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Globalization via World Urbanization: The Crucial Phase

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Abstract

Globalization: The Crucial Phrase brings together scholars of anthropology and social science, as well as law and medicine to examine the challenges and opportunities introduced by rapid globalization, including economic diversity, education, labor, health, and environmental concerns.

Keywords

anthropology, geography, folklore, linguistics

Disciplines

Anthropology | Human Ecology | Social and Behavioral Sciences | Sociology

Globalization via World Urbanization

The Crucial Phase

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The future is already here; it's just unevenly distributed.

—W. Gibson 1993

Globalization is on everyone's lips, but poorly grasped, and inadequately explained. Like many other terms that are common in everyday conversation, such as democracy or capitalism, its currency trumps our ability to give it an exact meaning. Since it was not coined as a scientific term, we cannot restrict its use to the objectives of social scientists. Definitions in the literature vary with the special interests of each writer. But it flourishes in general usage because it captures the accelerating rate of change we see all around us, much of which extends our day-to-day experience beyond the local and national into the global.

Globalization is not a new term. It was introduced in 1904 in French, and appeared first in English in 1930[1]. However, it did not take on until the 1990s, after the collapse of the Soviet Union forced us to re-evaluate world affairs. The fall of the Iron Curtain after 1989 took us by surprise. Until then our models for understanding international interaction had been essentially static. Most people saw the world in terms of the Cold War, a static paradigm that satisfied our need for perceptual order. This bipolar model that had emerged in the routinization of affairs after World War II enabled

us to see a stable world, resting on a rough balance between American and Soviet power. When one of these two poles collapsed, we were left with the obvious default: unipolarity. But America's inability to control the ethno-political conflicts that broke out in the next few years in the Balkans and in Central Africa quickly invalidated unipolarity as a useful model. Then the internationalization of terrorism, beginning with the first World Trade Center bombing in 1993, opened up our thinking to a completely new paradigm.

During the forty-six years we were relying on the stability implied by our bipolar model, the world had not been standing still. It had continued to change—at an accelerating rate. Now a new wave of Internet and wireless technologies that facilitated remote interaction, first the World-Wide-Web and then mobile phones, raised our day-to-day awareness of other parts of the world. The emerging globalization discourse made sense of this new experience. It was ready-made for the time: dynamic, conceived as process, assuming change and looking forward to a qualitatively new global community. The new word spread quickly through language communities that build new words from Latin roots (though other languages have had difficulty). Our adoption of it has been revolutionary, because despite the increasing acceptance of the idea of progress since the 18th century, this is the first time in human history that the present is seen in terms of an imagined future state. Unlike any previous paradigm for understanding the world around us, it envisages not the transformation of this world into the next (as in the Middle Ages), not a stable continuity of competition in current conditions (as in modern history), but assured progress towards a qualitatively new, globally interconnected community.

We recognize that globalization, whatever else it may be, is change, accelerating open-ended change. Change is not new. It has always been with us, in even the earliest, smallest communities, if only as a natural outcome of the staggered life cycles of demographic process. For most of human history the rate of change has been slow. The results have been visible more in quantitative than in qualitative terms, so that, as our understanding of ourselves and the world around us has developed, we have not felt the need to study change itself. We have studied societies in terms of implicitly static situations, structures, organization, rather than as dynamic processes of change. Nevertheless, although we have become increasingly aware of change over the past half-century, we have made little progress in our ability to study and explain it *as it is happening*. Now that change is faster than

it has ever been before, we can no longer ignore it. But we are unprepared.

Accelerating change challenges our human need for order and predictability. Until recently, as our civilizations became larger and more complex we met this challenge by developing more and more intricate cultural rules for the regulation of public interaction. All our rules developed independently within each arena, each civilization, by a process of cultural elaboration, increasing the cultural divergence between different parts of the world. Human life everywhere, from the smallest communities to the largest, down to the middle of the last century was organized according to elaborated codes of behavior that made it possible for everyone to know what to expect even in the most complex social situations. The history of table manners provides a good example (cf. Elias 1982). However, in the middle of the 20th century we appear to have crossed a threshold in the growth process, after which the increasing growth and complexity of society has exceeded our ability to govern it with rules. Increasing opportunities to interact more frequently and with expanding numbers of people from different parts of the world have changed both our need to hold on to the relationships of the past and our need for rules. The progressive expansion of our arenas of interaction has brought more and more people from diverse backgrounds and different life experience into contact with each other, making our rates of innovation, and readiness to adopt new technologies, greater in the last two decades than in any previous period of world history. Our rules have begun to fade and our tolerance of uncertainty has risen. Yet we still need to know what to expect. We still instinctively reduce the stochastic phenomena of our daily experience to the cultural sense of order we share in our community, which is based on past experience. We are thus predisposed to analyze the world around us *as we know it*: that is, as it has been, rather than as it might become. However, at current rates of change, analyzing the present in terms of the past no longer answers our questions or solves our problems. The rate of change in our lives, now obviously qualitative as well as quantitative, has accelerated to the point where no analysis of current conditions is any longer productive or satisfying if it does not take into account the continuing change that underlies it.

Acceleration in the rate of change began to be palpable in the middle of the last century. The boundaries between the world's culturally and linguistically different civilizations have been blurring, and the rate of population growth and movement, and of the intensification of social interaction, has

exceeded our ability to control daily life through continued cultural elaboration. The explosion of information in the past two decades has taken place against a changing social background that has received less attention, but is now often referred to as informalization (Wouters 2007), which is the relaxation and questioning of all social rules, from table manners to the composition of the family household. New electronic technologies, based on digitization, have opened up the possibility of storing, duplicating and spreading information in quantities that are practically unlimited. As the use of these technologies has expanded, the supply of information has outgrown our methods, as well as our abilities to process and evaluate. Informalization has made this process even more complex.

In the past literacy, knowledge and information were controlled from the top down, and the elaboration of cultural rules of behavior worked similarly from the top down. Now that remaining restrictions on the flow of information are weakening, change is working from the bottom up. As a result absolute values are losing their definition, and regulation (which has been a growing problem since capitalism and other bottom-up processes began to emerge in 17th century England) is becoming more and more difficult. When we were not preoccupied with change, and were able to see our social world as stable, and to understand it in terms of what we had learned from the past, we could subscribe to values we considered absolute, because no one questioned them. We could accept information as knowledge. We could associate knowledge, like property, with social status. Now, however, information is data, and is available to everyone. We have passed from the condition of the mediaeval period in which land ownership was the basis of social status, guaranteed by an unquestioned hierarchical structure, referred to as The Great Chain of Being, through a process in which financial wealth has superseded landownership. Now we are crossing another threshold into a condition where society will have outgrown the historical structures that legitimated status and identity from the top down, where information will be the primary good, but universally accessible, and social identity and status will be negotiated from the bottom up, as it already is with celebrities.

We are undergoing a fundamental change in the way we relate as individuals to the larger social field. In the past identity depended on family relationships and inheritance within a relatively small arena of interaction, beginning with people who were socialized together in kinship groups or

families, more recently in larger groupings, such as religious confessions, social classes, ethnic communities, or whole national societies. The present was conditioned by the past. The genetic programming we inherited from our primate past appears to have generated two conflicting social drives that are evident in the complexity of modern society. First, we look for order, and we find it in the relationships we have formed over time. Second, we look for new relationships. For most of human history down to the middle of the last century most of us had few opportunities to form new relationships that might endanger the asset value of our established relationships. But as a result of the growth and merging of arenas of interaction over the past generation, none of these processes is any longer adequate to maintain the social stability we might still expect. Despite the continuing functionality of the larger abstract identities, such as ethnicity, religious confession, and citizenship, there are new factors that are independent of them and particularly significant in the process of globalization. The most obvious and tangible derive from geographically indeterminate and unrestricted *remote* interaction, facilitated by the new social media of the Internet and mobile telephony.

There is also another new factor which is less tangible, but potentially the most important. It is the product of the increased participation (active or passive) in public discourse in general that has been facilitated by the growth and merging of all the various modern arenas of interaction, face-to-face and remote, local, national and global. The thought of any individual is more powerful when in dialogue with others. As the numbers of people in interaction with each other increase, not only does human thought become more powerful but general socio-political awareness is enhanced and what it means to be human begins to change in quality. We have paid little attention before now to the qualitative difference between human life in the past, when social interaction for the majority was only face-to-face, and over the past century when most of us have gradually become aware of our position in a much larger arena. How will that quality evolve when the arena in which the typical individual is interactive begins to approach ten billion? The fastest phase of this process is beginning now.

This long-term general process of merging arenas and rising social awareness is, however, still uneven, and the unevenness continues to be the source of most of the world's problems. So long as all our historical arenas of interaction have not merged into a single arena, each arena is on a dif-

ferent trajectory of change, and at a different stage on that trajectory. Each trajectory is different both in terms of demographic factors (rate of growth, mobility), and of economic potential and cultural tone. The merging of arenas occurs gradually. It begins with the spread of information (media), trade, and financial interaction. The last factor to merge is direct social interaction. But before that happens each party becomes aware of the other in synchronic terms. That is, because of a general concern to preserve the order that protects vested interests, they do not see each other as being at different stages of a convergent process, but rather as advantaged and disadvantaged rivals. All human communities everywhere are approaching global awareness, awareness of life conditions throughout the world. But we see these conditions in terms of present (synchronic) inequalities, rather than as different points on converging historical (diachronic) trajectories of social change. The fact that most of us know little of the history of other parts of the world makes it difficult for us to see the present as process. The fact that we are now probably at the peak rate of change generally means that we are also at the peak of unevenness between arenas, of polarization between the surviving arenas of social interaction that have not yet merged, and of the difference in levels of social awareness between them. Our inadequate understanding of the causes of differing rates of change exacerbates the sense of inequality that results from them. For most of human history we have accepted inequality. Equality is a new idea. Only recently have people generally come to see it as a realizable ideal. However, we have not yet succeeded in establishing a fully egalitarian system of social order. Will globalization finally make that possible?

Our adoption of the globalization discourse introduces philosophical problems. Until now we have always made sense of the present through our understanding of the past. But the current rate of change now makes the past an unreliable source of models to explain the present. Adoption of the globalization discourse leads us to try to make sense of the present in terms of what we think globalization is likely to bring in the future. Unfortunately, by defining what is happening in terms of where we think we are heading we are once again distracted from the study of the change around us in the present. This is unfortunate, because in order to understand globalization as a process we need to study current change in its own terms, as it is happening.

The adoption of globalization as a subject of academic study signals the arrival of a new research age. We are studying the current looking ahead,

rather than the recent, looking back, in the light of the past. What is coming will be new to our current understandings. The research methods and explanatory theory we have developed over the past century and a half are also hindering, even inhibiting, our understanding of current change, because they are based on individual disciplinary approaches, whereas the study of globalization requires a holistic approach. Increasing disciplinary specialization sped the advance of science in the 19th and 20th centuries, but now, in the Information Age (cf. Castells 2004), nothing we achieve within the framework of a single academic discipline will help unless it is pursued collaboratively and cooperatively with other disciplinary approaches. We need a new supra-disciplinary research apparatus that is sensitive to change. But all our available methods are disciplinary. Although the need for interdisciplinary research was understood as early as the 1960s, it generated anxiety about the possible loss of disciplinary integrity. This anxiety has begun to diminish under globalization, which has encouraged the merging of research arenas. However, our scientists and their methods are still disciplinary products. Although interdisciplinary collaboration has increased significantly since the 1990s, transdisciplinary training has barely begun. The best we can do at the current stage is to bring together and interrelate the efforts of the full range of relevant disciplines.

When did globalization begin? Historically we can say that it was on the cards from the start. What drives it? The only independent variable, the tangible factor without which it would not be possible, is population growth. But increasing numbers of people alone do not necessarily cause globalization. They could continue to cause increasing local and regional conflict, as they often have in the past. For globalization to begin and continuously progress something else is essential, something less tangible and rarely considered: a particular human social inclination. The essential form of human behavior that has driven history in general, and drives modern change, is the expansion and intensification of social interaction that increasing numbers have made possible. As our arenas of interaction have expanded, with the growth of empires, and the growth of cities, despite increasing conflict, social interaction within and beyond them has intensified. What made all our technological innovations possible, from stone tools to electronics and atomic energy, was the progressive increase in the number of minds working together, a process that required not only population growth, but urbanization and the increase in collective learning and innovation that it

facilitates (cf. Christian 2005). It was the continuing intensification of social interaction—more interactions per unit of time among more people—that enabled us to work together to expand our control of the environment, and of energy, and to develop the means of remote interaction and communication that has raised our ability to innovate to a new level.

We must not forget that the accelerating rate of world population growth, which is estimated to have passed one million around 10,000 BC, one billion in 1810, and seven billion in 2012, is now decreasing, and is projected to level off somewhere between nine and twelve billion later in this century. Does that mean that innovation and economic growth will also slow? Probably not, because although we would not have arrived at modernity without population growth, having reached our current globalized condition we may not need continued population growth for further advance. Population movement, in the form of both short- and long-term migration, which has also increased significantly over the past fifty years, parallel with the intensification of remote interaction, can be expected to continue to increase, as innovation and entrepreneurship continue to change the geography of the labor market. The prime mover (although historically dependent on population growth) has been not population growth per se but growth in the intensity of information flows (cf. Castells 2004) resulting from increasing social interaction. Information flows can still continue to grow, because they are no longer limited by geography or any political ability to restrict them.

The most important spatial dimension of this accelerating change so far has been the growth and proliferation of cities. We may define cities as settled communities large enough to generate a commercial and a service economy in addition to food production. Since cities began to form in some parts of the world over five thousand years ago, urban populations have grown faster than the overall world population. They reached 20% of the total a hundred years ago. In 2007 they passed the 50% threshold. At current rates they are expected to reach up to 70% by 2050 (Burdett and Sudjic 2010). Urban living has now become the dominant human experience—very different from the rural experience that had been dominant earlier. Smaller, rural communities change more slowly and innovate less. Hence the expanding social gulf between urban and rural communities today, especially in the poorer parts of the world.

Not only is urban life more socially intensive than rural life, but cities are increasingly interconnected into a global urban network. The bigger the

city, the more it functions as a node in an international network of cities. Urbanization is driving globalization, and no location anywhere in the world is any longer beyond the reach of urban institutions. People are flocking to cities, more so in the poorer parts of the world than the wealthier. Accelerating urbanization is causing the expansion of slums, where rural dependence on the local habitat is replaced with a much more complex dependence on expanding social networks. People in the fast-changing parts of one global city are interacting remotely with people in similar parts of other cities. Urbanism is beginning to depend less on spatial density and more on the intensity of interaction irrespective of location. As the possibility of connecting increases, urbanization is now fastest in the parts of the world that have been least interconnected in the past. At the same time, in the more closely interconnected parts of the world it is becoming unnecessary to live in a city in order to enjoy the advantages of full interconnectedness. Urbanism in terms of the intensity of virtual as well as face-to-face interaction is likely to become almost universal. This new level of mobility both into and between urban arenas in a world population of a new order of magnitude will allow us to transcend our current fragmentation into large numbers of independent, often competing, unevenly progressing communities, and merge into a single arena of physical and virtual interaction.

How did the rate of change increase to this point? The literature on globalization, which has mushroomed since the mid-1990s, offers various arguments for starting dates, as recent as the World-Wide-Web (in 1993), and the Internet (the late 1960s), or the Berlin Conference (1884–1885), or as far back as the Age of Discovery (beginning in the 15th century) or even earlier. Any suggestion that it was not the result of a Western initiative is rare. Yet even if the origin was due to a Western initiative, why would that initiative have occurred when it did? And why should similar processes have occurred, especially in recent years, in other parts of the world at the time they did?

Globalization is a process in which evolution merges with history. Evolutionary processes work through competition. The history of biological evolution is the history of competition within and between species. Each individual seeks advantage over its competitors. Natural selection favors those with the best options, whether in strength, agility, or *nous*. Is it surprising that eventually, after nearly 3.7 billion years of natural selection, one species should begin to achieve a significant degree of control over its habitat, and

over other species, and eventually in the last ten thousand years come out on top as the globally dominant species?

The factor that more than anything else has distinguished us from all other species, is the gradual but accelerating expansion of the arenas within which we interact with each other. For some fifteen thousand years, our species has been global, the first biological species to extend its distribution throughout the whole land surface of the world. Starting just over four thousand years ago we began to travel the open water surfaces as well. Just a hundred years ago we added the atmosphere. The first milestone in this process was the beginning of sedentarization, facilitated by climate change some ten to twelve thousand years ago, which led to a significant increase in fertility rates and population growth, making it worthwhile to increase food supply by domesticating plants and animals, and cultivating staple foods. Before then, in the course of routine activities we can assume that the average individual would have interacted routinely at most with fifty others, and been aware of perhaps a few hundred more. Since then, humans have generally intensified their relationship with their land, and clustered together in larger and larger numbers.

Clustering is an increase not only in numbers but in density, and increasing density generates more frequent interaction among larger and larger numbers of individuals, and a general intensification of social life, making people more directly interdependent and less directly dependent (as individuals) on the resources of their local habitat. Since each individual has a different life experience, more interactions generate a larger and wider variety of impressions and associations, resulting in new ideas for each interactant. New ideas increase the rate of innovation. Gradually some communities in a few select locations, such as parts of Mesopotamia, Egypt and China, developed the socially more intensive quality of towns and cities, which facilitated economic specialization and a greater division of labor. Besides a significant increase in fertility rates, change from a mobile to a stationary daily routine led not only to a landmark change in social organization and the ability to collaborate and invest, but also a reduction in life expectancy due to increased contagion and disease.

The next threshold of qualitative change was the ability to separate information from direct interaction, by means of writing. About five thousand years ago, economic transactions began to be recorded in a written form. In the course of the next millennium writing came to be used for

remote communication and administration, enabling some cities to extend their areas of control. The age of empires had begun. But the association of writing with political power meant not only that anything important should be written and that anything written commanded respect, but also that those who could write had an interest in restricting the spread of literacy in order to maintain their social status. There was no reason for people without power to learn to read or write, while people who acquired power controlled the literate class and could become literate themselves if they wished. In the first millennium, when we passed through what Jaspers (1953) identified as the Axial Age from 800 to 200 BCE, religious texts (scriptures) began to be committed to writing, increasing yet more the value of the written text and skill of writing.

Since then, all growth in interconnectedness, in the geographical expansion of direct cultural, political, and economic interaction, has been assisted by increasing sophistication in the technology of remote communication through writing, while literacy spread only slowly. It began to spread faster in the West in the later mediaeval period, and was accelerated by the Reformation in the 16th century, because Protestants wanted to read the Bible and printing had made copies easily available. It was accelerated again by the bureaucratization that came with the Industrial Revolution. After public education was introduced in the 19th century, writing was soon close to becoming universal. But then other means of remote communication emerged. First telegraph, then telephone, followed later by radio, television, and most recently the global Internet, facilitated by digitization, made fully global interaction possible with the result that writing is now taken for granted and has lost its special value.

As these means of remote communication multiplied, gradually more and more local arenas of interaction have merged into much larger national, regional and more recently international arenas, and the level of awareness has risen in the general population. The rates of technological innovation and social change have accelerated, and philosophical and scientific activity have increased. The global arena of interaction, envisaged in our use of the term globalization, will bring with it increases in our philosophical, scientific, and technological capabilities that may be beyond our current imagination.

There is also opposition to this process: case after case of people willing to fight rather than merge, defending the territorial exclusiveness of exist-

ing identities, and opposing interaction across the borders between them. But this type of resistance has always lost out in the long term, allowing us to arrive at the current phase of globalization, which now appears unstoppable. With current levels of population and continued growth, we are caught between two alternative trajectories, each of which we can easily trace from the distant past through the present. Either we will come closer together socially, driven by increasing density on the ground, overflowing and transcending the national, ethnic, religious, and other boundaries we have inherited. Or we will actively resist that drive and reinforce the social exclusiveness of our existing cultural identities. The outlook for the first option is unpredictable, because it will create qualitatively new forms of social interaction and experience, with unprecedented opportunities and risks. The outlook for the second is also uncertain, but is likely to exacerbate the animosities, hostilities, and large-scale violent conflicts of the past generation, during which we have already seen complete breakdown of public order (as in the Balkans and central Africa). In the long term, therefore, barring any serious reduction of population that could result from an unforeseen catastrophe, the alternatives are either continuing progress towards globalization (our global species will become one global community) or reaction leading to fragmentation and eventual speciation. Currently it is possible to argue either way. We can envisage continuing globalization, but we are also experiencing the disadvantages of resistance to it in the form of violent conflicts on various scales that are motivated by efforts to hold on to the world as we know it, instead of allowing it to change. Other species, such as ants and cockroaches, have, like us, spread globally, but unlike us they did not develop the capability to travel, interact, and communicate over vast distances, but formed localized breeding communities, and because of long isolation and shorter generations have eventually speciated.

The study of globalization is two separate (though complementary) subjects, which are often confused: first, the long process of global distribution and increasing social and geographical interconnectedness, which began over 60,000 years ago, and second, our recent perception that it is happening, our adoption of a globalization discourse, and the way our perception, and (perhaps imperfect) understanding of the process, feeds into our decision-making and adaptation to the changing world around us. This discourse is based on globalization as a positive paradigm. It embodies a general optimism about the future. But it has caused negative reactions.

Opposition to it was spontaneous. Since it began to take off, every international meeting that might promote it, such as the WTO and the G20, is met with international protests. At the same time, there has been much more open conflict in the world since 1991 than in the previous forty-six years of the Cold War, and the globalization process itself is shadowed by a new problem, the emergence of international terrorism.

All that is positive in globalization derives from the accelerating increase in interaction among more and more human minds. All that is negative derives from the unevenness of that same process, and the social boundaries that form in reaction to that unevenness. The future seems to be already here for some of us, within sight for others, but far away for many. Acceleration in the rate of change disrupts vested interests. It breaks the understandings and relationships that provide the order and stability we need. It creates winners and losers—the faster the change, the greater the gains and losses. The potential losers are desperate to maintain the status quo, to hold on to the conditions they know, to retrieve what is already lost, often idealizing what they remember. This reaction underlies most of the major problems of the modern world, which compete with globalization, because the progress of globalization is geographically uneven.

Since sedentarization began some ten thousand years ago, rates of settlement growth and accompanying rates of social change have always been uneven. But the degree of social, economic and political unevenness between communities that we see in the world today is unprecedented. In the course of the 20th century a global sense of events percolated through to a larger and larger proportion of the public, from the wealthy to the poor and from the urban to the rural, from the North to the South, as people throughout the world were steadily integrated into expanding urban networks of communication, administration, and development. Gradually, anything beyond the essentially local came to be seen in a larger political and geographical framework. In countries where change began to accelerate later, following the withdrawal of imperial administrations, it has been faster and more disruptive, with the result that some struggle to hold on to the stability of the past, and react with violence against the influence of the future. This increasing interconnectedness has raised the level of social and political awareness. The rising awareness of disadvantage that has come with the current stage of accelerating globalization makes the present decade or so the crucial phase. The further some are left inadequately

interconnected, the greater their effort to rebel against it and to hold on to the security and stability of the past as they remember it, before the rate of social change appeared to get out of control. The further some get ahead, the greater their eagerness to leave the past behind. The social boundaries that form between these two reactions create globalization's most serious problem, solutions for which should be a major policy objective. Solving this problem would speed global integration and help us through the current crucial phase of the process.

Preparing for a globalized world, therefore, is complex. On the one hand we need to work out how to understand the present without reducing it to models derived from the study of the past. On the other hand we need to study the past carefully in order to understand how we got to where we are today and what underlies the geographical unevenness of social change and interconnectedness in the present. We assume that if globalization is to have significant benefits, these benefits should be visible in our assessment of current trends, and in the direction of current trajectories of change. At the same time, however, the unevenness of globalization in the present is the source of the world's most difficult problems today. Why are some parts of the world more globalized than others?

The standard answer to this question in the literature is that globalization, like modernity in general, began in the West and Western activity is spreading it to the rest of the world. It is spreading unevenly because of the unevenness of Western interests. Although globalization may have become visible in the West before anywhere else, like earlier thresholds of change, such as sedentarization, domestication, urbanism, processes potentially leading eventually to globalization have taken off in a number of different communities in different parts of the world at different times, and are currently complementing what is driven from the West, and beginning to merge with it. Throughout world history, advances in technology have begun in different parts of the world at different times, and it is only since the 17th century at the earliest that the West can claim to have been ahead. Why should that continue? Conditions that led to the recent Western advance may emerge elsewhere. If population growth is the independent variable, and population growth rates are now declining in the West, should we not look carefully at Africa, China and India?

If globalization fulfills its promise, before very long from now, still little more than fifteen thousand years since we became a global species, we shall

have added a social first to the biological first: besides being globally distributed we shall be globally interconnected, one global arena of interaction, one community. It gives us a new perspective on the past as well as the future, on our habitat as well as our political economy, and on the natural as well as the supernatural. The change we are experiencing under globalization is in every dimension of daily life.

Much of this volume supports and corroborates earlier work on globalization. We are, however, painting a different picture, because globalization is moving fast, and we are responding to its current stage. Our response derives from a broader disciplinary and professional base than is represented elsewhere. For this reason, because of the accelerating speed with which the situation continues to change, much of what we have to say about the indices, causes and consequences of globalization is new, either in substance or in balance, with different implications for future research and policy. This book presents our current relationship to the past and to the future, and provides data that shows why we are not all at the same stage of progress towards globalization. Despite a general tendency to resist change where the likely outcome is uncertain, the whole of human history can be seen in terms of creeping globalization. Since the stakes are higher now than at any time in the past, resistance in the form of organized violence is greater than ever. So far, however, globalization is continuing, producing one world, one dominant species, one unitary but diverse arena of shared social and intellectual activity, one community.

The current volume brings together twenty-four authors from a wide range of disciplines and professions to focus collaboratively on the way the world is changing in the present. This introductory chapter provides the historical context—not modern-historical, but "big-historical": how we as a species arrived at the current unprecedented rate of change in world-historical terms, and the implications for the future. The following fourteen chapters introduce a selection of approaches from the full range of the modern academic research repertoire and curriculum: social, medical, molecular, and physical anthropology, education, engineering, law, medicine, nursing, political science, sociology, urban studies, and veterinary medicine. Each presents a particular disciplinary or professional response to the research and policy challenges that globalization is presenting. Some chapters report on current or recent work. Each conveys the message that the challenges will be greatest in the coming years because these will be the years of fastest

change. They are divided into three groups, each organized around a differ-
ent general question: (i) what is our current social situation and how we did
get there? (ii) how is our relationship with our habitat changing and how are
we managing the change? and (iii) what can we do to accelerate the evening
out of different rates of progress in different arenas?

In the first part, headed Assessment, chapters two through five deal not
only with the changing scale of social, economic and financial diversity
of the world at the beginning of the 21st century, but also the underlying
genetic diversity. They explain the current state of unevenness on each of
these globalization trajectories. Richard J. Estes from Penn's School of Social
Policy and Practice begins in chapter two with a quantitative social baseline,
a comprehensive global summary of recent progress, using an elaborate
social indicators approach, which allows some cautious optimism. He doc-
uments the unevenness between communities, especially for the socially
least developed countries (SLDCs), the countries that are least advanced on
the trajectory of globalizing change. He finds that conditions generally over
the past fifty years have been improving for most poor people. In particular
global awareness has been spreading and rising. Conditions for the most
disadvantaged are improving, because they are no longer isolated. They are
slowly like the rest of the world beginning to benefit from increased inter-
action, and the rising awareness that comes with it.

Following this social foundation, chapter three introduces the biological
dimension of globalization, the relationship between our increasing mo-
bility at the global level and our changing patterns of biological diversity.
Theodore Schurr, a molecular anthropologist from Penn's Department of
Anthropology, reconstructs the genetic history of the global distribution of
our species, and discusses its significance. Most interestingly he draws at-
tention to the number of different layers of genetic history in the landmass
with the longest human history, Africa-Eurasia, which reflect the continual
interaction of populations, helping us to understand how *Homo sapiens* has
remained a single species. This chapter also illustrates the significance of dif-
ference in time scales for a comprehensive understanding of the globaliza-
tion process, since genetic processes move at the relatively constant speed
of generations, compared with the highly variable and currently increasing
speeds of other dimensions of change.

In chapter four, Mauro Guillén from Penn's Wharton School and Sandra
L. Suárez from the Department of Political Science at Temple University

explain the expansion of finance under globalization. They go into detail about why in 2012 we are observing the third act of the crisis that began in 2007, two decades after the vision of global financial opportunities that began with the Big Bang in London in 1986. As the financial arena grew, new opportunities of scale encouraged unprecedented rates of innovation, which resulted in debt increasing beyond the limits of political responsibility. Money has become the primary index of increasing global interconnectedness. But so long as it remains ahead, during the current period of accelerated change, it increases our exposure to the problems of increasing volatility.

The last chapter of Part One, chapter five, by Cameron Hu, a recent graduate of Penn's Department of Near Eastern Languages and Civilizations, shifts our attention to the problem of material design in Dubai—the city without history, that without globalization could not have come to be. It has grown under a regime that distinguishes it from other global cities: while its economics are capitalist, its politics are more difficult to analyze.

Part Two deals with problems of habitat. Leaving aside the vast literature that has accumulated in recent decades on deforestation, soil erosion, ozone depletion, and more recently global warming, these chapters look at the way globalization is changing our relationship with our habitat in terms of diet and health. We cannot manage the environment in coming generations without a much better understanding than we currently have about what we are going to require from it, and what are our capabilities for accommodating the way it will continue to change. If we can manage society effectively, we may be able to manage our pressure on our habitat. The most crucial component of our relationship with our global habitat on a daily basis is our choice of food and how we produce, process and prepare it. Janet Monge from Penn's Anthropology Department and the Penn Museum begins in chapter six by providing an evolutionary perspective on our current problems of under- and over-nutrition on a global level, as illustrated in the escalating statistics for both malnutrition and obesity.

In chapter seven, David Galligan and his colleagues at Penn's School of Veterinary Medicine are concerned with the implications of current trends in the global food market as they relate to meat production. Following on the heels of the demographic transition, we are now passing through the dietary transition: as more and more people move into cities throughout the world and become more affluent, the demand for meat rises at exactly

the same time as the amount of agriculturally productive land is decreasing. Satisfying the increasing demand for meat increases not only energy demands but also problems of waste disposal and pollution. Rapid urbanization in developing countries is shifting livestock production from traditionally small rural farms to large commercial enterprises that are frequently located in peri-urban areas. Galligan and his team are working on the technologies that will provide more efficient ways to cope with these changes.

In chapter eight, Nancy Biller and Neal Nathanson from the Global Health Program in Penn's School of Medicine set the current global health situation in its world-historical context, with special attention to the way today's changing economic and cultural factors play into life expectancy, especially in the developing world. They argue that under globalization, it becomes increasingly clear that medicine cannot operate in isolation from the other academic specializations. The next chapter, nine, deals with oral health, which until recently was understood only as dentistry, with very different implications for its significance. Robert J. Collins from Penn's School of Dental Medicine raises oral health as a medical specialization to the level of full global partnership with general global health. It is interesting that this is a process which has been led by the United Nations as part of the general breaking down of boundaries and re-evaluation of priorities that has come with the growing awareness of globalization.

In chapter ten, Marjorie Muecke from Penn's School of Nursing introduces us to the growing recognition of the deterioration in conditions for women under global urbanization. Gender relations have been the core organizational factor of all societies historically. Globalization and urbanization are disrupting them. In the long run this disruption provides historic opportunities for renegotiation, but during the current period of accelerated change it often puts women at a disadvantage. Most interestingly, Muecke draws our attention to the significance of women's roles in what she calls the production of health.

Finally in this section, in chapter eleven, Adriana Petryna, a medical anthropologist from Penn's Department of Anthropology, introduces the problems that have emerged in the growth of our efforts to control and cure disease with drugs. Drugs have to be tested before they can be distributed. Finding a clientele that is ready to be exposed to testing and meets the criteria for a valid testing process is in itself difficult, but it also raises new moral problems that are even more difficult to resolve in a global market.

Part Three turns to action, to a selection of efforts currently in progress designed to put the work of the academy into practice. The last four chapters (12–15) report on projects designed to break down the boundaries that impede the evening out of the globalization process. Chapter twelve sets the scene from the point of view of legal training in the global redistribution of human activity. Law may be the most challenging component of globalization. How can we manage affairs in a global arena of interaction without a global legal system. Progress in the internationalization of legal practice has been slow, and fraught with disagreement, much of which is ideological more than cultural. Mobility and migration continue to increase the native understandings of each individual's rights. Obligations to others, on which the social order of the past has depended, apply less and less. We need to turn more and more to law. Until now our legal systems have dealt with all such problems nationally. As globalization progresses, legal resolution for problems between people from different national backgrounds is in increasing demand. Sarah Paoletti from Penn's Law School shows how professional training is keeping up with demand and the way it is changing. First, she addresses the impact of globalization on lawyering, and the ways in which the legal academy has begun to respond to the changes in legal practice necessitated by globalization. She then sets forth the underlying rationale for developing bi-national and transnational clinical collaborations, the logical outgrowth of the rise in international human rights clinical programs, both in the United States and across the globe. In the second section she outlines potential models for such collaborations, drawing on experiences from the human rights and migrant rights movements, as well as the Transnational Legal Clinic which she conducts at the University of Pennsylvania, which operates simultaneously at the local level within the immigrant rich city of Philadelphia, as well as engaging in national and international dialogues on policies and practices related to immigrant and migrant populations. The chapter concludes with an exploration of opportunities for expanding beyond law schools into other disciplines within the academy and proposes the development of multi-disciplinary collaborations that cross borders and cultures aimed at achieving the realization of human rights for all. Global cities such as Philadelphia provide rich and diverse opportunities for examining and developing theories of global cosmopolitanism. Academic institutions situated in global cities should take full advantage of those opportunities: in developing truly collaborative interdis-

ciplinary and transnational partnerships, we can work to bridge theory and practice in exciting and transformative ways.

In chapter thirteen, Huiquan Zhou from Penn's School of Social Policy and Practice introduces the problems of human commoditization and forced movement that have been increasing under globalization. She finds that in the U.S., where the efforts to prevent this type of injustice are probably among the most advanced, many of the inadequacies of the system tend to result primarily from institutional lag.

In chapter fourteen, Alan Ruby from Penn's Graduate School of Education tells us what we know and what we still need to know about the way globalization is changing education, and how education is responding both to the new problems and to the new opportunities. Education is steeped in the past, perhaps even more than our other primary institutions. Partly for this reason it is currently in crisis, unable to cope, drawn in unproductive directions by vested interests, confused by teachers trained in different social conditions, and the curriculum is drawn from the past instead of designed for the future. The global movement of students is a major engine of future globalization, but the engine needs to be oiled by institutional development.

Finally, in chapter fifteen, Joseph Sun and his colleagues from Penn's School of Engineering and Applied Science cater to the rising demand among young people for practice. They promote service learning in developing countries. Writing from experiences in both long-term community development in Sudan, Chad, Mali, and Honduras and short term projects in Cameroon, China, India, Ghana, and Honduras, they describe a program which is mutually beneficial: providing holistic learning experience for visiting students and progress in sustainable development for the host community. This program is a realization of the University of Pennsylvania's core academic mission, the Penn Compact, rather than simply an extra-curricular appendage. The program focuses on three areas: community technology centers, water and sanitation projects, and clinical prosthetics and orthotics. It opens up the curriculum to globalization in practical terms.

Globalization involves recontextualisation. Each of these chapters and the enterprise they represent means more when brought together with the others within the framework offered in this introductory chapter. The level of detailed analysis would not be possible without disciplinary and professional specialization. But the level of significance is greatly enhanced by

the larger perspective offered by bringing all these different disciplinary and professional perspectives together in one volume.

This is an optimistic book. But the optimism is qualified. It presents globalization as the final evening out of all the social differences that have arisen over the past 15,000 years of *Homo sapiens* as a global species, without losing the cultural differentiation that contributes to optimum human achievement. However, it focuses on the seriousness of the problems of the current crucial phase of this process, in which the differences are most clearly juxtaposed and opposed, awareness of them is at its highest ever, and resentment and impatience is greatest. The following chapters are an introduction to some of the most important research and policy initiatives needed to deal with this situation, providing not only variety of scientific perspectives but also a considered balance of pessimism and optimism.

REFERENCES

Burdett R., and S. Deyan, eds. 2010. *The Endless City.* London: Phaidon.

Castells, M. 2004. *The Information Age*. Oxford: Blackwell.

Christian, D. 2005. *Maps of Time: An Introduction to Big History*. Berkeley, CA: University of California Press.

Elias, N. 1982. *The Civilizing Process*. Oxford: Blackwell.

Gibson, W. 1993. *Fresh Air*. National Public Radio, August 31, 1993.

Jaspers, K. 1953. *The Origin and Goal of History*. translated by Michael Bullock. New Haven, CT: Yale University Press.

Wouters, C. 2007. *Informalization: Manners and Emotions since 1890*. London: Sage.

NOTES

1.1 cf. *Oxford English Dictionary.*