Chapter 3

Patterns of Change

The preceding chapters have been devoted to causes and principal theories of change. Thus far, the discussion has been guided by the questions of why and in what context change takes place, and what the driving forces are behind change. In this chapter, the question of *how* change occurs will be considered. The objective is to examine the major processes and dimensions of change, not as "causes" but as "intermediaries" or "carriers" of change, and to analyze the various forms or patterns by which change comes about.

In the sociological literature there have been many attempts to analyze, both qualitatively and quantitatively, the emergence of change patterns in societies. This chapter will describe, compare, and contrast several of the major patterns. In this discussion, the emphasis will be on both cultural and societal forms. Among the former, three seem to be of particular importance: evolution, diffusion, and acculturation. Among the latter, the major ones considered are revolution, modernization, industrialization, urbanization, and bureaucratization.

EVOLUTION

In Chapter 2, the various evolutionary theories of change were discussed in some detail. It was noted that many of the earlier theories were based on the idea that it was possible to improve society through deliberate human effort and that society, especially Western society, was moving inexorably from one stage or phase toward another, usually a better and more desirable one. For example, for Marx and Engels, evolution was to make manifest destiny of the *Communist Manifesto*. Others, in a similar vein, also saw the evolution of

societies toward greater complexity, which, they believed, inevitably produces greater human happiness.

Some go as far as to argue that changing social structures and global processes seem to signify the emergence of the first global civilization with a new world order and shared values, structures, and processes (Perlmutter, 1991).

Contemporary anthropologists, in an attempt to revitalize evolutionary theory, have focused on culture and technology to show how evolutionary changes take place in society. They have tried to demonstrate that the major source of change is a shift in a society's basic means of subsistence—for instance, from agricultural to industrial. Because each subsistence level is more productive than its predecessor, the result is a greater economic surplus. That makes possible larger populations, more affluence, greater cultural diversity, the emergence of new statuses and roles, faster economic development, and an ever-increasing complexity and efficiency (see, for example, Lenski, Nolan, & Lenski, 1995). In all evolutionary approaches, a recurrent theme is the search for a universal "law" of change. The orientation of this section is different. Instead of considering broad theories of evolutionary change, the emphasis will be on specific evolutionary forms or patterns. These can be characterized by directionality in time, which in its course generates greater variety and complexity.

Directionality, novelty, variety, selectivity, and increased complexity are key aspects of evolutionary patterns (Richerson & Boyd, 1992). Some of the so-called revolutions—with the "r" removed—could be illustrative of this. Consider the agricultural revolution, for example, which could be more appropriately termed agricultural *evolution*. Similarly, we can talk about the Industrial Revolution as industrial evolution. In both instances, there are discernible evolutionary patterns in the use of energy, technology, work skills, and materials. Of course, their emergence was based on already established foundations in the cumulative sequence. Each improvement required novelty, directionality, and variety, and each resulted in increased complexity.

It is plausible and possible to isolate individual change forms and talk about their evolution. For example, Richard Schwartz and James C. Miller (1970) used anthropological data to try to draw a pattern of legal evolution. They posited that legal organization seems to develop with a degree of regularity, and elements of such organization emerge in a sequence such that each constitutes a necessary condition for the next. The preliminary findings show "a rather startling consistency in the pattern of legal evolution. In a sample of fifty-one societies, compensatory damages and mediation of disputes were found in every society having specialized legal counsel. In addition, a large majority (85 percent) of societies that develop specialized police also employ damages and mediation" (Schwartz & Miller, 1970:157). The findings of the study lend support to the belief that "an evolutionary sequence occurs in the development of legal institutions" (p. 171).

A similar sequence of evolution was discussed by Robert N. Bellah (1970) in his paper, "Religious Evolution." He views evolution "as a process of increasing differentiation and complexity of organization which endows the organism, community, or whatever the unit in question may be, with greater capacity to adapt to its environment so that it is in some sense more autonomous relative to its environment than were its less complex ancestors" (Bellah, 1970:213). In light of this conceptualization of evolution, he traced the emergence of religion in terms of the evolution of religious symbol systems, which moved from "compact" to "differentiated"; religious collectivities, which became more differentiated from other social structures; and increased consciousness of the self as a religious subject. On these grounds he delineated five stages, to which he referred as the primitive, archaic, historic, early modern, and modern religious stages. Bellah noted, however, that these ideal typical stages are not inevitable, and that actual cases may include features that cannot be neatly characterized in terms of any one stage.

But evolution is not characterized merely by qualitative changes in organizations, as was illustrated in the case of legal systems and religion; it is also characterized by quantitative cumulation. The quantitative approach in the study of evolutionary patterns implies that the emergence of certain forms can be ranked along some scale ranging from small to large numbers. Such quantitative scaling is implied, for example, in the study by Morton Fried (1976) of the evolution of stratification. He used two measures: (1) a ratio between positions of prestige available for any given age-sex grade and the number of persons capable of filling them and (2) a ratio between strategic resources and persons possessing impeded or unimpeded access to them. In another study, Raoul Naroll (1964) used the number of people in the most populous building cluster of the ethnic unit study as an index of social development, and showed that this measure can be related systematically in a mathematical formula to the number of occupational specialties and to the number of organizational types.

In his classic study, *The Science of Culture*, Leslie White (1949) proposed a potentially quantifiable measure of the emergence of energy utilization and posited that culture evolved as the amount of energy harnessed per capita per year is increased or as the efficiency of the instrumental means of putting the energy to work is increased. From a different perspective, Marshall Sahlins (1958) used surplus production of food commodities and the degree of their redistribution as a measure of technological efficiency in his stratification study in Polynesia. He demonstrated that the amount of stratification was directly correlated with the size of the group involved in the redistribution of the surplus and with how frequently the food was distributed.

Thus, it is possible to study the evolutionary change forms or patterns in societies both qualitatively and quantitatively. Change patterns such as those of legal systems, religion, stratification, energy utilization, food pro-

duction, and the like can be isolated and looked upon in an evolutionary or emerging context. These change patterns tend to evolve in a cumulative and incremental fashion, usually with directionality, increased variability, and complexity as a result of the incorporation of novel features.

DIFFUSION

Diffusion is the process by which innovations spread from one culture to another or from a subculture into the larger culture. Diffusion theory emerged as an alternative to evolution. It is based on the idea of culturally dominant centers, which was made into a theory of social change by G. Elliot Smith (Kroeber, 1973:143). According to Smith, an unusual constellation of circumstances resulted in a great spurt in cultural development in Egypt. Around 3000 B.C., agricultural technology was rapidly improved, geometry was invented, metal-working and tool-making processes were developed, and a new and effective political order was devised. From that center of cultural innovation, cultural elements were carried throughout the Mediterranean and to all peoples of the world. Smith argued that the inventiveness of the Egyptians of that period was the "cause" of social change in various parts of the world, and what the Egyptians invented was diffused to and adopted by most societies.

To document his theory, Smith attempted to locate cultural similarities between the early Egyptians and societies far removed in space and time, such as the Incas of Peru and the people of India and Mexico. He convincingly argued that the bone fishhook in Melanesia was based on a bronze spear developed by the Egyptians, and the Mayan practice of building pyramids out of stone derived from the Egyptian practice of mummifying the dead and burying them in great pyramids. This theory provided an alternative to evolutionary theories in positing that social change was the result of contact and diffusion among societies.

In the United States, the anthropologists of the mid-1940s greatly emphasized diffusion as a pattern of change. In Kroeber's words, "whatever else diffusion does or does not involve, it does always involve change for the receiving culture. The total part played by diffusion in human culture is almost incredibly great" (Kroeber, quoted by Lauer, 1982:165). Kroeber posited that the development of cultural complexes is inversely related to the distance from "high centers" of civilizations. That is, the more isolated and the farther away societies are from such centers, the more retarded or marginal they will be in their development.

George Murdock (1934) estimated that about 90 percent of every culture known to history has acquired its elements from other peoples. Ralph Linton (1936:326–327) provides a now-classic illustration of this point by describing the beginning of the day for a typical American in terms of the

origins of the objects he or she uses. Among other things, the bed came from the Near East via northern Europe, the cotton from India, the silk from China, the pajamas from India, and the shaving ritual for men originated in Egypt. The custom of wearing a necktie came from seventeenth-century Croatia, the umbrella was invented in southeastern Asia, and coins originated in ancient Lydia. While eating breakfast, a typical American uses plates invented in China, a knife from southern India, a fork from Italy, and a spoon derived from Roman society. The orange came from the eastern Mediterranean, cantaloupe from Persia, and coffee from ancient Abyssinia. Wafers are derived from a Scandinavian technique from wheat domesticated in Asia Minor. The after-breakfast cigarette comes from Mexico, from a tobacco plant that originated in Brazil. The newspaper that is being read was imprinted in characters invented in Germany, and "As he absorbs the accounts of foreign troubles he will, if he is a good conservative citizen, thank a Hebrew deity in an Indo-European language that he is 100 percent American" (Linton, 1936:327). And, the same 100-percent American that Linton talked about sixty years ago is surrounded today by products that originated elsewhere (Baker, 1987). Some examples: This text is being composed on a laptop computer with components made in Japan and assembled in Mexico while the author is listening to classical music composed in Austria on a radio built in Hong Kong. The paper clips on the Danish desk came from Taiwan, the pens from France, and the stapler was made in Korea. And, I have not even looked at the labels in my shirt or shoes.

Anthropologists estimate that in the past and at present, there have been some 4,000 different human societies (Murdock, 1957). A considerable amount of borrowing goes on among these societies. The processes of diffusion, reinterpretation of borrowed or introduced elements, innovation, and synthesis of the old and new are ongoing and are present in all of them to varying degrees. Diffusion is not always a one-way process, as was implied by Linton's illustration; it can be reciprocal as well. In the United States one might assume that the borrowing between Indians and Caucasians has been a one-way process, but this is not the case. "Our borrowings from the native American culture have been numerous and can be found in many different areas and segments of our culture, and, perhaps, even in our personalities" (Spindler, 1984:23). Many of the things borrowed from native American culture are evident throughout the world. The plants domesticated by native Americans provide close to half of the world's food supply today. They include "Irish" potatoes, corn, beans, squash, and sweet potatoes. A number of drugs can be traced back to them, such as coca in cocaine and Novocain, curare in anesthetics, and cascara in laxatives. Other examples include the woolen poncho, the parka, moccasins, and the commercial cottons used today, all of which had their origins in native American culture.

Diffusion is evident also within complex societies. Many of the cultural items can be traced back to specialized groups in society as a component

of a specific subculture, which are later taken over by other groups. To illustrate, jazz was developed by American blacks in the South, but as blacks moved north to Chicago and to other urban centers, they carried their music along, and today jazz is an important part of the American cultural heritage. Many currently popular dance forms have African origins (Newman, 1997). Similarly, attributes of popular culture such as hairstyles, clothes, dance forms, and slang spread from distinct subcultures to society at large.

Over the years, a sizable body of literature has developed on diffusion. In addition to works on how new ideas and practices spread from one society to another (McAdam & Rucht, 1993), sociologists have studied the institutionalization of world views (Kirby & Kirby, 1996) and the diffusion of new values and styles within societies. In particular, rural sociologists have studied the spread of new agricultural technology among farmers (Cernea, 1985) and adoption of new wheat varieties (Fischer et al., 1996), and medical sociologists have been concerned with the spread of drugs such as tetracycline (Strang & Tuma, 1993), vaccinations, and family-planning methods. Educators have studied school adoption of new teaching methods and equipment. Economists have been concerned with the imitation process by which firms adopt new technological and production processes in cost-reduction attempts (Jovanovic & MacDonald, 1994). Communication researchers have focused on the diffusion process to better understand the dynamics of persuasion, propaganda, and interpersonal influence (Valente, 1993). Marketers have studied diffusion implicitly for many years as they attempted to guide and control the spread of new products and technologies such as optical scanners in supermarkets (Edmonds & Meisel, 1992).

In his influential book *Diffusion of Innovations*, Everett M. Rogers (1995) reports on over 500 diffusion studies that suggest some remarkably similar findings. Based on this enormous body of research, Rogers developed a theoretical framework on the diffusion of innovations, which has been widely adopted and is well worth examining in detail. For Rogers, the crucial elements in diffusion are (1) the *innovation* (which may be a technological development, a fad, a social movement, or a new product), (2) which is communicated through certain *channels* (word of mouth, advertising), (3) over time, and (4) among members of a *community*. On the basis of research evidence, he then identifies five stages of the adoption process. They are:

1. *Awareness Stage.* The individual knows of the new idea but lacks sufficient information about it.
2. *Interest Stage.* The individual becomes interested in the idea and seeks more information.
3. *Evaluation Stage.* The individual makes a mental application of the new idea to his or her present and anticipated future situation and makes the decision either to try it or not.
4. *Trial Stage.* The individual uses the innovation on a small scale to determine its utility.

5. *Adoption Stage*. The individual accepts the innovation and commits oneself to its use.

One of the major factors affecting the rate of adoption of an innovation is the characteristics of the innovation itself. Rogers suggests five characteristics that have a major influence on the rate of adoption of an innovation. They are:

1. *Relative advantage* refers to the degree to which an innovation is considered superior to the ideas or products it supersedes. It is determined in terms of efficiency, cost, novelty, or perceived advantage. An example of a product with a high perceived relative advantage is the transistor radio (as opposed to the tube-type radio).

2. *Compatibility* is the degree to which an innovation is seen as consistent with the existing values, past experiences, and the needs of the recipients. For example, Eskimo hunters can readily grasp the advantages of the steel blade over the slate knife, but they are very uncertain of the alleged advantages of Christianity over their own religion. Similarly, birth-control practices may be seen as incompatible with existing traditions, values, and beliefs.

3. *Complexity* refers to the extent to which an innovation is seen as relatively difficult to understand and use. The rate of adoption may be put on a complexity-simplicity continuum, and, as a rule, the adoption rate of an innovation will be slower when it is perceived as complex by members of a community.

4. *Trialability* is the degree to which an innovation may be experimented with on a limited basis. Certain things can be tried on a small scale; others cannot. Certain inventions, such as the automobile or television, have to be accepted as they are. It is considered advantageous for the adoption rate if an item can be tried out first.

5. *Observability* refers to the extent to which the results of an innovation are visible to others. The fact that certain items such as clothes or durable goods are highly observable facilitates the rate of adoption. The crucial point, according to Rogers, is how these characteristics are *perceived* by members of a community, for this is what governs their response.

Rogers suggests that the type of innovation decision is related to an innovation's rate of adoption. He outlines three types: (1) *optional*, whereby an individual has a choice whether or not to adopt an innovation; (2) *collective*, whereby a majority needs to be convinced about an innovation; and (3) *authoritarian*, whereby a decision has been superimposed upon a community, such as in the case of water fluoridation. Communication channels are also considered as affecting the rate of adoption, and interpersonal channels

are considered more effective with more complex innovations than mass media channels. Finally, both the nature of the community, whether or not it is modern or traditional, and the extent of the change agents' promotional efforts influence the rate of adoption.

As ideal types, Rogers identifies five adopter categories. They are:

1. *Innovators*, who are eager to try out new ideas. They are daring, risking, and willing to take the consequences for their actions.
2. *Early adopters*, who are more integrated in the community than innovators and tend to be more prominent, successful, and respected.
3. *Early majority*, who adopt new ideas just before the average in a community. They tend to be deliberate and they aid in legitimizing innovations, although they are seldom leaders.
4. *Late majority*, who follow after the average community members; at times, adoption results from social pressures or economic necessity.
5. *Laggards*, who are suspicious of innovators and change agents and have traditional values. They are the last to accept an invention.

The derivative effects of diffusion may be illustrated by the changes in the United States resulting from the invention and adoption of the automobile. These changes were first apparent in the economic institutions directly related to the manufacture of automobiles, such as the steel, rubber, glass, and petroleum industries. Government institutions were affected in a variety of ways, ranging from the revenues from the sale of gasoline to the detection and control of crime. Religion has felt the impact of the automobile in a number of ways, with the automobile often competing with the church for time and energies of the people. Moreover, the family has seen the automobile bring about new patterns of recreation, social control, and economic expenditure, not to mention sexual morality and adolescent discipline.

The concept of *planned diffusion* has become an important one in recent years in the context of modernization, economic development, and aid to third-world countries. Diffusion has both a temporal and spatial component and often begins in centers of innovation, spreading outward to the periphery (Grubler, 1996). In one of his earlier books, *Beyond the Stable State*, Donald A. Schon (1971) describes two models of diffusion of innovation. The first he calls the *center-periphery* model, which is characterized by one source of innovation and multiple receivers of that innovation. The second is referred to as the *proliferation-of-centers* model, which describes the situation in which the receivers of innovations become innovators in their own right. These two models can be used also to indicate the direction of diffusion and the alterations produced by the acceptance of innovations. This is a more pragmatic view of change advocated primarily by policy makers and others involved in planned social change (Schon & Rein, 1994). Schon contends that the two systems of diffusion evolve simultaneously with the technological infrastructure in society.

The *center-periphery* model rests on three basic elements:

1. The innovation to be diffused exists, fully realized in its essentials, prior to its diffusion.
2. Diffusion is the movement of an innovation from a center out to its ultimate users.
3. Directed diffusion is a centrally managed process of dissemination, training, and provision of resources and incentives.

Proponents of the center-periphery model view diffusion as a form of interaction in which one person transmits a new idea to another person. At the most fundamental level, the process consists of (1) a new idea, (2) individual A who knows about the innovation, and (3) individual B who does not yet know about the innovation. Examples of *diffusers* would be agricultural extension agents, those who introduce new pharmaceuticals to physicians, doctors and nurses, and college professors. Studies on diffusion deal with the spread of, for example, public health practices, drugs, insecticides, and ideologies.

Schon argues that the effectiveness of a center-periphery system depends on the level of resources and energy at the center, on the number of points at the periphery, the length of the radii, or spokes, through which diffusion takes place, and the energy required to gain a new adoption (1971:82). He uses as an illustration the diffusion capability of an agricultural extension agent, which depends upon the agent's own energies, the number and location of farmers served, and the time and effort devoted to each farmer.

The scope of the model "varies directly with the level of technology governing the flows of men, materials, money and information" (Schon, 1971:82). The scope of the model also depends on its capacity for generating and managing feedback. He suggests that there are two important variants to this model. The first he calls *Johnny Appleseed*:

> Here the primary center is a kind of bard who roams his territory spreading a new message. Into this category fall the traveling scholars, saints and artisans of the Middle Ages; Voltaire and Thomas Paine; and contemporary bards of radical activism like Saul Alinsky. (Schon, 1971:83)

The second variant he calls the *magnet* model. For this, he gives the illustration of nineteenth-century universities in Germany, to which students came from all parts of the world; afterward, they returned to their own countries to teach and practice what they had learned. Today, in technology and in economics, the United States and Great Britain are magnet countries, especially to developing nations.

The Johnny Appleseed model allows the innovation to be adapted to the special conditions of the recipient's locality. The magnet model may establish new centers.

An elaboration of the center-periphery model is the *proliferation-of-centers* approach. Although it retains the basic center-periphery structure, it tends to differentiate the primary from the secondary centers. The primary centers manage and support the secondary centers, which, in turn, engage in the diffusion of innovations. Schon uses the illustration of the activities of the Roman army for this model. Regiments of the Roman army moved out from Rome to occupy new territories, subjugated their occupants, and established colonies. The task of these advanced guards was war and government. Once an area was occupied, the military established an approximation to the Roman way of life based on centrally established doctrine and a centrally established method for diffusing it. Similarly, missionaries followed the proliferation-of-centers model in disseminating their message.

Schon contends that industrial expansion came about on a worldwide scale through a form of specialization resembling that of the Roman army. "The central message now took the form of technology both for production and for the management of the business firm. These spread throughout the world as industrial centers established decentralized networks of distribution, marketing, production, manpower and financial control" (Schon, 1971:86–87).

Even though there are many variants of this model, a dominant pattern prevails in the primary center's relationship to secondary centers. The primary center oversees policies and methodology. It selects territories for expansion; develops methodologies for diffusion; trains new agents for diffusion; sustains decentralized outposts through finances, information, and know-how; monitors decentralized operations; and maintains information throughout the network of outposts.

To varying degrees, the spread of colonialism, Christianity, Coca-Cola, and communism all followed this model. In today's world, this model is used as a technique of business expansion, and the unfolding of the various *multinational corporations* (large corporations that operate in many nations) would be a good illustration of its operation (Barnet & Cavanagh, 1994). In the area of marketing, in particular, a series of new models have been developed that describe the spread of products, repeat purchase patterns, and technical innovations (Furnham, 1994). In policy making, it is used to study how states change policy innovations as they diffuse—a process known as reinvention (Hays, 1996). Among demographers, the diffusion of contraceptive technology in underdeveloped countries is receiving substantial attention. Understanding diffusion is an important consideration in planned social change. It is a fruitful subject of investigation that has been barely sampled thus far.

ACCULTURATION

Acculturation refers to taking on material and nonmaterial attributes from another culture as a result of prolonged face-to-face contact. Such contact

can come about in several ways. It can be the result of war, conquest, military occupation, or colonization; or it may be through missionaries or cultural exchanges. It may be produced by migration or the transportation of labor, such as through slavery or penal deportations. Voluntary labor movement is another factor in creating contact, as is the case in Europe where "guest workers" from less developed European countries move to France, Germany, and Switzerland. Trade, technical exchange, and the spread of ideas and institutions represent other sources of contact. Contacts of shorter duration have been brought about by travel and tourism in recent years. Indirect forms of contact include mass communication and the transfer of knowledge.

Diffusion is considered as only one aspect of acculturation. Even though diffusion occurs in all cases of acculturation, since attributes and ideas have to be transmitted before they can have an impact on recipient cultures, it is usually considered as a component of the broader process of acculturation. Diffusion usually deals with one or a small number of attributes, whereas acculturation provides the group with many possible new ways of behaving, which might be quite different from those dictated by their own cultures, traditional norms, and beliefs. In most cases, acculturation is also more rapid and more observable than diffusion. Acculturation is produced by contact, whereas contact may not be required in diffusion. Acculturation brings about greater similarities between two cultures, whereas diffusion usually refers to a lesser influence or impact. Acculturation plays a role in a variety of activities and behaviors ranging from language use (Brown, C., 1994), frequency of sexual partners and condom use among Hispanic unmarried adults (Marin et al., 1993), delinquency among Cuban American adolescents (Vega et al., 1993), to explanations of Asian-American living arrangements in later life (Burr & Mutchler, 1993)

In general, two cultures that are in contact rarely acculturate reciprocally and to the same degree. Rather, the politically subordinate or technologically inferior group adopts cultural attributes from the dominant group. Acculturation, in a sense, is cultural borrowing in the context of subordinate-superordinate relations (Bodley, 1982:14, 43). Often status enhancement is considered an inducement to accept new ideas or elements. Those groups that are considered "inferior" in society feel that by assuming the characteristics of a "superior" group they will, in consequence, also become superior and receive the same respect that is given to members of that superior group. In situations in which neither group is clearly "superior," there may be a standoff in the adoption of attributes, and thus each group tends to retain its identity (DeVos, 1976:4).

Acculturation may be voluntary or involuntary. The former occurs when members of a group in contact with another group accept some of their attributes, characteristics, norms, and values without force or pressure for compliance by the other group. This situation happens when nei-

ther group is superior to the other. Involuntary acculturation, on the other hand, seems to be much more widespread. Let us now examine some of its ramifications.

In the United States, most native American tribes have made adjustments through acculturation. A few have been assimilated, and others have suffered annihilation as a result of social and cultural contact with whites. It should be noted, though, that the early contacts were the kind that led to diffusion; trappers, traders, and missionaries carried new traits to the native peoples and borrowed in return such things as buckskin clothes, kennels, snowshoes, tobacco, corn, and maple syrup. Diffusion was stimulated but there was not yet acculturation. Acculturation began in earnest with the arrival of white settlers, soldiers, and administrators. The result was the disorganization of the ecological, economic, and political bases of traditional tribal life. The whites continued to borrow ideas and attributes from the native Americans, but, by virtue of the whites' dominant position, there was no reciprocal acculturation. Instead, the dictum seemed to have been: "Acculturate—or else!"

At times, acculturation can be both forced and planned. Consider the attempts of the British colonial office to "civilize" the "backward" native Africans. This entailed the teaching of the English language and the transmission of rudimentary skills and technologies. Provisions for medium-level opportunities to encourage limited mobility were made; at the same time, however, colonizers continued to maintain strict boundaries between themselves and the "inferior" groups. Similarly, the Portuguese and Spanish conquerors of Latin America were successful in undermining the native Indian cultures and, with a few exceptions, in imposing their Iberian cultures on these people. Through violence, disease, overwork, and forced migration, they succeeded in weakening the native social structures that might have preserved the traditional cultures. This is similar to what happened to slaves in the New World. Even though the measures are less dramatic, the recent attempts at acculturation that took place between the former Soviet Union and the Eastern European countries is indicative also of planned and forced acculturation. In Eastern European countries, the instruction of the Russian language traditionally had been mandatory. In many cases, the history of Russia took precedence over their native histories. The study of political philosophy and Marxism was required both at the high school and university levels. The dominant Soviet group attempted also to "encourage" the acceptance of a series of other aspects of culture, such as the literature, art, cinematography, and music that came from the socialistic ideological mold.

Acculturation can also be seen as the interaction between a constant and a variable—that is, between an essentially stable receiving culture and an adapting immigrant group (Petersen, 1965:220). The acculturation of immigrants can be depicted on a continuum ranging from total assimilation to total nonassimilation, with most cases falling somewhere in between. This

continuum may be analyzed in terms of a tripartite typology devised by Ralph Linton (1936:271–287). He considered social roles in any culture under three categories: universals, specialties, and alternatives. *Universals* include attributes that are common to all members of a society. *Specialties* are shared by the members of certain socially recognized categories but not shared by the total population. *Alternatives* include roles shared by certain individuals that are not common to all members of the society or even to all members of any one of the socially recognized categories (Linton, 1936:272–273). Conformity is expected of immigrants only with respect to those ideas and behavior patterns to which all members of society must conform. In the United States, this includes the learning of the English language, self-support, and political alliance. Alternatives refer to the selective acceptance of attributes and the simultaneous retention of certain old-country habits. Food preferences among the various immigrant groups in America are illustrative of this. Specialties pertain to the kind of work an individual does, which, in turn, is a factor in his or her social status. Thus, total acculturation for immigrants is seen only in terms of Linton's "universals" category, whereas social roles in the "specialties" and "alternatives" categories retain a degree of uniqueness and flexibility.

The most famous case of acculturation at the level of society discussed in the literature is perhaps the transformation of Manus society as a consequence of the occupation of the island by American troops during World War II. The Manus community of the Admiralty Islands in the South Pacific was revisited by Margaret Mead after twenty-five years. The first time she studied the community, it was comprised of people with no contact with the outside world and no known writing. The problems of social interaction and reciprocal obligation were handled in terms of kinship. The natives wore G-strings and grass skirts and had a very primitive economic system. When she returned twenty-five years later, she was "greeted by a man in carefully ironed white clothes, wearing a tie and shoes, who explained that he was the 'counsel,' one of the elected officials of the community" (Mead, quoted by Spindler, 1984:35). A few days after her return, she was asked by another elected official to make up a list of rules for modern child care—feeding, discipline, sleeping, and so forth. "When she explained that her comments would be based on the latest thinking of the International Seminar on Mental Health and Infant Development, held at Chichester, England, in 1952, under the auspices of the United Nations, this man, who was born into what was then a primitive 'stone age' society, understood what she was saying" (Spindler, 1984:35).

When she had left the island twenty-five years earlier, she had left a primitive, isolated, nonliterate "stone age" society. When she returned, she found them moving rapidly into the mainstream of the modern world, with concerns that would allow them to accelerate this process even more. Why did it take place? During World War II, more than a million Americans man-

aged to reshape the island completely. The Manus natives worked for them and were treated as equals. The Americans furnished a kind of model for the Manus as well as provided them with a vision of American technological and material culture. Using the "American model," the Manus rapidly threw away their own culture and modeled their lives after that one. Contrary to traditional anthropological thinking, the change took place without disruptive effects on the society. This is accounted for by the fact that the change was desired by the entire society. It is interesting to note that today the area is an unusually valuable tourist property offering some of the best scuba diving in the world (Kristof, 1997).

In sum, acculturation is a form of change that is conditioned by various degrees of convergence among cultures. Acculturation is not necessarily disruptive and painful. On the contrary, because it is more rapid than other forms of change, it may well be less upsetting than gradual change. At times, as Mead suggested, it is easier to embrace a new culture in its entirety—since it is a meaningful, integrated whole—than to try to splice two cultures together. Substituting clothes for grass skirts (to use Mead's own example) without introducing soap produces dirt and disease; without sewing machines, starch, and irons, it creates a society of ragamuffins; without closets, it produces huts that are cluttered with hanging clothes, and so on. As Mead (1961:374–377) points out, it is easier for a Samoan to become a New Yorker than to become a half-acculturated, or perhaps "deculturated" Samoan.

REVOLUTION

By definition, *revolution* is a fundamental, rapid, and violent change in political organization, power relationships, stratification, economic property control, and the predominant myth of a social order within a society (Goldstone, 1986:1–17; Neumann, 1971:122). In a classic sense, revolution is a forcible transfer of political power from one block of contenders to another in a society and is considered the most radical form of social change (Kimmel, 1990:6; Tilly, 1993). Revolutions intensify security competition and increase the probability of war by altering each side's perceptions of the balance of threats (Walt, 1996).

As compared to other patterns, revolutions are distinguished by the following characteristics: they induce changes of the largest scope involving all levels and dimensions of society including the economy, polity, culture, and social organization; the changes in these areas are radical; and these memorable events evoke unusual intellectual and emotional reactions from the participants that range from exhilaration to utopian visions of the immediate future (Sztompka, 1994:301). Revolutions are often classified into one of two ideal types: leftist or rightist (DeFronzo, 1996:9–10). In a left-wing revolution,

the goal is to change major social and political institutions. It involves the redistribution of resources and wealth between the rich and poor, provision of basic services such as health and education, land reform, and the nationalization of industries and commerce. The Russian, Chinese, and Cuban revolutions are illustrative of this pattern. In a right-wing revolution, the objective is the restoration of traditional institutions. The emphasis is on maintaining social order and traditional authority rather than on trying to achieve greater social equality through institutional change. The 1979 revolution in Iran is an example of a predominantly right-wing revolution.

Before we proceed further with the patterns of revolutionary change, it should be noted that not all such change can be equated with force or violence, nor does it always entail initiation by antiestablishment forces or radical alteration in social structure or political organization (see, for example, Foran, 1997). For example, many of the revolutions in Latin America prior to World War II consisted of overthrowing Colonel A by General Y and his followers, but nothing after the overthrow changed in the basic structure of society. Simularly, Max Gluckman studied what he calls "rebellion cycles" in a number of precolonial African kingdoms. He found that periodic rebellions and replacement by one clan over another served to strengthen rather than weaken the established political and economic structures. Their community persisted for generations with minor modifications until truly radical changes were introduced by Western colonial powers (Gluckman, in Gerlach & Hine, 1973:19).

Similarly, there have been what may be designated as "revolutionary" changes in science. "A change in the thought-system, or worldview, is revolutionary in the extreme and has wide ramifications in technological, economic, political, and religious spheres of life" (Gerlach & Hine, 1973:20). For example, when Nicholas Copernicus (1473–1543), the Polish astronomer, described the sun as the center of a great system with the earth revolving around it, revolutionary changes in astronomy resulted. Johann Gutenberg (1397–1468) invented movable printing type in 1437, thus revolutionizing the technique of disseminating knowledge. The names of Isaac Newton or Albert Einstein do not require commentaries in terms of their revolutionary contributions to science. In medicine, we need only consider some examples such as Louis Pasteur (1822–1895); Conrad Wilhelm Roentgen (1845–1923), who discovered x-rays, or Ignaz Philipp Semmelweis (1818–1865), a Hungarian physician who, through the use of antiseptic methods in obstetrics, significantly reduced deaths from puerperal fever. These are just a few illustrations to show that revolutionary and radical forms of social change need not always be violent or involve the basic structures in society. For the remainder of the discussion, the term "revolution" will be used in the context of the original definition.

The patterns of revolution, according to Chalmers Johnson (1964), can be analyzed in terms of (1) the targets selected for attack—government personnel, political regime, the community as a social unit; (2) the nature of the

carriers of the revolution—mass or an elite; and (3) its goals and ideologies—reformist, nostalgic, nation-forming, elitist, or nationalist. On the basis of these, he identified six patterns:

1. *The Jacquerie.* The name comes from a French peasant insurrection in 1358 against the nobility and the pillaging English soldiers. It is a spontaneous mass peasant uprising, generally carried out in the name of the traditional authorities, church, and king, and with the limited objectives of purging local or national elites.

2. *The Millenarian Rebellion.* This pattern is similar to the first one but with the extra feature of a utopian dream fostered by a strong leader. This pattern is rather widespread and found in all parts of the world. An illustration of this would be the Sioux Ghost-Dance Rebellion, which will be discussed in some detail in Chapter 5. In more recent times, Hitler offered overwhelming proof of the power of a charismatic leader.

3. *The Anarchistic Rebellion.* This pattern reflects a nostalgic reaction to progressive change that involves a romantic idealization of the previous order; for example, the Boxer Revolt.

4. *The Jacobin Communist Revolution.* This pattern is a rather rare phenomenon, which has been defined as "a sweeping fundamental change in political organization, social structure, economic property control, and the predominate myth of a social order, thus indicating a major break in the continuity of development" (Neumann, quoted by Johnson, 1964:2). This pattern of revolution can occur only in a highly centralized state with good communications and a large capital city, and its target is the government or the regime. Revolutions of this nature serve to increase national consciousness and to create a more rational and stronger state and social structure. Such revolutionary patterns occurred in France, Russia, and China.

5. *The Conspiratorial Coup d'Etat.* The coup d'état is a calculated and highly organized undertaking of a small elite and is instigated by an oligarchic sectarian ideology. It is considered a revolutionary pattern only if it in fact anticipates a social movement and inaugurates social change. Examples include the Nasser revolution in Egypt or the Castro revolution in Cuba. Johnson contends that this pattern of revolution must be distinguished from palace revolts, banditry, assassination, strikes, dynastic succession-conflict, and other forms of violence, none of which would entail social change.

6. *The Militarized Mass Insurrection.* This pattern is a deliberately planned mass revolutionary war guided by a dedicated elite. The outcome of guerrilla warfare is determined by political attitudes, not by military strategy or materiel, and the rebels are wholly dependent on broad popular support. In the examples found in the former Yugoslavia, Algeria, Vietnam, and China, the

ideology that attracted mass following has been a combination of xenophobic nationalism and Marxism, with a somewhat heavier emphasis on the former.

Like any categorization of historical processes, Johnson's typology of patterns of revolution is concerned with ideal types. In reality, individual revolutions may, at times, display characteristics of several different patterns conditioned by the targets, carriers, and ideologies of the revolution. A difficulty with Johnson's schema is his distinction between rebellion and revolution. The former tends to concentrate on individuals, rather than institutions, with a retrospective outlook, whereas the latter seeks to change institutions and social structures and is innovative. To simplify the distinction between rebellion and revolution, Smith (1973:113) proposed a fourfold typology:

1. *Simple rebellion*, such as the Jacquerie, which is nonideological and attempts changes only in the governing personnel.
2. *Ideological rebellion*, such as anarchism, which attempts to restore the old order as well as change the present elite.
3. *Simple revolution*, such as the early American Revolution, in which the ideology attempts alterations in some values, such as governmental or economic values, while leaving others intact.
4. *Total revolution*, such as in France in 1789, Russia in 1917, or China in 1949, which attempts to restructure the entire society.

For each revolutionary pattern, it is possible also to establish quantitative changes in several domains. Basically, all revolutionary patterns deal with the class, status, and power systems. Mark N. Hagopian (1974) suggests, as summarized in Table 3.1, that the intensity of a revolution pattern on the class, status, and power systems can be ascertained as ranging from negligible to moderate and from radical to total abolition. Thus, a revolution could include only a moderate change in one aspect of the stratification system (Score 1) to a revolution that would succeed in abolishing all three aspects (Score 9). For illustrative purposes, the American Revolution may be classified toward the lower end of the scale and the Russian and Chinese revolutions toward the upper end.

Although revolution is seen as affecting all three components of the stratification system (class, status, and power), the transfer of power from one social group to another is usually considered the most crucial. Various significant factors have been considered to precede such transfer of power on a wide scale, but there seems to be a substantial disagreement in the literature about which of these are of paramount importance. Marx, Crane Brinton, and others see economic fluctuations and the increasing illegitimacy of the existing government as necessary preconditions for revolution. Even among these theorists, however, there is some disagreement. The Marxists argue that economic conflict between classes plays the primary causal role in revolution. Brinton (1959) advocates the argument of "relative deprivation," or rising expecta-

TABLE 3.1 A Scale of Measuring the Intensity of Revolution

	Negligible Change	Moderate Change	Radical Change	Total Abolition
Class systems				
Status systems				
Power systems				

Source: Mark N. Hagopian, *The Phenomenon of Revolution*. New York: Dodd, Mead, 1974, p. 100.
Negligible change = 0 Moderate change = 1
Radical change = 2 Total abolition = 3

tions. Others argue that economic decline and status crises bring about revolution, and still other observers suggest that military pressures, large-scale corruption, and conflict among the elites are the primary source of major social upheavals (Close & Bridge, 1985; Goldstone, Gurr, & Moshiri, 1991).

In sum, revolutions are best studied in retrospect. Although the objectives of revolutions are generally clearly stated and couched in emotional and ideological terms, it is very difficult to predict their outcomes accurately. There will always be a discrepancy between ideals and reality. In Mao Zedong's words, "Anything can grow out of the barrel of a gun." As Jack A. Goldstone (1986:207) notes, revolutions have many accomplishments. They include redistribution of land and elimination of oppressive systems of land tenure and of hereditary privileges of traditional aristocracy. Revolutions have also brought about increases in literacy, improvements in education and medical care, greater equality and economic opportunities, and independence to hundreds of millions of people. But revolutions have not generally delivered their main promises: greater freedom, equality for all, and significantly improved material well-being. In fact, revolutions in many countries resulted in more powerful and authoritarian regimes than the ones they replaced, such as happened in Iran in the 1980s. And, let us remember the high price of wars and severe economic dislocations that are often part of revolutionary changes. Some examples from this century include: Internal strife and efforts to collectivize agriculture in Russia and China resulted in the deaths of tens of millions of people; the revolution in Nicaragua caused over 50,000 deaths in a population of 2.5 million; and the bodies are still being counted following the aftermath of Iran's revolution (DeFronzo, 1996).

MODERNIZATION

Modernization is the process by which agrarian societies are transformed into industrial societies. This transition entails the development of advanced industrial technology and the political, cultural, and social arrangements appropriate to sustaining, directing, and utilizing that technology. The aim

of modernization is to approximate the characteristics of economically developed and relatively stable nations (Chirot, 1985; Germani, 1981:10–14; Moore, 1974:94). This transition seldom, if ever, takes place smoothly or evenly (see, for example, Tilly, 1997). Still, it affects every social institution, touches every community, and is felt in all walks of life. Evidence from both objective and subjective measures indicates that modernization is associated with an improved quality of life for most people (Inkeles, 1993). Modernization is a comprehensive term that describes many simultaneous changes at several levels. Industrialization, urbanization, and bureaucratization are closely related to modernization. For the purpose of analysis, however, these interrelated change patterns will be discussed separately.

In a sense, modernization is a form of imitation, emulation, and transplantation of patterns, products, and technologies from Western countries to less developed countries. Thus, a prerequisite of modernization is communication and contact among the various cultures and societies. It is usually the leaders of developing countries who set the plans and policies for changing a particular society in motion in the direction of contemporary societies. Industrialization is not always a crucial factor in modernization. For example, African and Asian nations usually start the process of modernization with nation building and the development of modern political systems. The object is the transformation of their social structure and the dissemination of new norms and values through education. The development of industry usually follows later.

By contrast, in Europe in the eighteenth and nineteenth centuries, industrialization gave birth to modernization (Chodak, 1973:259; Kerr, 1983). For some theorists, modernization is seen in terms of humans' increased knowledge and mastery of the environment. Cyril E. Black (1967) suggests that modern societies are characterized by the growth of new knowledge, and this presumes the existence of an individual with an increasing capacity to understand the secrets of nature and to apply this new knowledge to human affairs. Robert N. Bellah (1965) regards modernization as the ability of "learning to learn" and the increased capacity of a community to process information in a society and to respond to it appropriately. From a different perspective, Marion Levy, Jr. (1966:35) considers modernization as gradable because it appears in different forms. "A society will be considered more or less modernized to the extent that its members use inanimate sources of power and/or use tools to multiply the effects of their efforts. Neither of these elements is either totally absent from or exclusively present in any society." Even though a continuum of modernization may not be established, Levy suggests that one can safely distinguish between relatively modernized countries, such as the United States and England, and relatively non-modernized countries, such as India and some of the Latin American countries.

In *The Politics of Modernization*, David E. Apter considers modernization as a particular case of development. In his words:

> Modernization implies three conditions—a community that can constantly innovate without falling apart (and that includes among its essential beliefs the acceptability of change); differentiated, flexible social structures; and a social framework to provide the skills and knowledge necessary for living in a technologically advanced world. Industrialization, a special aspect of modernization, may be defined as the period in a society in which the strategic functional roles are related to manufacturing. It is possible to attempt the modernization of a given country without much industry, but it is not possible to industrialize without modernization. (1965: 67)

Based on historical phenomena and modernization processes in developing countries, it is possible, according to Szymon Chodak (1973:261), to generalize that modernization occurred in one of three ways: (1) as a result of *industrialization* of a country, which, in turn, generates changes in attitudes and behavior, producing a new value orientation, which sets the motivation to generate further industrialization; (2) *spontaneously*, as a result of contact between the more developed and less developed societies and cultures; and (3) as a consequence of purposeful *planned* governmental activity to modernize the economy. On the basis of these generalizations, Chodak (1973:263–271) identified three patterns of modernization that occurred in sub-Saharan Africa: industrial, acculturative, and induced.

1. *Industrial Modernization*. The process of industrialization creates new material conditions and needs, contributes to the formation of new attitudes and value orientations, and increases the division of labor. It increases interdependence in society, and new roles, organizations, and systems of activity become more differentiated. Chodak states that "Modernization of this type arises out of the necessity to adapt the social organization to the requirements of industry" (1973:263).

2. *Acculturative Modernization*. This process is based on the convergence of two different cultures and is manifested through the acceptance of behavior patterns, information about lifestyles, and educational practices of a different culture. The selective transplantation of cultural elements does not lead to the replacement of traditional institutions, but "very often it leads to its impoverishment, deformation and, in some instances, to all kinds of cultural and social abnormalities" (1973:263). Chodak suggests that during the process of colonialization of Africa, acculturative modernization was typical.

3. *Induced Modernization*. The third pattern of modernization entails modeling a country's organizations, institutions, and value orientations after those of Western countries. "Induced modernization consists of introducing modern forms of government and administration, education, universities,

research institutes, universal suffrage, and communications media into an industrially underdeveloped country, without having previously industrialized the country. Induced modernization arises primarily out of the desire to catch up with the more developed societies, especially in the spheres of political organization and education, and partly because of the desire to have easy accessibility to the products of modern technical progress" (1973:267). In a sense, in modern African countries, induced modernization can be equated with nation building through the processes of educational, administrative, and governmental reforms. In all cases of induced modernization, however, it should be noted that the government, the ruling political party, and the elite are the principal organizers and implementers (Chirot, 1985).

Each of these forms of modernization develops through a differentiation of roles, the establishment of specialized institutions, and the generation of specific kinds of interdependencies. For example, the key roles in industrial modernization are those of entrepreneur, worker, inventor, and innovator; in acculturative modernization, the key roles are of the tradesman, migrant, student, and liberated members of the tribal society; in induced modernization, the roles of politician, intellectual, and the bureaucrat are important (Chodak, 1973:269–270).

As modernization gains momentum, new characteristics accompany it. They include the "development of a high extent of differentiation; the development of free resources which are not committed to any fixed, ascriptive (kinship, territorial, etc.) groups; the development of specialized and diversified types of social organization; the development of wide nontraditional, 'national,' or even supranational group identification; and the concomitant development, in all major institutional spheres of specialized roles and of special wider regulative and allocative mechanisms and organizations, such as market mechanisms in economic life, voting and party activities in politics, and diverse bureaucratic organizations and mechanisms in most institutional spheres" (Eisenstadt, 1973:23).

These have developed concomitantly with basic changes in all major institutions. In the economic sphere, these developments were characterized by a greater specialization of economic activities, the influx of external capital and the resulting external debt (Pattnayak, 1996), and the growth of scope and complexity of the principal markets—markets for goods, labor, and money. In social organization, it resulted in the growth of the population in urban areas in which the more specialized types of economic, professional, and civic activities and enterprises became concentrated and expanded. This gave rise to a change from traditional ascriptive status to the development of a more open form of stratification, with greater opportunities for upward social mobility through economic, occupational, and educational channels (Germani, 1981:173–195).

In the political sphere, modernization is characterized by a development of a more differentiated political structure; by a growing extension of the scope of central legal, administrative, and political activities; by the continuous spread of potential political power to wider groups in society; and by the weakening of traditional elites.

In the cultural sphere, modernization is characterized by a greater differentiation between principal aspects of major cultural and value systems such as religion, philosophy, ideology; by an increased secularization and, concomitantly, the weakening of traditional, cultural elites; by an increase in literacy and secular education; and by the rise of a new secular intelligentsia.

These developments have been closely related to an extension of print and electronic communications and their penetration of various local groups. The resulting growing awareness among the various strata of the population has created greater participation in social life and increased consumption of "culture" (Eisenstadt, 1973:23–25).

These institutional changes are accompanied by marked transformations in attitudes and personality, which have been characterized as "modern" in the literature. According to Alex Inkeles and David H. Smith, "The modern man is not just a construct in the mind of sociological theorists. He exists and he can be identified. . . ." (1974:290). Inkeles and Smith propose that the modern individual's character may be summed up under four major headings:

1. He or she is an informed participant citizen,
2. Has a marked sense of personal efficacy,
3. Is highly independent and autonomous of his or her relations to traditional sources of influence,
4. Is ready for new experiences and ideas; that is, the individual is relatively open-minded and cognitively flexible. (1974:290)

As an informed participating citizen, the individual identifies with newer, larger aspects of regions and state, partakes in public affairs, joins local and national organizations, votes, and keeps informed through the mass media about major events. A sense of efficacy is seen in the conviction that the individual can take actions that affect his or her life and that of the community. One knows that an individual can improve one's conditions in life and, as a result, rejects passivity, resignation, and fatalism. The advice of public officials and trade-union leaders concerning public issues is followed rather than that of the priests or village elders. One's openness to new experience is reflected in the exploration of formerly sacred objects and the individual's willingness to meet strangers and to allow women to take advantage of opportunities outside of the home.

In addition, as evidenced by the writings of Max Weber, Hagen, and McClelland in Chapter 2, the modern individual is also efficient, diligent,

orderly, punctual, and frugal. One is rational in decisions on action and is prepared for change and alert to opportunities as they arise in a changing world. One finds that scrupulous honesty pays in the long run and is a condition for improving efficiency in all social and economic relations (Myrdal, 1968:61). One is also energetic and cooperative; one also accepts responsibility for the welfare of both the community and the nation and is willing to take the long view and forgo short-term profiteering. One favors the subordination of speculation to investment and of commerce and finance to production. In a sense, *"the hallmark of modernity is an existential conviction that man can select and can achieve his own future;* that he has indeed many futures, that all he must do—to begin with—is to write his own scenario of the future as he himself dreams it and then to live his drama" (Meadows, 1971:21).

In sum, modernization has no end product. To embark on the modernization process is to accept the fact of continual and prolonged change. Its uniqueness lies in the fact that it is based on the assumptions of the possibility of the active creation by humans of a new social and political order, an order based on premises of universalism and equality, and the spread of these assumptions is combined with the development of far-reaching structural and organizational changes, especially in the economic and political fields (Eisenstadt, 1973:209). In the next section, industrialization, which is an important component of modernization, will be examined.

INDUSTRIALIZATION

Industrialization is the process by which technology is substituted for manual labor as the basis of production of goods. The most commonly used index of industrialization is the proportion of the nation's labor force engaged in agriculture. As the proportion declines, a nation can be considered as becoming more industrial. Clark Kerr (1983:5), for example, considers industrialized nations as those with 25 percent or less of the labor force engaged in agriculture. It should be noted, however, that this is an index and not a measure of industrialization. The reduction in the agricultural labor force can be seen more appropriately as a consequence of technological, economic, and organizational changes accompanying industrialization. As indicated in the preceding section, the concept of modernization is a more comprehensive term that subsumes industrialization and other concepts such as economic growth or development and the political, social, religious, educational, and other institutional changes that accompany industrialization.

Great Britain is considered the first and the classic case of industrialization (Kerr et al., 1964:14). By 1830, it had seen the development of workers who were acclimatized to factory conditions and were able to move from place to place, from employment to employment, as required. Prior to World

War I, industrialization had spread widely from England to the Western world and to Japan. It spread largely by diffusion rather than by independent social inventions. Today, much of the interest in industrialization is focused on the changes taking place in economically underdeveloped areas where the pattern of industrialization is based on flexible, small-scale production, rather than on the more typical large-scale technology of mass production (James & Bhalla, 1993).

There are many descriptions in the literature of the various patterns of industrialization (see, for example, Gulati, 1992; Hall, 1993; Kerr, 1983; and Lenski, Nolan, & Lenski, 1995). The most commonly used distinctions entail the differences among preindustrial, early industrial, and mature industrial societies, with occasionally the term *postindustrial* added to account for highly advanced societies such as the United States or certain Western European countries. They all have in common very developed international commodity, capital, and labor markets; a disciplined industrial labor force; a highly developed technology; and sophisticated professional, technical, and managerial personnel.

Industrialization is accompanied by a growing degree of complexity in the division of labor and the concomitant distribution of the labor force among occupations. At the most general level, industrialization involves a shift from labor force concentration in agricultural employment to manufacturing employment and eventually to employment in service industries. Wilbert Moore (1969) describes some of the factors that result in increased division of labor. One of these considerations is the growth in size of economic organizations, which encourages the efficiencies that result from occupational specialization. Another is technological change, which brings about new occupational specialties, such as computer programmer, and can also result in the further subdivision of skills, as is the case of specialized machine operators who replaced the skilled dressmaker. A third consideration is the development of new products and services, resulting in occupations that previously did not exist. The changes in the size and complexity of the labor force engaged in manufacturing and service are usually accompanied by a growth of unions and management power and a growth of class consciousness among workers. The division of labor is also related to occupational and geographic mobility as well as to higher levels of educational attainment that is more closely related to industrial functions. There is also a relationship between industrialization and racial inequality. A study of seventy-five Brazilian metropolitan areas concluded that industrialized areas have lower occupational inequality, especially in blue-collar occupations; although at higher occupational levels, racial inequality is either greater or is unaffected by industrialization (Telles, 1994).

Change in population patterns (birth, death, marriages, migration) is also closely linked with industrialization. The sequence of events, often referred to as the "demographic transition," first occurred and proceeded to

the greatest degree during the industrialization of Europe. The essence of the demographic transition is a move from a situation in which both birthrates and death rates are high to a situation in which both of these are low. Thus, many of the first European countries to industrialize (for example, England and France) have been characterized by low population growth for a number of years, in which replacement through fertility equals population losses through deaths. Contemporary developing societies, however, present a different picture. Demographic changes are taking a very different—and highly problematic—form. This is due to the fact that reduction in death rates has been brought about relatively rapidly, whereas a corresponding drop in birthrates lags far behind (Daugherty & Kammeyer, 1995).

Rapid reductions in death rates can be achieved through such relatively simple procedures as using insecticides to control mosquitoes, flies, and other disease-transmitting insects. For example, dramatic reductions in world deaths from malaria have been achieved in this fashion. Widespread immunization programs and the greater availability of antibiotic drugs also contributed to the lowering of mortality rates. Birth control, however, is a different matter. In many societies, fertility is a source of social prestige. In the context of industrialization, traditional attitudes may remain a strong positive sanction for bearing children, possibly in keeping with religious values; possibly for practical considerations, such as the economic value of children; or possibly for other complex interrelated reasons. Such societies are generally characterized by a high fertility rate and low or rapidly falling mortality rates, resulting in a rapid population growth and subsequent changes in the economically dependent or nonproductive segments in the population such as the very young or the old.

Industrialization is also accompanied by changes in family form. Traditional societies are typically characterized by an extended family system. But the more industrialized a society becomes, the more likely it is to move toward the nuclear family (husband, wife, and their children) (Goode, 1963; Germani, 1981:87–90). The nuclear family form presents numerous advantages from the perspective of geographical mobility and increased urbanization, which are associated with industrialization. Traditional patterns in mate selection and parent-child relationships have been replaced by contemporary forms; and, as the family ceases to be an economically productive unit, the social position of women has changed. There is also some evidence to indicate that the rate of divorce and other indicators of family breakdown increase with industrialization. However, it would be erroneous to say that "family disorganization" is a concomitant of industrialization. Instead, at least in the United States, the modern family has undergone major changes—changes associated with urbanization and industrialization, although these are not signs of deterioration. Parsons (1955) argues that the family has become a more specialized structure. Even though it has lost some of its functions, such as producing economic goods and services and educating the children, it has also become a

more exclusive guardian of other functions such as socializing the very young and providing a setting for emotional tension management for adults. Furthermore, the roles of husband-father and wife-mother have become more specialized relative to one another. Parsons contends that these new features of the family signify the opposite of disintegration and concludes that the nuclear family is more effective than its predecessor in socializing children for adult roles in industrial society.

Industrialization is related to the increased need for literacy, for education is a determining factor in labor force participation and for social mobility. There is a greater reliance on mass communication channels both as a source of information and as a means for breaking down the previous forms of isolation. Industrialization also results in the development of a popular culture, replacing some of the traditional forms of recreation. There is also a sharp division between "work" and "leisure," a distinction that did not exist in agrarian or tribal societies. Time becomes a scarce commodity (Szalai, 1972). There is an increased participation in voluntary associations, an increase in secular attitudes, and the rise of clearly differentiated political and administrative structures.

In sum, industrialization is an important pattern of change. In analyzing it, we often find it difficult to determine where best to "draw the line." Any examination of this pattern of change can be almost indefinitely extended in continuing to discover ways in which its presence makes itself known. In the next section, a close associate of industrialization, urbanization, will be considered.

URBANIZATION

The term *urbanization* refers to the process by which an increasing proportion of a country's population comes to live in cities, with a concomitant concentration of economic activity, administrative and political organization, and communication networks in these urban areas (Germani, 1981:203, Iverson, 1984). The term *population implosion* is sometimes used to describe this increased concentration of the world's peoples in urban or metropolitan areas (Hauser, 1973:430). Urbanization also refers to *how* people live—that is, their patterns of behavior and social relationships. These two aspects—*where* people live and *how* they live—are interrelated (see, for example, Feagin, 1997). Modernization, industrialization, and urbanization often occur in combination. It is clear, however, that the city and the factory systems are separable. Large urban areas existed in antiquity, and many factories are located in otherwise rural areas (Sjoberg, 1960). The world's earliest cities appeared some 5,000 to 6,000 years ago in Sumer, the southern part of Mesopotamia, and various types of ceremonial cities such as Mecca existed long before the advent of modernization and industrialization (Pfeiffer,

1977:149–170). Even today, urbanization is taking place in less developed societies without simultaneous industrialization (Brown, C., 1994; Hardoy, 1975:xi). For example, in Latin America, urbanization has not been accompanied by simultaneous industrialization or by better distribution of opportunity, income, and consumption (Germani, 1981:231–261; Linn, 1983). Consequently, most Latin American countries are not in a position to provide the employment opportunities, or even the basic urban infrastructure such as housing, sewer and utility services, medical care, and education necessary to maintain an extremely large urban population.

In 1997, the world's population was over 5.84 billion, and 43 percent lived in urban areas (Population Reference Bureau, 1997). *Urban place* is defined somewhat differently from one country to another, with the bottom limit usually in the range of 2,500 to 5,000 people. Still, the percentage of the population that dwells in urban places would not change by more than 5 percentage points even if the bottom limit were 10,000 (Davis, 1972:311). Urbanization as a process clearly has a beginning and an end. For example, three-fourths of the United States' population of close to 260 million is now urban, and the maximum level of urbanization for any country is probably about 90 percent. Even after a nation achieves a high level of urbanization, its cities and metropolitan areas can continue to grow. This is the situation in North America and Western Europe. Although there is a limit to the percentage of urbanization possible, there is not yet agreement on the practical limit concerning the size of metropolitan areas. By 2000, developing countries will contain eight of the world's ten *megacities* (cities with 10 million or more inhabitants), with Mexico City, São Paulo, Bombay, Calcutta, and Shanghai at the top of the list. By 2015, there will be twenty-seven such metropolitan centers, twenty-three in developing countries (Piel, 1997).

Historically, it seems that the urbanization of *Homo sapiens* has occurred almost overnight. As recently as 1850, no country in the world was as urbanized as the world as a whole is now. Only about 2 percent of the world's population lived in cities of more than 100,000 inhabitants. The most rapid urbanization of both England and the United States occurred in the nineteenth century, and the twentieth century has witnessed an acceleration of this process in many other countries. Cities are growing because they provide, on the average, greater social and economic benefits than do rural areas and they reflect the enormous changes in the nature and scale of economic activity worldwide. Basically, cities are very efficient, they optimize the use of energy, they allow for fast and cheap transportation, they provide flexible and productive labor markets, and they facilitate the diffusion of products, ideas, and human resources (World Resources Institute, 1996:10).

It is possible to depict both the level and rates of urbanization on a continuum. At the lower end of an urbanization level are the countries that have less than 10 percent of their populations located in cities—for example, coun-

tries such as Yemen, Saudi Arabia, Afghanistan, Chad, and Uganda. On the other end of the continuum, there are countries such as Belgium, Australia, and Uruguay that have more than 80 percent of their populations in urban areas. In terms of the rate of urbanization, the highest rates are found in Japan and Uruguay, whereas the lowest rates are in Israel and the United Kingdom where much of the countryside has been already devoured by the urban sprawl (Pearce, 1993).

Urbanization has been a highly significant factor in both modernization and industrialization, and the three forces, different as they are, contain a number of parallel features, many of which have already been discussed under the headings of modernization and industrialization. For the present purposes, the emphasis will be on how people live in urban areas. The question is this: Is there something inherent in the settlement patterns of cities that produces a distinctive "urban way of life"?

Some sixty years ago, Louis Wirth (1938:9) answered affirmatively. He started by assuming that "the larger, the more densely populated, and the more heterogeneous a community, the more accentuated the characteristics associated with urbanism will be." For him, a city is a permanent settlement, characterized by large size, density, and heterogeneity, which leads to correspondingly more transitory, anonymous, formalized, and specialized interrelationships—that is, to a more urbanized way of life. He reasoned that the greater the number of people interacting, the greater the potential for differentiation, bringing about lesser dependence on particular persons, less intimate relations, more freedom from the personal and emotional control of intimate groups, and no individual alliance to a single group. Density results in further differentiation and specialization, a separation of residence from the workplace, and the functional specialization of areas in the city. The city thus becomes "a mosaic of social worlds." Because of a high degree of heterogeneity, no common set of values exists in the city, and money tends to become the measure of all things. Cities become "heteropolises" with a diverse blend of ethnic groups, economic activities, and lifestyles (Jencks, 1996). Formal controls replace informal controls, and it becomes necessary to adhere to predictable routines.

As a consequence of these factors, urban dwellers develop characteristic personality attributes and attitudes. Because of the many lifestyles and kinds of people, they develop a relativistic perspective. They become secularized and free of intimate ties; they lack a strong sense of integration and participation. Thus, the city is characterized by anomie; in the middle of the crowd, individuals feel lonely, sense friction and irritation, and experience personal frustration and nervous tension. Because of the mobility and diversity in the city, they accept instability and insecurity in the world at large as a norm because of their segmental roles and alliances. Their personal integrity is constantly threatened, and they are vulnerable to manipulation by the mass media. For these reasons, Wirth suggested that the incidence of per-

sonal disorganization, mental breakdown, suicide, delinquency, crime, corruption, and disorder tend to be higher in cities than in rural communities.

Obviously, other factors have an impact on social patterns in urban areas in addition to heterogeneity, density, and large size (Rosen, 1986:68–73). However, there is not yet enough evidence to prove or disprove that number, density, and heterogeneity have the social consequences Wirth observed. In fact, social isolation and insularity similar to what has been described above has been found within the cultural and ethnic enclaves of contemporary American cities. Herbert Gans (1982) found that the Italians of Boston's North End formed a tight and homogeneous folk group having minimal contact with the remainder of the metropolitan area. In this traditionally based subculture, primary groups still retain dominant social position. In spite of their cosmopolitan residence, people in this area of the city remain urban villagers. A similar pattern of cultural isolation is portrayed in Elliot Liebow's (1967) study of black street-corner men in Washington, D.C.

Robert Redfield (1941) argues that all occasions of urbanization repeat a particular series of events—that there is a unilinear continuum from a folk to an urban form of organization. He describes folk societies as small, isolated, and homogeneous, with no division of labor except according to sex and age roles. Face-to-face communications prevail, and these societies are marked by a high degree of solidarity. Religion is important, and social control is exercised through the sacred. Cultural patterns are based upon sentiment and tradition; there is no writing, no complex technology; status is ascribed at birth; and members of the society follow folkways uncritically and spontaneously. The family is the central social group. Redfield maintains that the transformation of an isolated folk community into an urban society occurs through a transmission of influences from the latter, resulting in cultural heterogeneity, disorganization, secularization, and individuation in the former. Redfield's approach is evolutionary, and for him the transformation of the world is accomplished by the spread of urbanization into more and more backward areas.

Both Redfield and Wirth argue that urbanization initiated a long-term historical process of detaching individuals from the comprehensive and familiar shared network of interrelations embedded in rural folk communities and that urban society is marked by a greater degree of functional interdependence. The nature of these changes and new conditions suggest that urbanization and its associated social changes probably increased the problems of social instability, raised conditions of class interest and conflict, and began to lay the foundations for the appearance of new and competing ideologies.

Currently, urbanization is more highly visible in the underdeveloped nations. Few aspects of international social change have generated as much scholarship as patterns of urbanization in the third world (Kasarda & Crenshaw, 1991). Many of these nations have already large proportions of urban populations, but it should be noted that the recent pattern of urbanization in

these countries contrasts with the earlier experience of Western Europe. The cities of the underdeveloped nations have grown by the transfer of the rural unemployed and underemployed to the cities, which have offered little more than the countryside in the way of economic opportunities. The European experience was more a phenomenon of urban growth reflecting a general pattern of industrialization, with the cities characterized by expanding economic opportunities (DeVries, 1984).

The rapid rate of urbanization in developing countries gave rise to the concept of "overurbanization" (Graves & Sexton, 1984). It implies the belief that a particular developing country has too high a proportion of its population residing in cities where high densities are considered detrimental to health and general well-being. The urban population of developing countries will exceed 4 billion by 2015, and 5 years later half of them—80 percent in Latin America—will be living in cities, and about a fourth of them will be living in poverty (Annez & Friendly, 1996; Piel, 1997).

Moreover, overurbanization is often indicative of the fact that the urban population of a nation is too large in relation to the extent of its economic development, and there are already some calls in the literature for rural development programs to prevent rural-urban migration and reduce population growth rates in urban areas (see, for example, Amani, 1992). Overurbanization is usually the result of migration from rural areas at a rate higher than the expansion of employment opportunities in the city. This migration is prompted by high rural densities and lack of economic opportunities for peasants. Life seems difficult in the city, and, for many of the migrants, it is not better than the countryside. However, at least in the city, there is always hope and the possibility of something better. All over the world, peasants are voting with their feet in favor of city life. It may be argued that insofar as urbanization is associated with the development of a modernized mode of life and general economic progress, the problem in much of the developing world is not overurbanization, but possibly underurbanization.

As migrants flock to urban areas in developing countries, the diversity and heterogeneity of urban areas further increase. Ways of life in the city differ enormously in the various areas. Traditional lifestyles exist side by side with Western ways, and they often mingle. In Asian countries, occidental technology sometimes clashes with oriental mentality. New arrivals often identify more closely with their native villages or with such sociocultural groupings as caste, tribe, race, or religion than with the city and what the city can offer. They have the bare necessities for survival, but some do not have even those. Their culture is primarily a culture of poverty rather than a distinctively urban way of life. This phenomenon is referred to by Joel Halpern (1967:34–35) as the "peasantization of the cities." For example, in cities of the former Yugoslavia, rural migrants constructed new houses identical to those they left behind, with a garden, a chicken coop, and (despite city ordinances)

a pig or two. For at least a couple of generations, they retained ties to their villages. If they lived in modern apartment buildings, they created maintenance problems, being unfamiliar with plumbing and central heating, and kept domestic animals inside. In most cases, the assimilation of migrants into the urban culture and way of life is a long and tedious process.

Kingsley Davis argues that the recent trend in world urbanization "cannot have existed very long in the past and certainly will not endure long in the future." It began somewhat slowly "in the 16th and 17th centuries, with the entire world probably between one and two percent urban . . . The pace picked up some in the 18th century, but really got under way rapidly in the 19th, continuing and perhaps accelerating a bit around the middle of the 20th century. Within another century—certainly by the year 2100—the entire process of world urbanization should be finished" (Davis, 1972:48, 52–53). In view of Peter Hall's (1996) argument that the current growth of cities is determined by four finite factors—the shift from manufacturing to the service factor, the use of information as a basis of the economy, the spatial separation of command-control functions from production, and innovations in manufacturing and information that keep the economy active—Kingsley Davis's view may just be prescient about the end of urbanization. Chances are that the next change pattern, bureaucratization, which will be examined in the next section, will be here longer than urbanization.

BUREAUCRATIZATION

The word bureaucracy carries strong negative connotations. It is blamed for inefficiency, inflexibility, and general inhumanity (Heckscher & Donnellon, 1994). It conjures up images of officiousness, red tape, and the endless filling out of forms—such as one or more of the 4,987 different kinds used by the federal government (*Time*, 1978). For sociologists, the term *bureaucracy* simply means a hierarchical social structure for administering large-scale organizations rationally, efficiently, effectively, and impersonally. The topic of this section, bureaucratization, refers to changes within an organization, public or private, toward greater rationality in decision making, improved operating efficiency, and more effective attainment of common goals (Lorsch, 1987). As the size and complexity of an organization increase, there is a greater need for coordination if efficiency and effectiveness are to be maintained or improved. Organizational efficiency can be maximized when there is a hierarchical line of authority, with each role in the chain having clearly defined and stated duties and responsibilities; when all decisions are made on the basis of technical knowledge, not personal considerations; when members are judged solely on the basis of technical knowledge, and discipline is impartially enforced; and when the members are recruited on

the basis of their abilities, and there is a system of assured tenure and promotion based on merit (Weber, 1947:329–341).

In a truly fascinating book, *The Bureaucratization of the World*, Henry Jacoby (1973:9) cites Alfred Weber, who wrote that "the history of all great civilizations begins with the formation of a bureaucracy which supports and shapes men's whole existence." In ancient Egypt and Babylon, it was the priestly, hierarchically organized class of scribes who created and guarded the magic and sacred character of life. "This class, founded on the economic productivity of the canal system, was probably the most totalitarian bureaucracy ever to have existed in history" (Jacoby, 1973:9–10). The early civilizations of China and India also exhibited similar strong bureaucratic tendencies, and the Inca Empire used a bureaucratic system to administer the construction of agricultural terracing and established a rather efficient communication network that was dependent on suspension bridges. When the Spaniards invaded Peru, they discovered a well-organized system of statistical information using differently colored twines to indicate objects and knots in the twines to represent numbers. Record keeping was also present in ancient Egypt, and taxation was determined by record offices with centralized information about citizens and their living conditions. Periodically, a census was taken by the government and "all of Egypt was inventoried" (Jacoby, 1973:10). All of this obviously required an experienced administrative bureaucracy whose structure was subjected to various changes.

As early as the thirteenth century in France, a number of functions came under the jurisdiction of the state and gave rise to a class of people whose position in society was determined by office rather than by ascribed status. By the end of the sixteenth century, they became known as the Fourth Estate. The bureaucracy became a separate class, recognizable by special long gowns (Jacoby, 1973:19). At that time, bureaucracy was associated with absolute monarchy. "It is bureaucracy which represents absolute authority, the monarch being the symbol at its head. . . . When powerful political leaders occupy the throne of an absolute monarchy they themselves are the bureaucratic heads" (Frolich, quoted by Jacoby, 1973:25). By that time, the state bureaucracy never doubted that all economic activities were controllable. In 1577, industry and commerce became regulated by a royal decree in France. New industries were created, and the quality and quantity of goods produced were controlled. Wage and price controls were introduced, and severe sanctions were imposed to maintain them. A new department was created to inspect and supervise these activities.

It is evident from the above historical sketch that the origin of the state and the development of the bureaucracy are closely intertwined. While examining American democracy in 1832, Alexis de Tocqueville also looked into the origin of the bureaucratic state. He concluded that the disappearance of traditional institutions and the development of an economy under which individuals concentrated exclusively on their own affairs led to greater state con-

trol of economic and social functions. General apathy toward public affairs "must almost compulsorily concentrate the direction of all men and the management of all things in the hands of the administration" (Tocqueville, quoted by Jacoby, 1973:53). Marx shared Tocqueville's observation that although the forms of government changed, administrations continued uninterruptedly to accumulate more functions and responsibilities.

Not everyone looked upon the growth of bureaucratization favorably. For example, the Revolution of 1917 in Russia brought the entire administrative machine to a standstill and gave rise to an optimistic idea that a new way of organizing society is possible without the hated bureaucracy. Lenin predicted that the principle of sound government would be carried so far in the future that any cook could govern the state. "Since *everyone* was to participate in the government, *everyone* would become a temporary 'bureaucrat,' and thus *no one* would be a real bureaucrat" (Jacoby, 1973:124). Thus he predicted that bureaucracy would die out. But this dream of Lenin never came true. In 1917, approximately 1 million people were employed in administrative offices in Russia. By 1921, this number of increased to almost 2.5 million and kept growing at a very rapid pace until the demise of the Soviet system in the early 1990s.

In developing countries, a stable and efficient system of taxation is the precondition for the permanent existence of bureaucratic administration (*Economist*, 1997). A highly interdependent relationship exists between bureaucracy and taxation. "The efficiency of the bureaucracy depends upon the effectiveness of its taxation system; and the effectiveness of the taxation system depends on the efficiency of the bureaucratic apparatus" (Lockwood, 1976:380). When a taxation system cannot provide adequate support for the bureaucracy in a developing country, members of bureaucratic organizations will rely on graft and corruption to supplement their income (Ockey, 1994). This is why the concept of white-collar crime is simply not applicable to many of these societies. Public servants, police, custom officials, and others in general are dependent on graft, and, in a sense, "the system is tantamount to a labyrinth of informally levied and collected surcharges in substitution of formal taxation and accounting" (Hetzler, 1969:47).

When there is a more or less stable form of taxation system in developing countries, the bureaucracy can facilitate economic development by rendering the needed legal and public service preconditions for development, including law and order, money and banking organizations, and the administrative apparatus essential for economic enterprises. "The bureaucracy can help modify 'the resource-structure of a country, together with its exploitation, as to make it more favorable to economic growth' . . . can form public corporations or other types of enterprises that will furnish the initiative for economic development, [and] . . . can fashion tax, fiscal, and investment policies that will sustain and enhance economic growth" (Spengler, quoted by Lauer, 1982:324).

In contemporary societies, bureaucracies represent significant concentrations of resources and power without being directly accountable to the

public at large. Even though this concentration of power and resources is essential to the business of modern industrial society, there is also a sense in which such concentrations raise public anxieties. In third-world countries, bureaucracies are characterized by high salaries and interdependent structure, making the officials dependent on the system for survival. When their positions are threatened, they will often support a coup d'état in order to maintain the bureaucratic structure on which they depend (Riggs, 1993). Not surprisingly, there are questions occasionally raised as to what extent bureaucracy is compatible with democracy. There is a tendency in bureaucratic organizations for power to be concentrated in the hands of a few, exemplified by what Roberto Michel (1949) calls the "iron law of oligarchy." Admittedly, as demonstrated by Seymour M. Lipset and his associates (1956), under some conditions democratic processes can be maintained in large bureaucratic organizations, but still the relationship between bureaucracy and democracy is an uncomfortable one. In an age of increasing "bigness" of government, business (Meyer, 1985:34–40), and university (indeed, every kind of organization), one may speculate on how the individual and the democratic process fit into the picture. It is a growing concern in the light of increasing bureaucratization, which pervades all aspects of life.

Although the efficiencies of large-scale organizations have made possible the unprecedented material growth of the twentieth century, the scope of their power and influence has come to threaten basic social and political values, particularly individual freedom (Fischer & Sirianni, 1984:3). There is a disturbing growth of centralized bureaucratic control with technological surveillance and centralized data banks resembling what Bertram Gross (1980) characterizes as "friendly fascism." There is also a waste of intelligence because organizations use only a small fraction of the capacity of its members as a result of the practice of slotting people into predefined offices, a failure to control informal organizations, and a pronounced tendency to resist change (Heckscher, 1994:20–24).

In sum, as Otto Hintze writes, "Bureaucratic organization is a first-class sociological work of art which has been fashioned over many centuries. It is an illusion to maintain that it could be suppressed and replaced by 'self government'. . . ." Or, in Joseph Schumpeter's words, bureaucracy "... grows everywhere, whatever the political method a nation may adopt. Its expansion is the one certain thing about our future" (Hintze & Schumpeter, quoted by Jacoby, 1973:199, 191).

SUMMARY

In this chapter, several change patterns were considered. The object was to describe the principal forms that change can take. Evolution was seen in the context of directionality, novelty, increased variety, and complexity. Such

change patterns are cumulative. These patterns can be investigated both qualitatively, as illustrated by the evolution of legal systems and religion, and quantitatively, as in the case of stratification and food production or energy consumption.

Diffusion theory developed as an alternative to evolutionary theories. It deals with the spread of cultural elements. Historically, it was posited that ancient Egypt was the source of civilization, and from there elements spread to all parts of the world. The process of diffusion refers to the acquisition of elements from other cultures or social groups. The diffusion process includes the stages of awareness, interest, evaluation, trial, and the adoption of an innovation. It is conditioned by the perception of relative advantage, compatibility, complexity, tryability, and observability of an element by members of a culture. The adopter categories include innovators, early adopters, early and late majority, and laggards. The center-periphery and the proliferation-of-centers are the principal models of diffusion. Diffusion is considered an important component of planned social change.

Diffusion is subsumed under acculturation, which is a result of contact among cultures. However, cultures in contact seldom acculturate reciprocally, as illustrated by the case of native Americans. Acculturation can also be planned and involuntary, as happened in Africa during colonization. Immigrants in the United States undergo selective acculturation. The process of acculturation can be rapid and nondisruptive, as evidenced by the Manus.

Revolution usually entails rapid and fundamental changes, but such changes may or may not be violent. Several patterns were discussed, such as the Jacquerie, the Millenarian and Anarchistic Rebellions, Jacobin Communist Revolution, Conspirational Coup d'État, and Militarized Mass Insurrection. Most revolutionary forms bring about alterations in the class, status, and power systems, and the intensity of changes can be ascertained in a continuum.

Modernization refers to the transition from traditional to contemporary society and may take place without industrialization. Three types were identified: industrial, acculturative, and induced. Modernization is accompanied by increased differentiation in the economic, organizational, political, and cultural spheres. Modern people are portrayed as informed, efficient, and independent beings willing to experiment.

Industrialization involves the development of a factory system under mechanical power. An index of industrialization is the proportion of the labor force in agriculture. Industrialization is accompanied by a growing division of labor, a shift from agriculture to manufacturing and service industries, the creation of new specialties and occupations, greater literacy, and demographic changes.

As with modernization, urbanization may take place without industrialization. Living in cities produces a distinctive "urban way of life." The process of urbanization can be depicted on the folk-urban continuum. Cur-

rently, urbanization is most rapid in developing countries, where it is associated with distinct lifestyles and with the concept of overurbanization.

The final change pattern examined in this chapter is bureaucratization. It refers to greater rationality in decision making and increased efficiency in the attainment of organizational goals. The section concluded with a not-too-cheerful note that bureaucracy, regardless of the form of government, is here to stay. In the next chapter, a series of specific spheres of change will be considered.

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