The Materialist Strategy

Cultural Materialism. The Struggle for a Science of Culture. MARVIN HARRIS. Random House, New York, 1979. xiv, 384 pp. $15.

The vigor and often iconoclastic novelty of Marvin Harris's thought and the clarity and barbed wit of his recent books, *Cows, Pigs, Wars, and Witches* and *Cannibals and Kings*, have won him an audience far beyond the confines of anthropology. In this still more ambitious work, the chief exponent of cultural materialism systematically presents the major tenets of that research strategy and compares it with alternative strategies with respect to comprehensiveness, productivity, and scientific coherence. While some of the products of cultural materialism are admitted to be tentative and imperfect, it is not unexpectedly presented as a system superior to its rivals. Yet, in spite of his avowed partisanship, Harris achieves a standard of theoretical exposition that is rare in anthropology. He also goes far toward explaining why certain alternative strategies have made little, if any, significant progress in theory building in the last two decades. While professing strong personal and professional ideological commitments, Harris reaffirms the possibility and necessity of an empiricist approach and exposes the intellectual damage that has been done to anthropology by the exaggerated relativism and blatantly antiscientific bias that permeate many so-called radical tendencies that are currently influential in the social sciences. In Harris's trenchant phrase, "To erect a barrier between truth and love is to wantonly degrade and limit human nature" (p. 341). I regard this as a welcome breath of fresh air.

The goal of cultural materialism is that traditionally espoused by American anthropology: to account for similarities and differences in sociocultural phenomena covering all times and places. Harris argues that the combined evidence of archeology, history, and ethnography indicates enough major recurrent regularities to rule out chance or unrestrained human volition as the predominant forces shaping cultural development. He dismisses the venerated practice of eclecticism, or the selection by anthropologists of different epistemologies and theoretical principles to suit the convenience of each problem, as a prescription for nothing more than the endless proliferation of contradictory middle-range theories. He also maintains that structuralism, cognitive anthropology, and psychological anthropology have been prevented from contributing significantly to the development of anthropological theory by their "infantile" commitment to phenomenology, the doctrine that social acts must be understood in terms of what they mean as lived experience. Instead, anthropologists must understand material conditions first and thought in the light of these conditions. Idealist approaches, like sociobiology for other reasons, can account adequately only for cultural similarities, and not for differences. Adopting such approaches curtails an interest in the conflicts over access to limited resources that loom large in real life.

Although cultural materialism distinguishes itself from dialectical materialism, they share as their point of departure a belief that the processes of production in material life determine the social, political, and spiritual processes. Cultural materialism is opposed, however, to a simplistic view of causality. Harris stresses that many aspects of society and belief, such as certain details of ownership and exchange, cannot be predicted from knowledge of the infrastructure, or economic base. Any sector of the sociocultural system may sometimes be determinant, but the infrastructure, as the principal interface between culture and nature, is the sector most restrained by natural givens and therefore the most determinant element. While changes in any sector can stimulate changes in others, cultural materialism holds that changes initiated in the infrastructure are more likely to effect irreversible changes in the social and ideological sectors than the reverse. Innovations in the latter sectors are more likely to play a vital role in impeding change and conserving cultural systems. This view is strikingly similar to that advanced by the Marxist prehistorian V. Gordon Childe in *Man Makes Himself* (1936) and *What Happened in History* (1942). It may be significant that Childe and Harris both feared the onset of a dark age, aided by the growing obscurantism in the social sciences of their respective periods. It is difficult, however, to be certain how far in practice Harris follows this relatively liberal model as opposed to a more technologically deterministic one, such as was represented in American anthropology by the work of Leslie White. Some of his pronouncements suggest the latter. Yet these may reflect his stance that it is vital to press an analysis of the influence of the infrastructure as far as possible before assigning a determinant role to social or ideological factors.

Although cultural materialism differs from classical Marxism in various ways, it is closer to it than to the so-called structural Marxism of social anthropologists such as Maurice Godelier, who are prepared in frequent instances to accept ideology as infrastructural. In my opinion, their claims to being Marxist are tenuous at best. While Marx distinguished rather ambiguously between infrastructure and superstructure, Harris narrowly identifies his infrastructure with the forces rather than the relations of production and distinguishes infrastructure from structure and superstructure, the latter two corresponding more or less precisely to social organization and ideology. He also stresses demographic and environmental variables as important components of the infrastructure. For political reasons and because of their antipathy for the work of Malthus traditional Marxists have tended to minimize the importance of such variables.

In accord with his narrower conception of infrastructure, Harris rejects the Marxist notion of the dialectic, which emphasizes contradictions between the means and relations of production and between social classes as being the principal driving force of cultural evolution. Cultural materialism seeks the explanation for sociocultural phenomena in the relative costs and benefits of alternative activities. While viewing specific genetic responses as being few in number, Harris also makes more use of the concept of human nature than do most Marxists, who treat it as a variable shaped by the mode of production. He appears to regard sexual drives as fixed

rather than culturally conditioned (p. 58) and perhaps (despite denials) people as overly predisposed to be obsessed with the calculus of material profit and loss.

The experience of biology and the physical sciences suggests that some kind of materialist research strategy is probably essential for the construction of far-reaching scientific theories. Most scientists would also agree with Harris that the test of such a strategy lies in the cogency of its theories and that probabilistic theories cannot be falsified by negative instances so long as the latter do not occur with greater-than-random frequency. The cultural materialist theories cited in this work are developed to varying degrees. Harris's suggestion that women played an active role in hunting during the Pleistocene is challenging but remains highly speculative, even though many of his views about human nature are keyed to it. His most elaborated theories, such as those concerning prohibitions against eating pork and the sacred cow complex of India, while carefully researched and potentially falsifiable, remain controversial.

The ultimate acceptance or rejection of these theories will require the collection of vast amounts of reliable quantitative data, in addition to what is already available. This challenge is obviously a strong point of Harris's approach. Yet, as he clearly acknowledges in certain instances, historical and archeological data tend to be quantitatively very weak. Paleodemography, in particular, has moved only slightly beyond the purely speculative. In recent years, the interpretation of archeological data has been heavily influenced by the tenets of cultural materialism, but in most instances assumptions rather than the incomplete and often equivocal data have determined the results. As cultural materialists rely more heavily on archeological findings to test their theories they must guard, perhaps more carefully than Harris has done here, against the dangers of circularity.

The growth of scientific knowledge is a facet of cultural evolution to which Harris pays little explicit attention. Yet he clearly appreciates its importance when he states that it matters profoundly whether people believe a disease to be caused by germs or witchcraft and more importantly when he believes it worthwhile to struggle against antiscientific movements and attitudes. From one point of view, scientific knowledge is profoundly *emic* (ideas in the scientists' heads), but as a basic component of the technology by which a society exploits its environment it is also profoundly *etic* (capable of being judged cross-culturally by an observer). It is also cumulative and diffusable and strongly shapes the image that any human group holds of its environment and of its own nature. In some respects, scientific knowledge plays a role analogous to the Hegelian concept of the growth of rational consciousness. It constitutes a holistic counterpart to Harris's study of the adaptation of individual cultures to their environment and a positive counterpart to his emphasis on the negative effects of diminishing resources. If Childe's later works fall short of Harris's in their relative neglect of demographic and ecological variables, his treatment of scientific knowledge provides a model for the further elaboration of cultural materialism. The real explanation for the gradual abandonment of animal sacrifice may be less close to Harris's theory of increasing protein scarcity than to Childe's explanation that as a result of the growth of scientific knowledge human beings have slowly learned the futility of seeking spiritual ends by material means and material ends by spiritual means.

Harris's concern to stress the preeminent influence of the infrastructure seems to have led him to ignore other significant approaches. While he utilizes the concepts of positive and negative feedback, he makes no reference to general systems theory, which in recent years has made considerable progress in determining the properties that systems of any kind must have in order to function at a given level of complexity. In particular, these properties relate to the flow of information and the management of decision-making. Hence, even if infrastructural forces relating to demography, technology, economics, and environment play a major role in determining the level of complexity of a system and the system's destiny lies in its infrastructural consequences, much of the shape or structure of the social order may be better explained by systems theory than as a response to the infrastructure. Although Harris may be right that determining how individuals process information cannot be an important concern of a science of culture, this does not deny such significance to determining how groups process it. While a concern with general systems theory does not begin from the materialist postulate that human social life is a response to the practical problems of earthly existence, it is clearly not an idealist approach and it cannot be considered evidence of soft-headed eclecticism to employ it where it is useful.

It also seems likely that society may shape its own institutions to a greater degree and in more important ways than Harris admits. For example, much of the Aztec human sacrificial complex (so far as we can understand it from 16th-century Spanish accounts) seems explainable in terms of the self-interested political behavior rather than the nutritional needs of a conquering elite. A network of social relations constituted the preexisting context within which the earliest cultures developed; while culture has transformed society and mankind's physical nature, social relations may be regarded as a central element of cultural evolution, both as a historical precipitate and as a component interacting with total cultural systems. Hence in the long run the looser Marxist definition of the infrastructure (which includes elements of social structure) may prove to be a more viable materialist concept than Harris's one.

Agreement that cultural behavior is potentially understandable and that the materialist approach is the best or only way to understand it does not guarantee full agreement about research strategies. Materialists may disagree about how complex and varied a network of factors must be taken into account in order to explain the similarities and differences in cultural systems. Harris, in his desire to explain "much by little," appears to postulate a high degree of uniformity and regularity. Yet materialists (and others) who view the situation as more complex cannot for this reason alone be dismissed as obscurantists. As Harris advocates, the proof of the pudding must ultimately emerge in the eating. Unlike many other anthropologists, he is in a hurry to serve dinner.

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Geologists in American History

Minerals, Lands, and Geology for the Common Defence and General Welfare. Vol. 1, Before 1879. MARY C. RABBITT. U.S. Geological Survey, Reston, Va., 1979 (available from the USGS Branch of Distribution, Arlington, Va., and Superintendent of Documents, Washington, D.C.). x, 332 pp., illus. Paper, $6.

From the work of Hunter Dupree, Nathan Reingold, and other historians, we know that sometime during the middle years of the 19th century geology became a leading American science. Geologists played influential roles in university science, scientific societies, and the