One of the unresolved problems in the scholarly world is the answer to the question "What is change?" We map or chart change by sequencing still photographs—giving snapshots of circumstances in one period after another or lining up one event after another. But we do not really know what change itself is, fundamentally. Nor is the historian sophisticated about the nature of time and the temporal assumptions that he is taking for granted. These issues arise not only for the historian but also for the social scientist doing diachronic analyses or making projections. The following article, representing some of my early struggles with these problems, was published in the Journal of World History, *9 (4) (Neuchatel, Switzerland: 1966): 869-883. This article was a revision of a paper entitled "Recent Theories of Historical Changes," given to the Mississippi Valley Historical Association conference in Kansas City, April 22, 1965. University of California research sociologists Sheldon Messinger and Jan Howard, members of the Humanities Department at San Francisco State College, and Wayne State University historian Edward Lurie gave me their editorial reactions to an early version of that paper.*

Following it here are some brief comments about technology in history, not only as a major agent of change but also because of its impact on the factors that shape selfhood.

CHAPTER 26

Time and Change in Twentieth-Century Thought

In all of the social sciences and many of the humanities and natural sciences, problems of the nature of time are of central importance. For history, time is of the essence, and yet historians seldom pause to ask or answer, "What is time?" One can imagine time without change, but one cannot discuss change without assuming time. Following are six twentieth-century ways of approaching the problem of historical change or, in their larger context, six ways of viewing the nature of time, reality, and knowledge.

Time's Arrow

Lingering from certain nineteenth-century writers (who borrowed from Turgot and Condorcét, who borrowed from the Greeks) has been an assumption of unilinear time, the imagery of time's arrow, to use Eddington's phrase, which has both profoundly affected and obscured thinking about the nature of historical change. In the eighteenth and nineteenth centuries, history was often thought to move along the path of time's arrow in a teleological way, whether the pattern of movement was perceived as one of undulations, cyclical trends, or spiraling dialectic. Most eighteenth- and nineteenth-century thinkers did not distinguish between an assumption of unilinear time and interpretations of the pattern of history superimposed upon that time, but this distinction must be made very clear. The important point is that historians and social scientists who have abandoned the teleology implicit in Comte, Spencer, Hegel, Marx, Spengler, and Brooks and Henry Adams' theories of history have continued to assume unilinear time.

Thus, the sociologist P. A. Sorokin, in his monumental *Social and Cultural Dynamics,* documents at great length the evidence against the concept of unilinear development in history, and yet he traces historical phenomena in a way which assumes that the past came before the present and the present will be followed by the future, a linear image of time. Almost all present-day historians still narrate historical events in a way which assumes underlying unilinear time. The social scientists who make predictions, who project trends into the future, also generally make this kind of assumption. For all of them (even Sorokin, who knows better) the ultimate base, the underlying conceptual framework for

historical time, is the old continuous, infinitely divisible, absolute Time of Newton and of nineteenth-century mechanics in physics.

Forty years ago, Frederick J. Teggart, the social scientist-historian, published an indictment of the treatment of the problem of change both by evolutionary social scientists of his day and by the conventional historian.[1] Nineteenth-century evolutionary thought concentrated on mapping (but not really probing) the processes of change to the exclusion of natural laws of change which were uniform regardless of time and place—God's invisible hand working within a framework of Newtonian absolute time. Some modern predictive-projective social science, not concerning itself with the question of how change actually does occur, thinking it has repudiated evolutionism altogether, has rested on assumptions about change and time which the evolutionists at least tried to make explicit. On the other hand, for the past 75 years, most academic historical writing has dealt with situations and happenings, with actions and motives, not with processes and trends; "events happen, they do not change." When the historian has sought for cause, he has thought of cause in terms of a sequence of discrete events, conditions, or actions within the framework of unilinear time. Time is the connection between events, and the unspoken or even unrealized original premise has been that God or His metaphysical equivalent has been the basis for the connectedness of time. Evolutionist social thought; the statistical prediction of social, economic, or political trends; and the study of history have been carried on in different worlds, without awareness of how much they have been assuming about the unilinear nature of historical time (and of how similar their assumptions have been), and without appreciation of how much such assumptions have conditioned their orientation or lack of orientation to the problem of historical change.

Man's Effort

A variation on the theme of time's arrow became current in intellectual history forty to eighty years ago in the thinking of William James (influenced by Henri Bergson) and John Dewey, and in the historiography of Charles Beard, Carl Becker, and, more explicitly, James Harvey Robinson.[2] Time's arrow has brought us to the present, they said, but we must—like runners in a relay race—take it from here, and where we take it is a matter of individual or collective will and effort. As Justice Oliver Wendell Holmes put it, necessity brought us to the present; it is on faith that we act for the future. Social Darwinist that he was, he would add that force would be the ultimate arbiter of the efficacy of our acts. The pragmatist, experimentalist, activist mood among certain thinkers of the decades before and after the turn of the twentieth century was not so great a departure from earlier evolutionism as it might seem. The concept of unilinear

time still lurked in the background, but a disjuncture had been effected between past and future, and man's will and effort in the present were what would fill the gap. Change, in short, could be the result of individual purposive action, pitted against the forces of present reality. The transfer of the power to change from God to man came with the concept of possible breaks in the formerly smooth continuity of time. But then Turgot, Condorcét, and Comte, like the American New Historians, had said that control over the present and the future would emerge from a proper understanding of the past. Through control, men would move out of unilinear time into Utopian time, which had some of the timeless quality of heaven.

The Extended Present and Existential Being

The pragmatist body of thought, however, contained some germs, some seeds, for quite another view of time. Charles Beard said the great historian endures "only in so far as he succeeds in casting through the warp of the past the weft of the future."[3] Carl Becker, too, saw the value of history as an enlargement of the specious present. According to William James, the practically cognized present is no knife edge but a saddle back, with a certain breadth of its own on which we sit perched and from which we look in two directions into time.[4] There are affinities between these views and the treatment of time in existentialist thought. For the existentialist follower of Martin Heidegger, Being (or rather, what he calls Dasein) has of its essence both the past and the future. The past consists of a series of projections into the future; both the future and the past are taken up into the now. Time is within, not outside the uniqueness of Being. Beings in the world may be connected through time in its ordinary sense, but this is not true Being nor is everyday commonsensical time true Time.[5] In a way, any special concern with change is as tautological here as it often is for unilinear time, for the teleology in this case is within individual Being. All aspects of Being (temporal and otherwise) are contained within it all along.

Atomicity and Mysticism

In other areas of thought and art, and in existentialism itself, this individuation of time, this focus upon the discrete particle, the irreducible unity—a part of whose nature is time, but no longer unilinear time—has come close to total atomicity, to a total disconnectedness, abandoning time altogether as a measure of the external connection or relationship between things and events. Expressionism in painting, quantum theory in physics, and the outgrowths of non-Euclidean geometry all have had in some of their phases an assumption of atomicity, of individuation, where time may be part of the structure of the unique thing but is not the connection between things.[6] Some radical empiricists in

twentieth-century social science, reacting against any conscious use of theory (since they identified theory with a-priorism and armchair speculation),[7] have reduced the world of research to a kind of kindergarten where integers are counted in a single (assumed) contemporary (absolute) time plane and are related through statistical correlation—a method which also assumes or implies the atomicity of things. The computer with its I.Q. of 2 and its binary arithmetic mentality has been their partner in this task. This departure from the old notion of unilinear time is far less complex and rich, much more simple-minded, than have been the departures in physics, philosophy, and art. Radical atomicity, however, does not long persist—it strains toward mysticism, whether the mystic bond be called energy, as in physics, or the pool of creative force which the expressionist painter hopes to join through his unique creative act, or the community to which the atomized members of a mass society yearn (except for the empiricists whose "facts" remain discrete, connected only by the tenuous thread of correlation.) Neither in atomicity nor in mysticism in any of their forms is there change as the historian knows change.

Time Without Change

Change is also missing in another school of contemporary thought and art which, stripped of its modernist trappings, turns out to be as ideational, as referential to an absolute eternal Time, to an abstract timeless idea, as were some of the concepts and art forms of the ancient Greeks. Examples of this school can be found in some kinds of cubist or precisionist painting, some architecture of the International school, the functionalist anthropology of Bronislaw Malinowski and A. R. Radcliffe-Brown, and the structural-functional sociology which begins with the concept of equilibrium and concentrates on the modes of integration of the units of a system and on latent pattern maintenance and tension management. All such modes of thought are an extension of the tradition of Marx and Plato, who saw change only as a means to a stable end, who saw stability as the ideal state. In the 1920s and 1930s a militant anti-historicism raged among American social scientists generally. Harry Elmer Barnes wrote in 1948: "Perhaps the most striking aspect of the history of historical sociology is the decline of interest in this field in the last four decades."[8] Much of the anthropology, social psychology, sociology, and somewhat later behavioral political science eschewed not only history and a concern with change, but also any conscious concern with philosophy or even theory. Yet philosophy and theory were implicit in their methodology. Like the earlier scientific historians, they hardly realized how much they assumed. And some of them were like Transcendentalists, hoping to find in the concrete and instant fact a microcosm of nature's eternal verities, as if now were all time and here were all places, or as if there were neither change nor time.

The Pressures Toward a New View

During and immediately after World War II, Americans quickened their perennial quest for a definition of what Americanism means. Then in the 1950s came a great surge of receptivity to foreign culture and artifacts. Contrapuntally, in the 1950s and 1960s, public leaders began to talk about the need for a new consensus about American values. This search for value consensus has been matched by a similar thrust in the world of scholarship. In the early 1940s, both anthropologists and sociologists began to recognize that "the search for facts undirected by theory was aimless and their accumulation unintegrated by theory was meaningless."[9] Economists too, began to call for a common core of theoretical training so that specialists could communicate with each other, and evidenced a new appreciation for the utility of history.[10] The Association of American Law Schools appointed a committee on Law and the Humanities, which, in 1964, called for strengthened programs in legal philosophy, legal history, and comparative law, and for a humanistic concern with values.[11] The Cornell Value Study Group concluded in 1949 that "the concept 'value' supplies a point of convergence for the various specialized social sciences and is a key concept for the integration with studies in the humanities."[12] The concept of value in turn was embraced within the still larger concept of culture.[13]

Simultaneously, both in the country at large and among scholars, has come an increasing desire to understand the factors which go into creativity, innovation, and change. Partly, the new stress on change has come from attempts to apply American methods and concepts to rapidly developing non-Western countries, and from the cumulative effects of a catapulting technological-material civilization at home. Also involved have been such influences as the availability of long-range institutionalized support for research which studies development over time, and the demands of economic and governmental institutions which have to make decisions about major capital investment necessarily involving long-range commitments because of pension and welfare plans, long-range warranties, the practice of leasing, and the like. Decisions must be made on the basis of projections into the future which take into account patterns of possible change. Also, the current cultural and technological explosions put a premium upon certain kinds of creativity and innovation, and so there are scattered about the United States projects to study the processes of creativity. All of this has been accompanied by a new awareness of variations and changes in the nature of time. Jet travel, instant coffee, and medically created longevity—all in a sense have given gifts of time. How gross the sundial and the pendulum have become as measurements of time in an era of transistors, electronic circuits, and split and decaying atoms. Men hustled by jets from culture to culture have opportunities to realize more fully than before how people can vary in the rhythms, tempo, durations, and temporal signposts of their daily rounds.

One of the results of all this has been a resumed interest in history on the part of social scientists,[14] though obeisance is given to the anti-historicists still among them by not calling it history but rather referring to developmental or longitudinal studies, or to diachronic, as contrasted with synchronic, relationships.

So another set of theories about change and time has been emerging, which makes the seventh set for this list. These theories have the potentiality of permitting both the separate existence and a synthesis of all the prior theories. They permit and require both objectivity and evaluation. They permit and require the whole gamut of disciplinary methods. They present to the culture at large a construct which emphasizes both stability and change.

Toward a New Dynamic Integration

Obviously, in this brief compass, the presentation of so complex and multifaceted a set of theories cannot pretend to capture their full analytic depth, but an outline can be useful. These theories use for a framework the concept of culture, which anthropologists have been refining in the past two decades to mean **1**) values and **2**) symbols (both as manifested in or given meaning by learned behavior patterns). The term values refers to existential assumptions underlying personal behavior and institutional patterns, and to principles which direct choice.[15]

Contained within culture is a social system and related economic and political institutions which affect human behavior. At the level of society, cultural values and symbols are transformed into norms, the principles and signals which guide everyday behavior. At the third level of specificity is the individual, one of whose aspects is personality. The links between the individual and the socio-economic-political order are effected through the concept of role, and through the internalization of those norms which in turn are connected with broader cultural values. Talcott Parsons and Edward Shils, and other contributors to their *General Theory of Action,* have hypothesized ways in which these three levels are closely interconnected. As it stands, this set of theories, while it brushes up against the problem of change, is in the older equilibrium tradition of the structural-functional sociology and anthropology.

Within the past ten years, this body of theory has been the departure point or whipping post for considerable writing about the problem of change.

All of the old theories about how major cultural change occurs are still *au courant.* None is out of the running. Not abandoned altogether is the thought that great creative individuals are the architects of change, though the central question is still why and how. Not to be ruled out is the theory that change is the result of accidental discoveries or natural or social catastrophes. Another still quite acceptable theory is that change is the result of quantitative accumulation, most apt to occur in places where resources are concentrated and collaborative

effort is readily facilitated. There is evidence to indicate that change is both the result of inherent tendencies immanent from the beginning of a social order, and that it is the result of contact between diverse cultures. Any of these theories can be absorbed within the rubric of a modified structural-functional school. For the changes which imply purposive action or willing acceptance, the question is what is the trigger.

When the structural-functional school concentrates upon equilibrium, its imagery shares some of the characteristics of nineteenth-century mechanics in physics. When it incorporates a theory of change and begins to stress dynamism, it takes on some of the imagery of the living organism. Hence, there is a notable tendency to explain change in terms of reaction to maladjustment within the cultural, social, or personal organism, or between such organisms and outside pressures. Even analysts who do not share the organismic imagery still exhibit an affinity for this pattern.

Thus Arnold Toynbee has offered an explanation of major change as arising from failure to meet challenges.[16] Elmer Barnes says, "The chief cause of . . . world revolutions has always been a discrepancy or maladjustment between material and nonmaterial culture."[17] The anthropologist Florence Kluckhohn has made the following analysis: Cultural values spring from the basic facts of human nature, which are perennial. There are a limited number of value solutions to these basic human problems, and the whole gamut of possible solutions may be found in any culture. Cultures vary in the degree of emphasis they give to particular values, in their ordering of value priorities. The demands made upon human beings by some values are inherently tension-producing. Also, some values given top priority do not jibe well with others also given top priority, as for example the ethic of the golden rule and the cult of success in American culture. Also, any system contains both a dominant value profile and sub-cultural value profiles that are necessarily somewhat in tension with the dominant profile in order to maintain social differentiation. The degree of tension or inadequate integration arising from any or all of these sources is a measure of the degree to which the culture system is receptive to influence from the outside and the degree to which it generates innovation and change. Its receptivity to particular internal innovations or to particular outside influences, Kluckhohn concludes, will depend on how well they help to bring prevailing value patterns into better adjustment.[18]

Sociologists have also stressed the significance of maladjustment as a source of change. According to Talcott Parsons, "From the sectors of unintegratedness where expectations cannot be fulfilled in institutional roles or when need-dispositions are frustrated by institutionalized expectations, or where the strain is not absorbed in safety valve mechanisms—from these sectors some of the most important sources of change and growth are to be found."[19] Also, "in most

social systems there are considerable sections where the borderlines between conformity and deviance are indistinct and therefore diverse value patterns are allowed to co-exist. The seeds of social change lie in the tensions arising from this coexistence."[20] Thus, theories of change are linked to sociological theories of the processes of socialization and social control, and the nature and sources of social deviation."[21]

Theories about creativity in individuals also often rest upon the concept of maladjustment, though it is recognized that some social and cultural systems sanction and even require some kinds of creativity.

For all of these theories, it is important to distinguish between change within a system and change between systems, noting that much depends upon how the system as a unit is defined, and whether change is regarded as perennial and ubiquitous or relatively rare. Also, it is important to distinguish whether cultural, social, or individual change is the area of focus. Beyond that, the crucial question—ignored by the old evolutionists—is how the flow of change moves between and through these three levels, recognizing that in a crucial sense all three levels exist only within individual persons.[22] The current consensus seems to be that there "is no adequate theory of social change, just as there is no fully developed general theory of society."[23]

This dynamic organism school has not as yet given much thought to the problem of time. It contains some of the elements of all the prior images of time. Usually, its concept of the evolving system and the concept of change from system to system rest on assumptions of linear time like the old evolutionary conception of time's arrow. However, Martin Heidegger's existentialist conception of time is not incompatible with this school of thought, particularly since conceptions about time are thought to be one of the value constructs which form the basis for the whole culture system and its various parts. Thus, any one of the idea patterns about time and change outlined above may be seen as part of the value-system of contemporary culture. At first glance, the super-integration which embraces everything within a dynamic functional-structural construct looks to be the very opposite of the radical individuation of some existentialist thought. However, the basic elements of existentialism may be applied to whole culture systems considered as unified Beings. Since the functional-structural school assumes that there are interstices between some of the elements of the integrated social order—interstices produced by tension and conflict and by non-connection—presumably in such a structure there is leeway for authentic individuality of the existential sort.[24] In short, the theory permits and requires the concept of a multiplicity of social times, not measurable by any single standard, a pluralism of social times among different social groups and a multiplicity of kinds of time for any individual.[25]

However, there has been neither a theoretical nor an empirical analysis of the nature of these several times and of their relationship to each other. Nor has there been a re-examination of the nature of absolute time, if such there be. The fruitfulness of this school will depend on how well it analyzes and solves the problem of time, not only in philosophical and theoretical terms but also in the course of empirical research.

What remains to be done is for historians, social scientists, and humanists—each in their special manner—to study the choreography of historical change: the complex interplay of individual and social rhythm within space.

In analyzing any historical period, historians should ask what its images were of the past and the future, and what its attitudes were toward change. What were the connections between the time-orientations of that period and its other dominant cultural values?

For any particular society, also to be explored and understood are the variations, conflicts, and similarities of the time and change imageries of men, women, different age and vocational groups, social and economic classes, and ethnic and other special groups. How have these differences helped to structure the institutions of the family, church, work, play, politics, economics, government, and the law, and—in addition—what time and change images have these institutions had *qua* institutions?[26]

The task then is to see how these various images and concepts have related to physiological mechanisms and the time rhythm of the biological environment, to the subtleties of psychological time, and to behavioral manifestations of time.

Human ecologists are already wise in such matters. According to Amos H. Hawley, the need for collaboration is at the root of all systems of time. A society must arrange itself in time-space so that each necessary function will be adequately performed. Where performance of essential tasks is slow, there is little time left over for movement and so spatial proximity is necessary, as it is also when frequent and quick personal interactions are required. "Time is experienced as duration and recurrence. . . . Recurrences exhibit various characteristics. Three of these are rhythm, regular periodicity with which events occur; tempo, the number of events per unit of time or the rate of recurrence; timing or coordination of manifold rhythms, many of which have different tempos."[27] The more interdependent people are, the smaller the units of time needed. Tempo increases also with the size of community.

As scattered groups become more interdependent, "the round of life assumes greater regularity and, in fact, is increasingly subject to human control. Timing becomes more and more a matter of adjusting the functions of communal units in a progressively more complex division of labor,"[28] rather than adjusting to

the cycles of the physical environment. The dependent community develops its own internal rhythms, of which the business cycle is one example.

Every community requires a synchronization and coordination of the rhythms within it, accommodating to the rhythms of other communities to which it must relate. Social change, therefore, may be a stage in the adjustment and coordination of rhythms.

Time is intimately connected with space. The very notion and nature and measure of time grow out of spatial relations. Astronomical time has been called the time esperanto of modern civilization, the common denominator made necessary when men are interdependent across space. In turn, the time required for movement dictates the spatial patterns and population size of human communities.

The relationships between time, change, and space apply not only to geographic space, but also to life-space, or what the existentialists have termed the individual's "field of care."

Different social groups have different life-space patterns, created in part by their time orientations. According to Jules Henry, because the poor have no hope, they do not organize their behavior through time toward goals. They have what he has termed "survival selves" and must concentrate on those experiences which give continual and vivid assurance to the survival self that it is alive. "It must keep *feeling its life.*"[29] This is also true at times for children, adolescents, and people generally in periods of cultural disequilibrium. Indeed, the atomistic quality of such 20th-century ideas and art forms as dadaism and some versions of existentialism may be seen as symptomatic of this kind of social condition.

According to Edmund Husserl, "The social world has particular dimensions of proximity and distance in space and time and of intimacy and anonymity. Each of these dimensions has its specific horizontal structure . . . "[30] Men must create their life-space in phantasy before they can act in it. Phantasy helps to create the horizons of action. This may be true not only for individuals, but also for whole societies. Ortega y Gasset and Ionesco, among others, have commented that because of the relative freedom of art from social constraints, the first signs of change in collective imageries become noticeable there. A society may help to create its own life-space in geography and time through the concepts of nation, era, past, and future which that society's historians employ. Historic dates are indicators of the life-space of a particular culture, and historical change may be defined as whatever marks the boundaries of the cultural time-space.

Within such cultural horizons, social structure is a multi-federalism of the life-spaces of different social groups, compounded by the various life-spaces within which any single individual moves for different purposes. (Here again phenomenological, psychological, and biological time become relevant.)

Most social institutions and artifacts may be seen as devices to create or break down space as a field of action. In Japan manners may be used to create psychological space around crowded individuals; in the United States people require a different kind of manners to break down the distances imposed by geography. Language, law, custom, religion, city planning, architecture, all of the arts, popular culture, rights and liberties, even the interplay of darkness and light, all function to set up or break down the social space between people. Written history which portrays men as isolated and discrete, subject to the whims of chance, connotes different life-space patterns than does history which portrays systems which persist in a predictable manner over time.

Not only does the interplay between spatial construction and breakdown help to structure a particular cultural and social system; this interplay is also the instrument of cultural change. Like the romantic forms which accompanied the early stages of the Industrial Revolution in Western countries, many 20th-century ideas and images have facilitated the substitution of new systems and continuities for old ones by providing an emotional buttressing for individuals who are detached from old securities and thrown back upon themselves. Thus, modern culture has been characterized by an "eclipse of distance" between the individual's conscious and unconscious selves; between persons, so that in the United States there is often a kind of instant intimacy; and between persons and those art forms which draw the viewer into their very vortex.[31] Through this kind of psychological holding action, old systems may be destructured and socio-economic-political change effected by the projection of new rational categorizations into the future, as—for example—when statutory law and written constitutions are superimposed on more particularistic and backward-looking customary law.[32] Generic abstractions help to create new institutional time-space patterns. Freedom is the cry of men in the process of readjusting life-space and rhythmic coordinations; the form of readjustment varies with the circumstances. New time-space relationships are part of the rhythm of change or change of rhythm accompanying major socio-economic alterations.

Historians and other scholars have much work yet to do in mapping and analyzing this vast choreography of change. But if the work is done, there may emerge an empirical and theoretical basis for a far richer, more qualitatively tenable, more dynamic understanding of culture and society than has been known in the past. The connections between social imperatives and unique individuals may then be seen in a way which treats people as the complex wholes that they are. For scholars, the ultimate goal should be not the kind of artificial scientific reductionism whose logical endpoint is the Brave New World, but rather a multi-dimensional set of values, theories, concepts, and methods which converge at that high point where science and art are—in a sense—the same.[33]

TECHNOLOGY IN HISTORY

Any discussion about the triggers of change must give due credit to the role of technology. In the 1990s, technological changes came in such quantities and at such speed that some people predicted "an end to history" or an "end to civilization." In prehistory, major technological changes were few and far between. The predecessors of modern man used "found" tools for five to seven million years before *homo erectus* improved stone tools. *Homo erectus* learned to control fire, travel on water, and build huts before *homo sapiens* developed, yet it took modern man a long time to change from reliance solely on stone, bone, and wood to the use of copper, bronze, and iron. The other discoveries that followed came slowly: the use of written language, numeration systems and mapping; the cultivation of crops and domestication of animals; the development of more lethal weapons; the invention of the wheel; the improvement of sailing ships; the invention of gunpowder; the invention of the printing press; and so forth. Nevertheless, each new technology was a milestone in human development.

From the inventions that led to the industrial revolution onward, people in what became the advanced industrial countries lived in an environment of constant innovation. With the spread of railroads in the industrial age, the time it took to traverse space was compressed; the telegraph enabled faster communication. After the harnessing of electricity during the 19th century, advanced industrial countries soon experienced a rush of new technology. The internal combustion engine led to the automobile age. After still photography, there were motion pictures. After the telegraph, radio was developed. Man learned to build airplanes. New inventions tumbled forth in rapid success throughout the 20th century. Technology also affected the nature of selfhood, and, by affecting selfhood, altered approaches to history.

The historian who wishes to write "holistic history" cannot leave out technology. By the 1990s, use of the Internet and World Wide Web made possible instant interactive (personalized) communication around the globe. Television news came in shorter and shorter sound bytes. "As time was being compressed and fragmented," Manuel Castells has written, "the result was a 'desequencing of society' and a 'de-historizing of history'." The result was social fragmentation. Many more options were available from which to construct one's identity; identities became "more specific and increasingly difficult to share."[34] As a result, in many places the sense of community diminished.

Against this disruption of familiar moorings, there were reactions. As the power of states was being challenged by the global economy and regional trade blocs, some people turned to a reassertion of nation, as distinguished from state. "Nations," Castells wrote, were "cultural communes constructed in people's minds and collective memory by the sharing of history and political projects."[35]

Instead of "history," there were competing histories. Renewed emphasis on nation was an antidote to the sense of temporal fragmentation, but it ignored economic realities and it often led to wars—small wars, not world wars, because as someone said, "In the age of the global economy, why would global corporations want to kill their customers?" There had always been a close connection between wars and history; but what would be the connection between these wars (given their reactionary nature) and historical change?