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Understanding and Explaining
Social Change

You see a young woman leaning forward, casually looking at a monitor. The photograph shows her sitting with one knee up, her foot perched on the edge of the chair. She has a pencil in her hand, or is it an unlit cigarette? She could be a student, maybe twenty years old, with short dark hair, stylish glasses, bracelets, wearing a light-color crewneck top and midcalf slacks. You glance at the caption. It begins, "Chinese blogger . . ."

What do you know about this young woman? What can you assume? What makes her interesting? Why is this photo newsworthy? The answers have something to do with social change, but in what way? Is the newspaper article about digital technology or social networking? Is she working in the global economy? Is she considering attending a university in France or the US? Could she be anticipating an international pop star coming to her city? Is she reading a discussion about political change in China or looking for censored information about Liu Xiaobo, the jailed Chinese dissident who won the Nobel Peace Prize, or Ai Wei Wei, the popular conceptual artist under house arrest?

How can we understand what is happening in this picture? China, a country with four times the number of people as the United States, has the second largest and one of the fastest-growing economies in the world. It consumes more energy and discharges more CO_2 into the atmosphere than any other country. It has the world's largest number of people social networking. Despite state censorship, the urban young are very much

connected to global digital communication networks as well as the world of popular culture. Do these facts matter in order to appreciate the photograph of this young woman? She could well be emblematic of some historical trends and forces of change that have catapulted tens of millions of Chinese into a way of life unimagined by earlier generations.

The place to begin understanding social change lies in our critical ability to make sense of the world around us. When thinking about social change, our own experiences and everyday knowledge guide our thinking. Unfortunately, this is not enough. It is necessary to go beyond the ways we usually think about things. The watchword of social science is that things are not always as they appear, and many things necessary for understanding are not apparent at all. They must be sought out and assembled or refashioned in such a way that greater clarity, comprehension, and certainty are possible. This begins in culture and social structure, but it doesn't end there.

As discussed in Chapter 1, social science concepts are often about groups, organizations, institutions, and social structure—that is, the patterns of relationships and recurrent interaction that give social life some predictability but that are largely unremarkable to people who live within (rather than those who study) a society. At the same time, culture or the system of practices and ways of thinking of a group of people is not necessarily apparent or well understood by those who share the culture. And, by way of reminder, focusing on social structure and culture is not to lose sight of individuals who, like yourselves, are active agents in forging and modifying practices, rules, procedures, beliefs, institutions, organizations, and the material world that sometimes seem to be outside of, stronger, and larger than individuals.

First Steps in Understanding Social Change

Occasionally, powerful groups and individuals try to block social change or return a society to an earlier period of time. The 2013 coup leaders in Egypt—army commanders, wealthy families, and security officials of the previous Mubarak regime—sought to abolish the Muslim Brotherhood and silence all political opposition. Their agenda was a return to the days before the 2011 Arab Uprising, the decades of elite control of the state and society. When it is possible to temporarily neutralize any opposition; muzzle a free press; shunt international scrutiny; repress or outlaw any threatening trends; and banish, imprison, or kill anyone who seeks change, the efforts can appear to be modestly effective. But these efforts have brief lives.

In the few stable ecosystems isolated societies can be largely untouched by outside influences—whether armed invaders, disease, or new material

culture—and social change happens very slowly. It is possible to speak of each generation repeating the life of those who came before, of sons and daughters essentially replicating the way of life of their parents and grandparents. But social change continues nonetheless. Even the most basic, sustainable human habitation alters the environment. Today, isolated family groups in the most impenetrable parts of the world see jet contrails overhead and satellites blinking in the night sky. And, greater change is coming. Affluent societies' communication pathways, atmospheric pollution, and quest for far-flung natural resources, food, labor, and markets penetrate every corner of the globe.[1]

Technologies of medicine, especially vaccinations, and access to clean water, have spun off positive change in traditional, slowly changing societies. The near or complete eradication of smallpox, guinea worms, polio, tuberculosis, and rinderpest has had a dramatic effect on poor countries. Immunization for DPT (diphtheria, pertussis, tetanus) and other diseases reduced human suffering and have provided more certainty that infants will live to adulthood, lessening the insecurity of old age and thus providing an incentive to have fewer children. Add to this the means to prevent pregnancy, along with greater education and political rights for females. These have had an enormous effect on women's status and opportunities, with tremendous consequences throughout societies.

The drop in the rate of births per woman from five to two which took 130 years in Britain (from 1800 to 1930) took just 20 years (from 1965 to 1985) in South Korea, which, along with Brazil, Russia, and China, are "no longer reproducing themselves" in numbers that will maintain their population (Norris 2013). Mothers in developing countries today can expect to have three children. Their mothers had six. In some countries the speed of decline in the fertility rate has been astonishing. In Iran, it dropped from 7.0 in 1984 to 1.9 in 2006. That is about as fast as social change can happen.[2]

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[1]The few remaining groups largely "uncontacted" by outsiders are mapped and identified at www.uncontactedtribes.org. Most of the groups are in the western province of Indonesia, on the Andaman Islands, and in remote regions of the Amazon in Brazil and Peru (see Wallace 2013).

[2]The acceptance of gay marriage in the US has happened with similarly rapid speed, in some cases even surprising its strongest proponents. In the 1990s, amendments to state constitutions and laws forbidding marriage between same sex individuals seemed to be closing the door on gay marriage. In the last decade—often led by young adults—public opinion took an about face (Pew Research Center 2013). The Supreme Court rescinded the federal Defense of Marriage Act, and by mid-2014 either courts or state laws made gay marriage legal in thirty-five states and counting (see Klarman 2012).

Individuals, Groups, Social Structure, and Agency

How much can we know about social change if we study individuals engaged in the experience of social change? Raymond Boudon (1986: 59) is unequivocal: "Social change must be seen as produced by the aggregation of individual actions, and what else could bring it about?" Certainly people's biographies, especially changes in their personal circumstances, behaviors, and outlooks, are what we usually recognize as social change. The narrative of Iris Summers' life is just such an account. Philosophers of science call this methodological individualism. Individuals carry out the social life of a given time and place. To understand this social life as the accumulated experiences of individuals is to understand social change for a time and place.

Methodological individualism can be contrasted to another approach called holism or social realism, which adds a second level of understanding to why people do what they do. This is the study of groups, especially their cohesiveness and ability to compel thought and behavior. The early sociologist Emile Durkheim (1858–1917) developed the idea that social life has its own qualities and characteristics (social facts) that are sui generis (unique), in addition to the characteristics of individuals (Durkheim 1950; 1956). Society is more than the sum of its parts (individuals); the features of social groups, societies included, constitute data central to understanding social change.

Georg Simmel (1858–1918), a major figure in nineteenth-century social science, sought to understand social life by analyzing social *forms* of interaction (Coser 1971: 179–182; Simmel 1950). This is often called a structural approach to understanding why people do what they do. Structuralists do not dismiss the experience of individuals, culture, and the characteristics of social life, but they emphasize the physics and chemistry of group interaction: the tensions, dynamics, openings, closings, and well-trodden paths that are both invented by purposeful individuals and formalized in cultural norms, bureaucratic procedures, and group practices. We are implicated in these, often with little awareness or conscious consideration.

Karl Marx's words remind us that "Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past" (Marx 1964, 1). True enough, but often—and incorrectly—social change is described as something that happens *to* people, as if people were passive recipients of whatever life holds for them. That is rarely the case. People "are not simply passive recipients of culture" (Alwin and McCammon 2004: 44) nor of the material world in which they live.

People have the capability to invent new uses and meanings for the things in their life. They have and use human agency.

The early developers of the home computer could never have imagined the uses to which young people would put their device. They turned the Internet into a vehicle for new forms of communication, self-expression, and relationships undreamed of by its creators. This is human agency making social change. McDonald's corporate fast food model may take away any surprises and guesswork for a cross-country traveler who stops in to eat. Not so across the globe. McDonald's is very popular in Hong Kong, but China has a long tradition of fast food (especially noodles and dumplings) and has its own rules and meanings (e.g., a sandwich cannot be dinner). A McDonald's restaurant in Hong Kong is likely to be occupied for long afternoon hours by socializing teenagers, and the food purchased by a doting grandparent is a snack, never a meal. The people of Hong Kong are active agents, transforming McDonald's fast food culture into its Chinese variant (Watson 1997).

IMAGES OF TIME

So obvious as to be nearly invisible, the concept of time is central to understanding social change. But what is time? We often talk of time as a thing; we save and buy time, make time, divide our time, lose and waste it. We give it a value, as Benjamin Franklin counseled when he said that time is money. Time can be an almost unbearable burden when waiting for a special moment. Prisoners are sentenced to "do time," and many lose their minds under the burden of solitary confinement (Rhodes 2004).

Time is expressed in a variety of metaphors. If time is a river, as the Greek philosopher Heraclites said, we can never be in the same moment twice. In this view, change is the natural order of things because no moment can ever be repeated. This contrasts with Aristotle's view that reality is fundamentally stationary and moves only when a force is applied. Time, in effect, stands still until moved. Newton's first and second laws of thermodynamics put this notion to rest; the real effect of a force on anything is to *change* its speed, rather than to set it moving. Going further, "Einstein's theory of relativity put an end to the idea of absolute time" (Hawking 1996: 32). Time varies. At the speed of light, time, as we commonly understand it, stops.

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Does time move in a line or in a circle? Is it a pendulum, waves, or cycling on a Möbius strip? Many religions see history as linear, with a starting point ("In the beginning . . .") leading not just to the present but to a future, passing from darkness to light, chaos to order, sin to redemption. Other religions have no sense of a beginning. "It always was" is the answer to "When did it begin?" Life is a continuation of eternity, or it spins or repeats itself, or it oscillates. And in some societies time is meaningless in the larger understanding of life and death. The Neur of sub-Saharan Africa are not alone in having no word for time (Roy 2001: 45).[3]

Geologic time is similarly difficult to fathom. Alluvial streams laid down sediment over many tens of millions of years. Much of it was lifted thousands of feet above sea level hundreds of thousands of years ago. Who can really imagine this? Who can fully grasp the geologic time of Paul Hawken's (1993: 21–22) observation that "Every day the worldwide economy [utilities, cars, houses, factories, and farms] burns an amount of energy the planet required ten thousand days to create." It staggers, if not completely eludes, the imagination.[4]

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[3] Pierre Bourdieu observed in his anthropological research that for thousands of groups of people over the past ten thousand years, a future beyond the immediate horizon is beyond knowing. It is as much a fantasy to talk about the future as are the wildest stories that entertain children. The Kaybal of Algeria, subsistence herders and farmers, must deal with the present, having little sense of control over the future. Theirs is "an attitude of nonchalant indifference to [time], the passage of which no one dreams of mastering, using up, saving . . . All the acts of life are free from the limitations of the timetable" (Bourdieu 1990: 221).

[4] Maybe you doubt this. Mark a straight line on a sheet of typing paper held lengthwise and put hatch marks every inch. *An inch is a hundred years.* Two inches is the last two centuries; two feet and you're back to Alexander the Great. Go on marking sheets of paper and taping them together to make a long timeline. Go outside and tape the timeline to the side of a building. How far does the line go since the last ice age, the Holocene epoch? Less than ten sheets of paper. Continue taping the paper down the block and around the block one time (That's about the point hominoids appeared on Earth, 2 million years ago). How far will the line go to reach the Jurassic and Cretaceous periods when the dinosaurs walked the Earth? Now you're 1.2 to 1.9 million inches from your starting point. Stretched down the street, that's two to three miles away. When life first appeared on Earth three billion years ago? You're six thousand blocks away, about 500 miles.

We express our feelings, experiences, and circumstances through social time. People living in a remote area describe the next town as an hour away; a new job is a half hour from home. In a five-minute neighborhood most things can be obtained in a short walk (or shorter bike ride). These expressions of time focus on an experience, a feature of social life, though somewhat vague or ambiguous from a strictly measurement point of view. When we say "It's been a long day" or "It's been too long since I've seen you" the reference is to a feeling more than the clock. This way of understanding time subordinates astronomical calculations to social life. This is what we mean by social time.

The conception of time people hold is critical to understanding their "hopes, yearnings, and purposes" (Mannheim 1936).[5] To say that something happened after we were married, to look forward to a "long weekend," or to measure your time by semesters is comprehensible only by recognition of referenced events. The Bible counsels "a time to be born a time to die ⁄ a time to plant a time to sow ⁄ a time to cast away stones ⁄ a time to gather stones together" (Ecclesiastes 3: 1–8). When protesters in Cairo's Tahrir Square chanted, "It's time to take back our dignity!" they were speaking the language of social time. Social time is, as George Gurivitch (1964) observed, the most important form of time for social change.

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[5]At the height of the modern civil rights era UCLA sociologist John Horton (1964) researched time as understood and lived by urban Black males and wrote an insightful and intriguing analyses of social time still worth reading.

The Narrative as Refutable Explanation

History as a discipline does invite grubbing for detail . . . [Fortunately] most historians are concerned with . . . interpreting such facts, usually by means of narratives.

—C. Wright Mills (1959: 144)

In criminal court, the prosecuting attorney explains why an accused individual is guilty. She arranges the facts, imputes a motivating reason for the crime, and links these together in a narrative that makes seemingly obvious connections. She tells a compelling story the jury will find believable. In response, the defense attorney explains the facts differently,

adds unexamined, mitigating facts, challenges the quality of the prosecutor's evidence, and most important challenges the prosecutor's narrative and the purported links between pieces of evidence. Court proceedings can be thought of as competing narratives seeking the best possible version of the truth. In the end, the narratives will be weighed by the jury, and one narrative will prevail.[6]

In its effort to get to the bottom of things, social science explanations are not dramatically different from the judicial proceedings just described. They too provide competing narratives and ways of understanding, focusing attention on important facts, drawing on the best possible research to establish the reasons for connecting the facts. Getting things right is more than getting the facts straight and in chronological order. It also involves connecting the facts into a coherent narrative, a story that begins to explain what happened, to answer the question of why. Arthur Stinchcombe, a social historian, explains that "the main tool of the historian [is] a narrative of a sequence of events."

An individual interested in social change, according to Stinchcombe, wants to understand *why* things unfolded in the way they did. "The test of any theory of social change is its ability to analyze such narrative sequences" (Stinchcombe 1978: 13). In order to do this, the less litigious social scientist must invite the possibility that any explanation of events could be wrong. Social science reasoning is transparent and entertains other possible answers to the question posed. Using the same approach as good research and hypothesis testing (Chapter 2), we don't prove an explanation to be true. Rather, we fail to *disprove* an explanation, and this increases our confidence that we have it right. The understanding it provides prevails until a better explanation or new information comes along to knock it off its pedestal.[7] In

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[6] Janet Malcolm's close examination of the trial of Mazoltuv Borukhova for the murder of her husband in 2007 is an excellent discussion of how a master narrative obscures or discounts facts that don't fit (Malcolm 2010).

[7] NASA's Gravity Probe B project confirmed Einstein's theory of space-time predictions. "It is important to keep testing theories that were thought to be correct" (Overbye 2011). Similarly, the excitement among physicists in 2012 to think they'd finally found the "key to the universe," the Higgs boson, "predicted by the Standard Model, the theory that has ruled physics for the last half century," is a case of theory motivating empirical inquiry that might actually disconfirm the theory (Overbye 2012: A1). Thomas Kuhn's (1970) famous paradigm of scientific revolutions takes a somewhat different and quite intriguing approach to disproof. It emphasizes the point in time when an existing theory is no longer able to reconcile new information in a coherent narrative, setting up a crisis that impels those working on a problem to devise a new, more parsimonious, inclusive, or elegant theory.

a nutshell, this is how we build scientific understanding. It is a way to organize what is known, to get an answer to a question, or at least to gain clarity about something perplexing.

Narratives of Modern Society's Transformation

Montesquieu, Adam Smith, Karl Marx, Max Weber, Emile Durkheim, Herbert Spencer, and other eighteenth- and nineteenth-century scholars put forward ideas and perspectives that remain important for understanding social change today. In their time, the deep divide between rich and poor, revolutions and wars, population growth and urbanization, the uses of science, avenues to profit and power, and popular calls for social transformation needed to be understood as much as they do today. Equally pressing were the questions raised by the two master narratives discussed in Chapter 1: capitalism and the national state.

Given the hopes and uncertainties associated with new inventions and technologies, and more so in the organizational forms of the national state and a modern economy, there have always been the inevitable questions of where these technologies and organizational forms would lead to and how they would be used. Particularly in Europe by the 1880s, longstanding and traditional culture was giving way to unfamiliar forms of thought and social practices, ways of living, identities, and attachments. The urban population was swelling, and the bonds that united people in an increasingly complex society seemed ever more fragile. It was clear, and often unsettling, that a major transformation of social, economic, and political life was underway. The future might hold great promise, but there were also anxiety and many questions about where power would reside and how it would be used.

The men and women who tackled these questions were intellectual giants. They were bold thinkers, but they were also committed researchers, meticulous and seemingly untiring in their pursuit of historical and comparative information. They constructed theories of society and social change as frameworks of understanding, trying to make sense of the facts by organizing them in coherent narratives we continue to share: society as an evolving system and society as a site of conflict, power, and the resolution of contradictions.

Society as an Evolving System

It is hard to overestimate the enthusiasm people attached to the notion of evolution in the late nineteenth century. Intellectuals' adoption of evolutionary theory in geology, biology, astronomy, and zoology was followed by

widespread evolutionary thinking in history, economics, and the other social sciences. Contemporary scholarly analysis of societies as evolving systems is much more sophisticated than it was a hundred years ago, but its systems perspective—of parts (organs) working together in a coordinated fashion, involving communication (nerves) and the exertion of power (muscles), with its focus on growth and social reproduction—continues to invoke the image of a living being or a very complex mechanical device. Relying heavily on empirical observation, historical records, and comparative analysis, an evolutionary systems perspective of social change provides a set of conceptual tools and theoretical reasoning to make sense of well-researched processes.

Just as a plant is composed of parts that perform various necessary functions for it to grow and reproduce, society's parts are recognized for their functionality. Not only do the parts work together, they are interdependent. Change in one part of a social system requires changes in other parts, or the whole will fail to thrive, weaken, and perish. Evolutionary theory sees change—like growth—as a gradual process. When focusing on society, evolutionary systems theory emphasizes the complexity of accommodating any change to the system and voices skepticism that significant or radical efforts to create social change can withstand the test of adaptability, the key to survival.

In this theoretical perspective, the social system (society) is made up of parts that must fit together in order to work effectively. Talcott Parsons (1951) conceptualized the parts of the social system in his fourfold LIGA configuration of functions and institutions: (L) latency/family; (I) integration/religion; (G) goal attainment/economy; and (A) adaptation/education.[8] Gerhard Lenski's five components—culture, population, material products, social organization, and social institutions—similarly paints a picture of a coordinated system (Nolan and Lenski 2009). Change in one component necessitates change in the others. For example, population growth puts pressure on the environment, requiring a more efficient way to procure material products through enhanced social organization. This challenges traditional bonds that can be replaced by more contractual and rational relations among individuals and groups and is often accompanied by a more worldly rather than mystical religion.

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[8]A synonym for latency, in Parsons' usage, could be persistence or continuation from one generation to another. Similarly, integration is the incorporation of individuals into the whole, most effectively by their sharing the same beliefs. Goal attainment is the organizing of efforts to do what the social system needs to be done. And adaptation is the molding of individuals to the contours of the social system. For a clear explication of Parsons' system, see Jackson (1977).

Evolutionary social system theorists tend to describe eras, stages, steps, and social types that characterize the persistence of patterns of economic and social life. They seek to explain why one era or stage passes into the next. Generations of anthropologists have categorized societies by level of complexity, viewed through an evolutionary lens. A simpler form of political organization and economic activity (Stage 1) gave way to more complex forms (Stage 2) that favored some societies over those that retained less complex forms. National states, in particular, are distinguished from tribal societies governed by chiefdoms. Among states are many qualitative gradations of authority, for example, authority that is violently seized and coercively held, hereditary, religiously sanctioned, authoritarian, or democratic. Just as important are the variously complex ways the state channels resources to itself, organizes large-scale activities that become state functions, and administers its rule through an established legal code (Tainter 1988: 23–31), thus giving it an advantage over nonstate societies.

Evolutionary Change in Spencer, Veblen, and Sorokin and Today

Charles Darwin's *On the Origin of Species*, published in 1849, and his later books were popular during the greatest expansion of human power the world has ever known. No land or sea was too remote or threatening to prevent European incursions. This age of global imperialism and discovery, along with the developments of science and industry, linked a popular and overly simplistic version of evolutionary social change to an agenda for societal improvement. Most late-nineteenth-century enthusiasts of evolutionary thinking believed that England was the pinnacle of human civilization and the model for the modernization of other societies.

It is a curiosity that social improvement was so enthusiastically embraced by people who, using today's yardstick, would be considered ultraconservatives. Nineteenth-century scholars like Herbert Spencer in England and William Graham Sumner in the United States, unlike their more liberal colleagues, saw in evolution not only a pattern of social change but a morality or set of lessons for human behavior that carried a political agenda. In its simplest form, the message of evolution was: Only the strong survive. The "absurd effort to make the world over," as Sumner cautioned in 1894, was doomed to fail. The "absurd effort" ignored the elementary facts that the poor are poor because they are less fit to survive. The state is acting contrary to natural laws when it seeks to provide education for everyone, build urban sanitation systems, and protect people's safety on the job. Being extreme individualists, their view of evolution was one of progress, but only if it was gained through individual accomplishment. In an industrialized society, that

translated into wealth for the few who had proved their fitness and hence their right to control resources and make decisions for the rest, including giving gifts of philanthropy (e.g., libraries) to the worthy poor (Germino 1972).

Quite a different view of evolutionary change was advanced by one of the most interesting figures of the early twentieth century, Thorstein Veblen. Veblen was a Midwesterner and itinerant professor whose first language was Norwegian. His evolutionary perspective rejected earlier social evolutionists' belief that the strongest survive in a war "red in tooth and claw," as Herbert Spencer (not Darwin) termed it. Rather, evolution was a process of technological development through human inventiveness that often provided opportunities for wasteful preening and status boasting (think of Donald Trump), ironic trends that could not last but would surely be repeated again. Such things might be functional, but were of limited social value or long-term benefit.

Veblen's writings may seem obscure, but terms that he originated, such as "conspicuous consumption" and "the leisure class," remain staples of the language more than a century later. He cast an original and often sardonic eye on the world of economics in dissecting the foibles as well as the major trends of his time. Why do people so value a swath of green lawn when the space could as well grow useful fruit and vegetables? How is small town gossip a substitute for buying things you don't need? The answers Veblen offered said a great deal about social class and the less than rational ways organizations operate. Economic efficiency is largely a myth in Veblen's view. Rather, wealth bestows capabilities for claiming social status and cultural practices that are ludicrous and wasteful, as he shows in page after page in his 1899 classic *Theory of the Leisure Class*. Veblen was among the first to broach the idea that managers, not owners, were taking control of large corporations and were running them with little of the innovativeness and vitality of entrepreneurs. Universities, too, were becoming victims of the same phenomenon.

A less biting but equally critical evolutionary view is found in the work of Russian-born Pitirim Sorokin who perceived evolution as oscillating cycles in what he called the ethos of the dominant culture. Analyzing material culture and belief systems—embodied in architecture, art, theology, and law—Sorokin, in his *Social and Cultural Dynamics,* described how a cultural ethos—a kind of master principle—typifies and guides a society. Through the centuries, culture vacillates between two contrasting poles: the hedonistic and the ascetic. At its most hedonistic, all things are directed toward bodily pleasure and physical satisfaction, what he called sensate culture. In sensate culture, religion, art, and social honor revolve around strong physical sensations, beauty, strength, and endurance. Feelings are paramount, and ecstatic experiences are highly valued as sources of inspiration and

understanding. At the other pole is ideational culture. Religion, art, and social honor express mental and spiritual depth, a calm and reasoned perspective, and a deep appreciation for what cannot be seen and felt. Its ascetic ethos shuns satisfaction of the senses as false pleasures and pursues a spiritual but reasoned and deliberate lifestyle.

Sorokin drew a picture of pendular evolution, with human societies moving back and forth between the two extremes, and usually finding themselves somewhere between the two. His condemnation of the society to which he immigrated, the United States, as recklessly pursuing a shallow and ultimately disastrous path of materialism and consumerism, is a sentiment that keeps Sorokin's thought alive today.

The evolutionary perspective has become much more sophisticated and nuanced since Spencer, Veblen, and Sorokin, and the data that are best understood by evolutionary systems theory are far more reliable and voluminous. The basic principle of reproductive success as well as the genetics underlying the development of biological forms have become a standard part of public life and the social sciences. While earlier social evolutionism uncritically adopted the idea of social progress and improvement, by the late twentieth century more skeptical appraisals—earlier voiced by Veblen—of where human ingenuity was taking us, in light of the human-induced catastrophes of war and environmental damage, were being heeded.

Intellectual disputes over how quickly evolutionary changes occur and the pattern of evolutionary change (e.g., Stephen J. Gould's [1980] idea of punctuated equilibrium, which posits a pattern of slow change and bursts of new forms) continue. Arguments about the capabilities for living species to adapt to unprecedented alterations in the physical environment—for example, to urban density, genetically modified foods, global climate change, and a world of heretofore nonexistent chemicals—challenge visions of evolutionary change as inevitably positive or even capable of operating in the face of human pursuits in today's world.[9]

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[9]The idea that today's Holocene epoch is giving way to the Anthropocene epoch is gaining wide currency. Scientists in many disciplines, but especially those working in Earth systems science, recognize how the rapid rise in atmospheric carbon (and the growing acidity of oceans) and changes in the nitrogen cycle (especially with the use of nitrogen fertilizers) means an unintended "geoengineering of the planet" by human beings that is a fundamental shift in how the Earth operates (Crutzen 2002; *Economist* 2011b). Jan Zalasiewicz, a British stratigrapher, notes that aluminum "did not exist on earth except in combination with other elements" until the late nineteenth century. "So soda cans may provide yet another marker" of the onset of the Anthropocene epoch (Kolbert 2013: 56).

Growth, Specialization, Complexity, and Advantage

Those who hold the evolutionary systems perspective of a changing social system emphasize growth and complexity, both in the size of societies and in the network of interdependencies linking society's parts. Compare a small group to a large group when trying to get something done like putting on a musical. A smaller group or small school needs everyone to be doing lots of different things. Everybody must be able to sing a little, dance a little, and help with the scenery, jumping in when something is needed. Even the star performer might help paint the sets, sell tickets, and work the lights if not on stage. In the large group or large school, everyone has a more specific, specialized part in the production, sometimes described as a more developed division of labor.[10] Coordination becomes the key to this more complex production.

Social systems have evolved through time. The adaptive advantage has gone increasingly—though not always—to larger and more complex systems. Some evolutionists would predict better reviews (superiority) for the large school's musical than the small school's. Growth itself is not always advantageous, but when social organizations can capitalize on the opportunities of more people doing specialized things, it usually gains an advantage.

For instance, a large family in a very precarious natural environment means more mouths to feed. But less obviously, a large family in that environment may have an advantage over a small family and be better able to sustain its members. A larger family in agrarian societies—as found throughout Africa and much of South and Southeast Asia—can be organized to pursue a variety of economic activities, each activity serving as a kind of insurance against failure of the other activities. A larger family among people who both grow crops and tend herds of several kinds of animals can assign the youngest children to scaring away birds from crops while they watch over sheep or other docile herd animals. Older children help with crop planting, weeding, and harvesting as well as tending larger animals such as cattle. The adolescent children or young adults, especially males, may be sent into the bush with larger, more difficult animals such as camels for months at a time, living off animal's milk and natural forage.

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[10]Emile Durkheim (1858–1917), France's first great sociologist, wrote *The Division of Labor in Society* as an analysis of how social stability can be maintained in modern societies where weak interpersonal relations and social divisions, including class and status inequality, threaten disorder. The key is interdependence; that is, people rely on others for the things they cannot do themselves (see also Eisenstadt 1964).

If the family's crops fail because of drought or if disease strikes one species of animal, its other food sources are still available. As a last resort, camels can return home to nurture the family with milk and meat. A smaller family cannot diversify its household economy and is thus more vulnerable to the vicissitudes of weather and disease. That's why polygyny (a man having two or more wives simultaneously) can make sense in the agrarian society as a means of establishing larger, more flexible families (Massey 1986).[11]

Culture and Social Systems

Key to the evolution of society is culture, a human creation that makes adaptation possible and gives some human groups reproductive success while others decline and disappear. Nonhuman species (plants and animals) depend on their genetic makeup and geography for their destiny, evolving adaptive mutations both in physical characteristics and capabilities, as well as a social organization that enhances reproductive success. This is true for human beings as well, but humans have the additional tool of culture to overcome what would otherwise be obstacles to survival.[12]

While culture may be thought of as a storehouse of conventional wisdom, unfriendly to disruptive ideas and untested practices, one part of culture— technology—provides the driving force for change. Technology is the practical outcome of borrowed knowledge, innovation, experimentation, and discovery. It is "that part of society's store of cultural information that enables its members to convert the resources available in their environment into the material products they need or desire" (Nolan and Lenski 2009: 57). In evolutionary system explanations, technology can enhance reproductive success by setting in motion a series of adaptive changes throughout the social system. The tension between the conservative impulse of culture and the possibilities of new technology form a dynamic of social change that

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[11] Similarly, polyandry (a woman having more than one husband), though seldom practiced today, helped meet many of the challenges of pastoralists in areas of Central Asia (Goldstein 1976).

[12] Chapter 14 of Jared Diamond's *Collapse* ("Why Do Some Societies Make Disastrous Decisions?") shows how a well-developed culture and deeply held values among the Norse Greenland colonies from 984 to 1335 CE were a fatal obstacle to adaptation, especially outside the environment in which the culture developed. Similarly, Joseph Tainter's *The Collapse of Complex Societies* proposes a theory of "marginal productivity of socioeconomic change" in which complexity has critical limits when adaptation becomes too costly.

challenges the tendency of social institutions toward stasis (Chirot 1994: 125–128). In this perspective, societies that adopt new, effective technologies tend to be the survivors or—harkening back to Herbert Spencer—the winners.

Human History as Systems of Evolutionary Change

As discussed in Chapter 1, tens of thousands of years of human history saw very slow change in how people lived: gathering and hunting in small bands and family groups. Adults lived only long enough to reproduce their kind, acquire the means of subsistence until their offspring could take over, and pass on the store of knowledge of how to survive in the environment. When some family groups began planting crops and herding animals, however, they increased their numbers and in time put pressure on hunters and gatherers who were themselves forced to become more sedentary, turning to crops for an increasing portion of their own livelihood.

Technology, especially the making of metal, gave an advantage to some groups who developed superior weapons and digging tools that increased agricultural productivity. This, in turn, gave rise to new forms of social organization, social rankings, and authority structures. Being better fed, the population increased along with the capacity to support experimentation and the creation of new knowledge and technologies. More complex social organization, communication networks, geographic mobility, and a unifying ideology (usually based on religion) allowed them to vanquish and absorb others, with some becoming far-flung empires. By means of a gradual process of plant and animal breeding/domestication, inventions that facilitated widespread transportation of goods and people (especially warriors), and the accumulation of information (often through trade), agricultural societies were able to support ever larger populations who increasingly lived in cities. In turn, cities became the incubators of science and technology, more sophisticated technologies of warfare, and far-flung financial relations. The growth of cities created challenges to public order and safety, health and sanitation, and human adaptability.

URBANIZATION

In 1500 CE there were only twenty-four places with a population of at least 100,000 people; four were in China and none was in Europe. In 1800, three of the world's ten largest cities were in China (Beijing was the largest, with 1.1 million people) and three were in Japan. By 1900,

13 percent of the world's population was urban and, largely as a consequence of industrialization, most large cities were in the West: London with 6.5 million people, New York City with 4.2 million, and Paris with 3.3 million. They were followed by Berlin, Chicago, Vienna, Tokyo, St. Petersburg (Russia), Manchester (England), and Philadelphia. In the United States, 30 percent of the population lived in urban areas in 1900, up from 10 percent in 1860.

Since 1950, nearly all population growth worldwide has taken place in cities due to natural increases and rural-to-urban migration. Worldwide, three out of ten people were living in urban areas in 1950. Sixty years later, more than half were living in cities.[13] By 2012 80 percent of the US population lived in cities, and more than three-quarters of the people in wealthier industrialized nations now live in cities. By 2030 this will be true in poorer countries as well. In a generation this dramatically new urban way of life became the norm for billions of people across the globe.

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[13]An urban area has no agreed-upon definition, but the US Census Bureau's definition is similar to most: an area with 50,000 people or more.

In recent centuries, cities came to dominate the world. The modern world system, as Immanuel Wallerstein (1974) conceptualized it, is composed of centers of commerce, finance, science, and political decision making. On their peripheries are slower-changing regions supporting the centers with food, raw materials, and surplus population that in time becomes a proletarian workforce. Andre Gunder Frank (1966) was among the first to recognize that the core-periphery relationship was not so much one of more powerful and affluent areas stimulating the modernization (i.e., improvement) of the periphery. Rather, the core transformed the periphery into dependent colonies, in effect creating "underdevelopment."

The evolution to industrialization and the kind of societies that dominate the world today are, in this perspective, the outcome of innovation and the adoption of superior technologies that could be reconciled with evolving cultural beliefs and practices. Societies that resist change find themselves at a disadvantage, and thousands of them have disappeared, if not literally, at least from all but the archeological record. The much more rapid rate of change in industrial society since 1500, chronicled in the evolutionary social systems perspective, is largely attributed to the explosion in scientific knowledge and its translation into technologies, supported by a largely

secular ideology that values material abundance and embraces an expansive capitalist economy.

War and civil strife are signals that something is amiss in the otherwise smooth functioning of the social system. Despite the fact that, in modern times, war is increasingly broad in scope and environmentally disastrous in its results, some systems evolutionary theorists view it more as a test "of a society's ability to survive" (Chirot 1994: 122–123).[14] In light of modern war's incredible destructiveness, however, it stretches credulity to think war is a testament to an evolutionary advantage for humankind.

An evolutionary social systems perspective implicitly suggests that social change happens everywhere—though at different times—by the same fundamental process. Its practitioners emphasize how social strains and glitches in coordination make necessary adjustments and corrections in order to survive. The way things are has a kind of inevitability; the status quo is the natural state of affairs. When a society is vanquished, declines in size and power, or collapses, this is because it failed to adjust or make the necessary changes to accommodate new circumstances, a description that sounds very much like a post hoc explanation. Features of societies like political, class, and ethnic inequality are more likely to be seen as structural adaptations useful to survival rather than as being problematic. Other theorists see things differently.

Society as a Site of Conflict, Power, and the Resolution of Contradictions

In the evolutionary systems perspective, war may be seen as one means to achieve adaptive success. An alternative perspective, shared by many researchers, sees war and most processes of social change as ongoing competition and conflict over resources, institutional control, and cultural authority. This view is called the conflict perspective.[15]

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[14]In a similar vein, Edward Luttwak (1999) argues that in conflict situations, wars provide more stable outcomes than negotiated settlements do.

[15]Randall Collins' *Conflict Sociology* explores at length this approach to social inquiry. Two other very readable and resilient descriptions of conflict and change, the first comparing an evolutionary systems perspective to a conflict perspective and the second describing the synthesis of many approaches to understanding how conflict generates solutions and syntheses, are John Rex's *Key Problems of Sociological Theory* and Lewis Coser's "Social Conflict and the Theory of Social Change."

Rather than accepting the view that society is a system of interdependent parts functioning to meet the needs of the population, the conflict perspective offers a more volatile image of social forces engaged in a continuing contest in pursuit of their interests. This is not to say that people are in pitched battle 24/7, but disruption and stability are always in uneasy tension. Social order in periods of calm is held in place by a balance of forces that are constantly shifting. "As the configuration of power changes, so moves history" (Roy 1997: 273).

Social Divides and Asymmetric Power

Revolutionary movements and their leaders embrace an extreme version of the conflict perspective, as will be seen in Chapter 6. For them, the revolution is embracing and forcing the inevitable; those opposing the revolution are seen as standing in the way of the future. The revolution is a consequence of the divisions in the society, asymmetrical power, and privilege that differentiate perpetrators and victims, exploiters and the exploited, the sinful and the faithful, the corrupt and the law abiding. Marx and Engels put it this way in their famous opening of *Manifesto of the Communist Party*, written in 1848:

> The history of all hitherto existing society is the history of class struggles. Freeman and slave, patrician and plebian, lord and serf, guild-master and journeyman, in a word, oppressor and oppressed, stood in constant opposition to one another, carried on an uninterrupted, now hidden, now open fight . . . Our epoch . . . has simplified the class antagonisms: Society as a whole is more and more splitting up into two great hostile camps, into two great classes directly facing each other. (Marx and Engels 1978: 473–474)

The conflict perspective does not usually see social change as a violent outcome of adversarial social divides. It does emphasize how the contest over power, privilege, and material well-being impel social and political change. Clashing interests and opposing forces, sometimes openly at odds but often quiescent, are embedded in the structure of societies. The outcome determines something more particular and concrete than the adaptive ability of the society as a whole. Contestation determines who will rule, who will take an oversized portion of the good things a society has to offer, and who will articulate what constitute a society's dominant attitudes, opinions, and ideology, at least for a time.

Conflict theorists are prone to examine social movements as resistance and insurgencies—large and small—running against the grain of the status quo. Resistance to authority, through mobilization of resources and effective organization, poses a challenge to powerful elites and their interests. The conflict perspective sees in everyday life an ongoing competition—which is only rarely open, violent conflict—that colors many if not most social arrangements, protected by the more privileged and challenged by the less powerful.

The Conflict Perspectives of Karl Marx, C. Wright Mills, and Georg Simmel

Despite the fact that Karl Marx is known as the father of twentieth-century communism, he wrote very little about communism, and did so reluctantly. His chief scholarly interest was capitalism and the way it transformed societies in Europe, the same research subject of many other economists and social philosophers of the eighteenth and nineteenth centuries. Like those who formulated an evolutionary systems perspective, Marx saw capitalism as a historical phase that would be followed by a more progressive social system, one that would be less warlike, providing more freedom of choice, guided by rational thinking, and requiring less work to live a life of abundance in which all basic needs would be satisfied and creative possibilities could be pursued. The forces of industrial production were celebrated by Marx for their promise to liberate humankind from drudgery, disease, insecurity, and ignorance.

Marx and others who followed him objected most to the power asymmetry in a capitalist society. Capitalism vests power and authority in, and allocates a disproportionate share of the fruits of labor to, an increasingly small group of people. They, in turn, use their wealth and power to promote ideas and cultural practices (e.g., materialistic values and social honor based on wealth and consumption) favorable to themselves. Their power allows them to dominate the state in order to have laws, judicial decisions, and enforcement that favor their interests.

The way Marx reached his conclusions, through careful study of the records of industrial investment and the expansion of trade, was equal or superior to other research at the time. His conceptual framework emphasized contradictions—the dynamic, often contradictory, forces at work and how their conflict leads, often through compromise but also through violence and destruction, to a resolution that creates something new in human history and superior to what came before. Marx was optimistic about human

progress, and the values behind his efforts continue to resonate: human potentiality, freely developed associations of people who work for the betterment of their lives and others, an end to exploitation and misery, and a culture that reflects authentic needs and aspirations. This, of course, meant a rejection of much of what capitalism was doing during his lifetime; hence the radical agenda for social change made Marx's ideas the guiding light of later revolutionary thinkers.

Early twentieth-century European scholars in the United States were familiar with Marx's scholarship, but few mainstream American social scientists made a serious effort to study his ideas. When translations began to appear by midcentury, some young social scientists took note, including most prominently in the United States a Columbia University sociologist, C. Wright Mills. Mills, who described himself as a "plain Marxist," was an iconoclastic scholar, raising questions about power and social class in the 1950s. His *White Collar* and *The Power Elite* paved the way for the critical analysis by young social scientists of American society and its global economic and military reach. At a time of concern about the proliferation and testing of nuclear weapons, a growing civil rights movement, the personal and social costs of patriarchy, and growing awareness of environmental pollution, the conflict perspective's focus on vested power and social change provided encouragement for social activism. In the university, the conflict perspective's scholarship informed the emergence of women's studies, ethnic studies, peace studies, and antiwar activism.

A different strand of the conflict perspective, that of the German sociologist Georg Simmel (1858–1918), influenced social science scholarship many years after Marx's death. Simmel wrote about the permutations of social life in a wide range of topics. His philosophies of money and human vitality are less well known today than is his analysis of the structure of social forms, discussed earlier in this chapter. Written almost in the style of a novel, Simmel's dynamic analysis of social relationships was guided by the idea of contradiction, that what is immediately apparent obscures or hides its ever-present opposite. His studies included well-recognized character types that embody recurrent, regularized but contradictory features of everyday relationships. The stranger, for instance, is both apart and near, remote and familiar, a trusted confidante *because* he is unattached. Simmel treated conflict as a natural, even positive, force that reveals and resolves opposing tendencies in social relationships. Resolutions are always transitory, however, as new contradictions emerge and, in turn, evoke conflict that initiates a new process of resolution.

Ideology and Power

Unlike the evolutionary social systems perspective, the conflict perspective is less likely to treat culture as a societal-wide adaptive force. Rather, it sees elites justifying their dominant position by creating and promoting a culture that masks their privilege and power, making it appear as natural, fair, beneficial, and morally correct. They do this by controlling the religious system, education, political ideologies, and popular narratives about social inequality, status hierarchies, and opportunity.

While technological innovation, adaptation, and reproductive success are key concepts for evolutionary theories, the key concept for conflict theorists is power. The sources of power are many. Power fundamentally resides in the control of resources, including the means of physical health and comfort, education and training, banking and finance, the legislative and criminal justice systems, jobs, and a communication media projecting a worldview from which people draw information, understanding, and inspiration (Mannheim 1936). Power lies in cultural values that promote acceptance, emphasize stability, and denigrate competing ideas, as well as social norms prescribing behavior that facilitate predictable, orderly social relations and that encourages political passivity.

Contradictions as Activators of Social Change

The dynamic of social change, and the central feature distinguishing the conflict perspective from the evolutionary systems perspective, is what conflict theorists see as the friction between competing social forces. Often referred to as societal contradictions, these consist of paradoxes and conflicting interests that pose challenges and pit groups against one another.

To illustrate this, consider how the resolution of contradictions provides a way to understand changes in women's labor force participation in the past half century. Looking rather uncritically at women's work in the early 1950s, people accepted the view that most women in the United States were "not working" because two-thirds of adult women ages eighteen to sixty-four were not in the paid labor force. What this hid from view was the tremendous amount of work women were doing, much of it outside the market economy but critical to the well-being of families, communities, and the nation.

Women's time and effort supported men and the firms they worked for by absorbing much of the expense of doing business, at no cost to employers. Women's household labor alone was worth many billions of dollars. Corporations were able to "externalize" many of their costs by having their

male employees' wives and partners contribute hours and hours of unpaid labor. They provided free child care and pro bono taxi service and took care of sick children at no cost to the company. When feminist writers began pointing out these hidden contributions, this provided a strong argument for court decisions regarding the allocation of jointly created family resources in divorce settlements.

As personal income growth slowed in the 1970s, US families found themselves unable to achieve the lifestyles they had anticipated. To get ahead required households to have more than one income, and wives began streaming into the labor force. Women of color and mothers of single-headed households had always worked outside the home in large numbers, as had unmarried women; but their situation was largely ignored until millions more women became new wage earners.

This evoked another contradiction: what Arlie Hochschild (1989) called the "second shift." Wives new to the paid workforce continued to do nearly the same amount of housework as they had when not employed. They were doing two jobs, one at work and a second at home. The gendered division of household labor became a subject of scrutiny that led to demands for change not only across the society but at the most intimate level, between household partners.

As more and more women took jobs outside the home, the sexism that remained a dominant theme in the culture generated other contradictions, including the disparate treatment of men and women in the workplace and the way women's paid work was defined. Women, including those in professional positions, were expected to take care of routine tasks in the workplace that looked like "women's work" such as making coffee, cleaning up the break room, and listening patiently to the complaints of fellow male workers without expressing their own opinions or relating the difficulties of their own circumstances. Women's wages were considered supplemental to their husband's, resulting in a wage gap for comparable work. Women in professions, retail jobs, and service work were passed over and stigmatized by companies in ways that precluded their being considered for positions of authority (and more pay).[16]

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[16]When they were hired at all. As recently as 1973 *Newsweek*, one of the nation's most widely read magazines, employed no female journalists (writers or reporters). Instead, they were hired to clip articles, do research, and check facts for the male journalists. How this changed is told by Lynn Povich in her *Good Girls Revolt*. Povich is interviewed at http://www.wbur.org/npr/160685709/good-girls-revolt-story-of-a-newsroom-uprising.

Polling data in the 1950s found that a majority of young women rated "meeting and marrying" a young man as the most important reason for going to college. This attitude was not necessarily inappropriate, but it suggested that women's college education was less important than the opportunity to pursue a satisfactory marriage and family life. It, too, contradicted the emerging reality of the second half of the twentieth century. Young women needed college education as much as young men, and for the same reasons.

In these and many other ways, the circumstances of families and of women confronted the sexism of the dominant culture and the male privileges enshrined in organizational practices. The women's movement captured much of this dynamism, becoming a visible force for change. It led to changes in less obvious ways as well. For example, educators began taking seriously the declining math and science scores of young girls as they passed through K–12 education. They initiated successful programs to reverse this, in anticipation of young women pursuing careers in medicine, engineering, and science.

A conflict perspective emphasizes how contradictions provided the dynamic for social change. Those with privilege and power resist or seek to co-opt the changes needed to resolve conflicting needs and interests of those with less or no power. In the resolution of the contradictions between the status quo and emerging circumstances, there is no sense that things may finally be put right once and for all. Social change is a constant condition of the working out of competing interests, shifting power, and problem solving, sometimes requiring innovative, unsettling, and even radical solutions.

Making Sense of Modern Times

If you had asked Iris Summers if she had a theory about something, she might have answered, "Well, I have a theory about my sister's husband." She would talk about what she'd heard him say that somehow explained the kinds of things he did, things Iris probably didn't approve of. For other people, theory is a synonym for hypothetical: "In *theory* that might be true, but in fact . . ." Iris wasn't very interested in hypotheticals or even seeing familiar things in a new way, one of the most important reasons theory is valuable to us. By providing competing narratives, theory—like Kurosawa's film *Rashomon*'s wildly different accounts of the same event—has the appearance of being fanciful or fictional.

All of these ideas about theory mistake the way theory provides a tool for understanding social change. As you've seen in this chapter, theory provides

a framework—but not a cage—for organizing information conceptually. It offers explanations that are testable and possibly refutable. And, if pursued honestly and diligently, it offers clarity. Amid the "blooming, buzzing confusion" that so often is our view of the world, a better understanding is possible.

The subjects of the next five chapters—technology, social movements, war, corporations, and the state, discussed at the end of Chapter 1, are mechanisms that "move the social order along the path" of change (Lauer 1991: 130). It is a mistake to imagine that social life is unchanging until one of these mechanisms creates change. Social life is a dynamic system in continual change. The question is: What are the greatest influences on the speed, scope, and direction of change? Technology, social movements, war, and the actions of corporations and states are the major drivers of social change today. Understanding how they do this helps unscramble situations of social change that might otherwise seem totally inexplicable.

Social change at a particular time and place comes about through a combination of factors; none are solely responsible for the way social change occurs. In the following chapters it becomes clear, for example, that the state's behavior cannot be understood independent of the economic context, today dominated by large corporations. The sources of new knowledge, invention, and technology are in the public (e.g., state) and private (e.g., corporate) spheres where their priorities often guide what is studied, what problems are solved, and who benefits or suffers from the consequences. How war effects social change cannot be understood independent of the state, corporations, technology, and social movements.

As discussed in the previous chapter, establishing causality is an unavoidably complex endeavor. To say, for example, that technology *causes* social change glosses over the many processes—structural and social-psychological—that link technology to change. It may also wrongly imply that understanding can be independent of the historical context and the myriad unique circumstances and conditions that must be considered in any explanation. The next five chapters are only a modest attempt to help you begin thinking about the interconnected processes of social change in today's world. It is essentially an effort, not at explanation but rather of clarification in order to make sense of modern times.

Topics for Discussion and Activities for Further Study

Topics for Discussion

1. Talk about some situation you're familiar with that seemed to be working well, then fell apart or began to have serious problems. Maybe it was a team you were on that was winning, then began losing. Or, a group of friends who ran aground and stopped seeing one another. A perfect family that was, in fact, pretty dysfunctional. What helps you make sense of these things? Talk about them and pay attention to the way the discussion uses either the evolutionary social systems view or the view that emphasizes power, conflict, and contradictions.

2. The idea of contradiction is often difficult to grasp, but a discussion can help. Start by talking about how something "contains its contradiction." For example, social networking seems to put us in touch with many people, many of them friends. Some people think it actually isolates us by giving us a way to avoid interacting face-to-face. Jonathan Foer discusses the contradiction in communication technologies (answering machines, email, texting). They developed as "diminished substitutes for impossible activity" such as recording a phone message at home when we weren't there. But "we began to prefer the diminished substitutes" over face-to-face communication" (Foer 2013). Discuss these and similar "conflict-through-the-resolution-of-contradictions" situations, as Georg Simmel might.

3. This chapter offered an explanation of women's increasing participation in the paid workforce. Offer an evolutionary systems explanation that considers interdependent parts (e.g., how the husband's housework changes, children taking on household tasks), adjustments and adaptation (e.g., time scheduling, how meals get done), growth and complexity (e.g., more decisions to make, more things to manage), and reproductive success (e.g., increasing household income, chance the children can go to college) as part of the explanation. Try to be realistic and draw from your own life experiences to evaluate this evolutionary systems explanation.

4. We offer explanations all the time. They may be only loosely based on facts, but they almost always reveal something about the way we look at the world. Pick a topic to discuss in class that involves change, for example why there are more vegetarians and vegans today than ten years ago, or why young people are more comfortable in interracial situations than were their grandparents. Listen carefully to what people are saying. Keep a list that distinguishes between biological, psychological, and social reasons. How often does stating "the facts" substitute for an explanation? What thinking, assumption, or common-sense reasoning lies behind a statement of facts that purports to explain? Talk about what you put on your list.

5. Take sides, role-play, or work in groups to discuss agency and social structure. Someone or some group can take a very extreme position that people have unlimited free choice. In expressing this, with relevant examples, others should write down objections. Follow this with someone or a group taking the opposite position, that we have no free choice. Everyone should keep a list of assumptions and examples in the presentation. Discuss these, but be careful with an easy conclusion that "it's both of these." Go further, trying to figure out what structures choices and other aspects of human agency.

Activities for Further Study

1. Do some reading on the idea that the Holocene is giving way to the Anthropocene epoch. What evidence is mustered to support the view that we have entered a distinctly new epoch, both in terms of changes to the environment and changes impelled by a changing environment? What counterarguments can you find? Evaluate these.

2. Is globalization social change or an explanation of social change? Globalization is understood in many different ways, and there is disagreement about what it is. And there is disagreement about what lies behind it—the mechanism impelling it, speeding it up, and making it more pervasive worldwide. Do some reading about globalization, beyond what you can find in Wikipedia. Decide for yourself: Does globalization describe social change, or does it explain social change?

3. Find an explanation for something that is now thoroughly discredited. For example, phrenologists used to explain criminal behavior (and many other things) by the contours of the skull. (Stephen J. Gould's *The Mismeasure of Man* tells this story well.) Medicine was previously based on humors, that is, the four fluids of the body. Corporal punishment in schools was thought to improve learning. Ptolemy's five elements were earth, air, fire, water, and ether. Ether? Find out why an idea that once had wide acceptance was eventually discarded. What does this tell you about the way we go about understanding something?

4. Unlike a lot of articles in scholarly journals, the professional sociology association journal *Contexts* includes articles by very good social scientists that any student can read and understand. If your school library carries *Contexts*, find an article in it on a topic that interests you. Or find an article in a "long form" magazine like *The Atlantic*, *New Yorker*, *Harper's,* or *Mother Jones*. Pick an article that explains something. How does it do this? What kind of explanation does this seem to be?

5. Science fiction uses the theme of time in very creative ways. For those of you who read sci-fi, collect several ways in which time figures into plots. Why does time seem to be such a popular trope in science fiction?