

Principles of Macrosociology



Knowledge is a process of piling up facts; wisdom lies in their simplification.

— MARTIN H. FISCHER

Modern macrosociologists still tend to be deeply rooted in the classical social theories of Karl Marx, Émile Durkheim, Max Weber, and Herbert Spencer.¹ While many specialists in social theory like to emphasize the differences among macrosociological perspectives, the various theories actually share much common ground. They agree, for example, that the sociological world view differs from psychology, which puts great emphasis upon **early socialization, individual motivation, and personal control over behaviour**. It differs from the biological and medical views of human behaviour, which stress physiological and genetic predisposition. All of these factors are important, most sociologists would concede, but there is something more. Human behaviour, attitudes, and beliefs are profoundly affected by the groups and organizations in which people interact and the sociocultural system in which they are embedded. But the theories of Marx, Weber, Durkheim, and Spencer—as refined and elaborated by many contemporary macro theorists—share a good

deal more common ground than even this; they overlap in ways that have until now been minimized or ignored.

Macrosociology is the study of large-scale organizations, socio-cultural systems, or the world system of societies. All four of the classical sociologists named above began from a macro perspective. Macrosociology should not be considered just another specialty within sociology. It is not a specialty; it is the holistic view of a sociologist's subject matter, the overall framework within which the specialties exist. Macro social theory seeks to unite numerous empirical observations and middle-range theories into a single, testable, explanatory framework. It is important that the field not be taken over by specialists, that macrosociology retain its role as an integrating mechanism to organize and inform the world view of all sociologists. There is a pull toward almost inevitable specialization in the modern world. As knowledge and techniques proliferate, society responds by breaking them up into supposedly discrete fields, encouraging individuals to specialize and ignore the whole. This is a disaster for the social sciences since so many of the disciplines themselves are based upon the influence of the sociocultural system on various parts of that system, and ultimately on individual behaviour and beliefs.

A reading of introductory sociology textbooks reveals the curious state of the discipline. The books usually mention the founders of the discipline. Each was a macro-level theorist, concerned with whole sociocultural systems—their origin, maintenance, and change—and how they affected human behaviours and beliefs. Our introductory texts briefly paraphrase these theories, mention how they differ from one another (conflict, functionalism, symbolic interaction, etc.), and then largely ignore them as the focus shifts to individual specialties—stratification, deviance, organizations, medical—within the discipline. What is lost in these textbooks, what has been lost in the discipline itself, is the fact that these macro theories actually have much in common. A close reading of the classical literature, as well as the more recent literature in that tradition, reveals that there is substantial overlap in their analyses, considerable agreement on the

basic components of society, on sociocultural stability and change, and much common ground as to how sociocultural systems affect human behaviours, attitudes, and beliefs. While macro theorists do not always use common terminology and concepts, they share many conceptual tools. For example, Durkheim's "anomie" and Marx's "alienation" have much in common, as do Durkheim's concept of the division of labour and Weber's concept of bureaucracy, which encompasses the former concept and applies it to all human organization. Much of Durkheim's work on the division of labour was built upon a foundation laid by Spencer (who relied heavily on Malthus). Weber has sometimes been described as being in a running dialogue with the ghost of Marx; his overall theory is quite compatible with Marx's emphasis on capitalism and the centrality of economic factors in understanding sociocultural systems. In this work, I focus on many of the common themes of macrosociology and make the case that there is, in fact, a common sociological perspective or world view.

The theories of Malthus, Spencer, Marx, Weber, and Durkheim, and their modern manifestations, are not as incompatible as many critics make them out to be. The apparent incompatibility is, perhaps, more in the texts that summarize and critique these theories than in the theories themselves. The goal of the textbook author is to present the essential ideas of the theorist in a coherent and distinct manner to the student (as well as to the professor). This requires the author to highlight the theorist's unique contributions, and as a result, the elements shared with other sociologists are often ignored. In addition, summarizing a theorist's life work in a single chapter or even a single book is a difficult task; including key qualifications and subtleties is nearly impossible.

A second reason why social theories appear to be almost mutually exclusive is that the differences between theories have often been exaggerated in order to make a point; they are more a product of a critic's imagination and biased reading. Many secondary sources take on the dual role of both summarizing and critiquing a theory without recognizing that there is often a conflict of interest

between the two tasks. Even social theorists themselves are guilty of this. Most authors are attempting to convince readers of the rightness of their own views and to make unique contributions to the theoretical literature. Consequently, they have a tendency to gloss over the finer points of rival theorists and then critique them on failing to recognize these points. Marvin Harris, a fierce advocate for his brand of cultural materialism, was often accused of doing this, and he received much return fire from critics who would similarly misrepresent his theories through oversimplification. The need to be unique may also explain the tendency of many theorists to coin their own terms, thus making common language between different theoretical schools more difficult. The fact that the classical theorists (as well as some contemporaries) are over-fond of coining their own terminology is a significant factor in the seeming incompatibility of social theories.

Social theories, then, are often portrayed (and criticized) as mere caricatures of themselves: Karl Marx is overstated to the point where he denies the importance of all non-economic factors in explaining social life; Max Weber portrayed as a hopeless idealist in which the Protestant ethic is the sole cause of capitalism; Marvin Harris represented as a “vulgar materialist” who failed to recognize any role for social structure or ideology in social life; T. Robert Malthus depicted as a near idiot who failed to realize that agricultural production could expand with improvements in technology; and Gerhard Lenski described as a technological determinist who failed to consider population pressure and structural and cultural factors in his theories. Consequently, the predominant view within the discipline is that these macro theories are mutually exclusive; that sociology is a “multi-paradigm” enterprise consisting of several contradictory and competing perspectives about the nature of the social world.

However, if one reads macro social theory with an eye toward integration and synthesis, one finds few areas in which the classical theorists contradict one another; their differences are more matters of emphasis and focus, and they are, in fact, perfectly compatible with one another. Furthermore, many of their theories have much

in common. C. Wright Mills (1959, 6–7) outlines three broad questions addressed by classically rooted sociological analysis: (1) What is the overall structure of the society and its component parts? How are these parts interrelated? And how does this structure and dynamic differ from those of other societies? (2) How is this society rooted in history? What are its major mechanisms of change? (3) What kinds of men and women are coming to prevail in this society? “In what ways are they selected and formed, liberated and repressed, made sensitive and blunted?” **Macrosociology is guided by seven principles in seeking to address Mills’s excellent questions: (1) a pronounced systemic/functional analysis; (2) a view that emphasizes a strong materialist-behavioural influence on social structure; (3) an evolutionary view of change; (4) an emphasis upon the impact of social structure (groups and organizations) on human beliefs, values, and attitudes; (5) true to systems theory form, the reciprocal influence of these cultural ideals on structures and material culture; (6) a concern with the endemic inequality within structures; and (7) a rich tradition of comparative historical data that are used to test its generalizations.**

SYSTEMIC/FUNCTIONAL ANALYSIS

Although it is often overlooked, downplayed, or so ubiquitous as to go unobserved, **the systemic character of all macrosociology simply cannot be denied.** It is, indeed, the very definition of the sociological enterprise itself. Years ago, I wrote a book that attempted to apply the anthropological theory of cultural materialism as propounded by Marvin Harris (1979) to contemporary American society. The book first outlined **Harris’s “universal structure” of sociocultural systems—infrastructure (production and population), structure (primary and secondary groups, with some modification of Harris’s perspective), and superstructure (knowledge base, ideas, religious beliefs, ideologies)**—and then explained the dynamics of recent cultural change in terms of the theory. For a variety of reasons,

I chose as the working title *The System*. As a child of the sixties, I had grown up hearing “It’s the system, man” from many of my friends, and it seemed to me that cultural materialism—with its emphasis on systemic change as a result of changes in population and technological development, as well as on the depletion and pollution of the environment—reflected that cry very well. But I also liked the title because the view of society as a system is part and parcel of the sociological enterprise, perhaps so ingrained in the discipline that it is given only passing mention in our texts and then rarely examined.² In fact, I know of no macrosociologist who does not see society as a system. While some claim that it is more or less organized, or that some parts of the system are more important in determining change than others, all assert its system-like qualities: that different parts of the system affect one another and affect the whole. A systems perspective teaches one to focus not only on the various components of the system but also on their interconnections and interactions. Demography, production processes, government, economy, and environment cannot be seen in isolation from one another. There are interconnections—feedback loops—that are as important for studying social structure and change as are the various components themselves.

All of the founders, as well as their modern followers, have at least implicitly asserted that society is a system that is focused upon stability and meeting the physical and psychological needs of its population. Spencer and Durkheim went even further, making explicit the analogy between social and biological systems. The analogy between societies and biological organisms or mechanical systems can be misleading, however, for it calls to mind a perfect coordination and integration of the various parts of the system. This is not the case with sociocultural systems, in which the parts have varying degrees of autonomy and independence from the overall system. Society is a system, but it is an imperfect system. The fact that society is an imperfect system means that not all of the parts function to strengthen the whole system. Many patterns and behaviours contribute nothing to the general welfare of the society, rather serving

the interests and needs of individuals or constituent groups—some of whom have more social, political, and economic power than others. Therefore, not all needs are addressed equally. The fact that society is an imperfect system also means that conflict is a normal feature of all societies. However, it is still a sociocultural *system*, and as such there must be enough co-operation among the members of the society for the system to maintain itself.

Sociocultural systems consist of three types of phenomena: material, structural, and ideational. Material phenomena have a physical presence that can be readily observed: they consist of such observable facts as the physical environment, population and its characteristics (size, age and sex ratios, birth and death rates), and the technologies used to exploit the physical environment or to control population growth and level. Social structural phenomena refer to all human groups and organizations. At a broad level of abstraction, examples of social structure include government, economic, and family systems. At a level closer to home, social structure refers to observable groups such as families, corporations, educational institutions, the military, and community organizations. Finally, ideational components of the sociocultural system comprise the values, norms, ideologies, religious beliefs, and other symbolic items present in all societies. I often think of such cultural items as the (mostly) shared sense of reality that members of a sociocultural system have about the world and their role in it. The basics of this symbolic map of reality that each of us carries in our head are developed in our early socialization and are continually refined and shaped throughout our lives in interaction with others. All human societies—prehistorically, historically, and in the present—are made up of these three components. All three affect one another as well as the overall sociocultural system.

Functional analysis is a natural consequence of thinking of society as a system. It is simply the analysis of sociocultural phenomena for their effects on other phenomena and on the sociocultural system as a whole. The functional orientation has long been implicit in biology and physiology, whose practitioners also see their subject matter

in systemic terms. Within biology, for example, part of the study of an individual animal species includes its function in the entire ecological system—its impact on the environment, competing species, and predators. Social scientists as seemingly diverse as Malthus, Spencer, Marx, Durkheim, and Weber have also engaged in functional analysis in describing the interrelationships among sociocultural phenomena. Malthus wrote of the relationship of sexual mores and marriage patterns to population pressures; Marx, of the control of production resources and its relationship to exploitation, dominant ideologies, and eventual revolution; Weber, of the relationship between the rise of the Protestant ethic and the origins of capitalism;³ and Durkheim, of the overall functions of criminal behaviour. Spencer ([1876] 1967, 8) was clearest about the necessity of functional analysis in the opening lines of his *Principles of Sociology*: “There can be no true conception of a structure without a true conception of its function. To understand how an organization originated and developed, it is requisite to understand the need subserved at the outset and afterwards.” Contemporary macro theorists continue to write in functional terms, exploring ways in which social phenomena affect one another and the whole.

Contemporary functional analysis does not hold that all prevalent activities relate positively to the social whole.⁴ Many cultural items can have positive functions for some groups within a sociocultural system and negative functions (called “dysfunctions”) for others. There are power differentials in all societies, and sociocultural forms that benefit powerful groups (or elites) may well have dysfunctions for other groups within the system—or even negative consequences on the system as a whole. In practice, many items have multiple consequences—both negative and positive—for the system as a whole and for groups within the system. While it is likely that all widespread and persisting sociocultural phenomena have a net balance of positive functions for the whole or for elite groups, this is an empirical question and not a theoretical given. In functional analysis, it is important to specify the groups for which a given sociocultural item is functional.

While the concept of “function” allows the analyst to focus on issues of stability and the status quo—on how a given cultural item is related to the maintenance and preservation of the system or its parts—the concept of “dysfunction” allows the analyst to focus on issues of change. Dysfunctions are those consequences that often lead to stress, contradictions, and pressure for change within the system. The dominant orientation of the sociocultural system is stability and resistance to change. Institutional structures and ideas are interrelated and predominantly mutually supporting, and the most likely outcome of any change introduced into the system is resistance to that change in other parts of the system. Such resistance seeks to extinguish or minimize that change, but resistance is not always successful, and the accumulation of stress and resulting conflict often causes systemic change. One of the primary goals of functional analysis is to examine a part of the system in its relationships to other parts and to the whole, to identify both functions and dysfunctions for various groups within the system, and then to map out patterns of change.

Students are often confused about the distinction between functions and motives. Functions are the ways in which a sociocultural trait contributes toward the maintenance or adaptation of the sociocultural system; dysfunction refers to a trait’s impact on the system that lessens adaptation. Motives are the subjective orientations of the individuals engaged in behaviour. Functions and motives are often (though not always) very different. For example, I was once in a group discussing homosexuality with Marvin Harris in the mid-1980s. Harris was claiming that one of the reasons why homosexuals were more open and political about their sexual orientation than they had been in the recent past was because increasing population pressure and the consequent rise in the competition for resources was leading to a relaxation of the prohibitions on non-procreative sex. Because the condemnation from the dominant society was lessening, he went on to say, many homosexuals were emboldened to declare that they were gay and to openly advocate for acceptance and equality. Within our small group, one young woman strongly disagreed, claiming that the reason she came out of the closet had nothing to do with

babies, population pressure, or the relaxation of society's condemnation but rather with her pride in who and what she was. Harris was speaking the language of functions; the young lady was speaking of personal motives.

Several other points of interest about Harris's example touch upon the nature of functional analysis. By discussing the relationship between population pressure and attitudes and laws regarding homosexuality, Harris was not commenting on the morality of homosexuality or on the fairness of the laws condemning the practice; rather, he was claiming only that there is a functional relationship between population level and prohibitions against homosexuality. Nor was Harris saying that population pressure was the only cultural item affecting attitudes and laws regarding homosexuality. As a systems theorist, he was well aware of multiple relationships within sociocultural systems that included material, structural, and ideational forces. Nor was Harris saying that population pressure was uppermost in the minds of opinion makers in motivating them to ease up on restrictions on and condemnation of homosexuality; he was simply arguing that the functional relationship between population pressure and homosexuality created a climate in which a relaxation of the prohibitions fit with other system changes. Finally, it should be noted that while attitudes and laws condemning homosexuality were once functional for the entire sociocultural system in the West, they were dysfunctional to a significant portion of the population, thus creating strain (tension, contradictions), and ultimately overt conflict, within the system. Population pressure, then, had little to do with the motivation of homosexuals to come out of the closet and openly advocate for equal rights, but it had much to do with the success of this movement. It was when the prohibition was no longer functional for the system as a whole—no longer in the interest of elites to promote population growth or for the masses to have large numbers of children—that the conflict became active and the relaxation of the prohibitions began.⁵

There are times, however, when functions and motives are one and the same, and this seems especially true when government is consciously considering reform. Manifest functions are those

objective consequences that are intended by the participants in the system. **Latent functions are those consequences that are unintended and often unrecognized by participants.** It is through the concept of latent functions that one can begin to understand the seemingly irrational and non-rational qualities of many social practices. Robert Merton ([1948] 1968, 118) uses the Hopi rain dance as an example in this regard. From all outward appearances, the rain dance is a non-rational ceremony whose manifest function, to bring rain to a given area, is clearly not achieved.

Thus, the Hopi ceremonials designed to produce abundant rainfall may be labeled a superstitious practice of primitive folk and that is assumed to conclude the matter. It should be noted that this in no sense accounts for the group behavior. It is simply a case of name-calling; it substitutes the epithet “superstition” for an analysis of the actual role of this behavior in the life of the group. Given the concept of latent function, however, we are reminded that this behavior *may* perform a function for the group, although this function may be quite remote from the avowed purpose of the behavior.

If the ceremony is unconnected to its avowed purpose of bringing rain, why then does it persist in Hopi culture? What latent functions does it serve for the group? Merton answers (in the tradition of Émile Durkheim) that **the dance serves group unity: it fulfills “the latent function of reinforcing the group identity by providing occasion on which the scattered members of a group assemble to engage in common activity”** (118–19).

In chapter 2 of this book, we will examine the functions of a growing gross domestic product in a society. The two primary manifest functions, of course, are to provide ever greater material wealth to the elites in a society and, through the presumed “trickle down” process, creature comforts to the masses. The latent functions and dysfunctions, as we will see, are legion.

The most important advantage to the distinction between latent and manifest functions is that it encourages systemic thinking. Most

people seem to think in linear terms: A causes B, and perhaps goes on to affect C. Life, however, is rarely that simple. We live in a world of systems—physiological, psychological, sociocultural, biological, and physical: systems that have many parts that not only affect one another and the whole but also interpenetrate and affect one another. **Functional analysis is the elaboration of the systemic character of social life**; it is an attempt to account for the web of the world and the influence of this web on social behaviour. **Functional analysis is an invaluable tool in policy analysis as well.** Through functional analysis, lawmakers (and, more importantly, their staffs) as well as pundits and other political observers can anticipate the consequences—manifest and latent, functional and dysfunctional—of laws and social programs.

The relevance of functional analysis to governance and self-determination can be seen in the great health care debates in the United States in 2009–10. The functions and dysfunctions—latent and manifest—of the various parts of the health care system have been analyzed and widely discussed in terms of their impacts on one another and on the total sociocultural system. The present system functions to the great benefit of a few providers, insurance companies (particularly executives), politicians (in the form of campaign contributions), and those wealthy enough to buy into the system, but it has many negative consequences, or dysfunctions, on industry, government, and consumers who must absorb the ever rising costs of care, as well as on individuals who simply are not covered. Because of these dysfunctions, there has been growing pressure within the system for change; because the present system benefits many elite groups, however, there is also great resistance to change. Consequently, various proposals have been made to restructure the entire medical care system so that incentives are created for preventive medicine, people have broader access to health care, and costs are redistributed and contained. Functional analyses were performed not only on the existing system but also on many of the proposed reforms. What functions and dysfunctions would a widely available government insurance option have for the rest of the system and on specific organizations and groups? Many groups and organizations

are promoting, and others resisting, changes through direct coercion on politicians who would institute the changes or through indirect persuasion of these government officials via advertising and other forms of propaganda. As of this writing, it is unclear whether substantial change will be achieved; much depends on the weight of evidence behind the functional analysis of health care, but even more depends on the political and economic power of the groups who are promoting and opposing the reforms.

MATERIAL/BEHAVIOURAL CONDITIONS

The fact that almost all macrosociologists root their analyses in material conditions is often overlooked. While their theories frequently focus on stability and change in social structures, as well as on the influence of social structure on ideas and behaviour, the founders generally view social structure and changes in that structure as ultimately the product of material circumstances. For example, Durkheim ([1893] 1997, 336–37) argues that cultural advancement (“civilization”) results from the increased specialization made possible by the division of labour, which is itself caused by changes in the “volume” and “density” of societies—that is, by population pressure:

Civilization is itself the necessary consequence of the changes which are produced in the volume and in the density of societies. If science, art, and economic activity develop, it is in accordance with a necessity which is imposed upon men. It is because there is, for them, no other way of living in the new conditions in which they have been placed. From the time that the number of individuals among whom social relations are established begins to increase, they can maintain themselves only by greater specialization, harder work, and intensification of their faculties. From this general stimulation, there inevitably results a much higher degree of culture. From this point of view, civilization appears, not as an end which moves people by its attractions for them, not as a good

foreseen and desired in advance, of which they seek to assure themselves the largest possible part, but as the effect of a cause, as the necessary resultant of a given state. It is not the pole towards which historic development is moving and to which men seek to get nearer in order to be happier or better, for neither happiness nor morality necessarily increases with the intensity of life. They move because they must move, and what determines the speed of this march is the more or less strong pressure which they exercise upon one another, according to their number.

Herbert Spencer, of course, built most of his evolutionary theory around increases in population level through either natural population growth or conquest. Marx's historical materialism is also widely known in the sociological literature, as expressed in his well-known maxim: "It is not the consciousness of men that determines their existence, but, on the contrary, their social existence determines their consciousness" (Marx [1859] 1911, 11–12). Marx's primary causal variables are subsumed under his concept of "mode of production," which appears to include both the "forces" of production (technology and division of labour, which are material factors) and "relations" of production (economic relations, such as feudalism or capitalism, which are structural). With few exceptions, macrosociologists very quickly recognized that material factors are the necessary foundations of sociocultural systems. Max Weber is, unfortunately, often perceived to be one of the exceptions.

Weber is known as an idealist in many quarters, since he asserts that ideas (such as the Protestant ethic and rationalization) are primary causes of structural and material changes. This, however, is misleading, for Weber is a systems theorist who always traces a web of multiple causation, giving significant weight in his historical analysis to institutional, ideational, *and* material factors, depending upon the particular phenomenon under study. For example, in Weber's analysis of the origins of capitalism, he gives significant weight to such technological factors as transportation, communications, coinage, writing, and record keeping. These technological factors, he argues,

are essential conditions for the development of the bureaucratic state, for only such a state could assure the free movement of capital and labour as well as provide the institutional supports for large-scale markets, property and labour law, and the predictability and calculability of investment that is needed for large-scale capitalism. Randall Collins (1980, 940), a pre-eminent Weber scholar, has this assessment of Weber's overall theoretical orientation: "For Weber, the state and the legal system are by no means a superstructure of ideas determining the material organization of society. Rather, his theory of the development of the state is to a considerable extent an analogy to the Marxian theory of economy. The key factor is the form of appropriation of the material conditions of domination."

While Weber cannot be considered an exclusive materialist, he can be thought of as a fellow traveller. But it should be pointed out that no social scientist—even Marx—actually asserts that material conditions are all that matter. "The idealist likes to begin the causal analysis with the unquestioned motivating power of ideas," says social evolutionist Robert Carneiro (2003, 216). "The materialist prefers to begin the analysis one step further back, going behind the ideas to see how they arose in the first place and came to enter people's heads." According to the materialist, material and structural conditions are translated into ideas, ideologies, and values, cultural elements that then motivate people to action, sometimes action that is even counter to their own material interests.

Weber provides an often needed reminder that sociocultural systems are never simple. In the closing lines of *The Protestant Ethic and the Spirit of Capitalism* ([1904] 1930, 183), he states: "But it is, of course, not my aim to substitute for a one-sided materialistic an equally one-sided spiritualistic causal interpretation of culture and of history. Each is equally possible, but each, if it does not serve as the preparation, but as the conclusion of an investigation, accomplish[es] equally little in the interest of historical truth." What Weber is saying here is that the interaction of many sociocultural factors plays a role in social evolution. The subject matter of sociology deals with very complex systems—material conditions, social structures, and

cultural superstructures are in constant interaction. With regard to the origin of capitalism, these factors would include the geographical conditions of Western Europe; the dissolution of feudalism; the rise of the nation-state; the division of political authority among church, nobility, king, and merchants; the plunder of the Americas; and Weber's Protestant ethic and the rise of rationalism.

But while the full exploration of sociocultural system interactions makes for good ethnography and history, it makes for poor social theory. The goal of social theory is not to detail every conceivable relationship but to provide a concise world view that summarizes, orders, and weighs what appear to be the most important relationships among sociocultural phenomenon. Part of the futility of the debate between materialists and idealists is that material and ideal conditions are in constant interaction with one another and it is therefore extremely difficult to demonstrate causal priority. In addition, our concepts and measures of social processes simply are not precise enough to establish clear priority—a necessary precondition for establishing causality. Terms like *industrialism*, *bureaucracy*, *capitalism*, *Industrial Revolution*, *democracy*, *rationalization*, and the *Protestant ethic* are all treated as things or singular events when in fact the terms are abstractions of social processes with only a tenuous reference to reality.

The Industrial Revolution, for example, is an arbitrary construct used by social scientists, journalists, and lay people alike. There is no one event that marks its beginning or ending except as defined by social consensus: it is not a thing but an abstraction that we use to break the continuous world of reality into pieces that we can manipulate. Like other forms of technology, these abstractions have a totalitarian character: they tend to simplify by arbitrarily leaving out complexity. For example, many argue that the acceleration of industrial activity started well before the middle of the eighteenth century (the beginning date cited by most); some mark the beginning of the revolution as the mid-sixteenth century or even earlier (Nolan and Lenski 2011, 188–94). However, most continue to associate its beginning with inventions such as the steam engine, mechanization

of textile manufacturing, and innovation and expansion of the iron industry—the technological changes, in other words, that brought on the fundamental transformation to modern industrial forms. While we mark the initial phase as beginning in the mid-eighteenth century, it is important to keep in mind that we are dealing with a gradually intensifying process that occurred over generations (and is still ongoing), not with a discrete event. Technological innovations (such as seemingly simple devices and practices as horse collars and three-field rotation) were producing food surpluses (and stimulating population growth) as early as the ninth century. These new methods affected structures and cultural values—and were affected by them—long before what we generally call the Industrial Revolution. By reifying the Industrial Revolution—that is, by considering the term as a *thing* in social reality rather than understanding it as a construct that arbitrarily labels a part of a continuous process of technological development—we are seriously misleading ourselves. The arbitrary nature of our abstractions of social phenomena prevent the type of testable precision called for by this theoretical disagreement.

Since materialist theory cannot be conclusively demonstrated empirically, the strongest argument of the materialist can only be one of logic. Why should material conditions be given priority over social structure and cultural elements? The reason rests on the fact that we are physical beings who depend on obtaining food, clothing, and shelter from the environment in order to survive. It is through regulating population level (by means of Malthusian preventive and positive checks, which lower the birth rate and increase the death rate, respectively) and through production technologies and practices that all societies manipulate their environments in order to regulate the amount and type of energy needed for survival. The aim of social science, Marvin Harris (1979, 57) tells us, is to discover the “maximum amount of order.” The environment places severe constraints on human societies. It is population and production that are most directly affected by these constraints, and it is also through population and production that these constraints are stretched or modified. To say that ideas and ideologies are central in explaining human

behaviour ignores these physical constraints; to say that structures deserve the primary role also ignores this simple truth. Our physical relationship to the environment is critical: all other widespread and enduring social practices and beliefs must be compatible with—or at the least, must not directly oppose—these relationships. It is only after these material conditions are analyzed that structures and ideational factors should be examined in exploring the web of direct and indirect factors affecting human behaviour and thought.

Perhaps the main reason that the founders of sociology are seldom recognized for the materialists they are is that once they have acknowledged the primacy of material factors, the classical social theorists quickly move on to structural factors and their interrelationships with human behaviour and thought. Indeed, Marx, after establishing the forces of production as prime determinants in his system of thought, shifted his focus to an economic system (capitalism). Similarly, both Weber (bureaucratization and rationalization) and Durkheim (anomie) also moved from material factors to the resulting changes in structures and ideational culture in their sociology. Once theorists establish material factors as prime movers in macrosociology, they tend to focus on how these material factors affect structural and cultural elements within sociocultural systems since it is these social structures and cultural elements that are directly experienced by people. With the possible exception of Harris, modern macrosociologists—whether influenced by Marx, Spencer, Durkheim, or Weber (and all have been to some degree)—have carried on this tradition.

EVOLUTIONISM

Another integral part of a systems view of societies is the notion of cumulative change. Cumulative change is intrinsic to systems because of the functional dependence of parts on one another, because both continuity and change occur simultaneously within the system as a whole. “Within these systems,” Gerhard Lenski (2005, 4) explains, “some parts change while others remain unchanged. Thus,

cumulative change is a process that combines elements of continuity with elements of change; many parts of the system are preserved for extended periods while new parts are added and other parts are either replaced or transformed. Cumulative change is also a process in which the characteristics of a system at any single point in time have a significant impact on the system and its characteristics at successive times.” External stimulus for change in a sociocultural system stems from change in its natural and social environments. Internal stimulus for change stems from the cumulative process of change itself. New technologies or structural or cultural elements are added to old; rarely are old elements discarded completely, although they are often modified to accommodate innovation in other parts of the system.

Rather than relying on genetic change to encode and pass on adaptations to future generations, human populations have evolved culture. This has proven to be a much more rapid and broader transmission process, and it has had significant effects upon the speed and direction of sociocultural change.⁶ Thus, macrosociological theory is both material and historical in character: sociocultural systems exist within the contexts of the natural and social environments and within the sweep of history; macro theory views sociocultural change as cumulative and transmitted through culture. Macrosociological theory is therefore evolutionary theory. This is not to say that all macro social theory is the type of formal social evolutionary theory of Herbert Spencer or, in the modern day, Gerhard Lenski. Spencer (1891) very explicitly considers social evolution as a part of natural evolution. For example, he states, “There can be no complete acceptance of sociology as a science, so long as the belief in a social order not conforming to natural law survives” (394). Lenski (2005, 5) is even more forthright: “Thus, stellar evolution laid the foundation for chemical evolution, which, in turn, laid the foundation for biological evolution, which, eventually, led to the evolution of human societies. In other words, one of the basic principles of modern evolutionary theory is that *the evolutionary process itself evolves*” (emphasis in the original). All macro theory worthy of the name is based on systemic and therefore cumulative and historical change and gives a

prominent causal role to material components of that system; this is highly compatible with formal social evolutionary theory.

Marx posited that societies go through evolutionary stages. Beginning as communal systems, they move through ancient, feudal, capitalist, and, finally, socialist phases. While Marx's evolutionary view is widely known, it is rarely acknowledged or emphasized; the revolution at the end seems to get all of the attention. However, looking at the entire sweep of prehistoric and historic societies, it is clear that Marx saw this revolution as occurring only after a long social evolutionary process: "No social order ever disappears before all the productive forces for which there is room in it have been developed; and new higher relations of production never appear before the material conditions of their existence have matured in the womb of the old society" ([1859] 1911, 12).

The evolutionary character of Durkheim's theory is expressed in the lengthy quotation in the previous section, particularly in his assertion that civilization develops from the pressure exerted by increasing numbers of people competing for sustenance (an assertion that owes much to Malthus, Spencer, and Darwin). It has often been claimed that Weber saw society as evolving toward an ever more bureaucratized, rationalized state. Weber was evolutionary in terms of his systemic view, his functional perspective, and his emphasis upon cumulative change. That he integrated such an evolutionary perspective into his social theory is evidenced by the fact that he uses the term "evolution" forty-three times in his classic *Economy and Society*, and thirty-three times in *General Economic History* (twice in chapter headings).⁷ To say that macrosociology is evolutionary does not mean all macro theorists claim that society is going through set stages or that all societies are evolving toward a common system. These are hoary old theories that are too often used as straw men to entirely dismiss social evolutionary theory.⁸ The common ground of macrosociology is only that societies are historical systems undergoing cumulative change and that this change often begins in a system's material infrastructure (population and production processes) in response to changes in its natural and social environments.

Modern macrosociology tends to be evolutionary in the same manner, most explicitly in the work of those theorists most influenced by Malthus or Spencer (Marvin Harris, Gerhard Lenski, Robert Carneiro, and Stephen Sanderson) and Marx (John Bellamy Foster, Immanuel Wallerstein, and Harry Braverman) but also with acolytes of Weber (C. Wright Mills, George Ritzer, and Norbert Elias) and Durkheim (Stjepan Meštrović and Robert Nisbet). The general model of today's macro theorists begins with the material base of societies and the immediate natural environment, which consists of the physical, chemical, and biological elements necessary to sustain human life. Arable land, climate, geography, water, and plant and animal life are all part of this environmental foundation. Like all living organisms, humans must obtain energy from their environment in order to sustain life. As social animals, humans exploit their environment in co-operation with others. In that process, the sociocultural system as a whole moves toward a balance between reproduction and the consumption of energy from a finite environment.

The collection of mechanisms by which social systems strike this balance is termed (by those writing explicitly in the materialist tradition) the "infrastructure"; it consists of all behaviours that regulate population as well as those behaviours involved in the production of food and other necessary goods. In other words, the infrastructure is the principle interface between a sociocultural system and its environment. It can be divided into two parts: (1) the mode of production, consisting of material and social technologies (including the division of labour) aimed at satisfying requirements for subsistence, and (2) the mode of reproduction, consisting of demographics and the behaviours, technologies, and conditions that affect them, such as mating patterns, fertility, mortality, contraception, and abortion.⁹

Not only are there structural factors within population and production that, when unchecked, cause them to grow exponentially, but there is also a positive feedback loop between population and production. In systemic terms, a positive feedback loop is a self-reinforcing chain of cause and effect. "It operates so that

a change to any element anywhere in the loop will have consequences that cascade along the chain of causal links, finally changing the original element even more in the same direction. An increase will cause further increase; a decrease will eventually cause further decrease” (Meadows, Randers, and Meadows 2004, chap. 2). Jared Diamond (1997, 111) uses the term *autocatalytic* to describe such a relationship, several examples of which will be discussed throughout this book. In the loop between population and production, for example, growth in population density often stimulates an increase in the production of food, and this increase in the production of food often causes a further increase in population density (Malthus 1798, 9; Boserup 1965). Throughout history (and prehistory), both productive and reproductive forces have expanded, and this expansion has been especially rapid in the past two hundred years.

STRUCTURES

Macrosociologists do not maintain that material conditions are all that matter in explaining sociocultural phenomena; rather, they argue that these material conditions are primary factors affecting social structure and culture. Social structures—human groups and organizations—are considered second-order variables in understanding sociocultural systems. The growth of population and the intensification of production have caused changes in the social structures of human societies. Max Weber asserts that this intensifying infrastructure has caused the growth of both government and capitalist bureaucracy. The larger the state, Weber ([1946] 1958, 211) notes, the more it is dependent upon bureaucracy: “It is obvious that technically the great modern state is absolutely dependent upon a bureaucratic basis. The larger the state, and the more it is or the more it becomes a great power state, the more unconditionally is this the case.” The growing complexity of the production process also provides significant stimulus to bureaucratic growth:

The growing demands on culture, in turn, are determined, though to a varying extent, by the growing wealth of the most influential strata in the state. To this extent increasing bureaucratization is a function of the increasing possession of goods used for consumption, and of an increasingly sophisticated technique of fashioning external life—a technique which corresponds to the opportunities provided by such wealth. This reacts upon the standard of living and makes for an increasing subjective indispensability of organized, collective, inter-local, and thus bureaucratic, provision for the most varied wants, which previously were either unknown, or were satisfied locally by a private economy. (212–13)

This bureaucratic growth, Weber argues, impacts a variety of structures (the military, religion, capital, education) as well as culture and human behaviour (rationalization). Modern macro theorists concerned specifically with bureaucracy and its impacts include Norbert Elias, C. Wright Mills, Gerhard Lenski, Marvin Harris, Robert Nisbet, and George Ritzer.¹⁰ Other macro theorists include the fact of bureaucracy in their analyses but tend to be more focused upon the specific bureaucracies of the nation-state or the private bureaucracies of capital.

One of the primary carriers of bureaucracy is the nation-state, which, as many macro theorists note, has been expanding rapidly in the modern era. Many early sociologists, particularly Max Weber and Herbert Spencer, focused upon the expansion of the state. Spencer ([1876] 1967, 46) made the growth of the state an integral part of his evolutionary theory: “It inevitably happens that in the body politic, as in the living body, there arises a regulating system. . . . As compound aggregates are formed . . . there arise supreme regulating centers and subordinate ones and the supreme centers begin to enlarge and complicate.” Modern macro theorists who are especially concerned with the centralization and enlargement of the state include C. Wright Mills and Robert Nisbet (the first belonging to the Left, the second, to the Right), both of whom wrote extensively of the dangers of the unchecked power of the nation-state. Modern Marxist

theorists, such as Immanuel Wallerstein and John Bellamy Foster, are particularly concerned with the role of the state in capital accumulation and militarization.

Perhaps the primary principle of all macro theorists is the idea that economic structure exerts a determining influence on a great many elements within the broader sociocultural system. When these theorists are discussing the modern period, this translates into a concern with capitalism. Marx and Weber were, of course, heavily concerned with capitalism's origins and workings, and almost every modern macro theorist has examined the origins and evolution of capitalism and its consequences for human society and its members. Harry Braverman, for example, carries on Marx's analysis of the effects of capital on work; John Bellamy Foster looks at the impact of capital on the environment and international relations; George Ritzer focuses on capital's global expansion and the creation of a consumer culture; and Immanuel Wallerstein examines capital as a world-system. Specifically, Wallerstein (2000) argues that one cannot analyze societies in isolation from their ties to other sociocultural systems. The only proper unit of analysis must incorporate the entire division of labor necessary to meet all the essential needs of a substantial majority of people through production and exchange within the system itself. Capitalism, he argues, is a world-system that had its origins in about 1500 in Western Europe and by the late nineteenth century covered the globe. This system is based on the economic exploitation of much of the world to benefit the core countries of Europe, North America, and increasingly the Asian rim. Within this core, there exists a hegemon, a nation-state that dominates by the sheer weight of its economic and military power. Hegemons rise and fall; the first to rise, according to Wallerstein, was the United Provinces (today the Netherlands), in the middle of the seventeenth century, to be succeeded in turn by the United Kingdom, in the middle of the nineteenth century, and then, following World War II, by the United States, which as a hegemon is now in decline (256). Our times are defined by this capitalist world-system, Wallerstein holds; it is the context in which struggles between nations, classes, ethnic groups and political movements are decided.

IDEAL CULTURE

Durkheim ([1893] 1997) argues that as a society becomes more complex, individuals play more specialized roles and, as a result, become increasingly dissimilar in their social experiences, material interests, values, and beliefs. While individuals within such a sociocultural system have less in common than do members of a simpler society, they are more dependent upon each other for their very survival. The growth of individualism is an inevitable result of the increasing division of labour that is part of the evolution of the mode of production and the bureaucratization of the social structure. Durkheim believed that this individualism can develop only at the expense of the common values, beliefs, and normative rules of society, the sentiments and beliefs that are held by all. With the loosening of these common rules and values, individuals also lose their sense of community or identity with the group. The social bond is thereby weakened, and social values and beliefs no longer provide members of the society with coherent, consistent, or insistent moral guidance. The weakening of the social bond is one of the key concerns of Durkheim's sociology. Modern macro theorists who have followed Durkheim's lead in this area include Robert Nisbet and Stjepan Meštrović, but one can find similar concerns expressed among Weberians (Mills and Ritzer), Marxists (Braverman and Foster), and those strongly influenced by Malthus and Spencer (Harris, Lenski, and Boserup). All argue that loss of community, alienation, or anomie are rooted in such factors as the increasing division of labour, specialization, urbanization, bureaucracy (corporate, government, and other), centralization, secularization, and a decline in primary groups.

Krishan Kumar, in his book *Prophecy and Progress* (1978), suggests that all of these causative factors are interrelated. He divides the characteristics of industrialism that were identified by the founders of the discipline into six broad categories: (1) urbanization; (2) demographic change; (3) the decline of community; (4) specialization and the division of labour; (5) centralization, equalization, and democratization; and (6) secularization, bureaucratization, and rationalization.

The view suggested here, of the changes entailed by industrialization, involves so sweeping a transformation of the structure, culture, values and beliefs of a society that it is most unlikely that other changes cannot be accommodated under their general rubric. Indeed one of the analytical problems is that each single theme or characteristic usually represented for a particular thinker a more or less total characterization of the new society. So it is, for instance, with Tönnies and the decline of the *Gemeinschaft*; Durkheim and the increased division of labour; Weber and rationalization. It is clear from their accounts of these phenomena that almost any one of them could be made to encompass all of the six features that I have chosen to list separately. (109–10)

Kumar goes on to state that although many of these themes (particularly Weber's rationalization) predate the Industrial Revolution, they were developed and strengthened by the industrialization process and have come to characterize industrial society.

Along with his work on bureaucracy, Weber is perhaps best known for his concept of "rationalization." As already stated, many have taken Weber's rationalization as an indication that he was an idealist, an advocate for the theory that ideas are the prime movers in human societies. However, his writings reveal a much more complex position. Rationalization, according to Weber, is the process of substituting behaviour based on goal-oriented, observation-based, rational thought for actions based on emotions, traditions, or values. When confronted with a goal, rational thought guides us to choose the most efficient means to attain that goal. Weber believed that of the four basic motivators of human behaviour—rationality, emotions, traditions, and values—rationality was becoming more and more dominant in the West. He attributed this evolution not to simple chance or to mystical or spiritual reasoning but rather to changes in material conditions such as the intensification of production processes and the consequent growth of bureaucracy, both of which promote goal-oriented rationality.

True to his systemic thinking, however, Weber does not leave it there. Because of continuing intensification of production, population growth, and an ever more detailed division of labour, formal bureaucratic organization expands and the process of rationalization continues to grow in the West (and through the West, the world). People increasingly see their world in its terms. When confronted with problems of production or reproduction, we tend to rely on goal-oriented rationality rather than on tradition, emotions, or values. When confronted with problems of human organization, we attempt to solve these problems through bureaucracy—the application of rational thought to human organization—without much consideration for traditions, values, or emotions. Rationalization—the application of observation, logic, and experience to achieve specific goals—is now our characteristic mode of adapting to the natural and social worlds. The rationalization process is thus one of the many feedback loops discussed throughout this book. Intensification of production through mechanization and the division of labour causes bureaucratization, both of which lead to the increasing dominance of rationality (or goal-oriented thinking through the application of logic and observation). This growth of rationality, in turn, promotes further bureaucratization and intensification, which in turn promotes further rationalization. This characteristic mode of adaptation has significant impacts on both the sociocultural system and the individuals who make up that system.

INEQUALITY

A major principle of macrosociology is that there are inequalities of life chances both within and between societies. The degree of this inequality is highly dependent upon material conditions. Labour will always be necessary to draw subsistence from nature. The self-interest of individuals—the desire for riches or the fear of poverty—provides much motivation for human thought and action. Every macro theorist, bar none, deals extensively with inequality—its origins,

extent, and possible amelioration. This, of course, has its roots in materialist theory: since most resources needed for survival are in short supply, a struggle for access to those resources will be present in every human society. Human beings are social in nature, obliged to co-operate with one another in making a living. (*Antagonistic co-operation* is the term used by many.) Individuals are born with a range of innate abilities and into a variety of circumstances; in addition, the socialization process, combined with our own individual experiences and role in the division of labour, produces an acute sense of self and self-interest. Thus, the root of social inequality lies in our nature and in our nurture. Lenski (1966, 44) postulates that self-interest is one of the prime motivators of human action. However, as he goes on to say, these selfish interests compel men to cooperate in the division of labour: “If these two postulates are correct, then it follows that men will share the product of their labors to the extent required to insure the survival and continued productivity of those whose actions are necessary or beneficial to themselves” (emphasis in the original). Any surplus (goods and services over and above the minimum required to keep necessary workers alive and productive) will be distributed unequally. As there is little stored surplus in the earlier stages of sociocultural evolution, the distribution of resources is fairly equal, with perhaps only slightly more of the resources allocated on the basis of personal characteristics—hunting skills or plant-gathering productivity, for example. With the development of a more complex division of labour, these inequalities become greater and are institutionalized in class, status, caste, race, sex, and ethnic systems. Thus, most macrosociologists conclude that some degree of inequality is necessary and inevitable in all sociocultural systems, although the degree of inequality is variable across societies and through time.

HISTORICAL-COMPARATIVE METHOD

A final area of common ground among macrosociologists is their use of historical-comparative methodology to test their generalizations.

Macro theorists' data consist of the archaeology of prehistoric societies, the ethnographies of preliterate societies, and the histories of all human societies. All of the classical sociologists named above employ the historical-comparative method, and it remains the method of choice among contemporary practitioners of the craft. This need to test their theories through historical data is directly related to their evolutionary perspective; documenting cumulative change can only be done by examining the history of a sociocultural system through time or by comparing different sociocultural systems at different levels of development. History tends to be idiographic, or focused upon the particular or unique event. Macrosociology is the nomothetic branch of history, searching for universals or common patterns of structure and change within sociocultural systems.

The major points of this chapter can be summarized as follows: (1) Society is a system, with each of the component parts affecting one another and affecting the whole; (2) the material components of a society form its critical foundation and are especially important in determining the rest of the sociocultural system; (3) production and population must constantly adapt to changes in the physical and social environment; (4) production and population have a reciprocal relationship, with expansion or growth in one often stimulating growth in the other; (5) system change tends to be cumulative, with some parts of the system adjusting to change and other parts maintaining their continuity with the past; (6) because adaptations are transmitted through culture rather than through genetics, social evolution is very rapid; (7) all societies have inequalities, although the degree of inequality is an empirical question; and (8) the method of choice of macrosociologists is historical-comparative.

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