity is finally abandoning the delusion of some grand unified world system - a dream that has obsessed numerous conquerors, dictators and would-be world leaders since before Alexander the Great. The creative, unconstrained, and complex features of chaos are seen as positive features of the contemporary world; chaos should be embraced and reinforced.

To recall from the discussion on contemporary evolutionary theory, chaos has become an object of recent scientific study and appears to be an integral dimension in the evolution of complex systems.<sup>208</sup> Chaos is perhaps a fundamental feature of all natural systems; it is connected with indeterminism, unpredictability, and creativity within nature. Although the modern study of chaos arose in the natural sciences, the idea has been picked up in social and organizational thinking. For example, in her discussion of business organizations, Wheatley identifies chaos as a key principle in understanding how to facilitate growth and creativity in human groups.<sup>209</sup> In opposition to the Newtonian idea of an orderly, deterministic, and harmonious universe, the Industrial Age social philosophy of an orderly society, and the rationalist philosophy of Enlightenment, social chaos theorists, which include many Postmodern philosophers, view chaos as an essential and beneficial feature of human reality.

One particularly interesting collection of readings on the theme of creative disorder is *Mondo 2000: A User's Guide to the New Edge - Cyberpunk, Virtual Reality, Wetware, Designer Aphrodisiacs, Artificial Life, Techno-Erotic Paganism, and More*.<sup>210</sup> *Mondo 2000* was a San Francisco-based magazine that covered the rising computer culture. The magazine had a definite anti-establishment flavor and, in particular, emphasized the growing cyberpunk culture emerging in the world of computers and electronic reality. Although the magazine stopped publication in 1998, the magazine and the anthology still capture much of the inventiveness, color, and electricity of cyberpunk culture.

The reality presented in *Mondo 2000* is a variegated stew of chaos and open systems theory, virtual reality and virtual sex, electronic music, the growing wonders of psychopharmacology ("smart drugs," etc.), robots, artificial life, and brain implants. The book is intentionally a smorgasbord of ideas and trajectories, rather than an integrated treatise. It models in style the fast-paced, glitzy nature of our times. *Mondo 2000* presents an image of future reality, where what is "real" and what is "electronic and virtual" become intermixed. Further, it presents a "dynamist" vision (to use Postrel's term) of human life that emphasizes the value of creativity and chaos over order and control.

As a vision of the future, cyberpunk, to recall, first emerged in the science fiction writings of William Gibson. In the 1980s and 1990s numerous other writers, including Bruce Sterling and Neal Stephenson, contributed to this new science fiction vision of the future. Cyberpunk paints a picture of the future where information technology permeates most or all aspects of life and often the sense of social order and reality is totally disrupted. The cyberpunk vision is closely associated with features of Postmodernism; objectivity and truth are often difficult if not impossible to ascertain, the world is mysterious and confusing, and logic and linearity are replaced with free associative streams of consciousness.

*Wired* magazine is another good example of a creative, techno-oriented perspective on the future that clearly reinforces the cyberpunk culture. In fact, *Wired* has become, in the last few years, the premier popular publication of computer culture. Again, as in *Mondo 2000*, there are strong elements of Postmodernism, contemporary scientific theory, the integration of information technology into all areas of life, and a philosophy of freedom and change, all set within a visually stunning, almost helter-skelter format of electronic colors and computer graphics. *Wired* addresses all aspects of human life from politics and business to psychology and literature in the Information Age. Yet reflecting the contemporary Western world, there is also a strong commercialized feel to the magazine. Kevin Kelly (the author of *Out of Control*) is the former Executive Editor of *Wired* and Rudy Rucker and R.U. Sirius (of *Mondo 2000*) have been contributing writers.<sup>211</sup> Bruce Sterling and William Gibson (both cyberpunk science fiction writers) have also regularly written for the magazine.

**The Triumph of Democracy:** Francis Fukuyama, in his controversial book *The End of History and the Last Man*, presents a rich and comprehensive social-political history of humanity and a clear vision of future human society.<sup>212</sup> For Fukuyama, both political and economic democracies, as ideal human conditions, have been progressively spreading worldwide over the last few centuries. This progressive social evolution, though, is dialectical, with ups and downs and defeats and victories. New democracies emerge across the world and then often collapse back into authoritarian social systems. But according to Fukuyama, there is a definite progressive trend; though there have been significant setbacks throughout history, in modern times more and more countries are acknowledging and supporting the rights of individuals to determine their government and to determine their economic livelihood in an open market economy.<sup>213</sup>

For Fukuyama, the “end of history” will be when democracy finally triumphs worldwide. He contends that the global realization of liberal democracy will constitute the end point of mankind’s ideological evolution (what we have been struggling toward throughout human history) and be the final form of government. Consequently, there will be no further basic social or political changes and this event will constitute the “end of history”.

Fukuyama believes that human history can be seen as a single coherent evolutionary process - that there has been an overall direction to the course of human events. In the spirit of early Christian thinking and, more recently, Hegel and Marx<sup>214</sup>, Fukuyama believes that there is a “universal history” to humankind – a basic pattern of change and destination toward which all humanity has been heading. Fukuyama’s candidate for defining a universal direction in human history is freedom, democracy, and the acknowledgement of individual value. He believes that this is a discernable trend in history, and that this trend has a positive value.

Commenting on the increasing failure of centralized states, Fukuyama remarks that centralized economies cannot create or maintain post-industrial economies in which information and technological innovation are essential. But he also says that the failure of so many dictatorships in recent times is due to a lack of perceived legitimacy. Totalitarianism is an attempt to control the total fabric of society and culture - a central command under which everything is coordinated and directed and a unifying idea that determines both psychosocial values and economic practices. The old, strong states of

the past have failed on both economic and ideological grounds - not only did they flounder in the new economic system, but they also failed as convincing and satisfying ideologies. A government must support both the mental and material welfare of its people, or it will collapse. Centralization failed as an economic practice and as a political ideal and value.

According to Fukuyama, the world-wide liberal revolution emphasizes economic privatization and free trade. Economic liberalism is the recognition of individual rights of free economic activity and exchange based on private property and markets. Liberal trade theory says that anyone who participates in such a system will benefit. Supporting this theory, Fukuyama observes that Asian countries that came into the free enterprise system late in this century have grown rapidly. Fukuyama believes that modern economic society will work for all countries; it will create an integrated economy and a socially prosperous system.

Fukuyama's concept of democracy rests on the idea of reciprocal recognition. We agree to value the opinions and input of everyone. No one is treated as a slave to the wishes of others. Everyone has self-worth and basic rights as a human being. A liberal society involves the reciprocal agreement among its citizens of their mutual self-worth. For Fukuyama, governments must address people's needs for individual recognition. People require a sense of value in their lives; people require a sense of mutual respect.

The idea of reciprocal recognition plays a central role in Fukuyama's approach to the future of human society and the future of government. Fukuyama's hope is that in the future we will see an end of imperialism - of lordship and bondage among nations. Fukuyama believes that the way past our present international paranoia is through the creation of a world government based upon the principle that its members be democratic nations who believe in the principles of democracy. Nations need to adopt a position of the universal recognition of the value of all other nations and relinquish any sense of dominant pride or superiority. Further, the law of nations must be democracy itself. Decisions should be reached consensually and adhered to by all of those nations within the world government. The key to future world peace and cooperation is very simple - we respect each other and recognize the value of our differences.

Fukuyama's theory highlights an important thesis about the future. He contends that the driving force of change in history is not technology or economics, but psychological and ethical values, an idea he shares with many other futurists. Also, it is interesting that Fukuyama believes human history shows a fundamental moral advance that will continue into the future. In fact, the central goal for the future evolution of human society, in Fukuyama's opinion, is not technological or economic advance, but moral progress.

**The Triumph of the Individual:** Naisbitt and Aburdene, in *Megatrends 2000*, argue that the underlying and most basic trend in contemporary times, supporting all other changes, is "the triumph of the individual." Instead of a dystopian world of mass conformity ruled by an authoritarian world government, the future is materializing as a world of diverse individuality where people have more individual power and more freedom. It is the tide of growing human freedom, above everything else, that is carrying us into the twenty-first century.<sup>215</sup>

Naisbitt and Aburdene point out the following factors contributing to the individualist trend:

- The computer and global communication systems are empowering individuals to create and market their products and ideas on a global scale.
- Information, as the fundamental resource supporting individual power in our world, can be possessed by many, whereas the Industrial Era central resource of physical wealth could only be possessed by a few.
- A global marketplace affords a much larger arena of opportunity than a local or national marketplace.
- A philosophy of individual responsibility has replaced the “follow-the-leader” mentality of the Industrial Age.
- Individual entrepreneurs play an increasingly more powerful role in the world economy.
- The global communication and monitoring system makes it increasingly difficult for tyrants and dictators to control large masses of people.
- The global communication system and the global distribution of products, ideas, and images offer people a much wider range of choices.

Naisbitt and Aburdene’s theory of the triumph of the individual aligns with various themes discussed in previous theories, including human diversity, democracy, Postmodernism, and even globalization. Naisbitt, along with other contemporary writers, believes that globalization actually contributes to individual empowerment.<sup>216</sup>

**Putnam and *Bowling Alone*:** Individualism and separatism, if carried to an extreme, can have a variety of negative effects, both individually and collectively. There may be a loss of social trust and sense of community and a weakening of social connectedness and networking, or as some writers identify it, “social capital.” The main thesis of Robert Putnam, in his highly popular book, *Bowling Alone: The Collapse and Revival of American Community*, is that social capital has dramatically declined in the United States over the past three decades and that this trend is a cause for great concern and needs to be counter-acted and reversed. Putnam documents, through an extensive array of empirical studies and surveys, the decline in social engagement, group participation, and social networking in the United States. He believes this trend toward social isolationism is damaging to democracy, our communities, our social institutions, and the overall quality of life.<sup>217</sup>

Putnam defines social capital as the value associated with social networks and associations. Social networks support the development of trust among people, facilitate cooperation, communication, and the exchange of information, establish and maintain “norms of reciprocity” or principles of mutual aid, and stimulate the growth of a broader sense of personal identity - people within social networks have a strong sense of “we”

and not simply “I” or “me.” All of these effects of social networks are highly beneficial. Further, Putnam argues, again supporting his view with empirical studies, that social and public institutions, especially those within democratic societies, are much more effective in dealing with problems and challenges when these organizations are supported by a high level of civic engagement on the part of the general population. Democracies work best when the citizens are actively involved. Public and institutional efforts to reduce crime and drug abuse, improve education, and constructively address poverty and unemployment benefit from an actively involved, socially networked community population. Putnam also brings up the point that economic vitality, innovation, and productivity are directly related to high levels of social networking – a similar point is made by Richard Florida in his *Rise of the Creative Class*; when people gather together both at work, or informally after work to socialize and share ideas, this positively impacts economic development. Finally, the level of social capital and networking in a society has a positive impact on physical and mental health – people reduce by half their chance of dying in the next year if they join and participate in one new social group.

In *Bowling Alone*, Putnam presents the results of a huge variety of studies that would indicate that social networking and consequently social capital in the United States have seriously deteriorated in the last few decades. Overall, membership in all types of associations is down twenty-five percent; family ties, with the increasing divorce rate and the weakening of both the nuclear and extended families, have significantly weakened; volunteer work has also substantially dropped; neighbors do not associate with each other anywhere near as much as they did in the recent past; people entertaining and inviting their friends to their homes is down fifty percent; Americans have become psychologically disengaged from politics and political activities and report being less trusting of both public institutions as well as other individuals. Even church-related groups, which are the most common form of social associations, declined in membership in the 1960s and have not recovered since – in fact, religion has become less tied to institutions and more self-defined (for example, New Age spirituality). As the inspiration for the title of his book, Putnam reports that although bowling, an extremely popular American recreational activity, is up ten per cent in the last few decades, bowling in leagues is down forty per cent – it is more likely that we “bowl alone.” Putnam’s general assessment of American public life resonates with Benjamin Barber’s argument that people in modernized consumerist nations have lost their sense of civic engagement and citizenship.

Putnam identifies a variety of possible explanations for the decline in social networking and social capital. Increasing mobility and transience in the population, suburban sprawl, and the return of women to the workforce are listed as potential causes (the bulk of membership in many social associations has been women, hence if women spend more time at work they have less time to participate in social associations), but Putnam highlights the technological privatization of leisure as the most important factor eroding social capital. Over the last several decades the biggest change in how Americans spend their time is a dramatic increase in watching TV. Watching TV is basically a passive and solitary activity. Putnam also points out that the newest wave of technological innovations and products with increasing customization and individualization further exacerbates the problem. The eventual result could be a population that does not venture out into the public world, where each of us is immersed

in our own private virtual reality entertainment center. One could add, in support of this point, following the arguments of Barber and the authors of *Affluenza*, that a world of consumers, lost in their own individual and customized pleasures, undermines and destroys a civic-minded society.

Hence, Putnam presents a diagnosis of a critical problem in American society and a warning for the future: The vitality and quality of our democratic way of life, our economy, and our personal well-being are all in danger of severe deterioration. For Putnam, something should be done to change this present course of events. Since writing *Bowling Alone*, Putnam has been traveling around the United States further assessing the level of social engagement in the country and discussing with people how to revitalize the American community. He has authored, together with Lewis Feldstein, a new book, *Better Together*, in which he reports on a variety of local efforts that bring people back together again to solve social problems. It is noteworthy that the new social networks Putnam describes emerged from the bottom-up, collectively through the interaction of many individuals, rather than being dictated or directed from some higher institution or government policy. In *Better Together*, Putnam and Feldstein distinguish between two kinds of social capital: “Bonding” or inward social capital, which involves creating and developing connections among similar types of people with similar interests, and “Bridging” or outward social capital, which involves forming connections between people of diverse types or interests. They argue that the development of bridging social capital is more difficult, but more important, in a society of increasing diversity. In an article titled “Bowling Together,” Putnam discusses the effects of the terrorist attack on the World Trade Center and notes that this event seemed to trigger a significant increase in political consciousness and engagement. Social trust in both institutions and other individuals is higher now in the United States than in the past three decades – even trust across ethnic groups in the United States is up. As Putnam argues, a dramatic enough crisis, such as the terrorist attack, will bring people together. Yet, TV viewing (perhaps as a way to closely follow ongoing events) also increased following the terrorist attacks.<sup>218</sup> Overall, Putnam expresses a guarded optimism about the future of America, but on the condition that people further increase their efforts to network and associate together more than in the recent past.

**Florida and the Creative Class:** Richard Florida, in his influential analysis of the contemporary economic world, *The Rise of the Creative Class*, ties together the themes of social networking and social separatism. In some essential ways he presents a view of the present and the future that is the direct antithesis of Friedman’s theory of the “flattening of the world.” The economic playing field is not leveling but becoming increasingly imbalanced, where power and productivity are concentrated, both nationally in the United States and globally in a limited set of big urban centers.<sup>219</sup> Specifically critiquing Friedman’s theory in a more recent article, Florida states that the world is not flat – “The World is Spiky.”<sup>220</sup>

In *The Rise of the Creative Class*, Florida presents a theory of which social and cultural factors support economic productivity in the contemporary world. He argues that the fast growing “creative class” is primarily responsible for the economic boom of the last few decades. The creative class, which accounts for approximately thirty per cent of the total workforce in the United States, includes those individuals who are involved in the creation and design of new ideas and products, are paid to think innovatively and

independently, or are responsible for managing and directing companies that produce new services and goods. The creative class tends to be more educated than the general population and includes entrepreneurs who start up new businesses and novel enterprises, and artists and writers who invent new concepts, visions, and experiences defining the cutting edge of culture. The creative class is at the core of the growing “knowledge economy,” doubling in numbers in the last twenty years and increasing tenfold since the beginning of the twentieth century. In Florida’s mind what is powering our present economy is innovation and the creative class is the source of this generativity. He refers to this explanation of economic productivity as the “creative capital theory.”

Florida contends that the creative class is progressively concentrating in certain selective cities that support their values and lifestyle. The creative class values openness, meritocracy, diversity, uniqueness, and authenticity. He also states that the most successful places, both in terms of attracting members of the creative class and generating economic productivity and growth, are those urban centers that combine the three T’s: -- tolerance, talent, and technology. Cities that have vibrant and indigenous street-level cultural centers and active participatory recreational areas, with larger percentages of “gays” (which signifies tolerance and openness) tend to draw the creative class. Florida particularly highlights that the creative class values social interaction with people of diverse points of view and ways of life. Overall, there is a desire for mental stimulation and the exchange of different ideas among members of the creative class and they will move to those cities that provide the greatest opportunity for this occurring.

According to Florida, a cultural and social divide is emerging in the United States, and even globally, between big urban centers that possess these qualities and much of the rest of the world – often rural and less modernized areas – that is floundering and remaining relatively unproductive. In the United States, a cultural divide is growing between the “Blue” states and regions which value diversity, innovation and what is new, and “Red” states and regions which are more traditionalist and rural. The same pattern is evident in other countries, such as China and India, where their centers of economic productivity and concentrations of the creative class are localized in a relatively small set of metropolitan areas, such as Shanghai, Beijing, and Mumbai.

In order to assess the relative creative strength of a city, Florida has developed what he refers to as a “Creativity Index.” The Creativity Index is a combination of four sub-indices: The Creative Class Index, the High-Tech Index, the Innovation Index, and the Diversity Index. Using these indices, Florida ranks San Francisco, Austin, San Diego, Boston, and Seattle as highest on the Creativity Index, seeing these metro-areas as leading the economic growth and level of innovation within the United States.

Based on his analysis of the relative levels of creativity, innovation, and economic productivity around the world, Florida attempts to demonstrate that the world is spiky and becoming even more so. The bulk of economic productivity is concentrated in the United States and East Asia, notably in Japan, and similarly the level of innovation is localized in the United States and East Asia. Further, although the members of the creative class are highly mobile, they tend to move among the main centers of creativity and productivity, rather than spreading outward into the rest of the world. So the creative class tends to cluster together, valuing social exchange,

networking, and the sharing of diverse ideas, while at the same time tending to separate and segregate off from the bulk of the rest of the world population.

Aside from this trend toward increasing division and the concentration of talent and innovation continuing in the near future, Florida foresees an escalating competitive battle among regions of the world to recruit and draw creative people to their areas. Since he believes that recent governmental and social changes are making the United States, overall, more restrictive, protective, and conservative, he fears that the United States could lose its economic advantage and leadership edge in the world. Members of the creative class will neither choose to stay in the United States nor move here to begin with from other countries – in essence, unless the United States becomes more receptive and open it will suffer a talent and brain drain in the foreseeable future.<sup>221</sup>

**Quinn's *Beyond Civilization*:** In his book, *Beyond Civilization: Humanity's Next Great Adventure*, Daniel Quinn proposes that humanity should move toward a tribal social system of organization and abandon the present social system of “civilizations.” Quinn defines a “civilization” as a hierarchical organization where those at the bottom of the hierarchy work like “pack animals” primarily for the benefit of a relatively small ruling elite at the top of the organization. Although tribalism preceded the emergence of human civilization and was the dominant form of social organization for most of human history, since the beginnings of the Agricultural Age and the rise of city states and empires, civilizations have controlled the lives of most people around the world. For Quinn, civilization, as a social order, has many harmful and negative effects and should be replaced with tribalism.<sup>222</sup>

Quinn describes a tribe as a group of individuals where everyone works toward the benefit of the whole, and although there are leaders in a tribe, everyone is equal in terms of the benefits received within the tribe. Civilizations, on the other hand, all involve a centralized ruling caste that subjects the bulk of the population to serving and benefiting its needs and desires. Quinn uses the example of pyramid building in the Egyptian empire as a paradigm case of life in a civilization; most people are involved in the task of moving stones and boulders to erect monuments to the pharaohs. Quinn argues that we must take back the world from the pharaohs.

Although advocates of the value of human civilizations would argue that this form of social order is inevitable, the supreme creation of humanity, and the “right way” for people to live, for Quinn, civilizations destroy the environment, generate poverty and homelessness, and produce in people more and more “drug like” diversions to cover up the stress and life dissatisfaction of moving boulders for the pharaohs. In the last ten thousand years, since its creation, civilization has brought us face to face with our extinction. Civilizations raise self-denial to an ethical ideal, frequently promising, through their religious institutions, reward in an afterlife for being slaves in this life. Civilizations make people dependent on the system rather than on each other and produce relatively isolated individuals who live and work behind closed, locked doors. The fact that people often have trouble with living in such a world is seen as a flaw in humans, rather than the social system. Humans are entrapped in an economic prison within civilizations, for there doesn't seem to be any other way to make a living than to participate in the slavery and drudgery of the system. For Quinn, we can not fix the system with more social programs, which simply create more problems – we must jettison the system.

Quinn does not advocate that people attempt to overthrow the present social order. Rather, he believes we should walk away from it. He distinguishes between a commune – where people live together and hold common beliefs – and an occupational tribe, such as a circus – where people may not hold similar beliefs but collaborate to support each other and make a living. According to Quinn, the counter-culture of the 1960s failed because its advocates missed the important point that they needed to discover a way to make a living, with the result that they all ended up “working in the pyramids.” As a basic principle in his philosophy, in contrast to the idea that there is a “right way” to live for humans, the Tribal Revolution is based on the idea that “There is no one right way for people to live.” In essence, Quinn is an advocate for human freedom and self-determination against the forces of institutional slavery, but he believes that this goal will be realized through economic collaboration.

### **Spiritual, Religious, and Mystical Theories**

The earliest recorded theories of the future are mythological and religious.<sup>223</sup> Beginning in the ancient cradles of civilization, in Egypt, Mesopotamia, China, and India, mythological tales and philosophical meditations on the origin, saga, and destiny of the cosmos and humankind were created that gave people a sense of meaning and purpose for their lives and all existence.<sup>224</sup> Of particular note, the individual lives of people were connected with the great workings of the cosmos. Religion and myth provided conceptual and dramatic schemes for understanding reality and giving ethical direction to life.<sup>225</sup> Although there are numerous and varied ancient religions and myths that dealt with past and future, and the values and goals that should guide and direct human action, there are two fundamental perspectives on time and the future coming out of these ancient traditions that dominate mainstream religious and spiritual thinking today. These two views – one Eastern and one Western – are perhaps best captured in the simple contrast of whether reality and time is seen as a circle or seen as a line.<sup>226</sup>

**Zoroastrian-Abrahamic Visions - The Theory of Armageddon - The Triumph of Good over Evil – Paradise, Heaven, and Hell:** Within the West and the Middle East, beginning and probably inspired by the apocalyptic vision of Zoroaster, Judaic, Christian, and Islamic theories of the future have all involved the idea that time is linear and progressive and is basically characterized by an ongoing struggle between the forces of good and evil. The founding writings and prophecies of Judaism involved the idea that in the future a Messiah would come who would lead the chosen people of God to victory over the evil forces in the world. Christianity and Islam, both believing that the ultimate prophet and “Messiah” has come (Christ and Mohammed respectively), anticipate a great final world battle (Armageddon) where God and the forces of good will triumph over Satan and the forces of evil. Further, both Christians and Muslims believe that those people who believe in and follow the directives of God will be rewarded with eternal life and ultimate happiness in Heaven, while disbelievers will suffer eternal damnation in Hell. Within Christianity, many believe that Christ will return – a “Second Coming” - to lead the forces of good against a prophesized Anti-Christ and the forces of evil, and that Christ will reign over a thousand-year-long earthly paradise (the “Millennium”) that will follow after the final battle before deserving souls ascend into Heaven.

This general theory of the future has provided the moral and metaphysical core of a general paradigm for life and the future. There are clear directives within this perspective for how to live and how to prepare for the future. Further, this theory and paradigm has generated two of the most powerful social movements within human history. Christianity and Islam, as world religions, are embraced and practiced by billions of people worldwide; in fact, the two most popular religions in the world are Christianity and Islam. In the name of the beliefs, prophecies, and values of their respective doctrines and creeds, followers of Christianity and Islam have conquered, colonized, and ruled over countless nations and millions of other people worldwide in an attempt to convert non-believers to their religion. In many ways very similar in their fundamental belief systems and visions of the future, Christianity and Islam probably offer the most influential theories of the future over the last two thousand years of human history.

Though progressive in their view of the future - believing that life in the future will be better than today (for believers of course) - the road to this better reality will involve great conflict, turmoil, war, and chaos. There is a passage through the darkness as a prelude to reaching the light. Yet the general result of this upheaval and dark journey is destined or predetermined. God and the forces of good will triumph. It is the individual destinies that are (at least in some sense) uncertain and contingent upon the choices and free will of humans. Still, in the final analysis, there are really only two possible future scenarios for each person, happiness and bliss in Heaven or misery and torture in Hell. This vision of the future is very black and white.

There is a highly bi-polar quality to the Christian-Islamic view of the future. First there is the dark side: A vision of war and great destruction, as well as punishment and eternal damnation for those individuals who reject God. But then, there is a positive side. In Christianity, for example, there is an emphasis on love, forgiveness, and kindness as critical moral qualities in living one's life. It is through these positive qualities that a better future will be realized. Also, there is a clear sense of cosmic justice in Islam and Christianity, as well as Judaism. Although life may be unfair, God will enact justice, rewarding those who live a good life and punishing those who lead an evil life. Finally, in spite of all our imperfections, failings, and times of unhappiness in our present mode of existence, there is a promise of eventual perfection and complete happiness once we ascend to Heaven.

As one final point, there is a decidedly other-worldly and metaphysical dimension to this theory of the future. The forces that will ultimately determine the future are supernatural and at a higher plane of existence than the natural world; these same forces were also responsible for the creation of the world, as well as the general plot, drama, and direction of events in the world. Humans existing on the material plane and within time cannot affect the overall outcome of things; we can only choose in which of the two predetermined metaphysical realms we spend eternity. Secondly, the ultimate future for humanity is therefore not something within the physical world of time, but in a metaphysical sphere. We may attempt to improve the reality around us, but this reality will eventually pass away. Our destiny lies elsewhere.

**Eastern Visions – Taoism – The Dance of Shiva - Reincarnation – Nirvana:**  
In contrast to Western linear thinking, both Taoist and Hindu views of reality involve a cyclic theory of time. Within Chinese Taoism, reality is described as an oscillation of the

complementary forces of *Yin* and *Yang*. Reality involves balance, of darkness and light, of male and female principles, in reciprocal harmony over time. As the psychologist Richard Nisbett documents in his cross-cultural study of patterns of thinking across the world, people from China and the Far East tend to see time as circular; they anticipate downward turns if things have been going well, and anticipate upward turns if recent events have been negative. (This is in stark contrast with people in the West, who tend to expect further good times if life recently has been going well.) Similarly, within Hindu cosmology, a common belief is that the God *Shiva* will bring worldly existence to a catastrophic and fiery ending, but then the God *Vishnu* will dream the world anew and a new cycle of creation and destruction will begin. Temporal existence is ultimately an endless repetition of birth and death and this cycle of creation and destruction is often referred to as “The Dance of *Shiva*.”

There is, though, a progressive dimension within Hindu thinking, as well as in its philosophical offspring, Buddhism. The Hindu doctrine of reincarnation involves the notion that the souls of individuals who have died will return to an earthly and temporal existence incarnated in a new body. This part of the theory is cyclic. Yet, the new body and temporal existence of the soul will depend upon how ethical a life the soul led in the previous life. This is the theory of *karma*. A good life brings good *karma* and a better existence in the next life. An ethically bad life produces negative *karma* and leads to a lower existence in the next life. If, in its new incarnation, a soul can eliminate through ethical actions whatever bad *karma* it accrued in its past lives, the soul can ascend into Nirvana and break free of the cycle of life, death, and rebirth. Nirvana is a higher existential state – an eternal and spiritual state involving unity with the absolute oneness of *Brahman*, the ultimate source of all being. This is the progressive dimension of the theory.

As can be seen in the Hindu ideas of reincarnation, *karma*, and Nirvana, the direction of the future is determined by ethics; positive moral behavior leads to a better future – negative moral behavior leads to a worse future. Further, cosmic justice determines the direction of the future. Good deeds are ultimately rewarded and bad deeds are punished. Finally, the positive future that awaits morally good individuals lies outside of the temporal and material realm, in the higher spiritual reality of Nirvana. In this regard, Eastern and Western religious views of the future are the same. Both promise a spiritual and eternal existence after physical death. The ultimate future is beyond the physical world.

One significant difference, though, between Eastern and Western religious visions of the spiritual future can best be illustrated in the teachings of Buddhism. Within Buddhist philosophy, it is desire and an attachment to the individual ego that produce misery and unhappiness in the world. In fact, desire is a consequence of conscious attachment to an ego. The goal of enlightenment is to see beyond the ego. Once we achieve this enlightened state – to see reality as a one without a separation of the ego and the world – we achieve Nirvana. Hence, while Western religions like Christianity and Islam promise individual immortality, Buddhism views Nirvana as precisely the loss of individuality. In Hinduism also, the emphasis is on achieving oneness with *Brahman*, rather than the preservation of an individual ego. There is clearly more of an emphasis on individuality in the West than in the East and this difference shows up in their different views of the ultimate future. As another basic cultural difference revealed in

Nisbett's studies, Westerners highlight their individuality, whereas Easterners emphasize their togetherness and collectivity.

As one final contrast between East and West, none of the major Eastern religions envisions the final chapter of humanity as involving some great global conflict between the forces of good and evil. Although *Shiva* may destroy the world in the end, there is no great war that is fought between different spirits or factions of humanity. In Taoism there is ultimate balance throughout time; one does not find some fundamental component of reality being defeated or eliminated. In the West, there is an evil or corrupt side of reality that must be eradicated through destruction and violence.

**New Age Spirituality:** New Age thinking is both all-encompassing and highly individualistic. First it combines, connects, and attempts to synthesize the mystical, magical, mythological, scientific, and naturalistic.<sup>227</sup> It takes ideas from contemporary popular science, holistic medicine, human potential and self-actualization psychology, ancient and non-Western religions, occult and magical practices, witchcraft, esoteric cosmologies, ecology, the folklore of ghosts, spirits, demons, and angels, and even ideas on UFO's and space aliens, and attempts to pull it all together into a spiritual approach to life. New Age is intercultural, global, and universalist in its understanding of reality. It does have a strong Eastern flavor – meditation, chanting, and yoga are common practices – Oriental deities are frequently worshipped - and the idea of reincarnation is exceedingly popular.<sup>228</sup> In general though, it is a smorgasbord – a “god of a million faces.”<sup>229</sup>

New Age thinking is often criticized as having no strong intellectual standards for it embraces almost any idea, no matter how crazy or unrealistic. Yet, in its enthusiastic openness to multiple points of view, it does aspire to overcome the various divisions and conflicts between science and religion and one religion versus the next.

Second, from this amazing array of ideas and traditions, individuals can literally pick and chose which ideas to accept and practice. New Age is highly liberal and lacking some central doctrine that all its followers must believe in. In some ways it is the antithesis of fundamentalism, if not all organized religions. It stresses that each individual must find his or her unique path to enlightenment. It is an expression of the extreme individuality and philosophy of freedom of modern times.<sup>230</sup>

New Age practitioners and writers are enthusiastic about predicting the future. Many clearly believe that the future can be foretold. Predictions are often highly detailed and there is a common belief that there is a strong component of destiny to the future. Contemporary New Age literature is filled with spiritual prophecies and visions of the near and far future. The foretelling of the future through dreams, crystal balls, tarot cards, astrology, and spiritual and cosmic epiphanies, all ancient mystical practices, is an extremely popular activity associated with New Age thinking. This conviction among many New Age thinkers that the future can be foretold, as well as influenced or directed through magical practices, gives the movement a rather dogmatic flavor.

New Age futurist predictions tend to be highly optimistic and upbeat. According to many visions, paradise, either on earth or within some higher spiritual plane, will be realized in the future. The expression “New Age” literally means that a new era in human existence is coming – an age that will be much better than the present one. Following on the common 1960s belief that we are entering the Age of Aquarius, the future should be a time of peace, brotherhood, enlightenment, and transcendence.

Frequently, highly advanced aliens or spiritual beings will be involved in leading us to this higher level of existence. Such visions are often seen by skeptics and critics of the New Age as Pollyannaish and unrealistic. Yet, New Age philosophy is hopeful, and a good antidote to the nihilism and pessimism of our time, and New Age followers often do try to create a better world around them, less frenzied, more humane, and filled with beauty.

There is also a strong metaphysical element to the New Age. Higher or multiple dimensions of reality, often populated with spiritual and other-worldly beings, are frequently believed in. Just as in mainstream religion, followers of the New Age think that supernatural and metaphysical forces or entities influence the future. There is also a related counter-culture dimension to the New Age. As an outgrowth of trends that developed in the Hippie Culture, the New Age is highly critical of the corporate business world, of crass materialism, and the limited worldviews of mainstream society. The New Age sees above and beyond the everyday physical world in which the common person lives. Coupled with its metaphysical dimension, New Age thinking also embraces naturalism, which further reinforces its opposition to mainstream high-tech culture and urbanized human society.

All in all, the New Age is both a paradigm and a social movement – it is a way of life. Connected with its beliefs and practices, there is New Age music, New Age paraphernalia and icons, New Age jewelry and fashion, New Age nutrition, New Age centers, New Age bookstores and shops, and New Age gatherings and fairs. In spite of its anti-establishment and anti-materialist philosophy, it is a highly commercialized approach to life and the future.

**The Evolutionary Omega Point Theory of God:** Most major world religions and spiritual traditions assume some type of higher reality above the physical world, but such views tend to be dualistic – dividing existence into two distinct realms – a spiritual and a physical. This dualistic split supports and reinforces the spiritual-secular division in everyday life and human values. Perhaps, though, it is possible to synthesize the secular and materialistic with the spiritual. Such an integrative vision of reality has been a pursuit of many writers and thinkers during the modern era and there are contemporary philosophers, futurists, and scientists who aspire to such a synthetic and non-dualistic system of thought.<sup>231</sup>

Further, if there is some general type of progressive movement across time, as for example envisioned in the theory of evolution, then perhaps the “higher realm” described in religious and spiritual thinking is simply the result or culmination of the progressive direction of time.<sup>232</sup> Writers such as Barbara Marx Hubbard, Ken Wilber, and Frank Tipler clearly imagine an evolutionary direction to humanity and nature that will lead us to not only a physically more advanced state, but also to a higher moral, spiritual, and psychological state as well.

Could we envision a cosmic reality in the future that includes a universe of diverse intelligent forms, making use of intelligent machines, space technology, and the biotechnological tools of purposeful evolution? Could such a cosmic evolution be driven by spiritual, social, and moral values where technology and material wealth are more of a means to an end rather than an end in itself? The dualism and antagonism of the spiritual and the secular could be transcended in the future.

Most religions postulate some type of Supreme Being or God – presumably existing on a higher metaphysical level of reality. But if we follow an evolutionary logic concerning the nature of reality, this higher level of existence and Supreme Being could be seen as the culmination of cosmic evolution. God could be the direction of evolution. The future is the evolutionary ascension to God.

The French biologist, Jesuit scholar, and philosopher, Teilhard de Chardin, in his well-known book *The Phenomenon of Man*, argued that humanity would evolve into an integrated global mind and achieve a spiritual culmination in an **Omega Point** at the end of time.<sup>233</sup> In this theory, Chardin attempted to synthesize evolutionary science with religious and spiritual ideas – his Omega Point theory entailed a teleological interpretation of evolution. Evolution had a purposeful direction. Chardin proposed the concept of a **noosphere** - an emerging collective human consciousness enveloping the earth – that would be the medium in which the Omega Point was realized. Within this emerging noosphere, he believed that humanity would psychologically and morally come together in a collective concern for its own destiny and that of its home, the earth, and through compassion and care ascend to a higher level of consciousness. Chardin was an extreme optimist, for he saw humanity escaping eventual death and extinction through this spiritual ascension. Chardin saw this ultimate spiritual destiny as a consequence of natural evolution.<sup>234</sup>

Continuing on this theme of living immortality, the influential scientist Freeman Dyson, in his book *Infinite in All Directions*, argues that mind and intelligence will progressively spread through the universe and eventually be able to overcome the hypothesized heat death of the cosmos and persist forever. Within this scenario, Dyson sees the universe continuing forever, but this may or may not occur, depending on whether the universe eventually reverses its present expansion and collapses back in a Big Crunch.<sup>235</sup>

The physicist and cosmologist, Frank Tipler, finds his inspiration in both Chardin and Dyson.<sup>236</sup> Tipler proposes that intelligent life can gain control over the future evolution of the universe and generate an infinite amount of energy and information processing in directing the dynamics of the universe, thus creating an eternal and infinite consciousness. To accomplish this feat, intelligent life will need to spread throughout the entire universe and, through technological and scientific means, coordinate itself as a single collective force. For Tipler, this guided process of cosmic evolution will culminate in an Omega Point at the end of time, which, in essence, will be God - an infinite mind possessing unlimited compassion and love and capable of raising everyone who has ever lived back to consciousness from the dead. Thus Tipler attempts to unite science, space technology, and the principles of evolution with the common religious beliefs in an infinite all-powerful God and personal immortality for humanity.

This Omega Point theory of God would, though, seem to conflict with the idea that God is eternal or co-present with reality. God is manifested in time rather than existing outside of time. Also traditional religious thinking tends to identify God as the Creator of the universe at the beginning of time. The evolutionary theory of God proposes that God exists in the future – perhaps even at the end of time -- and that God is the evolutionary creation of the universe, rather than the other way around.

Tipler does offer an explanation, however, for how to resolve the contradiction between these two different views of God. In an earlier book, *The Anthropic*

*Cosmological Principle*, co-authored with John Barrow, the argument is presented that the initial conditions of the universe and the values of physical constants in it appear finely tuned to support the evolution of life and intelligence.<sup>237</sup> It seems as if the universe was “designed” to produce life and intelligence. This argument is usually referred to as the “strong anthropic principle.” In his later book, *The Physics of Immortality*, Tipler, argues for the validity of the strong anthropic principle. He contends that God is at the end of time; God, who is the natural culmination of the evolution of intelligence and life in the universe, sets the conditions at the beginning of time for its own realization at the end of time. God, once realized, is able to transcend time.

A similar kind of argument can be made, though, without having to postulate a God at the end of time. In his book, *Biocosm: The New Scientific Theory of Evolution: Intelligent Life is the Architect of the Universe*, James Gardner proposes that the conditions of the present universe were purposefully set to allow for the evolution of life and intelligence, but it was intelligent beings from our “mother universe” that created these conditions. Instead of seeing our universe as a self-contained reality, Gardner believes that our universe was born or created from a progenitor universe, in which highly evolved intelligent beings determined the initial conditions and physical constants of this universe. In turn, in our own future evolution, our descendants will create the conditions for the birth of a new universe that will support life and consciousness as well.<sup>238</sup>

What all these views have in common is the belief that a higher form of mind and intelligence, usually possessing equally evolved moral and ethical qualities, will be the result of evolution in the cosmos, sometime in the far future. The key concept in all these views is evolution, clearly a scientific idea. Religious beliefs in a higher level of reality, a higher form of mind and intelligence, and even the possibility of immortality are integrated with evolution and the mind-boggling possibilities of the far distant future.

### **Integrative Theories**

I would define an integrative theory of the future as an abstract description and explanation of the future that strongly attempts to synthesize all the main dimensions of the future into a synthetic and comprehensive scheme of thought. An integrative theory would cover both the scientific and artistic-humanistic, the technological and the religious-spiritual, the economic and political, and the social and the psychological. It would cover both humanity and nature, including the cosmos as a whole. It would not only be descriptive, identifying trends and making (at least) tentative or general predictions, but it would also be evaluative and prescriptive, providing a normative or ethical assessment of past and present and values for the future. Following from its normative dimension, an integrative theory would include guidelines and practices for how to live to realize the vision and values of the theory. An integrative theory would have an associated paradigm and provide the foundations for the creation of a social movement.

At least some of the theories described thus far could be viewed as integrative, at least satisfying most, if not all, the criteria listed above. Some examples would be Barbara Marx Hubbard’s conscious evolution theory, Tipler’s Omega Point theory, Henderson’s Solar Age theory, and the general theory of cosmic evolution. Perhaps one could also include religious belief systems which attempt to explain all of reality, predict

all the important trends and events of the future, and provide moral rules or guidelines for how to live. Religious theories, though, often tend to slight or reject the scientific and the technological, and do not have much to say about the economic and business dimensions of life. I have included all these theories in one of the previous categories because these theories highlight some particular theme or dimension of human reality that fits with one of the previous categories. In any event, as I mentioned earlier, the placement of theories into particular categories is not absolute and unambiguous; even some of the theories presented below as integrative could perhaps be included in one of the earlier categories.

**Integral Culture:** The expression “integral culture” refers to a philosophy and way of life that emphasizes the interconnectedness of all reality. In this regard it is inspired by holistic science and thinking and clearly rejects the modern divisions between science and religion, the spiritual and the secular, mind and matter, and fact and value. Integral philosophy attempts to pull it all together into a comprehensive vision for the future.<sup>239</sup> Sally Goerner, in *After the Clockwork Universe: The Emerging Science and Culture of Integral Society*, provides a theoretical and historical overview of the development of integral thinking, how it differs from earlier philosophies in the West, and what its main implications are regarding the future of human society.<sup>240</sup>

Integral Culture philosophy sees human society at a crisis point due to the excessive individualism and lop-sided materialism of the West. In essence, the central problem of our times is that human existence is disintegrated and fragmented – there is neither balance nor holism. Contemporary human society is alienated and separatist. The Integral Culture movement advocates for a new sense of connectedness among individuals and different cultures, and between humanity and nature, humanity and the cosmos, and male and female, and a new set of values associated with this philosophy of connectedness.<sup>241</sup> Jon Spayde sees the Integral Culture movement as part of a “New Renaissance,”<sup>242</sup> connecting various themes in this “New Renaissance” philosophy with the writings of Duane Elgin, Riane Eisler, Hazel Henderson, and Barbara Marx Hubbard.<sup>243</sup> What all these writers and thinkers have in common is a holistic and evolutionary perspective on tomorrow, and a rejection of the industrial vision of progress, including its metaphysical dualism, excessive materialism, competitive individualism, and hierarchical system of social control. Through connectedness and love, we need to see ourselves less egocentrically and become part of the greater whole. We need to engage in purposeful evolution, creating a new, more balanced perspective on life. According to many of its advocates, we need to adopt the theory of cosmic evolution as a new common creation story to give all of humanity a sense of cosmic connectedness.

Integral Culture philosophy is not opposed to either spirituality or technology. Spirituality, though, needs to be re-conceptualized in the context of modern evolutionary and ecological science and needs to move beyond the divisiveness that has characterized much of the history of world religions. Further, technological, as well as economic growth, are not necessarily bad, but these dimensions of human reality must be evaluated and guided by higher more humanistic values. It is an issue of balance and integration.

The Integral Culture movement is a network of people and common ideas. It overlaps with other approaches to life and visions of the future. Eisler, Hubbard, and

Henderson, all identified as leading figures in this movement, all have their own distinctive theories of the future, but they also share many common beliefs. The Cultural Creatives described by Ray and Anderson also show many resonant qualities with the Integral Culture movement and, undoubtedly, many individuals would identify with both social groups.

**Wilber's Integral Philosophy:** Ken Wilber, a highly influential and prolific contemporary philosopher and writer, is often associated with the Integral Culture movement. Wilber, in fact, uses the expression "integral philosophy" to describe his approach to life, human understanding, and the future. His central philosophical goal is to articulate a comprehensive scheme of thought that pulls together the insights of East and West, as well as science and the great spiritual and religious traditions of the world.<sup>244</sup> Although Wilber can be viewed as a New Age philosopher and writer and, in fact, has contributed articles, commentary, and interviews to New Age publications, he has also significantly influenced more mainstream thinkers, such as the futurist Richard Slaughter.<sup>245</sup>

Wilber's philosophy emphasizes the theme of evolution and development. Reality, for Wilber, is dynamic and progressive. As some important examples of this fundamental theme in his thinking, Wilber describes human history as having developed through a series of different levels of thought, social organization, and patterns of living. He identifies five levels or stages in human history: The archaic (foraging tribes), the magical (horticultural villages), the mythic (agrarian states and empires), the rational (industrial nations), and the existential (planetary information society). More broadly, he describes five levels of evolution within the "Kosmos" (a term Wilber uses to describe the totality of existence). Each of these levels has an inner and outer dimension. The levels are: Mineral/matter, plant/vitality, animal/emotion, human/mind, and mystic/intuition. Wilber also identifies three basic levels of development as humans grow and mature: The pre-personal, which is anchored to the body, instinct, and nature; the personal, which is anchored to the mind, intellect, and culture; and the trans-personal, which is anchored to the soul, intuition, and the Kosmos. Additionally, he believes that there are developmental stages in politics and political thought, beginning from the conservative and liberal, but moving up to higher levels which integrate as well as transcend the earlier levels. Finally, it is interesting that Wilber even describes his own thinking and philosophy within a developmental scheme; he identifies various stages or phases of thinking he has gone through in his philosophical and spiritual quest. He sees his philosophy as a dynamic and evolutionary reality.

A key concept in Wilber's theory of evolution is the idea of the "holon" – a concept he took from the writer, Arthur Koestler, and his book, *Janus*.<sup>246</sup> According to Wilber, all of reality is composed of holons. A holon is defined as an entity which is both a whole that consists of parts, but in turn is a part of a greater whole. Hence, everything in reality is both a whole and a part. Holons possess a dual drive toward agency (autonomy) and communion; that is, reality involves the complimentary processes of individuation and integration. Holons have a drive toward both preservation and self-transcendence. Reality evolves through the co-evolution of holons which cluster or come together to form more encompassing holons; wholes integrate into bigger wholes. Emergent holons both envelop and preserve their constituent parts, yet creatively transcend the parts. Although this general pattern of evolution is universal across the

entire history of time, since each new level of holons is creative and transcendent relative to the previous level, the future can only be predicted in general outline. The unique qualities of emergent holons in the future can not be foreseen from our present vantage point in the present. Evolution is creative.

Based on this general framework for understanding the nature of reality, Wilber contends that evolution indeed does have a direction. He lists increasing complexity, integration and differentiation, organization, relative autonomy, and telos/purpose as key features to the direction of evolution. It is interesting to note that telos or purpose is not, in Wilber's scheme, a causative factor behind evolution, but rather an emerging property of reality created through evolution. It is also interesting to note that evolution moves in complementary directions simultaneously – toward greater integration and greater individuation. Wilber also integrates God into this general theory of the direction of evolution. Evolution is “God-in-the-making” and “spirit-in-action.”

The complementary aspects that Wilber identifies in the process of evolution lead us to a second key theme in his philosophy, a theme which captures the critical sense in which Wilber's philosophy is integral. Wilber rejects the various forms of philosophical dualism, such as mind and matter, or the whole and the parts, that have been pervasive throughout human history. Further he rejects schemes of thought which emphasize one aspect of reality over the other, such as materialism versus idealism or objectivism versus subjectivism. Wilber has attempted to develop a philosophical and scientific description of reality that encompasses and integrates all the fundamental polarities of existence. For example, he believes that it is equally important to acknowledge and understand the “outer” (physical) and “inner” (consciousness) dimensions of reality. He argues that secular modernism has overly emphasized the outer, physical dimension of reality and lost sight of the inner reality of consciousness and self within all of us. Modernism is incomplete. Also, he points out that Enlightenment philosophy and modern science have attempted to uncover an objective description of truth and reality, but miss the point that there is a subjective component in all human knowledge as well. Hence, an absolutist, totally objective vision of reality is impossible. On the other hand, he rejects the extreme subjectivism, relativism, and pluralism of Postmodernism, which goes to the opposite extreme in thinking. He also rejects what he sees as the lop-sided philosophy of extreme rationalism; knowledge can also be acquired through intuition. As an important example of his integral philosophy, Wilber presents a “four-quadrant” theory (discussed in an earlier chapter) that attempts to provide a balanced and comprehensive scheme for understanding human reality. He identifies the “inner individual” revealed through introspection, the “outer individual” revealed through brain and cognitive science, the “inner collective” revealed through the study of culture, and the “outer collective” revealed through sociology. In the ongoing evolution of human reality, all four of these quadrants co-evolve together.

Wilber is a visionary. He sees humanity continuing to evolve in the future. Further, he believes that this evolution will involve a strong spiritual dimension. In fact, he predicts that the next collective stage beyond the ego-centered, rationalistic mindset of modern human society will be a mystical stage and involve an envelopment and transcendence of the individual ego. He thinks that through looking at those more enlightened individuals of today and the past, we can get a sense of the future evolution for all of humanity. He believes we will go beyond Postmodernism and find patterns and connections in our cultural and individual diversity; we are not at some final stage in our

philosophical enlightenment – by far. In fact, Wilber believes that there is an infinite number of potential or possible “worlds” or “levels” ahead of us in the future.

**Spiral Dynamics:** Based on a comprehensive view of human development first put forth by the psychologist Clare Graves, writers Don Beck and Christopher Cowan, in their book, *Spiral Dynamics: Mastering Values, Leadership, and Change*, present a theory of individual and social growth that according to some advocates “explains everything.” Basically, the theory proposes that humanity (or human nature) has developed through a series of equilibrium states of increasingly more complex bio-psycho-social stages in coping with the challenges of existence. Each new stage envelops and yet transcends the previous stage; also, the developmental process is open-ended, with no final stage of perfection, since each new stage may solve old problems but inevitably has to confront new problems, questions, and challenges. Also, through successive stages or levels there is a fundamental oscillation between focusing on the external world, the group, and self-sacrifice (interdependence mode) and focusing on the inner world, the individual, and self-expression (independence mode).<sup>247</sup>

Beck and Cowan have developed a color-coded system to designate the different stages of human development. Each stage is characterized by a dominant “vMeme” (a core value system) – a broad, deep, and encompassing pattern of thinking and values that structures and directs human behavior and the human mind at that level of existence. (The idea of a vMeme is similar in meaning to the concept of a paradigm.) According to the authors, the stages that have emerged or begun to emerge in human history, so far, are:

- Beige: Loose clan-based groups dominated by nature, instinct, and basic survival needs – “based on biological urges/drives; physical senses dictate the state of being.”
- Purple: Tribal groups that are animistic, magical, superstitious, and ritualistic with strong ancestral and blood bonds – “threatening and full of mysterious powers, spirit beings which must be placated and appeased.”
- Red: Exploitative and authoritarian groups with strong “Big Boss” leaders, heroic figures, slavery and repression, and rigid social hierarchies that are power and action-driven and egocentric – “like a jungle where the tough and strong prevail while the weak serve; nature is an adversary.”
- Blue: Strong group norms and group discipline, social control through guilt and obedience to authority, absolutist views of truth and value, high discipline, and an emphasis on self-sacrifice – “controlled by a Higher Power that punishes evil and eventually rewards good works and Right living.”
- Orange: Entrepreneurial, calculating, individualistic, success-driven, materialistic, competitive, and a drive to control the environment – “full of resources to develop and opportunities to make things better and bring prosperity.”
- Green: Communitarian, egalitarian, the need for social approval and contact, facilitative leaders, the importance of social harmony, and an attention to the environment – “the habitat wherein humanity can find love and purposes through affiliation and sharing.”
- Yellow: Systems thinking, an emphasis on mutuality, intrinsic love of learning, ecological, and the importance and reinforcement of unique talents in individuals

- “a chaotic organism where change is the norm and uncertainty a usual state of being.”
- Turquoise: Holism and spiritual harmony, the integration of thought and feeling, the capacity to understand multiple points of view, and integral philosophy – “a delicately balanced system of interlocking forces in jeopardy in human hands.”<sup>248</sup>

Some important points to highlight about this theory of human development are: Past, present, and future are integrated in this theory, as well as individual and group psychologies; each level, depending on the situation and problems being confronted, can be either constructive and positive or pathological and negative: the most dominant and powerful value systems in our contemporary world are Blue and Orange – the Blue and the Orange generally correspond with fundamentalist -traditionalist and modernist ways of thinking within Ray and Anderson’s scheme; the vMemos or value systems are situationally driven – an individual person may react to one type of situation (for example, the professional sphere) with one value system and react to a different kind of situation (for example, the personal or private sphere) with another value system; people and groups can regress as well as move forward to higher levels of complexity; change occurs through passing through the different stages – one can not push or force someone to jump up several stages suddenly; growth or change to a new level occurs through envelopment rather than elimination of less complex stages – the stages are cumulative and build on each other; the levels are not totally discrete – there are transition states between the levels; the final two stages listed, the Yellow and the Turquoise, represent a significant jump over the previous six stages – a movement to a “second Tier” from “subsistence levels” to “being levels”; at this point in time only a very small percentage of the human population functions at the Yellow and Turquoise levels, but this would seem to be the direction in which humanity is heading in the near future – there is even the suggestion of Coral and Teal levels beyond the Turquoise<sup>249</sup>; and the overall pattern of growth embodied in the oscillation of outward/collective and inward/individual levels corresponds with similar ideas about human nature contained in the writings of Bloom, Csikszentmihalyi, Nisbet, and Triandis.

Spiral dynamics has had a growing influence on business and government. It provides various principles and concepts for understanding human organizations, the nature of leadership, and how to constructively facilitate change. Yet also, a strong resonance has recently developed between Beck’s ideas on spiral dynamics and Ken Wilber’s integral philosophy and psychology. Out of this sympathetic connection has grown the idea of Spiral Dynamics Integral.<sup>250</sup>

**Zey’s Expansionary Vision:** The futurist, Michael Zey, in his book *The Future Factor*, presents a general theory of the future based on five fundamental forces that he believes capture the essence of how humanity will change, why these changes will occur, and where it is all heading.<sup>251</sup> Drawing his inspiration from a variety of scientific and philosophical thinkers, including Kurzweil, Dyson, Teilhard de Chardin, and the Russian cosmist, Vladimir Vernadsky, Zey describes his general perspective on the future as the “expansionary theory of human development.”<sup>252</sup> The overarching or primary force identified within his expansionary theory is vitalization, which is supported by the other four forces: dominionization, species coalescence, biogenesis, and cybergenesis. Zey is a strong supporter of the importance of continued growth and the

spread and expansion of the human species outward into the cosmos. He believes that humanity has a destiny – a cosmic destiny – which will involve gaining control over the fundamental forces of nature and directing the ultimate fate of the universe as a whole.

Zey defines the primary force of vitalization as the drive to transform and improve the universe and to spread life, human intelligence, and consciousness throughout the cosmos. Dominionization is the drive toward controlling the forces and elements of nature. Species coalescence is the process toward the unification of humanity, both physically and socially. Biogenesis is the enhancement of the human body through biotechnology, nanotechnology, and genetic engineering. Finally, cybergensis involves the ongoing integration of humans and machines, especially information technologies, which will facilitate the future evolution of our species.

There is a clear sense of teleologism in Zey's expansionary theory. He supports the anthropic principle, arguing that the initial conditions and fundamental physical constants of the universe appear finely tuned to support the evolutionary emergence of life, intelligence, and perhaps even human consciousness. He believes that the universe, in some way, built into itself the capacity to create a being or mechanism that would find a way to overcome the slow death of entropy and maintain the existence of the universe. Zey thinks that potentially humans are the means by which the universe will save itself. Further, Zey believes that recent scientific evidence indicates that the universe has built into it the drive or force (perhaps intention) to self-organize into increasingly more complex entities. Evolution is not based entirely on random variations and natural selection. Humans are the result of this drive toward order and complexity within nature. Further, he sees a fundamental theoretical and ideological conflict in contemporary times between those people who support balance and sustainability and those who support growth and development. (His view on this conflict is similar to Postrel.) Zey argues that the balance theorists are going down the wrong path; our survival as well as the survival of the universe depends on humanity's growing, expanding, and reaching out into the cosmos. In Zey's mind, humans have a special role in nature and we need, through an act of will and imagination, to gain control and dominion over the cosmos. The expansionary view must triumph or humanity will become extinct. We must gain control over ourselves as well. He clearly believes that humans, through species coalescence, biogenesis, and cybergensis, must engage in "purposive self-development."

Zey presents what he sees as an "optimistic" vision of the future. He rejects Postmodernism, nihilism, and pessimism. Humanity needs a positive cosmic image of its future. Humanity needs to feel self-empowered and important in the grand scheme of things. We have an important mission to fulfill and we need to rise to the occasion.

**Kelly's *Powerful Times and Dynamic Tensions*:** Eamon Kelly, the CEO of the Global Business Network, in his book, *Powerful Times: Rising to the Challenge of Our Uncertain World*, presents a theory of the dynamics of contemporary times and a set of possible scenarios for the future based on the central idea of "dynamic tensions."<sup>253</sup> Kelly lists seven fundamental dynamic tensions, which cover economic, political, social, ecological, and religious/spiritual issues within our present world. These contemporary tensions are the main motive forces driving us into the future.

- Clarity and Crazyiness – The world is becoming more transparent, there is increasing surveillance and huge amounts of information on everyone and everything; yet there is also information overload, multiple alternative perspectives on all major issues, and consequently increasing confusion, uncertainty, and ambiguity over the validity and reliability of information sources resulting in growing distrust and incredulity.
- Secular and Sacred – There is escalating conflict and tension between secular thinking and practices (dominated by science, quantification, economic materialism, and a logic of either-or) and religious/sacred views of reality, which are steadily growing in influence and number of followers. Secular thinking, inspired by the European Enlightenment, embraces freedom, liberty, and tolerance, and those countries that adopt its principles have become more wealthy, innovative, and democratic. Yet, from the religious perspective, secular thinking is incomplete as a comprehensive approach to life and has created significant problems in the world. Religious fundamentalism is particularly threatened by secularism.
- Power and Vulnerability – United States military power continues to grow and security systems have been significantly strengthened, especially in the last few years following the terrorist attacks of 9/11; military spending in the United States far exceeds (by eight fold) any other country in the world. But there is also a clear sense of increasing vulnerability to terrorist attacks and other potential threats to peace and stability, such as organized crime and global epidemics.
- Technology Acceleration and Pushback – New technologies continue to proliferate at an accelerative rate and promise to transform both the world and the nature of humanity. Kelly cites four technological-scientific areas – information technology, nanotechnology, cognitive and brain science, and biotechnology – that are rapidly advancing. These technologies will be increasingly applied to the improvement and modification of the human body and the human mind. As Kelly notes, there is a “limitless demand for enhancement” and Americans now spend more on beauty than education. Yet there are moral and pragmatic concerns over the application of technology to human enhancement, and these concerns probably will intensify in the years ahead.
- Intangible and Physical Economics – Although the world economy is shifting toward “intangible” products, such as human services, knowledge and information, experiences, and beauty/art/aesthetics, the physical infrastructure of cities and nations is deteriorating and in need of significant overhaul and improvement.
- Prosperity and Decline – The global economic system has created new prosperity and opportunity for many more people in the world, but a significant portion of the world population is suffering from poverty and overall decline in the quality of life. The gap between the rich and the poor is growing. While countries like China, India, and Brazil have created much more prosperous economies in the last couple of decades, benefiting large numbers of their people, other countries, especially in African and Latin America, suffer from

disease, corruption, crime, and internal conflict and show little if any promise of improving their situations.

- People and Planet – The final creative tension is between humanity and the earth. The more economically powerful and wealthy countries in the world are using natural resources and huge amounts of energy at increasing rates, but in so doing are threatening to unsettle the global climate. As more people are becoming aware of ecological issues and the connection between the economy and the environment, there is a growing concern over how to realize a sustainable economic system that meets the needs of all people.

As the central theme running through his book, Kelly supports a both/and logic in understanding our contemporary world and creating a positive future. Although he acknowledges the value of either/or logic, he believes that our times require a shift in thinking toward both/and logic. For example, each of the above tensions involves two seemingly contradictory trends occurring simultaneously in our world today. Both trends within each pair need to be acknowledged as very real and powerful and, in all probability, continuing into the immediate future. The world is complex, rather than either-or. This complexity produces ambiguity and uncertainty; it would be simple if one could legitimately state that the world is moving in one direction rather than another, but there are conflicting trends, interacting with each other and vying for dominance. Are things getting better or are things getting worse? Kelly presents convincing descriptions that both views have a degree of truth. When Kelly discusses how we are to create a better world in the future, he presents a set of complementary pairs of principles to guide our actions. He states that we need a balance of market wisdom (how to do the profitable thing) and moral wisdom (how to do the right thing); we need to be concerned about both winning and collaborating, about both growth and survival, and about both technology and people. We need both focus and an openness to ambiguity. Also, our organizations require both networking and hierarchical control. Moreover, he foresees trends toward increasing localization and globalization occurring simultaneously. Finally, Kelly advocates for an increasing emphasis on “divergent thinking,” where instead of locking into one point of view, we continually work at seeing multiple points of view – often of opposing perspectives. In general, in his depiction of the present and his recommendations for the future, Kelly adopts a Taoist philosophy – for Kelly, the world is a *Yin-yang*.

Kelly proposes three different scenarios for the future: the New American Century, Patchwork Powers, and Emergence. Aside from his emphasis on both/and logic, a second major theme in his book is uncertainty about the future; in fact, he states that we should embrace this uncertainty. In this regard, he outlines three relatively distinct possibilities for our future world. In the New American Century, the Western model of government and economy will dominate, and the United States will continue, if not enhance, its strong leadership role in the world. In Patchwork Powers, the United States loses its central leadership role as, for example, China and India become increasingly powerful players in the world; political and economic power becomes more equally shared among nations, peoples, and international organizations. In Emergence, traditional, centralized sources of power fail and new sources of power develop in the world; this transformation does not bring peace and stability though – crime and lawlessness are ongoing problems. Kelly does not present these three scenarios as

mutually exclusive (another example of his both/and logic), but contends that all three scenarios will probably correspond to some features of the future. Kelly's question is which reality will dominate.

In his conclusion, Kelly presents one final illustration of both/and logic as a capstone principle for creating a positive future. Either/or logic, applied at a social level, leads to the dichotomy of "us versus them." Yet, Kelly argues, in resonance with many other contemporary writers, that humanity must move beyond this dichotomous thinking and cultivate a more expanded sense of "we." We must become more inclusive and less divisive. If we are to avoid the "tragedy of the commons" - of selfishly using up all the earth's resources to the detriment of others sharing our common environment - then humanity must develop a greater sense of collective community. For Kelly, now that we have globalized our economy and our culture, we need to globalize ourselves - each of us must identify with our global humanity.

**Anderson on Culture, Evolution, Technology, Globalization, and Enlightenment:** Walter Truett Anderson, in a series of books over the last fifteen years, has developed a multi-faceted and relatively comprehensive theoretical analysis of contemporary trends and potential future directions for humanity. In his books, he has examined and synthesized such diverse topics as human belief systems, values, and culture, biotechnology, information technology, evolution and ecology, human psychology, society and globalization, Eastern and Western philosophy, and the past and potential future evolution of enlightenment. His most noteworthy books over this period include *Reality Isn't What it Used to Be*, *Evolution Isn't What it Used to Be*, *The Future of the Self*, *All Connected Now*, and *The Next Enlightenment*.<sup>254</sup>

In *Reality Isn't What it Used to Be*, Anderson presents the argument that in contemporary times there is a fundamental conflict and disagreement between absolutists and relativists regarding the nature of human knowledge and human values. The former believe that human knowledge and values are grounded in absolute and objective principles and facts; the relativists believe that knowledge and values are historically, culturally, and psychologically relative (or subjective). In essence, this is the conflict between fundamentalists (the absolutists) and Postmodernists (the relativists), though we could also include as absolutists those who believe that science provides objective and certain knowledge about reality. Anderson, in this book and later writings, clearly seems to side with the Postmodernists, at least to a degree.<sup>255</sup> He does believe though, contrary to many Postmodernists, that there can be progress in the growth of knowledge.

In *Evolution Isn't What it Used to Be*, Anderson argues that evolution is evolving and becoming purposeful with the introduction of biotechnology and information technology into the "augmentation" and enhancement of our species. In fact, he sees technology as permeating out into all aspects and dimensions of nature, including the monitoring and control of our environment. There can be no return to a pure or unspoiled nature. Biotechnology and information technology are increasingly intertwined and, following a similar line of thinking to Kevin Kelly, Rodney Brooks, and Andy Clark, Anderson sees a general blurring of the separation of life and technology. The whole wide world is becoming the "whole wired world."

In *The Future of the Self*, Anderson picks up the Postmodern theme again, and presents the argument that the human self is a social construction, situational specific,

and pluralistic, rather than singular and absolute. Anderson argues that given the complexity and rush of change in our contemporary world, a new type of self is emerging – one that is pluralistic and much more fluid. Anderson ties together human psychology, advances in the sciences, trends in culture and society, and the impact of technology on human life and the human mind, in creating a Postmodern vision of the self.

I have already discussed some of Anderson's main ideas on globalization as presented in his book, *All Connected Now*. To recall, Anderson sees globalization as a multifaceted phenomenon, involving a strong technological dimension – a theme he carries forth from his earlier book on evolution. We are being wired together - the environment is being wired together as well. Anderson also reinforces and further develops his emphasis on the pluralistic and multicultural quality of our times – a theme he introduced in his earlier books on *Reality* and the *Self*.

One theme that runs through Anderson's books is evolution; nature and human society is dynamic, changing, and developmental. Globalization has had a history which he traces in *All Connected Now*, and in *The Future of the Self*, Anderson looks at the history and evolutionary development of the self. In fact, for Anderson, evolution is itself changing as conscious purpose and technology become increasingly important in human growth and change. In *The Next Enlightenment: Integrating East and West in a New Vision of Human Evolution*, Anderson recounts the historical development of enlightenment in both Western and Eastern cultures. Evolution is perhaps the central theme in this last book, for Anderson believes that enlightenment is “an evolutionary project” – an expression of the dynamic and growth-oriented dimension of reality. And a key element in the state of enlightenment is seeing that all is flow – that all being is becoming.

For Anderson, enlightenment involves a liberation from the egocentric constraints of viewing ourselves as a singular and absolute, unchanging self. In the *Future of the Self*, Anderson critiques this limiting idea of the self. In *The Next Enlightenment*, Anderson goes further in arguing that the most important problem of our times is overcoming this constraining view of self-identity. War, conflict, indifference, and cruelty, all arise out of conceptualizing our identity, both individually and culturally, as bounded and singular entities. Within this mindset, we fail to see the “oneness” of all humanity and the “oneness” of ourselves and the universe – instead cultures and individuals segregate and oppose each other and humanity separates itself from nature. Enlightenment involves as a central insight, this understanding and experience of oneness. In *All Connected Now*, Anderson highlights the importance of a growing sense of global consciousness and the theory of open systems (the interconnectivity of all things); in *The Next Enlightenment* Anderson discusses the idea of “cosmic consciousness” as an essential feature of enlightenment. It is important to see that enlightenment means freedom for Anderson. In his history of enlightenment, provided in the first part of his book, he reviews efforts through the ages to free the human mind from the cultural and psychological forces and assumptions that enslave and suppress us.

Anderson synthesizes a variety of ideas in his theory of enlightenment. He pulls together ideas from both the East and West. He sees a thematic connection between the Buddhist ideas of oneness and flow and the Western ideas of interdependency, interconnectivity, and evolution. He discusses “flow” and “transcendence” in the context

of both the western psychology of Csikszentmihalyi and Eastern meditative practices. He sees the value of both rationality and intuition as paths to enlightenment. He supports the openness of New Age spirituality, but critiques the lack of epistemological standards in this movement. He rejects the professed certainty of fundamentalism and argues instead that a key feature of enlightenment is the courageous embrace of mystery and uncertainty in human existence. Identifying a series of “liberation movements” within human history, which include the European Enlightenment, Darwinian evolutionary theory, Freudian psychology, and the Human Potential movement of the 1960s, Anderson believes that enlightenment is a higher level of consciousness, enveloping and transcending earlier stages in the growth of the human mind, that was achieved by some people in the past. He anticipates increasingly more people achieving this state of consciousness and mentality in the future as an expression of the evolutionary development of humanity.

**A New Enlightenment:** Anderson is not the only futurist who foresees a new enlightenment spreading through humanity in the years ahead. I have already described the ideas of Barbara Marx Hubbard, Ken Wilber, Spiral Dynamics theorists, and Mihalyi Csikszentmihalyi, all of whom believe that a new level of consciousness and human mentality is emerging, or at the very least, given the challenges and complexity of our times, should be emerging in our species. One futurist who talks about a Second Enlightenment – the first being the European Enlightenment of the eighteenth century – is Rick Smyre, the director of *Communities of the Future*. Smyre argues that just as new social, scientific, and technological developments occurring during the rise of modernity instigated the need for a first Enlightenment, recent events and changes in our world require a new mode of thinking for handling the new challenges of our times.<sup>256</sup>

Smyre identifies a set of megatrends in contemporary times and a set of principles of thinking and behavior for successfully dealing with these megatrends and the overall accelerative change and complexity in our world. First, the megatrends Smyre describes are:

- Oil production will peak within ten to thirty years, requiring a shift to completely new energy methods.
- The limits to traditional representative democracy are appearing because of the increasing complexity of society, the overwhelming amount of information in real time media, and the need for big money to be reelected.
- The increasing symptoms of global warming are becoming obvious in many different ways.
- Unknown viruses and resistant bacteria are emerging that are untouched by existing medicines.
- Conflict between the trends of aging in the developed world and the increasing numbers of youth in the developing world creates an economic and social time bomb.
- There is an ongoing severe reduction in biodiversity throughout the world.
- We are approaching a moment of “technological singularity” when runaway advances outstrip human comprehension and all our knowledge and experience becomes useless as a guidepost to the future.

- The future vitality and sustainability of the economy and society will be dependent on the ability of leadership to develop cognitive complexity and continuous innovation in the capacities of the citizens.
- There will be an increasing clash of civilizations and rise of terrorism.
- There are three economies in churn at the same time: a) Last stages of the Industrial Economy; b) Twenty-year transition stage called the Creative Knowledge Economy; and c) The early stages of a Web/Networked Economy.
- National borders increasingly will be seamless.
- Artificial intelligence is emerging which, when combined with biotechnology and nanotechnology, may very well transform the concept of what it means to be human.

Although different contemporary writers and futurists may put together different lists of major trends in our times (for example, compare Smyre’s list with Cornish’s super-trends or the Millennium Project’s fifteen global challenges), Smyre does make an attempt to be comprehensive in his list, identifying social, economic, political, technological, and ecological variables in his analysis. Further, in his list Smyre pulls together the ideas of various other futurists and modern writers, such as Huntington, Kurzweil, Freidman, and Rifkin.

When Smyre approaches the question of which principles of thinking and behavior are needed to successfully cope with these trends, he develops a triadic model. First he lists those principles that characterized the First Enlightenment; then he identifies a second set of principles that capture the essence of his vision of a Second Enlightenment, and in general, these new principles are oppositional to the first list; he then adds a third list which attempts to synthesize the polarities of the first two lists. He identifies these principles with an “Integral Society.” His triadic list of principles is:

First Enlightenment

Second Enlightenment

Integral Society

Independent (either/or)	Interdependent (and/both)	Systemic
Self-interest	Help Each Other Succeed	Concomitant Good
Linear Thinking	Connective Thinking	Synthesis and Generation
Static Structures	Modules, Webs and Networks	Dynamic Adaptability
Reductionism	Holism	Connective Analysis
Standard Education and Accountability	Unlearning, Uplearning, and Non-Linear	Transformative Learning
Meaning from Materialism	Meaning from Creativity and Spiritualism	Balance of Values
Competition	Collaboration	Generative Development
Prediction and Certainty	Anticipation and Ambiguity	Parallel Strategic and Ecological Planning
Culture Dumbed Down	Culture Constantly Upgraded	Elegance in Complexity
Mix of Goodness and	Integration of Reason and	Truth and Discovery

Skepticism	Mystery	Coexistent
Debate	Dialogue	Futures            Generative Dialogue
One Best Answer	Choices	Concept    of    Applied Appropriateness
Representative Democracy	Electronic Republic	Knowledge Democracy

There are certain central themes in Smyre’s principles. At least seven of the principles under the Second Enlightenment revolve around the theme of connectedness and interdependence, contrasted with the First Enlightenment emphasis on independence and autonomy. Also, the themes of mystery, uncertainty, change, and transformation show up in several of the principles under the Second Enlightenment. The contrast between linearity and independence and interdependence and holism also corresponds, interestingly, with Nisbett’s major distinction between Western and Eastern thinking, which would seem to imply that the Second Enlightenment involves a shift toward a more Eastern way of thinking.

One of Smyre’s main sources of inspiration is Sally Goerner’s *After the Clockwork Universe*. To recall, Goerner argues that a pervasive shift in both scientific and social thinking is occurring in modern times, away from the Newtonian model of reality as a machine and toward the idea of reality as a web of interdependencies. Goerner’s central idea is connectedness which, in her mind, is pivotal to the emergence of a new “integral culture.”<sup>257</sup> What Smyre attempts to accomplish with his third column of principles, which he labels as “Integral” (inspired by Goerner’s use of the term), is a synthesis of the first two columns, acknowledging that there is value and truth in the First Enlightenment principles – it is simply that they need to be “integrated” and balanced with Second Enlightenment principles.

There are also various parallels between the ideas of Smyre and Goerner and Anderson’s view of the “Next Enlightenment.” Anderson highlights the themes of connectedness and oneness and critiques the psychological mindset of dualism and ego-separateness with the world. Further, Anderson supports an evolutionary perspective on reality and the future development of the human mind. And he believes that the challenges and problems facing us today call for a new way of perceiving and understanding the world.

**Macdonald – Wisdom, Deep Understanding, and *Matters of Consequence*:** Creator and editor of *The Wisdom Page* on the World Wide Web, Copthorne Macdonald presents an integrative vision of important ideas of the past, contemporary issues and trends of today, and a philosophy and action plan for future in his book, *Matters of Consequence: Creating a Meaningful Life and a World That Works*. He attempts to pull together the subjective and objective, science and spirituality, theory and practice, fact and ethical value, and philosophy with politics and economics into a comprehensive proposal for how to transform our present world into a “wisdom culture” for tomorrow. Many of his ideas resonate with theories of the future already discussed, including those of Wilber, Ray, Hubbard, Eastern philosophy, holism, and evolution. Macdonald is especially concerned with facilitating both a global social movement and a transformation of individual lives.<sup>258</sup>

The central theme in Macdonald's writings is wisdom. In his earlier book, *Toward Wisdom*, he states that the development of wisdom is critical to the creation of a better world in the future and that the lack of wisdom and its application is the main cause of contemporary world problems. According to Macdonald, wisdom is a complex, multifaceted set of capacities. It is a holistic quality reflecting the total psychological make-up of a person. He highlights certain key features of wisdom, such as a reality-seeking attitude (a desire to know), a non-reactive mode of behavior and acceptance of reality, a holistic perspective that goes beyond the immediate here and now and the personal, a realization of the oneness of reality, and a disposition to act for the benefit of others and the whole. The wise person sees things clearly, is prudent in action, possesses a deep understanding of the human/cosmic relationship, and, through the application of wisdom to life, achieves happiness and peace of mind. Macdonald also argues that the self-actualizing personalities described by the psychologist Abraham Maslow are paradigm examples of the wise person. Maslow describes self-actualizing individuals as creative, inner-directed, detached, more concerned with things outside themselves, able to give love, and living by a unique set of values, including truth, playfulness, beauty, and self-sufficiency.<sup>259</sup>

In *Matters of Consequence* Macdonald focuses on "deep understanding," which is a particular kind of wisdom. Deep understanding has three fundamental components: A comprehensive intellectual understanding of reality, an inner directed and intuitive self-awareness and understanding, and a capacity for significant "doing" or action. The first two components roughly correspond to scientific and spiritual-psychological perspectives on reality – the objective and the subjective – and, according to Macdonald, both are necessary for deep understanding and, consequently, wisdom. He believes that the insights acquired through these two perspectives can be aligned and integrated into a coherent whole – science and spirituality are not incompatible. For Macdonald, science in general provides answers to factual questions, whereas spirituality provides answers to questions of meaning and ethics. But he also repeatedly states that a deep understanding of the subjective and the objective realms will lead individuals to insight regarding what is ethically correct and what needs to be done to improve the world – a deep understanding of "fact" generates an understanding of value and a call to action. Macdonald connects this theory of deep understanding with the future in arguing that the pervasive development across all humanity of deep understanding (and consequently wisdom) is the next step in human evolution.

In laying the groundwork for his theory of deep understanding and the creation of a positive future, Macdonald provides a comprehensive overview of reality, of both the objective-scientific and the subjective psycho-spiritual. He discusses philosophical ontology (the nature of Being), evolution, complexity, the nature of mind and consciousness, cosmology, culture and society, economics, and biology and ecology. He not only includes reviews of contemporary and classical theories for each of these areas, he also critiques, along the way, various dominant belief systems and practices and proposes fundamental values and principles to guide humanity in the transformation of existing social institutions and modes of behavior. In so doing, he provides a critical analysis of contemporary human problems and creates a set of fundamental principles for transforming the world.

Macdonald believes that it is exceedingly difficult to predict the future of human society. Hence, he suggests that we should focus on envisioning what we believe is a

preferable or ideal future and then work toward realizing this vision. In this regard he provides a detailed “Year 2050 Vision,” which includes an extensive list of transformative principles and actions for achieving this vision. First, he envisions humanity developing a much greater cosmic and global understanding and appreciation of reality (following from his concepts of wisdom and deep understanding). He foresees an upswing in the quality of life for humanity and much less of a concern with material possessions and consumption. Sustainability will continue to increase in importance as a fundamental value of human life. There will be an increase in creativity, learning, and psycho-spiritual development. In general, we will do more with less and increasingly pursue a “full rich life of mind.” Also, Macdonald foresees the universal provisioning for all people and a more equitable distribution of wealth. In general, he argues that the pursuit of wealth is one of our most problematic contemporary values and needs to be significantly diminished in importance. He questions the need for continued material growth –has it bought human happiness? – and argues that our overall sense of the quality of life needs to incorporate more psychological, social, and spiritual values with less of an exclusive emphasis on economic and technological development. There will be a new balance of work and leisure, with ample time for the pursuit of individual interests and self-development. Our economy will move more toward a focus on the inner life and inner experience, and eventually human transformation. For Macdonald, the ideal world of 2050 will be much more politically stable, with the emergence of world governance, “pooled sovereignty” among nations, and a dominant spirit of cooperation and collaboration over war and competition. He envisions the continued replacement of dictatorships with democracies and increasing equality and general human rights for all people. Macdonald even suggests that intellectuals, philosophers, cultural leaders, and writers should pursue political careers, for our future needs wise leaders who possess deep understanding, highly developed ethical characters, and a capacity for seeing the long view of things. As another basic point, Macdonald supports Rabbi Michael Lerner’s contention that the main world problem is the “globalization of selfishness” and that the ideal future should involve a “globalization of spiritual consciousness.” For Macdonald, we live in a “spirit-denying society” and this attitude needs to change. Finally, Macdonald wishes to emphasize that his envisioned world transformation needs to occur at both the individual level and the collective global level – in essence, a combination of top-down and bottom-up approaches.

Following from his ideas on wisdom and deep understanding, Macdonald clearly supports certain fundamental values in both his critique of contemporary times and his vision of an ideal future. He values cooperation and concern with the whole over selfishness and self-centeredness. For Macdonald, we must identify with the “ONE” and the “ALL.” He values a balance of spirituality and the inner life with science and materialism, though he is highly critical of the excessive materialism of the modern world. He values expansive and deep understanding as an absolute necessity in guiding our actions and creating our future. He speaks of a “mind-directed” evolution for humanity. For Macdonald, the human mind needs to evolve. Although he argues for the value and importance of science, ultimately he sees humanity as “spirit” – a manifestation of the cosmic spirit in evolution. Finally, he strongly argues for “massive change” in our present world if we are to realize a positive future.

### **Summary and Conclusion:**

## **Future Consciousness, Evolution, Reciprocity, Spirituality, Virtue, and Wisdom**

In the final section of this chapter I highlight some of the main themes contained in the preceding review of theories and paradigms. Also, I highlight some of the main issues and disagreements among the different viewpoints. As I proceed through the summary I evaluate the theories and identify what I believe are the most valid and valuable ideas among the different viewpoints.

From the first section on theories of time and change, one central disagreement concerns whether human reality should be viewed as fundamentally transformative or static. This disagreement is what Postrel refers to as the clash of “stasis” and “dynamism.” Although there may be features of the universe that are stable (for example the laws and physical constants of nature, but even this is open to scientific debate and further investigation<sup>260</sup>), it seems that the overwhelming evidence supports a transformative view of human reality and the universe as a whole. Both nature and humanity have a dynamic and transformative history.

Static visions often wish to uphold and defend values, belief systems, and ways of life that are grounded in traditional or ancient cultures and doctrines. Clearly there is considerable wisdom to be found in our diverse cultural heritages, and although we shouldn't, as many of their followers would argue, accept such traditional ideas and practices as authoritative and absolute, we should thoughtfully consider their potential validity and value. The future should not reject the past – at least to some degree the future needs to envelop and learn from the past.

Throughout recorded human history, there have been repeated conflicts between those who wish to preserve the status quo, if not even return to past practices and beliefs, and those who argue and push for change and revision. Often it is those in power who wish to preserve continuity and those who wish to gain power that advocate for something new and different.<sup>261</sup> The future seems to unfold as a result of the ongoing clash between the old and the new – each stance, in fact, seems to trigger and intensify its antithesis. In a world of rapid change, it is understandable that many people wish to defend and preserve tradition and traditional sources of power. It is highly probable that the future will continue to exhibit this “dynamic tension” (to borrow a term from Eamon Kelly) between the philosophies of stability and change. It is a basic dynamic of the human mind.<sup>262</sup>

Based on evidence accumulated from a great variety of different sources and scientific disciplines, it seems that evolution is unequivocally the best theory we presently have regarding the transformative nature of reality. Although we may not understand all the details, or even all the basic principles, involved in the evolutionary process, both our history and our future are probably best understood in evolutionary terms. Further, evolution seems to apply not only to biology, but to the broad features of the cosmos as a whole, as well as human history and the ongoing transformation of our species. As Wright and others have argued, aside from biological evolution, there has also been cultural evolution. Although there is ongoing debate over whether evolution is progressive, there appears to be a variety of indicators, such as increasing complexity, individuation and integration, and even intelligence, that demonstrate a progressive direction to evolution. Also, evolution seems to be evolving and accelerating, and humans will probably play an increasing role, in a purposeful and conscious way, in

guiding evolution. There is, of course, a debate over whether we should attempt to technologically alter ourselves or nature, but the argument against purposeful evolution seems to rest upon a static view of humanity and nature, which I believe is factually wrong. Another reason for thinking we will engage in purposeful evolution in the future is that we have been engaged in it throughout our entire history, along a variety of psychological, social, biological, technological, and even spiritual lines. It is not something new; we simply are developing more powerful means for doing it. Yet, given the conflict and dynamic tension over stability and change within human society, it is probable that many individuals will resist transformation, creating an amalgamation of the old and the new in future humanity.

The future evolution of humanity is not a given, though; there is an element of uncertainty and possibility in the future. Although there are general laws of nature that structure and determine, to a degree, the course of events in nature, there are also elements of indeterminism, emergent novelty, and choice in the unfolding of time. Based on both contemporary thinking regarding the limits of human knowledge, as well as modern scientific theory regarding the probabilistic and open-ended nature of reality, it seems to me that no one can have absolute or certain knowledge of the future. Future consciousness is tentative and contingent. As Macdonald “strongly suspects...no one has ever been completely out of the dark.” Contrary to teleological views of the future, I think that the future is yet to be determined and no one can possess certain knowledge about it. It is yet to be. Teleological views of the future provides mental security, but the future is inherently risky and an adventure.

Even if it makes sense to support change and further growth and evolution in the future, growth and change need to be sustainable in the long run. Thinking about long term sustainability is an expression of advanced future consciousness. Although our modern world, with all of its positive qualities, is a result of the progressive theory of the future developed during the European Enlightenment, it seems clear that there were elements of short-sightedness in this vision of the future that need to be rectified (for example long term environmental impacts of industry were not sufficiently thought through). Also, the philosophy of growth and change should to be tempered and guided by considerations concerning the overall quality of human existence. If change and growth is frenzied, thoughtless, or motivated by questionable short term values it can damage both human society and the world at large. Our future evolution needs to be guided by our scientific, social, and ethical understanding of human nature and the environment in which we live. Critics of our fast paced world and our modern obsession with continued growth and development make some valid points.

Developments in science and technology are of critical importance in understanding the future. I believe that built into us is a drive toward increasing our knowledge of the cosmos and ourselves, and that knowledge empowers and benefits the human species. Macdonald lists cosmic understanding through science as one of the key features of wisdom. Science is open-ended, though, and there is probably no end to its future development. Still, in the last 300 years, science has revealed more about the nature of reality than was discovered throughout all of previous human history. Science may not be the only valid way of knowing, but it certainly has demonstrated its power and value. Further, technology seems intrinsic to human nature; we make things and use our inventions to enhance and enrich our ways of life. As Andy Clark argues, we are “natural-born cyborgs” and we have been since the origins of our

species. Both science and technology have had a powerful impact on human society, and all indications point to an even greater influence on us in the future. We are in the midst of a Second Scientific Revolution and this revolution will change the way we think about ourselves and reality and will stimulate, in the coming years, a whole host of new technological developments. In the relatively near future, technology will in all probability be used to transform human nature and perhaps provide the means for the creation of other intelligent and conscious beings. As Garreau and others have argued, computer technology, nanotechnology, biotechnology, robotics, and cognitive/brain science will all contribute to the “radical evolution” of humanity. I think that Kurzweil and others are correct - technological development and its growing interface with biology is an integral and newly emerging feature of the evolutionary process.

We can expect that various waves of technological innovation – running the full gamut from computers and robots to genetic and ecological engineering – will repeatedly transform the world around us. As Wells stated, we may be only at “the beginning of the beginning.” We are developing a global nervous system – the Internet – which will support the monitoring and coordination of both human and ecological activities around the world. Will this lead to some type of global mind or Omega Point, as Chardin envisioned? Further, it seems as if robots will become ubiquitous throughout all spheres of human life in the near future. And if nanotechnology fulfills its promise, the world in the future will be transformed into a highly fluid, intelligent, and flexible medium for evolution and creation. And there will be other technologies, yet to be perfected, or even imagined, such as quantum computing, that will emerge in the decades and centuries ahead.

I would propose, though, that humans and technology form a reciprocity – each influences the other and quite literally depends upon the other for its existence and continued development. Humans and technology co-evolve. Hence, the future is not just advancements in technology – the human mind, human values, and the human spirit must also be brought into the equation in predicting the future. In creating a realistic and ethical vision for the future, as well as a holistic (or integral) image of human existence, we need to strike a balance between humanistic and technological concerns. Advances in technology should inform our ethical decision-making, but our psychology, our social concerns, and our ethics needs to guide our technological development. One of the great issues and challenges of our time is to put more of an emphasis on the humanitarian uses of technology.

Ecological and naturalistic theories of the future highlight the importance of taking a holistic, interdependent, and interactive view of humanity and nature. The principle of reciprocity again seems to be a key idea in understanding the nature of the world in which we live. We must think about the totality of nature and the interdependency of all things in envisioning the future. Yet in so doing, I think it is a mistake to view nature as static and intrinsically harmonious – as something that can be preserved. As I argued above, nature is dynamic and evolutionary and, I should add, filled with competition and conflict. Perhaps we can guide nature, but we can not contain it. Further, to believe that we can retreat to a pre-technological state and live in harmony with nature is regressive and naïve. We are technological beings and we are inextricably in the business of influencing nature; (but then all of nature is in the business of influencing nature – there are no innocent bystanders); we may as well influence nature in a thoughtful and ethical fashion.

We need to journey into outer space to realize our place in the cosmos and achieve a cosmic understanding of reality. We will never grasp the big picture if we stay situated in one tiny spot in the universe. Knowledge requires exploration. To break out of our narrow and egocentric view of reality, humans need to explore and settle the solar system, the stars, and even the galaxies and the universe. This mind-boggling journey is an essential expression of our drive to know; it is perhaps, as many futurists argue, how we will actively participate in the evolution of the universe. It is a spiritual quest as well. Perhaps it will be robots, or genetically re-engineered and technologically augmented humans who will travel into the cosmos, but in one manner or form, we need to spread our wings and set sail into the ether.

Finally, on the science and technology theme, a real question for the future is whether humanity will be transcended by intelligent or “spiritual machines” – the thesis of Kurzweil. Clearly humanity will be significantly transformed through technology in the coming centuries, but perhaps as Vinge argues, there will come a point where our descendents will be so technologically enhanced and different from us, that indeed, from our present point of view, we will no longer be human and will have become “machines.” But then I think that what a machine is will dramatically change in the future. I think that the “technological singularity” will sooner or later come, at least in the sense that minds and collectives of minds of the future will, in some important ways, be incomprehensible to us from our vantage point today. This event will mark a watershed in evolution, as great in significance as any other event in the history of the earth, if not the cosmos.

One thing seems certain - human nature is not a constant, and with the ongoing changes in technology and human society, it is critical that we psychologically evolve. Theories of how humans can or should evolve in the future need to be an essential feature in any comprehensive theory of the future. Psychological theories, such as those proposed by Seligman, Csikszentmihalyi, Wilber, Anderson, and O’Hara, need to be integral to the ongoing dialogue on the future. Seligman, I believe, makes a provocative suggestion in connecting psychological change with ethical development. Human evolution will involve technological augmentation, biological enhancements, psychological and mental transformations, and ethical and spiritual developments. Individual growth will occur in reciprocal interaction with social and cultural changes. Human organizations will be transformed as well, as human psychology evolves.

One key area of debate within social and cultural theories of the future revolves around the relative importance of unity, globalization, community, and conformity on one hand, and individuality, diversity, cultural pluralism, and freedom on the other hand. This debate goes back at least as far as the European Enlightenment. There is the ongoing worry that unification undermines individuality and freedom. This concern over assimilation into the whole is described in Friedman’s *The Lexus and the Olive Tree* and Barber’s *Jihad versus McWorld*. But there is the reverse concern, perhaps best expressed in Putnam’s *Bowling Alone* that Americans, at least, are becoming too disconnected and our sense of community is deteriorating. While many fear that we are becoming too interconnected (without any space to breathe), others critique the excessive, self-absorbed individualism of the modern world. Following Bloom and Graves, as well as many earlier writers, we can interpret these opposing concerns and values as a fundamental and ongoing dialectic in the history of humanity. Using Kelly’s

terminology, we could describe individualism versus communalism as a fundamental “dynamic tension” in contemporary times.

There are some writers, such as Henderson, Naisbitt, and Stock, though, who see this as a false dichotomy, and believe that greater social order and connectedness will strengthen diversity and freedom. A common expression in our times is “unity through diversity.” For Friedman and Naisbitt, globalization empowers the individual. The dialectic or tension of individualism and communalism perhaps serves both ends of the equation; through the continual conflict of individuating and integrating forces in human reality, both dimensions are further developed and enhanced. Paradoxically, we become increasingly integrated and diverse over time. It seems to me that this tension in human affairs will continue indefinitely into the future, and even if it is oppositional in nature, it is a basic *Yin-yang* of human existence where each side fuels the evolution of the other. Individuality and social organization reciprocally evolve.

There is uncertainty concerning the degree to which humanity can or even should further integrate in the foreseeable future. There is the argument presented by Postmodernism and Creative Chaos that a multiplicity of points of view and ways of life is unavoidable and, in fact, beneficial to the freedom and flexibility of the species. There is the argument that war and violent conflict is either intrinsic to human nature or a deeply entrenched feature of human nature.<sup>263</sup> Finally, there is the strong possibility that with the potential dispersion of humanity into outer space, as well as the increasing use of genetic engineering in the human species, humanity will differentiate and separate even further than today.

Connected to the theme of integration and differentiation is the general question of how human society in the future will achieve a better balance of power and affluence among all the diverse people and cultures of the world. The West has been criticized for creating a lopsided distribution of power, wealth, and social status that centralizes control in aggressive and highly competitive white males. Feminist thinkers like Eisler argue for an equality of status and influence between females and males and a balance of partnership and competitive modes of thought. Many critics of globalization argue that it is a Western creation and it is the wealthy in the West who most benefit from it. Economic globalization is a form of Western imperialism and colonialism. In spite of Friedman’s claim that the world is flattening, I think Florida is more on target in arguing that the world is exceedingly spiky. Most writers on this issue argue that future humanity needs to be much more egalitarian and democratic than the elitist, power-centered, and supremacist social organizations of the past. Poverty versus prosperity is one of Kelly’s basic tensions and one of the key challenges identified in the Millennium Project.

Another ongoing issue in social-cultural theories of the future, which in fact goes back at least to the nineteenth century, is the power and value of capitalism. Critics point out how capitalism generates increasing inequality, turns everything into a commodity, reinforces greed, and produces a society of consumers. The writers of *Affluenza* strongly argue for all these points, but so do many other social critics associated with New Age, Cultural Creative, Integral Culture, and environmentalist perspectives. Supporters of capitalism, for example, the writers of *The Long Boom* and Thomas Friedman, argue that this economic system has an overall beneficial effect on the quality of human life. D’Souza summarizes the varied arguments of both sides of this controversy. In general, capitalism seems to be a mixed blessing. I think, though, that the most valid criticism of contemporary capitalism and consumerism is that we live

in a world where the economic sector has a disproportionate amount of control over human life – it dictates too much how we live and what we ultimately value. Many visionaries of the future, past and present, wrestle with how to rectify this failing of the system, how to counter-balance its incredible power, and what to put in its place. The making of money and the buying of things should not be the central defining answer to the meaning of life.

Religious and mythological visions of the future are the oldest recorded theories and paradigms of the future. Such visions, in spite of all the changes that have occurred in human life over the last five thousand years, are still the most influential views of the future among humanity as a whole. Modernists and secular thinkers frequently see traditional religions as archaic and authoritarian systems of thought control. Yet, there clearly is something about religious belief systems and practices that connect with the human soul and psyche. As I argued earlier, religious myths provide personalization, narrative meaning, ethical direction, and they resonate with the heart and human emotion. Further, many of the themes in religion and myth provided the conceptual and theoretical foundations for more modern ideas about reality and the future.<sup>264</sup> Religion, myth, and spirituality, I believe, will not disappear in the future.

I think, though, that religion, myth, and spirituality need to evolve.<sup>265</sup> In our contemporary world, as Kelly, Anderson, and others have pointed out, there is the ongoing, if not intensifying conflict between fundamentalist religions and secular – humanistic – scientific ways of thinking. Additionally there is the conflict between fundamentalism and mainline religion, which emphasize conformity and obedience to a singular doctrine and creed, and New Age spirituality, which supports individuality and the incorporation of multiple and varied religious views. It seems to me that fundamentalist religions have the strengths of bringing unity, focus, and clear purpose to their followers, but at the expense of remaining closed and authoritarian, oblivious or antagonistic to science, and opposed to individual thought and expression. The clash of creationism and theologically motivated intelligent design thinking with evolutionary science is one paradigm example of how fundamentalism doggedly resists coming to terms with science and opening itself to growth and transformation. Fundamentalist religion has lost the sense of mystery and adventure, critical to our attitude toward the future. Although there is a great value in the diversity of religious and spiritual points of view in the world, the absolutist quality of fundamentalist religions works against any progress in finding common ground among religions or realizing a global spirituality. Fundamentalism opposes diversity of points of view and creates divisiveness. New Age thinking, in its liberalism, at least works toward a sense of mutual appreciation of points of view.

Hence, it seems to me that the keys to growth and constructive evolution in religion, myth, and spirituality involve the incorporation of scientific ideas about reality, the relinquishment of absolutist thinking, and the willingness to open up to the potentially equal value and validity of different religious points of view. As I suggested earlier, science fiction provides a way to integrate futurist imagination and scientific and contemporary thinking with the “power of myth.” I think that efforts to integrate evolutionary and scientific thinking with concepts of spiritual growth and the nature of God, as for example presented by Chardin, Tipler, Macdonald, and Wilber, are of great value in this regard.

Following from the ideas of balance and reciprocity, valid and constructive theories of the future should take into account and integrate all the major dimensions of human reality, and further, should place the ongoing saga of human history within a cosmic context. As holistic philosophy and open systems theory emphasizes, everything in nature is interconnected and, hence, we should understand how all the different aspects of human reality impact each other, and how the whole human condition connects with the cosmos. Recall that one of Macdonald's key defining features of wisdom was a comprehensive and cosmic understanding of humanity and reality. A wise approach to the future will be comprehensive and cosmic in scope. This is not to imply that individuality, disharmony, pluralism, and chaos are not important features of human reality and nature. (This issue has already come up in the previous discussion of human society.) These features of existence must also be incorporated into an "integral theory" – part of the whole is the dimension of fragmentation. Still, the general point is that placing too much emphasis on one dimension of reality, be it technology, economy, science, politics, or religion, is to miss essential features of the total reality of the future and the overall interdependency of things. Efforts to create an integral culture or philosophy for the future have value. Efforts to place the future of humanity in a cosmic context, such as that created by Zey, Tipler, and Macdonald, are essential – our vision of the future must not be earthbound.

From the writings of Nisbett, Wilber, Shlain, and Macdonald, among others, it is clear that there is a certain fundamental balance in thinking that needs to be cultivated now and in the future. Following from Nisbett, a balance of Eastern circular-holistic and Western linear-analytic thinking is critical for our global future. Wilber and Macdonald highlight the importance of both subjective and objective perspectives on reality. Shlain focuses on the importance of both visual-image and linear-linguistic thinking. From my arguments earlier in this book, the mythic and the scientific should be balanced and integrated, as is the case in science fiction. Kelly makes the general point that the future requires both/and thinking, as well as either/or thinking – which in essence, is Nisbett's position. But then all of these arguments for complementarity and balance are examples of both/and thinking – captured in the Eastern idea of the *Yin-yang*. (One could include the masculine and the feminine in this set as well.)

Kelly's ideas on dynamic tensions and both/and thinking underscore another key feature to keep in mind when we theorize and think about the future. Throughout human history there have been innumerable dynamic tensions – conflicts of opposites as Hegel would describe it. Taoist philosophers conceptualized the fundamental polarities of human existence in terms of the *Yin-yang* – opposites that are united in an ebb and flow of dominance and submission. As in the past and the present, the future will be a both/and – an ongoing tension and opposition of conflicting forces and belief systems. In the broadest, deepest sense there will never be total peace and harmony.

As noted earlier, one ongoing conflict in human history is between stability and the past, and change and the future. Yet in order to understand the future, the past and future must be brought together; we can not see the future very well from the narrow confines of the present. Understanding history and placing the contemporary transformation in a historical, developmental, and evolutionary context is an essential dimension of an integral philosophy for the future. Writers and futurists such as Barbara Marx Hubbard, J.T. Fraser, Robert Wright, Ken Wilber, and Howard Bloom all attempt to

ground their theories of the future within historical and developmental frameworks. Part of future consciousness is historical consciousness.

The future should be conscious of the past, envelope it, and incorporate its wisdom and teachings, but the future needs to transcend the past. A common argument among futurists, social commentators, and other visionaries is that we need a new way of thinking to live and thrive in the future. In spite of numerous economic, technological, and social advances in our contemporary world, many people argue that we are beset with a host of problems and challenges that require a significant change in our mindset for their solution. Writers such as Anderson and Smyre believe we need a New Enlightenment. Both writers derive at least some of their inspiration from the past, but they also both incorporate new ideas, for example, open systems thinking and evolution, into their descriptions of the basic principles of this New Enlightenment. I think that it is particularly valuable that Anderson tries to pull together Eastern and Western views of enlightenment and that he sees enlightenment as an ongoing quest and evolutionary direction within human history.

What would be the basic principles and features of a New Enlightenment? Based on what Anderson and Smyre argue, and incorporating many of the key themes highlighted in this summary of theories of the future, I would suggest that a deep sense of the dynamic, fluid, open-ended, mysterious, self-transcendent, and evolutionary nature of reality is essential to the New Enlightenment. I think that this first dimension of the New Enlightenment provides the key to synthesizing the valuable insights of science, religion, and spirituality. We are on a journey, an odyssey, with a sense of beyond-ness toward the transcendent. Macdonald lists this dynamical and open-to-mystery perspective on reality as a key feature of wisdom. Second, a clear sense of the reciprocity of all things, of the balance between the complementarities of nature, such as individuality and integration, and order and chaos, and between the complementarities of the human mind, such as reason and intuition and analysis and synthesis, would also be a critical feature of the New Enlightenment. (Although the expressions “connectedness” and “oneness” are often suggested to capture the holistic nature of reality, part of a truly holistic sense of reality is to see the individuation and disconnectedness within reality as well.) Third, there should be an expansion of consciousness – a moving away from an egocentric, immediate here and now perspective – toward a global and cosmic consciousness and an enhanced temporal consciousness of both past and future. Fourth, and this point connects back with the idea of reciprocity, the New Enlightenment, on one hand, will undoubtedly be bound up with a technologically enhanced human mind and human society, and on the other hand, an evolved ethical dimension within humanity. It will be cyborgs - highly virtuous cyborgs - within a technologically interconnected environment that will realize the New Enlightenment. Following Seligman, I would propose that the pursuit and development of virtues is the key to finding happiness, meaning, and purpose in life, and creating a positive future. The evolution of virtue will provide the necessary counter-balance to technology and materialism in generating a more comprehensive perspective on the meaning and quality of human life. Part of the New Enlightenment will be an ethical evolution – a development in human virtues.

I particularly think that a new and re-energized conception of the virtue of wisdom, incorporating many of the basic features of the above description of the New Enlightenment, will be critically important to the future of our species. In support of

Macdonald, I think that the cultivation of wisdom is an essential ingredient to creating a positive future. Wisdom integrates intellect, emotion, and action. Wisdom is grounded in an expansive awareness of the whole that acknowledges and values other people and their points of view, and involves the recognition of human fallibility and the need for courage, faith, and tempered optimism in the face of the uncertainty of the future.<sup>266</sup> Wisdom is the highest expression of human development and future consciousness. If our minds are evolving and we are moving toward a New Enlightenment, then I would suggest that the essence of the New Enlightenment will be the individual and collective development of wisdom.

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