

Wendell Bell and Oliver W. Markley: Two Futurists' Views of the Preferable, the Possible and the Probable

Darrell Kicker
University of Hawai'i at Manoa
USA

Abstract

William Bell (Professor Emeritus of Sociology, Yale University) and Oliver W. Markley (Emeritus Professor of Human Sciences and Studies of the Future, University of Houston-Clear Lake) are two of the great thinkers and practitioners in the discipline of Futures Studies. In this essay, these two eminent futurists are introduced and their works summarized in terms of their images of the future, theories of social change, methods of forecasting, and preferred futures. Although differences are evident in both the theoretical and practical aspects of their work and contributions, both offer an optimistic view of the potential for Futures Studies to bring about positive social change.

Keywords: images of the future, social change, forecasting, preferable, possible, probable

Wendell Bell and Oliver Markley are two prominent futurists whose backgrounds and research activities truly illustrate the depth and breadth of the field of futures studies. I had the privilege of learning about Dr. Bell and Dr. Markley thanks to a research assignment by my University of Hawai'i professor—Dr. James Dator—who is a giant in the field in his own right. For newcomers to futures studies, it is hoped that this essay will introduce two leaders to whom all futurists owe a great deal. (For those seasoned futures studies practitioners already familiar with Bell and Markley's work and contributions, perhaps the essay will serve as a review and a reunion.)

Wendell Bell spent his professional career at some of the most respected institutions of higher education in the country—Stanford, Northwestern, UCLA and Yale. He was trained as a sociologist as a graduate student, but he had come to depend upon observable, verifiable data even before he had completed high school. He has taken great pride in cataloging the various empirical methodologies used in futures studies—systematic extrapolation of time, cohort-component methods, the

Delphi method, simulation and modeling, gaming, monitoring, scanning, participatory futures praxis, ethnographic futures research, the scenario, etc (Bell, 2005b, p.115). His landmark two-volume publication, *Foundations of Futures Studies: Human Science for a New Era*, is a documentation of his work and his observations and conclusions regarding futures research.

Oliver W. Markley was trained as an engineer and then as a social psychologist—he is a "social engineer," as he puts it. He began developing his skills in the areas of creativity, cognitive development, and human potential at SRI International and continued in this line of futures research as chair of the Studies of the Future graduate program at the University of Houston–Clear Lake. He is now deeply involved in methods of futures research such as "Inward Bound" (<http://www.inwardboundvisioning.com/>), "The Integrity Project" (<http://www.inwardboundvisioning.com/IntegrityProject.html>), and "Field Training" (<http://www.fieldcenter.org/>) that recognize the role of transformations in consciousness in achieving social change.

Both of these futurists were born in the Midwest but came to live in California as children (Bell at age 4 and Markley at 12). Both received their bachelor's degrees from California State University—Bell at Fresno State and Markley at San Diego State. Markley went on to earn masters and doctoral degrees from Stanford and Northwestern. Bell earned his master's and doctoral degrees from UCLA, but he taught at both Stanford and Northwestern.

As for other similarities, both Bell and Markley are devoted to making the world a better place and to improving the quality of life for all of humanity. (Perhaps these are traits shared by all futurists.) And yet, both express some disillusionment over the current state of futures studies. In personal correspondence, Bell wrote that he is disappointed that the standards of futures studies work have not been raised to the highest standards of the empirical social sciences. This echoes the section in *Foundations of Futures Studies* on the lack of a professional code of ethics for futurists. He noted that some futures work is not as good as it could be. Likewise, Markley commented that he does not believe the discipline of futures studies is living up to its potential. As a result, he says he has made the decision to withdraw, to some extent, from being an "active futurist" in order to concentrate on activities that he feels may have a more significant impact.

In this essay I will introduce these two eminent futurists as I discuss their backgrounds and how they came to hold the views they hold today. The essay is organized around the following four primary themes:

- Images of the future
- Theories of social change
- Methods of forecasting
- Preferred futures

Wendell Bell

Wendell Bell is one of the giants of futures studies. Richard Slaughter calls him "one of the most productive, articulate and respected members of the international futures community" (Slaughter, 2007, p.95). Perhaps more than other noted futurists,

"it is Bell who has married a comprehensive explanation of the field...to a rationale for applying empirical futures research" (Stevenson, 2003, p.284). His two-volume *Foundations of Futures Studies*, published in 1997, is possibly the best resource available today for anyone wanting to learn/discover the field of futures studies. In his review in *Contemporary Sociology* (1998), Arthur Shostak lauds this "audacious" publication as a "seminal contribution" to the field. On a more personal note, Bell writes that the main things he has learned as a sociologist-futurist are skepticism, moral courage, the importance of social order, and the importance of hope (Slaughter, 2007, pp.99-100). Bell is currently Professor Emeritus of Sociology at Yale University, having served as a Professor of Sociology there for 32 years. He is the author or co-author of nine books (with a collection of essays, a memoir, and a novel in process) and over 200 articles.

Background

Wendell Bell was born in Chicago in 1924 to a 19-year-old mother and a 19-year-old father. But in 1929 when he was just four years old, his mother and his grandmother left their husbands at the same time and moved together to Fresno, California.

The two things that most influenced Bell growing up in Fresno were reading and working. As a single mother struggling to make ends meet and support her family, his mother did not tolerate idleness. He was encouraged (his words are "prodded and nagged") to work after school and during the summers. At age 10 he sold magazines door-to-door. Then he worked after school bagging and labeling candies for a small candy distributor. Later jobs included clerk and fountain server at a pharmacy, salesman in a men's clothing store, cleaning and repairing cash registers, as well as various jobs characterized by hard physical labor—digging weeds from vineyards, picking and loading peaches (until the boss found him to be more productive at accounting and record keeping!), scraping squeezed olives out of the vats at an olive oil factory, and working on a "bull gang" at a railroad yard unloading the contents of freight cars and trucks into a grocer's warehouse. These early work experiences are recounted in Bell's memoir in process, and he credits them with making him interested in "the inequalities and injustices of race, class, gender, and power in the everyday lives of people" and motivating him "to understand the world through the eyes of others" (Bell, 2007, p.2).

Not only was he a hard worker, Bell was a voracious reader. While his mother reluctantly tolerated his reading, she did not encourage it—equating reading with "doing nothing." Bell gives his mother much of the credit for his passion for reading, however, as her opposition motivated him to read even more out of sheer rebellion (Bell, 2007, p.2). During Bell's two and half years as a cadet at Raenford Military Academy near Encino, he spent much of his free time during the week and on weekends reading the hundreds of books he found in Raenford's excellent library. I found particularly telling his account of reading *New Frontiers of the Mind* by J. B. Rhine. Bell decided to replicate Rhine's experiments with "ESP cards"—first testing his own potential abilities, and then using his fellow cadets as subjects in various ESP experiments. After hundreds of tests, he concluded that neither he nor any other of his other subjects had ESP. Disappointed and disillusioned, he decided that Rhine was either a

phony or incompetent. This was, perhaps, a significant turning point in Bell's outlook on life and science. Reflecting on that time in his life, he relates:

I became skeptical and an empiricist. When confronted with claims of truth, since Raenford, I say, 'Show me the data.' I want to take a critical look at the methodology and the data before I believe in the results (Bell, 2007, p.5).

Bell returned to public school in Fresno for his last year and a half; the attack on Pearl Harbor occurred during his senior year of high school. He had enough credits to graduate early and opted to do so—in January, 1942—in order to enlist in the Naval Aviation Cadet Program. But he was told to come back when he was 18. Bell did just that, enlisting in September, 1942. He was not called to begin training until May, 1943. Looking back now, he says he realizes that this waiting very possibly saved his life (Bell, 2007, p.6).

Bell spent three years on active duty in the Navy. While stationed in the Philippines, he experienced firsthand the importance of forecasting as a Navy pilot flying into typhoons to gather data. According to Bell, this experience contributed toward his becoming a futurist later in life (Bell, 2007, p.7).

Bell's images of the future

Bell earned his bachelor's degree in Social Science from California State University, Fresno in June of 1948. Following the advice of an influential English teacher who had suggested he go into sociology, he was accepted for graduate study at UCLA (Bell, 1969, p.221). His dissertation was on the "social areas" of Los Angeles and San Francisco and the social variables that characterized the various neighborhoods in these cities. He continued his research on social areas and social choice while working as a professor at Stanford and then at Northwestern. In Chicago in the mid-1950s, he focused on the new trend at that time of moving to the suburbs. One of the reasons people were deciding to move from the city to a suburb was their image of the future. "They moved to the suburbs for a better place for their children, for a sense of community, and for larger and better housing—and that was what they found and also *what they helped to create* once they got there" (Bell, 2007, p.9).

Another significant event that led to Bell becoming a futurist was his decision to do a social area analysis of Kingston, Jamaica. What he found upon first arriving in Jamaica in the summer of 1956, however, was a country in transition from British colony to independent state. He writes, "I confess to becoming totally caught up in their excitement, in their hopes, and in some cases their fears, for the future" (Bell, 2007, p.10). He switched the focus of his research to leadership and political change (Bell, 1969, p.232). Over the next 25 years, Bell's research expanded beyond Jamaica to the whole of the West Indies, based on the organizing principles of democratic revolution, decisions of nationhood and images of the future.

Bell and his colleagues proposed 10 "Decisions of Nationhood" with which all new nations are faced:

1. Should we become a politically independent nation?
2. How much national sovereignty should the new nation have?
3. What should the geographical boundaries of the new nation be?

4. Should the state and the nation be coterminous?
5. What form of government should the new nation have?
6. What role should the government play in the affairs of the society and of the economy?
7. What should the new nation's external affairs be?
8. What type of social structure should the new nation have?
9. What should the new nation's cultural traditions be?
10. What should the national character of the nation's people be?

This approach is a reflection of what Bell believes to be the absolutely vital role that the people of a nation play in imagining their preferred future—even to the very issues of social structure, cultural traditions, and national character. Nation-states do not just happen, they are *made* to happen; these decisions emphasize the process of becoming, and of the emerging future (Bell, 1969, pp.240-241). In fact, Bell states that no theory of society and social change is complete if it does not incorporate the idea of the "image of the future" (Bell, 2002, p.38). Through studying these decisions of nationhood, he came to understand that the general principles of futures thinking played a role "in individual and collective decisions everywhere, in all settings and all situations" (Bell, 2005b, p.117).

The role of the futurist, then, is to encourage people to explore alternative futures and to construct images of the future. And in so doing, people become more competent, effective and responsible actors, both in their personal lives and in their organizational and societal roles (Bell, 2002, p.39).

Another of Bell's ideal images of the future includes the spread of futures studies into colleges and universities—as centers, institutes, and mainstream Departments of Futures Studies, along with the spread of futures thinking into other departments (social sciences departments, Environmental Studies, Engineering, Law, Medicine, Architecture, etc). He envisions the systematic and rigorous study of "the possible, the probable, and the preferable" (Bell, 2002, p.50). More recently, however, Bell has expressed doubt that Departments of Futures Studies will be successfully established at colleges and universities. In an email message, he writes that he hopes, instead, for the establishment of interdisciplinary centers for futures studies with people holding joint appointments in a variety of different departments.

Bell's Theory of Social Change

Many of Bell's views on social change and human agency are summarized in his chapter in Dator's *Advancing Futures: Futures Studies in Higher Education*. In that chapter titled, "Making People Responsible: The Possible, the Probable, and the Preferable," Bell writes that a theory of social change must include people as "active, purposeful, responsible, and creative beings whose future-oriented behavior has consequences for their own lives and for social structures and cultures" (Bell, 2002, p. 37). Futurists help people achieve more desirable futures by encouraging them to look beyond the familiar, to incorporate medium and long-term visions in decision-making, to use their imaginations and to plan deliberate actions.

Bell notes especially the value of futures thinking in teaching and research. Students need instruction in making good life choices and their teachers help them by

emphasizing the following three things:

1. How to search for possible and probable futures (for themselves, groups, societies, the entire human community) and why this is important; how to more accurately forecast the future outcomes of their own actions and inactions
2. How to select preferable futures; the importance of moral judgments and how to put them to objective test
3. The importance of critical discourse, of open and free discussion and exchange of views; the use of reason and a willingness to change one's mind when warranted by the evidence¹ (Bell, 2002, pp.45-46)

Helping students (and others) with these skills is critical because social change can only occur if people can conceive of it. Human agency is the key to social change.

Bell's theories of social change and ideas about human agency are also reflected in his call for a critical realist theory of knowledge for futures studies. Critical realism, a post-positivist and post-Kuhnian epistemology, arose from the critiques of positivism and from humanistic critiques of scientism. It is to some extent a synthesis of positivist and postpositivist views. Unlike positivists, however, critical realists recognize that science is a social process and assert that knowledge is provisional. Only plausibility—not certainty—can be claimed. All science is to some extent presumptive and judgmental in nature, is affected by historical context, and has a place for creativity, imagination, intuition, and insight. Social causality can and should be linked to people's intentions and purposes. Unlike postpositivists, on the other hand, critical realists believe there are causes and effects independent of the human mind and that it is often possible to know them objectively. Bell states that within a critical realist theory, beliefs about the nonfactual future can be justified objectively in basically the same way as beliefs about the factual past and present (Bell, 1997, p.318; Bell, 2001, p.69).

Bell and Mau present a "Cybernetic-Decisional Model of Social Change" that illustrates the elements of human agency involved in social change. Organizational settings—familial, educational, religious, political, social, etc—as well as technologies, resources, the ecosystem, etc, all interact with one's beliefs about the past, the present, and causes and effects. These interactions, combined with one's values and constant feedback from experiences, result in images of the future, which in turn influence the decision-making process and individual (or collective) action. As the future becomes the present, the cycle is continuously repeated (Bell & Mau, 1971, p.21).

Bell's methods of forecasting

Bell reviews the role of prediction in Volume 1 of *Foundations of Futures Studies*, selecting the term "prediction" from among the many used by futurists, including forecast, projection, prophecy, prognostication, prevision, anticipation, expectation, and *futuribles*, and defining it simply as a statement or assertion about how the future might turn out to be (Bell, 2003, p.98).

Bell is clear in his writing that futurists' primary purpose is not predicting the future (Bell, 2005b, p.113). In fact, while most futurists downplay the role of prediction—choosing to focus instead on describing, understanding and explaining alternative futures as well as the social acts that will create the coming future—Bell notes that pre-

diction plays an important role and is a necessary part of ordinary decision-making and planning. We all imagine the future every day, even if only the very near future of minutes, hours or days, and make predictions and decisions accordingly.

Bell does not go so far as to deny that futurists make predictions at all, as do some well-meaning futurists in an attempt to legitimate futures studies as respectable and intellectually sound (Bell, 2003, p.106). The key, he says, is to deemphasize making predictions of *the* future (singular) and to focus on the various alternative futures (plural). He points out predictions may be, to list but a few variations, short-term, long-term, specific, sweepingly general, multiple, conditional, corrigible, uncertain, presumptively true or false, terminally true or false, or self-altering. For example, the very reason a reflexive (self-altering) prediction is made is so that actions may be taken which will cause a presumptively true prediction to turn out to be terminally false (Bell, 2001, pp.71-72).

Bell's preferred futures

Volume 2 of *Foundations of Futures Studies* is primarily concerned with preferable futures, covering the themes of values and the good society. In Chapter 3, Bell describes some practical strategies for reaching judgments about our futures—how to decide what is "dutiful, right, good, and preferable" (Bell, 1997, p.113). These include appeals to religion, appeals to law, appeals to collective judgments of group members, and finally, through a set of professional ethics. The ethical responsibilities of futurists is a much neglected topic, Bell observes, along with the woeful fact that no written, agreed-upon standards of training, professional conduct, and ethical guidelines yet exist for futurists.

Bell continues the theme of the ethical foundations of futures studies with a discussion of universal human values. Among various lists and groupings of core human values about which "there is wide agreement both over geographic space and time," one of the most succinct was compiled by Rushworth M. Kidder in 1994 and includes love, truthfulness, fairness, freedom, unity, tolerance, responsibility, and respect for life. Bell summarizes the UN Universal Declaration of Human Rights and points out that as a statement of political and civil rights it defines a standard of behavior that all governments and individuals are expected to exhibit. As a statement of economic and social rights, however, it can be taken as an image of the future toward which we all should strive (Bell, 1997, pp.179-187).

Bell selects five values for deeper scrutiny and discussion. The values he chooses – knowledge, evaluation, justice, cooperation, and human life—are indicative of the values Bell identifies as the most important for achieving a desired future. He then proposes several changes in human values that need to occur in response to changing conditions such as rapid population growth, an increase in the intensity of human interaction and interdependence, and threats to the Earth's life-sustaining capabilities. It is in these "new" human values and practices that Bell's preferred future is most clearly expressed. They include:

- The value of the length of individual lives (extending it)
- The contingent value of reproduction (low birth rates; no more than one child per person)

- The value of sufficiency
- The value of women's lives
- The value of peace (devaluation of aggression, violence, and warfare)
- The value of a world moral community (discard practices of social exclusivism and ethnocentrism)
- The value of caring about future generations (Bell, 1997, pp.279-307)

The concluding chapter of Volume 2 of *Foundations of Futures Studies* is basically an explanation and justification of why these future values are important. In so doing, Bell is taking his own advice on the need for futurists to validate their judgments of preferable futures. He cites this as a weakness of *Limits to growth*. While the *Limits* authors' spent much time and effort on organizing the data, equations, computations, and presentations focused on the various scenarios, they failed to justify or defend their values—sufficiency, innovation, development, etc—as being worthy goals (Bell, 2001, p.73).

In an interview with Richard Slaughter, Bells states that he sees a fundamental transition occurring in human society that he calls an "increase in scale." The causes are largely evolutionary and include, among others, an increase in the number of people on Earth, an increase in the average length of lives, an increase in the scope and speed of social interactions across time and space, and an increase in the sense of commonality with all living beings on Earth. While society evolves to be more interactive and knowledgeable with a greater sense of community and mutuality, the destructive powers of humans also increase in scale and this, in effect, slows the overall pace of human progress (Slaughter, 2007, pp.101-102).

Oliver W. Markley

Oliver Markley is a leading futurist in the area of cognitive and intuitive futures research. He is best known for his work at SRI International and as chair of the Studies of the Future graduate program at the University of Houston-Clear Lake. While at SRI, he and Willis Harman co-edited the groundbreaking and thought-provoking *Changing Images of Man* (1982). The result of a pioneering futures research project on the possibility of a future "new paradigm" society that would be both sustainable and humane, Markley and associates produced a report for the Kettering Foundation in 1973 by the same title. Markley notes on his résumé that this report "became something of an underground classic for evolutionary theorists and activists." It was almost a decade later before it was possible to get it published. At the University of Houston-Clear Lake, Markley oversaw the transformation of the Studies of the Future curriculum from a liberal arts orientation to practical training for professional consulting. Today, UHCL Studies of the Future program graduates are leaders in the field of professional futures research and consulting. Markley is the co-author of four books and author of several dozen articles on environmental scanning, forecasting, planning, issues assessment, the management of planned change, and creative intuition.

Background

Oliver Markley was born in Kansas in 1937, but relocated with his family to Cucamonga in Southern California when he was 12 years old. He writes that he was reared in a Protestant, fundamentalist sect that never made much sense to him but that ended up, in his words, "owning my nervous system." His religious upbringing instilled in him a deeply entrenched drive toward salvation—"societal if it couldn't be personal." He majored in Engineering at San Diego State University. Upon winning a Danforth Graduate Fellowship—awarded to young people "who are aware of the place for moral and religious values in teaching and counseling" and who wanted to teach in college—Markley began his graduate studies in Engineering at Stanford University. It was there that he met an Electrical Engineering professor who taught a graduate seminar called "The Human Potential." That professor was Willis Harman, one of the pioneers of the human potential movement of the 1960s. Markley's experience in that seminar and his exposure to Harman's thinking and research led him to switch his academic focus from Engineering to Social Psychology. He earned both a master's and a doctorate in that field from Northwestern University. By that time in 1968, Harman had moved to the Stanford Research Institute and had a multi-year contract from the US Office of Education to do "Alternative Futures Research" that would impact US educational policy. Markley accepted an invitation by Harman to join him there, where he spent the next 10 years. He was a senior policy analyst, principal investigator, and management consultant with SRI's Management and Social Systems Group. In 1978 he was recruited by the University of Houston-Clear Lake to teach and chair the Studies of the Future graduate program.

Markley's images of the future

Many of Markley's views on images of the future are presented in *Changing Images of Man* (Markley & Harman, 1982), in which he and his associates set out to:

- Illuminate ways our society has been shaped by the underlying myths and images of the past and present.
- Explore the deficiencies of currently held images of humankind and to identify characteristics needed in future images.
- Identify activities that could facilitate the emergence of new images and new policy approaches to the resolution of key problems in society (p.xxii & 201).

Markley and Harman give an extensive overview of the role of images in society, including a historical survey of various images that have relevance to current images of mankind and its future. Their conclusion over 25 years ago was that Western society's images are based in the industrial era—an image of "economic man" (rationalistic, mechanistic, individualistic, materialistic) that includes some outdated premises and that is not suited to address the needs of changing society.

Examples of these harmful, obsolete images include the following:

- That progress is synonymous with economic growth and increasing consumption.
- That mankind is separate from nature and that it is human destiny to conquer nature.

- That economic efficiency and scientific reductionism are the most trustworthy approaches to the fulfillment of humanity's goals (p.53).

An entire chapter is devoted to the influence of science as the dominant formative contribution to the images that we hold. Among the challenges to the past meta-paradigms of observable, verifiable science are quantum physics, cosmology, thermodynamics, computer sciences, molecular biology, genetics, parapsychology, psychic research and consciousness research. Altered states of consciousness—and the relationship between consciousness and physical states—are moving into the domain of scientific verification and exploration. This includes hypnosis, biofeedback, dreaming, meditation, psychedelic drugs, unconscious processes, subliminal stimulation, and the superconscious (pp.88-94). Characteristics of the new scientific meta-paradigm that may be emerging include inclusiveness rather than exclusiveness, a systemization of subjective experience, a moral inquiry (investigating what values are wholesome for man), a concept of hierarchical levels of consciousness and a more unified view of human experiences now categorized under such headings as "creativity," "intuition," "religious experience," and "psychic phenomenon" (pp.108-109).

The heart of Markley and Harman's study is contained in the chapter titled, "Characteristics of an Adequate Image of Humankind" (pp.113-122). Humanity can adapt, but we not yet prepared for the advance to a post-industrial society. The choice is between a short-term *tolerable* living environment and a long-term *desirable* living environment (p.178). Evolutionary transformation of society is needed. A future "image of man" to facilitate this transformation would:

- convey a *holistic sense* of perspective;
- entail an *ecological ethic*;
- entail a *self-realization ethic*;
- be *multi-dimensional, multi-faceted, and integrative*, accommodating various culture and personality types;
- involve *balancing and coordination of satisfactions* along many dimensions;
- be *experimental, open-ended, and evolutionary*.

The degree to which these characteristics are realized may well determine the degree to which highly undesirable future outcomes, such as economic collapse or a "garrison-police state," can be avoided (p.186).

In the final and most futures-oriented chapter of all, "Guidelines and Strategies for Transformation," premises are outlined, comparisons made, anomalies and dilemmas presented, and a strategy for non-catastrophic transition is offered. Accepting that there are finite planetary limits to fossil fuels and strategic materials, to the ability of the natural environment to absorb the waste products of industrialized society, to fresh water, to arable land, to habitable surface area, and to the ability of natural ecological systems to absorb interventions without risking ecological catastrophes, this "new scarcity" must be acknowledged and a "culture of frugality" must emerge (p.192). A key declaration in this chapter for me is the statement that, "In particular, the four dilemmas of the 'new scarcity,' the changing role of work, control of technology, and more equitable sharing of the earth's resources must be satisfactorily 're-visioned'" (p.196).

Thomas Hurley, a former student of Markley's who went on to work with Willis Harman at the Institute of Noetic Sciences, wrote an essay, *Changing Images 2000: Integral Approaches to Re-imagining and Re-making Ourselves and the World*, in which he summarizes and expands on Markley and Harman's original work. With his "Eleven (Proposed) Characteristics of Integral Images," he expands on the six characteristics of an adequate image of humankind:

1. Convey a holistic sense of perspective or understanding of life.
2. Foster an appreciation for the nature, interdependence, and interpenetration of the four irreducible and interdependent faces of reality—the inner face, the outer face, the personal face, and the collective face.
3. Entail an ecological ethic and an understanding of ecological principles, emphasizing the total community of life-in-nature.
4. Foster an appreciation for the essential embeddedness of self-in-society.
5. Promote global consciousness and an ethic of global citizenship.
6. Entail an ethic of personal development and transformative lifelong learning, placing intrinsic value on the development of each individual's potentials.
7. Highlight the creative, constructive powers of human consciousness and the connections between mind and the physical world.
8. Acknowledge our co-evolutionary relationship with the tools we develop, including our "inner" or "noetic" technologies.
9. Be multi-leveled, multi-faceted, and integrative, accommodating various culture and personality types.
10. Involve balancing and coordination of satisfactions along many dimensions rather than the maximizing of concerns along one narrowly defined dimension.
11. Be experimental, open-ended, and evolutionary (Hurley, 1999, pp.20-23).

One of Markley's images of the future can also be summarized in a statement synthesized from the writings of ecologist Gregory Bateson and science fiction writer Olaf Stapledon which Markley calls, "The Central Challenge of Humanity":

When one species attains a position of dominance over all the other species in the ecology of its planet, if it is both egocentrically greedy, and has a powerful set of technologies through which to amplify the expression of that greed, then unless that dominant species can find a way to limit or to transform itself and its greed-based systems into something more wholesome, it will foul its planetary nest as surely as the night follows the day ... perhaps even to its own extinction (Markley, 1996, p.622).

Markley's theory of social change

Since many long-range alternative futures involve significant amounts of transformation, Markley has found it important to use intuition-based research methods such as focused meditation and guided cognitive imagery in his professional work in futures research. As a result, he appreciates the role of consciousness in social change (Markley, 1996, p.622).

Figure 1 depicts the transformation from the "information age" to an era of sustainability (that he also labels as an era of global consciousness). Not only is this new era a highly desirable future, it is a pathway to achieve a global society that is both sustainable and humane.

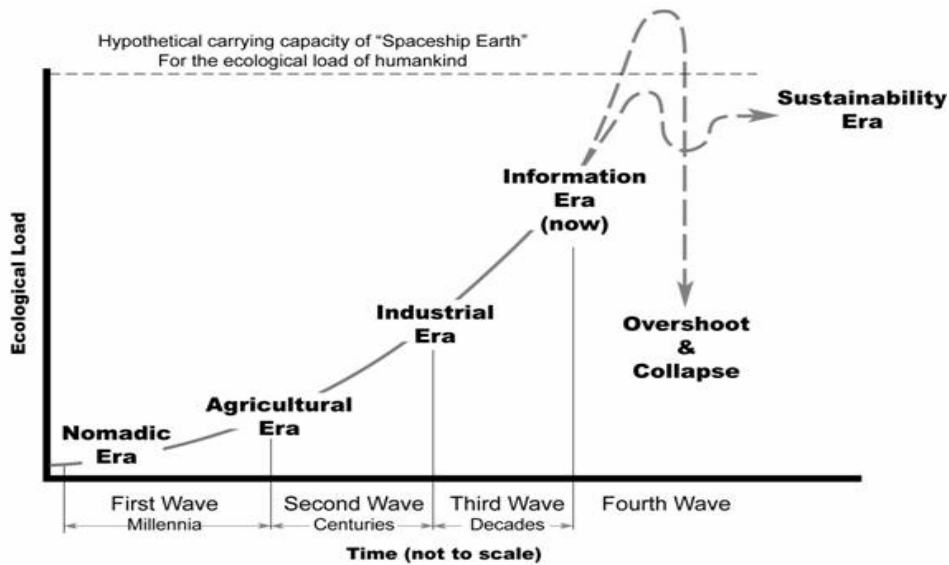


Figure 1. Two idealized alternative future outcomes to the threat of overshooting the carrying capacity of 'Spaceship Earth.'

Note. From "Global Consciousness: An Alternative Future of Choice," by Oliver W. Markley, 1996, *Futures*, 28, p.623

Markley notes that this future is plausible only if accompanied by a transformation of the dominant social paradigm of Western culture. As the "fourth wave" transformation will involve a sharp decline and subsequent recovery, Markley predicts that a key part of this "readjustment" will be unsustainable increases in concentration of wealth—and that the internet may emerge as a potent instrument for rapid and radical political change (Markley, 1996, p.624). Global adjustment to the "new scarcity" may serve as the catalyst for this transformation.

While at SRI, Markley and his colleagues developed a four-fold typology to distinguish between the four system levels of analysis in which social change is based:

1. Substantive
2. Procedural
3. Normative/Ideological
4. Conceptual

Markley writes that the conceptual level of analysis was the focus of the *Changing Images of Man* study.

In a presentation to the Austin Chapter of the Institute of Noetic Sciences (September 25, 2007), Markley recommends two books on transformative social change. These are *The Great Turning: From Empire to Earth Community* by David Korten (2006) and *The Intentional Experiment: Using your Thoughts to Change your Life and the World* by Lynne McTaggart (2007). He describes Korten's book as "probably the most important single book for people who are really seriously concerned about our long-term future." In his handout for that presentation, he summarizes McTaggart's essential findings on deliberate, intentional "manifestation" as a fundamental mechanism of social change as:

- Robust evidence for remote healing by prayer and/or intentional influence
- Group interventions are more powerful than individual ones
- Transcendental Meditation "Super Radiance" has a demonstrated "threshold effect" significantly lowering urban crime rates, international conflict in a region, etc
- Retro-causation (intentions in the present changing things in the past) puzzling, but proven

Markley's methods of forecasting

A summary of Markley's methods of forecasting are included in a chart of the methods and skills he taught at the University of Houston-Clear Lake. These include:

- Issues Management – involves scanning for STEEP trends – leads to identification of "critical success factors," scenario writing
- Modeling, Forecasting, and Assessment – trend extrapolation, modeling of dynamic systems, technology/policy impact forecasting, and assessment – leads to foresight about trends and impacts of key "change drives," visualization of preferred paths and targets
- Strategic Planning – strategic visioning, assessment of strengths and weaknesses, visioning of alternative futures scenarios and contingent agenda – leads to long-range vision, mission, strategies, programs
- Organizational Change Facilitation – project visioning, planning and coordination, competency and team building, organization transformation – leads to the capacity to successfully implement all of the above

Focused visioning is clearly a key component of these methods and skill sets. And underlying these methods and skills is the concept of "bricolage thinking." In contrast to more formal analytic approaches, bricolage is a methodology for thinking through problems by using the materials at hand. The approach was used in the 1974 SRI study, *Societal Consequences of Changing Images of Man* and is described in that report's introduction.

As a futures consultant, Markley continues the work he began at SRI and further developed at UHCL; he teaches how to arrive at one's preferred future (or an organization's preferred future) through guided cognitive imagery/visioning and focused meditation. Methods include focusing, transformative revisioning, mental time travel, and transcendental exploration of alternative realities. These methods are useful for creative problem-solving, strategic planning, policy analysis, and futures research as they allow participants to explore possible and probable future conditions in order to find

their preferred future.

Markley defines "global consciousness" as meaning at least two kinds of things:

1. Functionally adequate awareness of the ecology in which we live as a whole system of physical and non-physical interactions across time
2. Expansion of consciousness beyond the confines of an egocentric sense of self to include transpersonal experiences and/or self-identity as well (Markley, 1996, p.623)

Some of the key change drivers (main forces, trends, and illustrative wild cards) that Markley sees as creating the future in the next 30 years or so include technology-fueled behaviors driving the exponential increase in ecological load; enabling technologies (identified by Joseph Coates) such as sustainable energy production technologies, new materials synthesis, and genetic and biological engineering technologies; a series of "tsunamis" (identified by James Dator) such as catastrophic population growth, geoclimatic changes, and the collapse of capitalism; the emergence of a "noetic epistemology" in science and society; and an emerging synthesis of quantum physics and the psychology of consciousness; etc. (Markley, 1996, pp.624-625)

Markley's preferred futures

Markley's vision of the future is a normative one. His futures research, as does all futures research, deals with three types of alternative futures: possible, probable, and preferable. Normative (or visionary) is a type of foresight that deals with preferable futures. "The purpose of most normative futures research and forecasting, is thus to help facilitate the process of moving a specific vision of future reality through the following sequence as time unfolds: preferable → possible → probable → realized" (Markley, 1995, p.3). The vision of a "Sustainability Era" in the figure above represents Markley's vision of a future that has come to terms with the dystopia of "ecological overshoot."

The preferred image of the future that Markley holds today is remarkably consistent with the recommendations from his studies at SRI that date back some 30 years or more. A new paradigm shift is coming, and if humanity is to survive, a transformative "Great Turning" must take place. This is the essence of *Changing Images of Man*; this is the core of the coming "fourth wave" transformation from the Information Era to an Era of Global Consciousness.

A meaningful and personal way to design the future or to make a preferred future a reality is through one of these exercises—guided imagery, focused meditation, visualization, transformative revisioning, etc—that allows one to "experience" the future firsthand. Markley's "journey inward to source" is all about discerning one's preferable future and exploring various possible, probable, and preferable alternative realities. Markley points out, however, that when using these visionary methodologies, there is a fundamental caveat. As effective as these tools are, in some (conventional corporate) settings it is often not feasible to use them unless a receptive political climate for their use has been developed (Markley, 2008, p.22).

Conclusion

Both Bell and Markley use the phrase, "the possible, the probable, and the preferable." It is clear that these are the three primary alternatives when discussing futures. But what my study of these futurists has made clear to me is that, to be effective, the linear sequence of these three alternatives must be 1) preferable, then 2) possible and then 3) probable, before coming to the fourth term that eliminates the futures aspect of a goal–reality. That concept is revolutionary to me—so much so that I changed the words in the title of this essay from "the possible, the probable, and the preferable" to "the preferable, the possible, and the probable." And I think all futurists should list these alternatives in that order.

We may think of something as possible. That's very common. Then as new technologies emerge and events unfold, something may then become probable. But at that point, whether it is preferable or not is pretty much beside the point. If I prefer it—lucky me! If it is not preferable—too bad. By then the only step before reality is "inevitable."

But what a different story for the futurist when we move "preferable" to the front of the line! That is exactly what Bell is proposing with his "decisions of nationhood," for example. And that is exactly what Markley does every time he leads an individual or organization to vision what they hope to achieve or to mentally experience which future is the most promising. We are deciding NOW what is preferable. Then from that present point, with a new sense of clarity and vision, we follow whatever logical steps we need to follow to move that *already existing* preferred future into the realm of possibility. And as we continue along that path, the possible becomes probable—and perhaps even inevitable—as our preferred future becomes today's reality. What a beautiful thing, and what a liberating idea.

If we can imagine the future, visualize it and articulate it, we can create it. That is what I believe Bell and Markley teach us. At least, that is what they have taught me.

Correspondence

Darrell Kicker
University of Hawai'i at Manoa
2565 McCarthy Mall, PSB 205
Honolulu, HI 96822
USA
Phone: (808) 956-4728
Email: kicker@hawaii.edu

Notes

1. I thought of Bell and the need to instill the value of futures thinking when I read about two students in Ohio facing 20-year prison sentences after robbing a bank. They stated the reason for their crime was that they needed money for their college tuition!

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