History and Theory, Theme Issue 41 (December 2002), 72-89 ISSN: 0018-2656

A HISTORY OF THE FUTURE

DAVID J. STALEY

ABSTRACT

Does history have to be only about the past? "History" refers to both a subject matter and a thought process. That thought process involves raising questions, marshalling evidence, discerning patterns in the evidence, writing narratives, and critiquing the narratives written by others. Whatever subject matter they study, all historians employ the thought process of historical thinking.

What if historians were to extend the process of historical thinking into the subject matter domain of the future? Historians would breach one of our profession's most rigid disciplinary barriers. Very few historians venture predictions about the future, and those who do are viewed with skepticism by the profession at large. On methodological grounds, most historians reject as either impractical, quixotic, hubristic, or dangerous any effort to examine the past as a way to make predictions about the future.

However, where at one time thinking about the future did mean making a scientifically-based prediction, futurists today are just as likely to think in terms of scenarios. Where a prediction is a definitive statement about what will be, scenarios are heuristic narratives that explore alternative plausibilities of what might be. Scenario writers, like historians, understand that surprise, contingency, and deviations from the trend line are the rule, not the exception; among scenario writers, context matters. The thought process of the scenario method shares many features with historical thinking. With only minimal intellectual adjustment, then, most professionally trained historians possess the necessary skills to write methodologically rigorous "histories of the future."

History, according to Kevin Reilly, is both a noun and a verb.[1] By this Reilly means that "history" refers to both a subject matter—a body of knowledge—and a thought process, a disciplined habit of mind. This bifurcation of history into subject matter and cognitive process has increasingly informed the thinking of history education reformers over the last decade. The National Standards for History recommended, in addition to specific subject matter content, that elementary and secondary school students learn the process of "historical thinking" in their classes. The authors of the national standards state that in engaging in historical thinking students should be able to participate in the sorts of activities all historians perform: "to raise questions and to marshal solid evidence in support of their answers"; to "create historical narratives and arguments of their own"; to "thoughtfully read the historical narratives created by others"; and to "examine the interpretive nature of history" by examining the evidence marshaled by other

1. Kevin Reilly, *The West and the World: A History of Civilization* (Princeton: Markus Wiener Publishers, 1997), xi.

historians and the interpretive weight they assign to their selection of sources.[2] We must separate the process of historical thinking from the subject of that process, and in turn remind ourselves that one meaning of the word "history" is "inquiry."

One of the more important trends in twentieth-century historiography was the extension of history-as-thought-process to subjects beyond politics, diplomacy, war, and the decisions of Great Men. Historians today are more likely to write narratives dealing with women, workers, Brazilian slaves, or the mentalities of revolutionaries. Historians imaginatively have extended the thought process of historical thinking to these wider domains of inquiry, all the while maintaining the basics of that thought process. In understanding history as a thought process first and as a body of data second, historians have expanded the domain of inquiry beyond the boundaries of elite culture and those with power.

The purpose of this essay is to explore the idea of extending historical thinking into a domain historians traditionally have avoided: the future. I will argue that, in using the process of historical thinking, historians may inquire into the future in the way we traditionally have inquired into the past. Rather than writing predictions, however, historians might employ *scenario writing*, a method for thinking about the future that relies on many of the same techniques historians use when writing about the past. In the same way that an earlier generation of historians asked if history had to be only about politics, we might ask "does history have to be only about the past?"

I. HISTORIANS AND THE FUTURE

Historians have avoided writing serious inquiries about the future because we have generally been skeptical about our ability to make predictions. Those historians who have thought about the future—or whose ideas others have used to think about the future—have tended to be speculative philosophers of history, a special class of historian. Vico, Hegel, Marx, Toynbee, and Spengler discerned patterns in the human past that they thought they could then project forward. Lest we think that universal histories are a nineteenth-century phenomenon, there have been more recent efforts to see patterns in the past as a way to think forward about the future, as evident in the works of Robert Heilbroner, Arthur Schlesinger, and William Strauss and Neil Howe.[3] In all of these instances, think-

2. National Standards for History, http://www.sscnet.ucla.edu/nchs/standards/thinking5-12.html, accessed August 21, 2002. See also Sam Wineburg, *Historical Thinking and Other Unnatural Acts: Charting the Future of Teaching the Past* (Philadelphia: Temple University Press, 2001).

3. Robert Heilbroner, a historian and economist, similarly wrote about the future, alerting Americans in the 1960s to "the grand dynamic of history." Indeed, Heilbroner observed that attention to "this grandiose design" of historical forces would guide American actions in the future. See *The Future as History* (New York: Grove Press, 1959). Arthur Schlesinger identified "the cycles of American history," and offered a guide for thinking about how those cycles might continue to unfold into the future. See *The Cycles of American History* [1986] (Boston: Mariner Books, 1999). William Strauss and Neil Howe, although not professional historians, have identified patterns in the characteristics of American generational cohorts. They have developed an elaborate schematic that predicts

ing about the future requires some macro-level understanding of the "forces that shape human history." Many of these future-oriented historians, like Heilbroner, have a background in social-scientific disciplines. Economists and sociologists claim to perceive more law-like regularity in human events, regularities that might be projected forward. To think about the future, then, it seems one needs either to subscribe to a social-scientific perspective or to be able to comprehend the whole of human history.

Most historians, however, are not trained to be universal historians like a Hegel or a Marx or even a Schlesinger. Most professional historians are trained to examine a limited problem, within a historically brief period of time, making use of primary source documents. While world history has emerged since the 1980s as a legitimate subfield of historical scholarship, most world historians are not trained to study the "big picture"; for every William McNeill or Immanuel Wallerstein or Fernand Braudel who writes about temporally and spatially broad topics, there are many other world historians who concentrate on a limited problem, in a limited space and time.[4] In any event, most historians seem to believe that speculative universal histories are too large to be amenable to primary source research and too quixotic a task for one historian.[5] Universal historians represent a special class; their interest in the future similarly belongs to a special—and highly circumscribed—class of historical inquiry.

Historians and philosophers of history alike have attacked the predictive claims of universal historians because of their failure to anticipate contingency and surprise. Hannah Arendt wrote that

> Events, by definition, are occurrences that interrupt routine processes and routine procedures; only in a world in which nothing of importance ever happens could the futurologist's dream come true. Predictions of the future are never anything but projections of present automatic processes and procedures, that is, of occurrences that are likely to come to pass if men do not act and if nothing unexpected happens.[6]

Moreover, according to Gordon Leff, there would be no history without these divergences from the routine. "History," he writes, "although directed at the past, is essentially about the new. It is read and written as the unfolding of events

---

the characteristics of the next generation and prophesizes a trying national challenge for that generation similar to the one "the greatest generation" faced during the Second World War. See *The Fourth Turning: What the Cycles of History Tell Us about America's Next Rendezvous with Destiny* (New York: Broadway Books, 1997); and *Generations: The History of America's Future, 1584 to 2069* (New York: Quill, 1991). Civilizationalists and historians of civilization, in addition to thinking in terms of long-term scales and trends in the past, occasionally project these patterns forward. A useful introduction to the methodological issues involved is Mathew Melko, "The Perils of Macrohistorical Studies," *World History Bulletin* 17 (Fall 2001), 27-32.

4. See Raymond Grew, Review Essay on Paul Costello, *World Historians and Their Goals: Twentieth-Century Answers to Modernism*, *History and Theory* 34 (1995), 371-394.

5. On the scholarly disreputability of universal history, see Michael Biddiss, "History as Destiny: Gobineau, H. S. Chamberlain and Spengler," *Transactions of the Royal Historical Society* 7 (1997), 73-100.

6. Hannah Arendt, cited in Max Dublin, *Futurehype: The Tyranny of Prophecy* (New York: Dutton, 1991), introduction.

which by definition have not occurred before. That is the only reason for their having a history."[7] Unlike the social scientist who seeks regularities and covering-law models, we historians have long distinguished ourselves by our insistence that events are unique, contingent, and context-dependent.

The contingent nature of events makes predictions about future events problematic. Rather than theories, historians have long favored local explanations and descriptions because we are well aware that conditions in one place and time very rarely reoccur in another place and time. Even with very similar variables, the context of a situation affects the procession of events. Conditions that produced revolution in one place might have led to stasis or conservative reaction elsewhere. Covering-law models reduce the context that is the stuff of historical inquiry.[8] Moreover, as counterfactual historians assert, those same conditions might have led to alternative outcomes different from the ones we recognize as "the actual history." This suggests that the initial conditions of any event in the past are so inherently complex and unpredictable that even our *retrodictions* are problematic, let alone any predictions we might venture. Because events are so dependent on individual actions, accident, contingency, context, and any one of countless other variables, venturing a prediction about future events is doomed from the start.

Moreover, historians don't possess the conceptual resources to make reliable or warranted predictions about future historical events. "Ordinary historical accounts" depend on data, and the only data historians have comes from the present and past. Furthermore, a key component of the historian's arsenal is what Arthur Danto called "narrative sentences," which he defined as those that "give descriptions of events under which the events could not have been witnessed, since they make essential reference to events later in time than the events they are about, and hence cognitively inaccessible to observers."[9] Narrative sentences "refer to at least two time-separated events, and describe the earlier event" in terms of the latter.[10] Danto gives as an example the narrative sentence "The Thirty Years War began in 1618"; it is a type of sentence historians write all the time. Now the point is that while they are justified in writing narrative sentences about the past, historians cannot similarly be justified in writing narrative sen-

7. Gordon Leff, "The Past and the New," in *The Vital Past: Writings on the Uses of History*, ed. Stephen Vaughn (Athens: University of Georgia Press, 1985), 59.

8. Only when certain "initial conditions" persist can one venture a prediction; but as historians know, the conditions that produced revolution in France in 1789 were quite different from the conditions that produced revolution in Russia in 1917. Therefore, the historian cannot venture a general "law of revolutions" that might apply to future events. As Karl Popper observed, "long-term predictions can be derived from conditional scientific predictions only if they apply to systems which can be described as well-isolated, stationary and recurrent. These systems are very rare in nature; and modern society [or indeed any human society in the past] is surely not one of them." See "Prediction and Prophecy in the Social Sciences," in *Conjectures and Refutations* (London: Routledge and Kegan Paul, 1963), 339. On initial conditions, see his *The Poverty of Historicism* (London: Routledge, 1957), 120-130.

9. Arthur C. Danto, *Narration and Knowledge* [1968] (New York: Columbia University Press, 1985), xii.

10. *Ibid.*, 159.

tences about the future because we cannot place ourselves at such a temporal distance from the present so as to see the context and consequences of events in the present. Any historian who writes narrative sentences about the future is making a prediction that the historian is not in a position to justify.

Thus, historians have avoided serious discussion about the future because we believe it to be an inaccessible domain beyond the investigative reach of most professionally trained historians, and because we are sensibly skeptical about making predictions. However, prediction is only one of several ways to understand the future. Rather than making predictions or rejecting saying anything about the future altogether, historians might try to apply certain aspects of historical thinking to the study of the future in a way that does not require predictions. The result would be a new, unconventional sort of history: a history of the future.

II. THE "NEW SCIENCES" AND SCENARIO WRITING

The study of the future has been nurtured by a scientific mindset, one that sees prediction and possible control as the defining characteristics of science.[11] The success of physicists and astronomers in predicting the movements of the heavens and the collision of bodies on earth established this paradigmatic feature of science. Social theorists have, since the Enlightenment, sought to apply the methods of science to the human world, with varying degrees of success. This Enlightenment objective accelerated in the twentieth century. Economists, sociologists, and political scientists "hardened" their disciplines, making them increasingly mathematical and predictive in orientation.

In the years after the Second World War, high off the atomic triumphs of American "Big Science," scientifically-minded futurists—engineers, systems analysts, economists, demographers, and sociologists—contributed to a futurist boom. Located mainly in foundations, government agencies, and think-tanks—the Rand Corporation was an early patron—futurists created predictions aimed at aiding public policy decision-makers. In France, Bertrand de Jouvenel created the think tank *Futuribles*, funded by the Ford Foundation, with the conviction that "the social sciences should orient themselves toward the future."[12] As Nicholas Rescher observes,

> This diffusion of futurism was bound up with the ever-increasing prominence in all industrialized nations of what might be called the "Advice Establishment": academics, working scientists, technical experts, and pundits of all sorts serving on advisory boards, policy study groups, and public commissions developing information, ideas, and speculations to provide guidance about the future as background for public policy formation.[13]

11. According to Heilbroner, industrialization, the scientific revolution, and the rise of financial capitalism were all conditions that produced an interest in the systematic study of the future. See *Visions of the Future: The Distant Past, Yesterday, Today, Tomorrow* (New York: New York Public Library and Oxford University Press, 1995).

12. Bertrand de Jouvenel, *The Art of Conjecture* (New York: Basic Books, 1967), viii.

13. Nicholas Rescher, *Predicting the Future: An Introduction to the Theory of Forecasting* (Albany: State University of New York Press, 1998), 29.

It was this participation by scientists and social scientists that distinguished post-war futurism from earlier utopian science fiction and universalist histories. Rescher dates this futurist boom from 1945 to 1975; however, we continue to see vestiges of this boom up to the present. Today, business consultants, strategic planners, trend-spotters, and management experts all sell predictions.[14] It seems that interest in the future has moved from public-policy think-tanks to the corporate world, especially with regard to predicting the future of technology.

Many futurists continue to claim predictive certainty about the future even in the face of chaos theory and other "new sciences" that cast doubt on some scientists' ability to predict. The new sciences have been driven in part by data visualization techniques enabled by computer graphics.[15] Physicists studying dynamic and seemingly unpredictable systems like the weather have used a mathematical tool known as phase space to explore these complex domains. Phase space is a type of coordinate diagram in two or three dimensions wherein one plots points representing variables which describe the state of a system at a given point in time. As the system moves through time, the collection of points traces out a shape. In so plotting the state of the system in phase space, physicists can watch the behavior of the system and explore patterns in that behavior.

Simple systems trace simple shapes in phase space. For example, a pendulum without an escapement eventually settles to a point of rest; its phase-space diagram would appear as a spiral spinning down to one point. Complex systems, on the other hand, trace striking shapes that suggest an underlying order to seemingly random systems. Physicists in the 1980s studying these systems noticed that some phase-space diagrams of dynamic systems produced complex yet coherent shapes, as if the system were "attracted" to a particular area of phase space. While one could not necessarily predict what the system's next iteration would be, one could see that the next phase point would probably appear somewhere within the shape. Dubbed "strange attractors," these systems offered the prospects of ascertaining ordered patterns within seemingly disordered phenomena.

Other scientists began to study systems that were equally attracted to two or more attractors. Noting the starting "initial conditions" of the system, physicists would color-code that phase point depending on where the system was finally attracted. The shapes produced were arabesque-like in their complexity; in effect, the system was being "pulled" toward several attractors, creating complex "fractal basin boundaries." The important point regarding prediction is that if one alters the initial conditions only very slightly the system might end up moving toward a quite different attractor. That is, the slightest variation in the initial conditions might lead to no change in the final results, or could produce wildly different final results. Because the system is "pulled" toward any one of these

14. See especially William A. Sherden, *The Fortune Sellers: The Big Business of Buying and Selling Predictions* (New York: John Wiley and Sons, Inc., 1998). Sherden is skeptical of most predictions of the future, and is especially aware of the implications of the new sciences for our ability to make predictions.

15. A very accessible introduction is James Gleick, *Chaos: The Making of a New Science* (New York: Viking, 1987), especially 49-53.

attractors, the boundaries between these "basins of attraction" are exquisitely complex.

The implications for scientific prediction have been paradigm-shattering: complex systems might be deterministic, but unpredictable. At best, one could describe a set of plausible states to which the system might settle, but one could not exactly predict *which* state the system would eventually be attracted to. Moreover, the types of systems that have fractal basin boundaries are not exceptional, ivory-tower types of frictionless systems; they reflect all sorts of messy, real-world systems like the growth of biological populations, turbidity flows, the fibrillations of the heart, and—dare we say—the dynamics of human societies.

We should not take the lessons of the new sciences to be to stop thinking about the future, but only to stop trying to predict it.[16] Furthermore, we should not assume that historians need to become mathematicians or physicists in order to apply their methods to the study of the future. Indeed, physicists and mathematicians are coming around to ideas that historians have held for some time: that context and initial conditions matter, that the world is more complex than what is assumed in variable-controlled laboratory experiments, and that predictions are at best problematic. Scientists are only now developing a formal mathematical language to intuit what historians have long expressed in words.

Faced with this new paradigm of science, historians might take the lead in exploring different methods for thinking about the future beyond prediction. Of all the methods devised to think about the future, the "scenario method" is the one that comes closest to the new thinking about complexity and the uncertainties of prediction. Perhaps not coincidentally, it is also a method that very closely approximates historical thinking. Those who employ scenario writing as a method of thinking about the future appear to possess an intuition for deterministic but unpredictable chaos and the dynamics of strange attractors, even if they lack the formal mathematics.[17] The goal of scenario writing is not to predict the one path the future will follow but to discern the possible states toward which the future might be "attracted."

If a prediction is a definitive statement of what the future will be, then scenarios are heuristic statements that explore the plausibilities of what might be.[18]

16. Some futurists consider insight, more than accuracy, a more reasonable goal for thinking about the future. On various methods of gaining insight while thinking forward, see Stephen M. Millett and Edward J. Honton, *A Manager's Guide to Technology Forecasting and Strategy Analysis Methods* (Columbus, Ohio: Battelle Press, 1991).

17. Although she continues to look for predictive certainties, T. Irene Sanders provides an excellent example of the marriage of the new sciences and scenario-style thinking in *Strategic Thinking and the New Science: Planning in the Midst of Chaos, Complexity, and Change* (New York: The Free Press, 1998).

18. The method was developed by Herman Kahn. See *The Year 2000: A Framework for Speculation on the Next Thirty-Three Years* (New York: The Macmillan Company, 1967), 262-266. Initially, scenario planning was a tool used by the military, but in the 1980s strategic planners at Royal Dutch Shell applied scenario planning to business environments. See the influential articles by Pierre Wack, "Scenarios: Uncharted Waters Ahead," *Harvard Business Review* 63 (1985), 72-79, and "Scenarios: Shooting the Rapids," *Harvard Business Review* 63 (1985), 139-150. This method is now called the Shell method or the intuitive method, and is the one I will be describing in this article. For fuller histories of the various scenario methods, see the diagram by Stephen M. Millett, "History of

According to Peter Schwartz, a pioneer in the use of scenario planning in business, a scenario is "a tool for ordering one's perceptions about alternative future environments in which one's decisions might be played out."[19] Practitioners stress that "the purpose of scenario planning is not to predict the future; but rather, to show how different forces can manipulate the future *in different directions*"[20] (emphasis mine). Scenario thinkers recognize that there is not one sequential path to the future but that the complexities of the interaction between social forces can produce different outcomes. While not dependent upon the same computational procedures as deterministic chaos, scenario thinking shares a similar intuitive understanding of the complexities of foresight.

Scenarios begin with questions, oftentimes "what if" type questions. In choosing such a question, scenario writers limit the scope of their inquiry; that is, the goal is not to think about the entire future, only the part that is of most interest. With "what if" type questions, scenario builders wish to explore plausibilites that may appear at the present moment to be impossible or highly unlikely. An example of a "what if" question about the future might be "What if globalization dissipates?" If this question seems outlandish—"we all know globalization is inevitable"—imagine a scenario writer in 1973 asking "What if these new Japanese imports begin to outsell American-made cars?" Who in Detroit would have not found this question outlandish? The purpose of asking such questions is to remind the futurist that surprise and unexpected divergences from the trend line are part of the complexities of the future. While some events are certainly "inevitable," the sorts of events futurists want to think about are far from inevitable.

Once the question has been asked, the scenario writer then "scans the environment" searching for "driving forces." Driving forces are the "key factors that will determine (or 'drive') the outcome" of the scenario being created.[21] Some of these forces might work predictably, such as demographic changes, but most driving forces are intrinsically unpredictable. For example, Schwartz is particularly interested in the habits and behaviors of "global teenagers," young people who are technologically savvy conspicuous consumers. Schwartz sees this group as an important driving force in many of the scenarios he creates for his clients. Scanning the environment means that the scenario writer must absorb much data and information from the present surroundings in order to discern the driving forces. Schwartz counsels that scenario writers must read, watch, and listen

---

Business Scenarios" at http://www.dr-futuring.com/ifs_scenario_4.htm, accessed August 21, 2002; Thomas J. Chermack, Susan A. Lynham, and Wendy E. A. Ruona, "A Review of Scenario Planning Literature," *Futures Research Quarterly* 17 (Summer 2001), 7-31; Antonio Martelli, "Scenario Building and Scenario Planning: State of the Art and Prospects of Evolution," *Futures Research Quarterly* 17 (Summer 2001), 57-74.

19. Peter Schwartz, *The Art of the Long View: Planning for the Future in an Uncertain World* (New York: Currency/Doubleday, 1991), 4.

20. Innovators of Digital Economy Alternatives (IDEA), "What is Scenario Planning?" http://edie.cprost.sfu.ca/~idea/scenarios.html, accessed August 21, 2002.

21. Schwartz, *The Art of the Long View*, xiv.

widely to books, periodicals, films, and music. And not simply in newspapers and periodicals of record; Schwartz urges all scenario writers to consider avant-garde publications, cutting-edge thinking outside the mainstream, the location of much creativity and surprise.

In assessing how these driving forces might interact, the scenario writer then constructs several narrative stories exploring the implications of each "plot." This is a crucial point in the construction of scenarios: rather than one statement of what will happen, scenario writers compose many different stories of what might happen. Each version of the future has its own "logics," "the plot which ties together the elements of the system." Each scenario "describes how the driving forces might plausibly behave, based on how those forces have behaved in the past," notes Schwartz. "The same set of driving forces might, of course, behave in a variety of different ways, according to different possible plots."[22] Indeed, all the different versions of the scenario are equally plausible; one plot is not more likely than the others, nor is the point to construct different scenarios from which we pick and choose the "correct" elements from each. Each scenario describes a different, but equally likely, logic of the future.

The "story" of each scenario, as Schwartz suggests in his definition, describes an "environment." The narrative of each scenario does not describe a linear procession of events ("this will happen on this date, then this will happen"). Rather, the scenario is a description of the context within which those events may occur. Consider the following shortened examples, which describe the possible directions of the future of the digital economy:

Scenario 1: "Corporations Rule"

There will be a convergence of financial institutions and technology. This will be accomplished by financial institutions developing their own software. Types of technologies will include smart cards, where all banking information is contained in a microchip on the card, and consumer databases. Since financial institutions will be the driving force behind developing digital cash and their systems, the control of cash will be in the corporate sector. This may even result in different networks developing different forms of e-cash.

Scenario 2: "Crypto-Anarchy"

Digital cash is the predominant means of exchange. Due to the anonymous and untraceable nature of digital cash it has become impossible to track the income of individuals. Income tax has been abolished in favor of taxes at point of sale and on physical assets. Large corporations have disintegrated and the commercial sector is dominated by highly competitive, specialized companies that cater to the needs of the individual, supplying primarily innovative technology and software.

Scenario 3: "Third-Sector Ecotopia"

Businesses are more accountable for their social and environmental role in society: manufacturing, construction, distribution of consumer goods with a min-

imum of environmental impact. Basic level of computer network (Internet) access is maintained through corporate and tax subsidy as a public resource. Public information kiosks abound, and there is an emphasis on technology in education.[23]

Note that each scenario has a brief title, a convention among scenario writers, a tag that allows the reader to grasp the "logics" of each narrative. Absent from each story are individuals and specific dates, the sorts of information one might find in a prediction. Scenarios read more like anthropological "thick descriptions" of a plausible system in the future.

Scenario writers are not scientists nor do they use scientific language. However, I believe that the thinking behind the scenario method is analogous to the thinking behind deterministic but unpredictable chaos. In the same way physicists examine the initial conditions of a system, scenario writers scan for driving forces. As physicists plot the complexities of the interactions in these initial conditions, scenario writers seek analogies in the past to imagine how the driving forces might interact in the future. The different scenarios might be understood as analogous to "attractors" toward which the future might proceed. If prediction is the goal to which scientifically-minded futurists have aspired, scenario writing may well be the new goal that binds the new sciences and futurism.

Futurists are not of one mind as to the efficacy of scenarios. Rescher dismisses scenarios as so many interesting stories. "Scenarios," he writes,

> are imaginative speculations about what *might* happen and not informative specifications attempting to preindicate what *will* happen. By their very nature, then, prediction and scenario construction are different sorts of enterprises. Their pursuit involves different aims and their effective cultivation calls for very different sorts of intellectual resources; namely, realistic foresight in the one case and lively imagination in the other.[24]

However, scenarios are built from more rigorous stuff than just imagination, and in fact are composed via a process similar to the historical method, as I will detail below. Furthermore, the type of flexible thinking enabled by the scenario method seems a more realistic approach to the complexities of the future than the hubristic confidence suggested by a prediction.

III. SCENARIOS AND HISTORY

Schwartz maintains that some people immediately take to scenario thinking, while for others it is a difficult stretch. "The anthropologist is more attuned to uncertainty and multiple points of view, and can more easily accept the practice of scenarios," he writes. "The same is true for historians."[25] As the above sum-

23. IDEA, http://edie.cprost.sfu.ca/~idea/scen1.html; http://edie.cprost.sfu.ca/~idea/scen2.html; http://edie.cprost.sfu.ca/~idea/scen3.html (all accessed August 21, 2002). Scenarios are usually much longer than these brief paragraphs, usually two to three pages in length, although historians might wish to compose longer scenarios.

24. Rescher, *Predicting the Future*, 40.

25. Schwartz, *The Art of the Long View*, 31.

mary indicates, the scenario method relies on many of the same techniques for writing about the future that historians use when writing about the past. Historians might then begin to explore these methodological similarities as a way to appropriate the domain of the future as a legitimate subject matter for historical inquiry.

One historian who has been inspired by scenario thinking to write about the future is W. Warren Wagar. Wagar did not arrive at scenario thinking from the direction of the new sciences and deterministic but unpredictable chaos, however, but rather from postmodernism. Postmodernist literary theory confirmed what he had long believed about history writing: that history is a story, and the historian a type of storyteller. In debunking the myth of scientific objectivity in history, postmodernists such as Hayden White called attention to the fact that historical texts are verbal models that refer to the past, but are not homologous with it. Historians interpret (the meaning of) the past, they do not reproduce it. "In short," Wagar concludes, "historians infected by postmodernist theory acknowledge that what they do is create texts about texts, which can be read in infinitely different ways but can in no sense recover or reconstitute the real past. The real past happened, but it is now gone—every nanosecond of it. Hence, the past is just as inaccessible as the future."[26]

Indeed, Wagar sees the past and future as essentially the same thing. Past and future are part of the same space–time continuum. Both are singular, in that there is only one past and there will be only one future. Both past and future stand in the same relative position to the observer in the present. According to Wagar's logic, then, there is nothing preventing historians from similarly writing stories about the equally inaccessible future. "Scholars who are in the habit of telling stories about the past are especially well positioned to tell stories about the future," he contends. "They cannot predict the future anymore than they can recover the past. Their stories of the past tell us bits and pieces of what might have happened, as we today are empowered and conditioned to construe it. Their stories of the future tell us bits and pieces of what might still happen. But they do not tell us what did happen and what will happen."[27] Wagar believes historians are empowered to write stories about the future using scenario thinking as a license to avoid making definitive predictions—in the same way postmodernism has freed them from searching for the inaccessible objective truth of the past.

Though Wagar makes some good points about history and its relation to the past and the future, he somewhat overstates his case. It is true that both scenario-building and history are forms of storytelling. But while historians are indeed storytellers, we write particular types of disciplined stories. Unlike fiction writers who enjoy many more degrees of narrative freedom, historians must adhere to specific methods that limit the types of stories we are permitted to write. Similarly, scenarios are stories generated by a particular method. As the scenario writers Daniel Yergin and Thane Gustafson have argued, scenarios involve both

26. W. Warren Wagar, "Past and Future," *American Behavioral Scientist* 42 (Nov./Dec. 1998), 366.
27. *Ibid.*, 367.

imagination and discipline, an apt description of the historical method as well.[28] Viewing scenarios and histories as mere stories makes them seem less rigorous than a prediction, implying they should be taken less seriously, and allowing someone like Rescher to dismiss scenarios as so many imaginative tales. I would argue that it is the combination of imagination and discipline that makes historians especially well qualified to write about the future.

That discipline comes from historical thinking, the method I summarized in the introduction.[29] The historian's inquiry begins with questions. These questions can be broad or narrow, can concern multiple variables or few, and can inquire about the relatively present-near or present-far. Historians might choose, like Wagar, to inquire into a temporally, spatially, and thematically broad question. His *Short History of the Future* is based on the question "What is the future of the world system?" Wagar insists that historians of the future must think like world historians like William McNeill or Leften Stavrianos. That is, historians must consider the future holistically and in the broadest topical, temporal, and spatial terms.[30] Hence, Wagar's history covers the entire globe, deals with social, political, economic, and intellectual developments, and extends centuries into the future. But, *pace* Wagar, historians can also think about more narrowly defined topics, as Yergin and Gustafson demonstrate in *Russia 2010*. That collection of four scenarios for post-Soviet Russia deals with the political and economic system over the next decade. Their history of the future is closer to the dimensions to which most professional historians are accustomed: our monographs and journal articles typically deal with a short time period, covering a specific geographical area and a specific topic.[31] Therefore, while as universal historians we might inquire into the future, it is perfectly acceptable for historians to ask narrowly-circumscribed questions.

Once the question is asked, the historian must locate evidence. While there are no "archives of the future" to which a historian might travel, evidence about the future is readily at hand. Like a scenario writer, the historian must "scan the envi-

28. See Daniel Yergin and Thane Gustafson, *Russia 2010, and What it Means for the Rest of the World* (New York: Vintage Books, 1995), xviii.

29. Before the historical inquiry begins, one might wish to examine the historian. A historian is far from a neutral and objective observer of the past. Historians bring their own personal experiences, biases, theoretical orientations, schools of thought, and particular interests to their inquiry. Any meaningful history of the future would similarly require one to take stock of the historian writing the scenario. Wagar, for example, brings a background as a historian of utopian science fiction; his personal favorite is H. G. Wells, after whom he unashamedly models his own *Short History of the Future* (Chicago: University of Chicago Press, 1999). This might explain Wagar's insistence on the relationship between history and story. On Wagar's debt to Wells, see "Tomorrow and Tomorrow and Tomorrow," *Technology Review* 96 (April 1993), 50-59. Wagar has been heavily influenced by Marxism as well as the world systems theory of Immanuel Wallerstein, both of which play prominent roles in his history of the future.

30. Wagar, "Past and Future," 367. Wagar says the historian of the future must consider "the vertical and the horizontal dimensions of totality."

31. See, for example, my "Japan's Uncertain Future: Key Trends and Scenarios," *The Futurist* 36 (March/April 2002), 48-53. I have also written scenarios dealing with topics ranging from the future of information technologies to the future of computers in the discipline of history. The types of business scenarios Peter Schwartz writes similarly cover specific times, places, and issues.

ronment," that is read, listen, and watch widely. The types of sources one must examine, of course, depend on the type of inquiry one wants to perform. When writing a history of the future of Japan, for example, I consulted government announcements, journalistic accounts, sociological observations, and demographic projections, as well as evidence from the past. Evidence does not exist independently of the historian; in scanning the environment for information, in identifying data likely to serve the inquiry, the historian identifies material as evidence. I do not mean to suggest, of course, that historians invent their sources, but only that documents, statistics, proclamations, mass media images, and the like are not evidence until a historian identifies them as such. This applies to evidence from the past as well, not just to evidence of the future. Historians did not consider old parish records or women's journals "evidence" until a group of historians identified them as such. These historians did not create the material artifact, only the concept of the artifact as evidence. "Virtually anything in the world may be evidence for something else," writes Michael Stanford, "if a rational mind so judges it."[32] Like evidence from the past, evidence for the future is not intrinsically evident. It is made evidence by the historian's mind acting upon it.

There will be those historians who will contend that the data I consulted are not really evidence of the future but rather evidence of the present. All evidence, however, even evidence about the past, resides in the here and now. It goes without saying that historians do not study the actual past but rather material and mental objects from the past. "We do not," observes Arthur Danto, "have direct access to history-as-actuality, but only indirect access through using 'history as record,' that is to say . . . bits and pieces of the present world which stand in certain relations with history-as-actuality."[33] The evidence from the past that exists today exists in tangible form in the present. In fact, it might be more correct to say that historians do not study the past but rather present evidence. The historian works backwards from this present evidence to construct an account of a past reality. A historian inquiring into the future has the opposite but related task of taking evidence in the present and thinking forward in order to construct an account of a reality of the future. Future historians take bits and pieces of the present world which stand in certain relations with "history-as-potential." There is, for example, evidence that some Japanese fathers are becoming "stay-at-home dads"; in my history of Japan's future, I offered this as evidence of a future period of greater gender equality. Surviving evidence from the past provides only a trace of what was; evidence in the present provides possible precursors of what might be.

The next task for the historian is to discern the patterns and meaning in the evidence.[34] Thinking about the future involves the same process of finding patterns

32. Michael Stanford, *The Nature of Historical Knowledge* (Oxford, UK and Cambridge, Mass.: Blackwell, 1986), 64.

33. Danto, *Narration and Knowledge*, 88.

34. As Stanford observes, this is the central activity of the historian: history is "the fusion of mind and evidence." Stanford, *The Nature of Historical Knowledge*, 76. Richard J. Evans notes that historians examine documents "as evidence for establishing the larger patterns that connect them." See *In Defense of History* (New York: W. W. Norton and Co., 1999), 69-70.

in the evidence as does thinking about the past. To arrive at the conclusion that Japan might be moving toward greater gender equality, I had to place the evidence for stay-at-home dads alongside other evidence, such as the younger generation's more liberal attitudes, the rise in the percentage of "love marriages" (rather than arranged marriages), and demographic projections that suggest declining birthrates. That is, I sought patterns in the noise of the evidence.[35]

As is the case with evidence about the past, evidence about the future is also scanty and incomplete and certainly not in 1:1 correspondence with what will actually happen. Any construction of an account of the future involves using pieces of evidence in a creative way, yet this account must be as faithful to the plausibilities of the future as the evidence suggests. If this seems an impossible task—for how can one faithfully describe what has yet to happen—it might be useful to consider the work of counterfactual historians. Rigorous counterfactual history compares the plausible alternatives of what the future might have been to what actually occurred in the past. As Marc Bloch observed,

> When the historian asks himself about the probability of a past event, he actually attempts to transport himself, by a bold exercise of the mind, to the time before the event itself, in order to gauge its chances, as they appeared upon the eve of its realization. Hence, probability remains properly in the future. But since the line of the present has somehow been moved back in the imagination, it is a future of bygone times built upon a fragment which, for us, is actually the past.[36]

To gauge the probability of what actually happened, the historian must weigh the probability of other equally plausible alternative histories.

But how does the historian determine which alternatives are plausible, when one could imagine an infinite number of different scenarios? Niall Ferguson contends that "The answer to the question is very simple: We should consider as plausible or probable *only those alternatives which we can show on the basis of contemporary evidence that contemporaries actually considered.*"[37] Thus, counterfactuals are not just the product of imagination; like all historical inquiries, they require the discipline of evidence. Geoffrey Hawthorn asks, for example, if the devastation wrought by the bubonic plague was an unavoidable natural disaster or a tragic accident. He considers alternatives that show that the plague was far from inevitable, but only after considering contemporary evidence that suggests that alternatives were possible.[38] In his history of modern Germany, Hagen Schulze offers five alternative "nineteenth-century German histories," including

35. All historians seek patterns in the evidence of the past, not just universal historians. As William McNeill has observed, "Pattern recognition of the sort historians engage in is the chef d'oeuvre of human intelligence. It is achieved by paying selective attention to the total input of stimuli that perpetually swarm in upon our consciousness. . . . Pattern recognition is what natural scientists are up to; it is what historians have always done, whether they knew it or not." See "Mythistory," in William H. McNeill, *Mythistory and Other Essays* (Chicago: University of Chicago Press, 1986), 5.

36. Cited in Niall Ferguson, *Virtual History: Alternatives and Counterfactuals* (Basic Books, 1997), 84.

37. *Ibid.*, 86.

38. Geoffrey Hawthorn, *Plausible Worlds: Possibility and Understanding in History and the Social Sciences* (Cambridge, Eng.: Cambridge University Press, 1991), 39-80.

a democratic Germany, a Germany dominated by both Prussia and Austria, and a Germany featuring neither Prussia nor Austria, suggesting that the rise of Bismarck was not the only logical outcome of the Revolution of 1848.[39] These scenarios are built from an assessment of the evidence and are not simply fanciful stories. Limiting alternatives to what the available evidence suggests "renders counterfactual history practicable."[40]

Rather than transporting our imaginations into the past, historians inquiring into the future may use the same counterfactual techniques in our present. Only evidence makes a future scenario "futurible." This is a term coined by Bertrand de Jouvenel, who wrote that "a future state of affairs enters into the class of 'futuribles' only if its mode of production from the present state of affairs is plausible and imaginable." Aviation, for example, was not possible for the ancients; it became futurible "only when certain new facts made its development conceivable," such as technological developments early in the twentieth century.[41] Although de Jouvenel uses the term "new facts," a historian could easily substitute the word "evidence." In my future history of Japan, the scenario of greater gender equality became futurible only when I found evidence of a small but growing number of stay-at-home dads. It was this evidence coupled with other evidence that made that scenario more plausible. "A futurible is a descendant of the present, a descendant to which we attach a genealogy," concludes de Jouvenel. Evidence makes counterfactuals "practicable" and future scenarios "futurible."

The historian then writes conclusions after identifying the patterns in the evidence. For the scenario writer, these conclusions take the form of multiple narratives; one must write at least three different stories in order to realistically imagine the competing states toward which the future might be attracted. Historians of the past are accustomed to writing only one "scenario"; when writing a monograph or article, we are not in the habit of presenting alternatives to our thesis. Counterfactual history once again offers a useful model for how historians might adopt the multiplicity of scenario thinking. Historians such as Ferguson assert that history does not move along one inevitable path. Thus, to study counterfactuals is to admit to the possibility of several paths the past might have followed. As Hawthorn observes, as our explanations of past occurrences become more convincing, we paradoxically must admit that alternatives were possible. "If such-and-such a cause or combination of causes had not been present," he reasons, "things would have been different. If we do not believe they would have been, we should not give the causes or actions in question the importance we do."[42] If we believe Hitler caused the Second World War, then we must admit that if there were no Hitler there would have been a different outcome. To believe in counterfactuals is to admit to at least two scenarios: the story of what

39. Hagen Schulze, *Germany: A New History* (Cambridge, Mass.: Harvard University Press, 1998), 147-167.

40. Ferguson, *Virtual History*, 87.

41. de Jouvenel, *The Art of Conjecture*, 18.

42. Hawthorn, *Plausible Worlds*, 14.

did happen, and the story of what might have happened. If historians can imagine rigorously composed alternative scenarios of the past, it is a relatively easy step to then imagine multiple scenarios of the future.

Peter Schwartz wrote that a scenario describes how driving forces might behave in the future based on how those forces behaved in the past. Schwartz does not elaborate on what this might entail, although it appears he is describing the use of historical analogies. Recall that an analogy is a similarity in the midst of apparent difference. Patterns in present evidence might suggest similarities with past situations from which we can then imagine future outcomes. Evidence for a rise in neo-Nazi activity in Germany, for example, might alert us to the possibility of a fascist resurgence. Analogies must be used with caution, however, for we should not forget that analogies are not law-like regularities, precisely because they are comparisons of different situations. In advising decision-makers on the uses of history, Richard Neustadt and Ernest May caution that those who see only the similarities in two situations might be blindsided by the differences in those situations.[43] Thus, while neo-Nazi activity is on the rise, German society today is less tolerant toward right-wing groups, and possesses much stronger democratic institutions than in the 1930s. A case could be made, therefore, for both interpretations based on the available evidence. In using historical analogies to think about the future, historians are already thinking in terms of alternative scenarios: the similarities suggest one possible outcome and the differences suggest other possible outcomes. This appreciation of difference and similarity in historical analogies makes the historian especially sensitive to alternative outcomes, and thus well-qualified to write realistic scenarios about the future.

Recall that Schwartz's definition indicated that the purpose of scenario thinking is to envision the environment within which events will occur, not the specific chronological procession of events. Thus, the scenarios historians write would need to be synchronic narratives, rather than the diachronic narratives we usually prefer. In describing the environment—the context—scenarios tend to read more like structuralist "thick descriptions" rather than a diachronic sequences of events. A description of the environment would be analogous to a physicist's qualitative description of a chaotic system, in that one is attempting to describe the behavior of the system as a whole.

Thinking structurally and synchronically might be a difficult step for historians, however. Unlike anthropologists, historians are trained to favor events over structures, short-term change over long-term stabilities.[44] Historians who wish to use the scenario method might wish to approach the future as Fernand Braudel approached the past. Braudel wrote that events are fleeting and ephemeral, and thus argued that historians should write instead about structures, those stable elements of the past that provided limits on the actions of humans.[45] While we might

43. See Richard E. Neustadt and Ernest R. May, *Thinking in Time: The Uses of History by Decision-Makers* (New York: The Free Press, 1986), 34-57.

44. For a discussion of structure and event in history and anthropology, see Marshall Sahlins, *Islands of History* (Chicago: University of Chicago Press, 1985).

45. Fernand Braudel, *On History* (Chicago: University of Chicago Press, 1980), 27, 31.

not be able to predict events, we might be able to imagine a future structure within which events may occur. Think of this example: imagine a swarm of gnats moving toward a light. A photographic plate recording the three-dimensional movement of the gnats would reveal a rough two-dimensional circular shape, the structure of the gnats' movements. Thus, while we might not be able to predict the path of the gnats, we could imagine the boundaries within which those flights might occur.[46] In writing scenarios as descriptions of an environment, the historian should emphasize the context which may produce events, not the events themselves. Thinking in terms of a procession of events is indicative of a predictive mindset; structural descriptions of many plausible future environments is closer to the heuristic thinking of the scenario method.[47]

The final act of historical thinking involves reading the works of other historians, and assessing the validity of the narrative so created. Historians critique the choice of evidence, the interpretation of that evidence, the tone and word choice of the narrative, and the resulting conclusions. Historians engage in historiographical debates about interpretation; the "secondary literature" gives shape to the kinds of questions we ask and the interpretations we make about the past. Those questions and interpretations are always shifting, as historians revise their stories about the past. While there are many parallels between the historical method and scenario writing, at present this historiographical step is largely missing from the scenario method and from the futurist literature generally. Futurists are not usually in the habit of critiquing the predictions of others, nor do they identify a historiographical "secondary literature" when writing scenarios or making predictions.

I believe this integral part of historical thinking would enhance scenario writing and our understanding of the future. Historiographical debate would reinforce the notion that thinking about the future is a disciplined interpretive act rather than a predictive act. Our knowledge of the future is even more incomplete than of the past. We have even less evidence of the future, and thus any statement about the future can only provide the basis for a provisional model. But because of our experiences with writing about the past, historians are in a particularly good position to explore the historiographical dimensions of scenario writing. As new evidence about the future becomes available, or as historians offer new historiographical perspectives from which to think about the future, "futurible" possibilities would emerge. In the face of these changes, like any other historical inquiry, historians would reexamine the received picture(s) of the future, alter their interpretations, jettison old models, write new narratives, and consequently create new pictures of the future. Applying historical thinking to the domain of the future would replace the singular definitive prediction with multiple stories written by historians engaged in continuous conversation and debate. Historical

46. This example comes from Douglas Hofstadter, *Metamagical Themas: Questing for the Essence of Mind and Pattern* (New York: Basic Books, 1985), 255.

47. I make this argument in "Realistic and Responsible Imagination: Ordering the Past to Envision the Future of Technology," *Futures Research Quarterly* 14 (Fall 1998), 29-39.

thinking would make the future a domain of inquiry as contentious and thus as intellectually rigorous as the past.

Imagine this scenario: scholarly journals like the *American Historical Review* publish articles with titles like "Japanese Gender Equality, 2010–2050" and "Restructuring the American City in the 2040s" which coexist alongside articles about the past. Both articles offer new interpretations of these future terrains, and begin with an assessment of earlier efforts to understand the future of Japanese gender relations and American urban politics. These articles are peer reviewed, their authors demonstrating careful primary source research which situates the narrative within some broader interpretive context. Peer reviewers insist on several mutually exclusive scenarios, and assess the validity of each scenario before accepting the article for publication. Occasionally, these journals publish historiographical forums, debates among historians on some interesting problem about the future. Or consider this scenario: historians interested in inquiring into the future create their own specialized journal, entitled *Subjunctivity: A Journal of Historical Plausibility*. In addition to scenarios of the future, the journal includes well-constructed peer-reviewed counterfactual scenarios. The journal has wide readership, not only among professional historians but among politicians, decision-makers, and corporate executives as well as the general public, who are fascinated with stories of what might be. Readers of the journal seek flexible alternatives rather than rigid predictions, realistic plausibility rather than hubristic certainty. These readers appreciate that there is nothing more dangerous than visionaries convinced of the inevitability of their vision. The appearance of books like Wagar's *A Short History of the Future* suggests that both of these scenarios are "futurible."

Historians are well qualified to write imaginative, disciplined, and realistic histories of the future. And by historians I do not mean only universal historians or speculative philosophers of history; my contention here is that all professionally trained historians possess the skills necessary to think about the future. "History, like poetry and song," concludes Michael Stanford, "is a way of using language."[48] Historians might redefine the study of the future as "a way to use language." While we have traditionally applied our skills to the study of the past, we could, with only minimal intellectual adjustment, face in the other temporal direction and fix our gaze upon the future. The result would be an unconventional sort of history, but recognizably history nonetheless.

Heidelberg College

48. Stanford, *The Nature of Historical Knowledge*, 130.