Book Reviews

Endogenous Determinants of Social Structure

Kinship and the Social Order. The Legacy of Lewis Henry Morgan. MEYER FORTES. Aldine, Chicago, 1969. xii, 348 pp. $9.75. Lewis Henry Morgan Lectures, University of Rochester, 1963.

The patterned consistencies among kinship phenomena which fired the imagination of Lewis Henry Morgan with his discovery in 1858 of identities in the designations of kinsmen among the Iroquois-speaking Seneca and the Algonkian-speaking Ojibwa have continued to hold the interest of generations of anthropologists, including some of the most creative and gifted contributors to the discipline. To the uninitiated the systems of kinship terminology that originally inspired Morgan may appear esoteric, arid, and forbidding, but the analysis of these systems and of their relationship to kinship structures has resulted in some of the most sophisticated formulations in ethnological research. Visions of accomplishment rivaling those of more mature sciences have dazzled more than one investigator; thus, G. P. Murdock wrote:

> It seems clear that the elements of social organization, in their permutations and combinations, conform to natural laws of their own with an exactitude scarcely less striking than that which characterizes the permutations and combinations of atoms in chemistry or of genes in biology [*Social Structure,* Macmillan, 1949, p. 183].

Contemporary research, ranging from the structuralism of Fortes to that of Lévi-Strauss, from Lévi-Straussian models of alliance systems to modern evolutionary conceptions, from the analysis of cultural symbols to the elegance of formal semantic formulas, is witness to the continuing vitality and productivity of kinship study.

It is singularly appropriate that the University of Rochester, in initiating a series of lectures memorializing Morgan, should have selected Meyer Fortes, William Wyse Professor of Social Anthropology at Cambridge and a major contributor to kinship theory, to deliver the inaugural lectures. *Kinship and the Social Order* is an expanded version of the substance of the Morgan course of lectures; it will surely become the classic explication of the structural-functional approach associated particularly with British social anthropology.

As the student of kinship institutes his field inquiries by means of genealogical pedigrees, Fortes, too, seeks to outline a pedigree linking antecessors significant for kinship study with their intellectual descendants. The perspective adopted is one that the anthropologist-historian Stocking has termed "presentism": Fortes is concerned solely with those ancestral figures whose contributions have relevance for present-day theory. From Morgan, the "founding father," the line of succession includes as principals W. H. R. Rivers and A. R. Radcliffe-Brown; not merely because they wrote about kinship, but because, in some measure, their formulations pertained to a common conceptual framework centered on the concept of society and of a social system. In contrast, a second pedigree stemming from Tylor and including, among others, Frazer, Malinowski, and Kroeber can be traced, which has as a distinguishing feature a concentration on custom and the concept of culture.

The Morgan who emerges from Fortes's reading is despoiled of evolutionism. This is the Morgan of the distinction between classificatory and descriptive kinship systems, the scholar who perceived the political dimension in "gentile" (lineage) organization—a distinction that became crucial in the analyses of segmentary lineage organization by Fortes, Evans-Pritchard, and their peers. Morgan's developmental schemes, for Fortes, constitute pseudo-history, or else are better rephrased in a comparative typological framework. Property, the prime mover which Morgan conceived as responsible for the transition from tribal to civil society, fares equally badly under Fortes's skeptical treatment, but so do all exogenous factors proposed as determinants of kinship and social structure by various scholars.

The insights of Morgan, partially encapsulated in the work of Rivers, were pursued most vigorously by Radcliffe-Brown, who, together with Malinowski, set the tone for research by British social anthropologists for over two generations. Fortes's account of the development of Radcliffe-Brown's thought with respect to kinship problems is sympathetic and fair-minded, as well as being one of the most comprehensive statements available in the literature. Contemporary structural theory is viewed as indebted to Radcliffe-Brown for both method and viable concepts: his insistence upon systemic and synchronic procedures, the "principles" (which Fortes places in quotes) of the unity of siblings and of the lineage, and the tetrad patterns (familiarity and avoidance, respect and joking) associated with elementary relationships of kinship generated in the familial situation. The "principles" are more than generalizing labels which subsume diverse kinship features (as sibling unity, for example, may incorporate the levirate, sororate, the merging of kin terms, and so on); they are thought to have explanatory value in the sense that they lead to the understanding, if not prediction, of crucial kinship variables. The structural unity of siblings, in Fortes's judgment:

> . . . is one of the few generalizations in kinship theory that . . . enshrines a discovery worthy to be placed side by side with Morgan's discovery of classificatory kinship; and, like Morgan's, it has been repeatedly validated and has opened up lines of inquiry not previously foreseen [p. 76].

Theoretical developments in social and cultural anthropology are, in the main, characterized by marked discontinuity; not only has there been no single accepted paradigm, but the scholars of one generation have rarely sought to build securely upon the foundations erected by their predecessors. Fortes is an exception. Throughout a productive career he has attempted to maximize and expand the theoretical position and methodology espoused by Radcliffe-Brown by incorporating the insights of his own research and that of his colleagues. The result, as displayed in *Kinship and the*

Social Order, is a major work of codification and systematization of theory and of clarification of concepts.

Kinship, for Fortes, is a legitimate isolate in a logical and empirical sense; it is "both analytically distinguishable and empirically specifiable as a relatively discrete domain of social structure founded upon principles and processes that are irreducible" (p. 250). The relative autonomy of the domain reflects the axiom of "kinship amity" or "prescriptive altruism," grounded in the moral values which are binding elements within the familial domain. In this closed system exogenous variables, whether economic, ecological, political, religious, property, or residence, are essentially irrelevant; the same forms of kinship structure occur in such varied settings that no single external variable or combination of them could account for the observable cross-cultural regularities.

The explicit distinction between the domestic and politico-jural domains of the social system is regarded by Fortes as the chief contribution of contemporary structural analysis. Where Radcliffe-Brown dealt primarily with kinship relations at the familial level, the strategy of later investigators has broadened to include the political realm and, particularly, the relationships between the two domains. Social relations referable to the politico-jural dimension involve an element of constraint, which derives ultimately from the political framework of the society. Jural rights, duties, privileges, and responsibilities have their moral counterparts, but a breach of the former pertains to an individual's civic status and ruptures his relationship with his society.

A further dichotomy distinguishing between internal and external aspects of analysis, together with the contraposed concepts of filiation and descent, comprises the fundamental conceptual additions to the Radcliffe-Brown scheme. The internal-external distinction is a relativistic one, shifting with particular problem foci, although in practice the external dimension is often associated with the politico-jural domain. Filiation, a conceptual refinement introduced by Fortes, refers to a universal feature of kinship systems: the relationship between a person and his parents. Descent, in contrast, specifies a genealogical continuum relative to antecessors above the parental generation. Systematically applied, the concepts discriminate between systems organized on the basis of successive steps of filiation and those which include, in addition to filiation, a pedigree demonstrating ancestral links to or above the grandparental generation.

Fortes evidences his concern for the empirical relevance of his theory and concepts throughout the book, but in addition he devotes considerable space to the analysis of specific ethnographic examples. His tactics at this point parallel those of Morgan: a limited number of empirical cases which can be considered paradigmatic exemplars for critical problems are displayed as proving grounds for the structural framework. The sampling procedure used was to select societies which manifest varied forms of interconnectedness of the domestic and political-jural domains and which clearly demonstrate the "mechanisms and processes" of interest to the author. Fortes contends:

> It is not even necessary . . . that these specimens should be representative, in a statistical or taxonomic sense, of the total universe of social systems of which we have knowledge, or that they should be related by regional propinquity or cultural affinities [p. 101].

The paradigmatic specimens, consistent with Fortes's strong opposition to evolutionary formulations, are not considered to represent a developmental pattern. However, the author does begin his analysis with Australian cases which exemplify a "kinship polity" where the kinship-familial and the politico-jural realms are indistinctly demarcated. He then proceeds to examine more differentiated societies with cognatic kinship forms, contrasting the stateless Iban of Borneo with the state-organized Lozi of Zambia. The paradigmatic exploration concludes with a highly detailed study of another state system, the matrilineal Ashanti of Ghana, with whom Fortes has done fieldwork.

The results of the comparative inquiry, in Fortes's judgment, confirm the utility of the methods and concepts of structural analysis. The effectiveness of the procedure is evidenced by its applicability to societies with diverse forms of organization and by its ability to yield informative interpretations of empirical data, as in Fortes's suggestive restructuring of the Australian case materials. Moreover, analysis of the paradigmatic examples leads the author to a favorite line of argument: the recurrence of similar familial and political processes amid diversity. Thus, he points to parallels between the politico-jural system of the matrilineal forest-zone Ashanti and the patrilineal Mossi occupying semi-arid savanna, and between the former and the East African Alur whose patrilineal segmentary system is ordered about decentralized chiefdoms, as specific evidence for the proposition that exogenous variables are irrelevant for the understanding of kinship structure.

The final portion of the volume is devoted to consideration of issues in contemporary structural theory, providing Fortes with occasion to expand on his conceptions of kinship amity, descent and descent groups, filiation, and corporateness. These chapters, as well, serve as a forum for assessing alternative theoretical formulations which attack the structural stance. In the author's counterattacks, major weaknesses are adduced in Worsley's economically oriented reinterpretation of Tallensi materials and in Leach's emphasis on property in his Pul Eliya study. But what is probably the most radical break with this structural tradition—alliance theory—receives only brief attention. Fortes contends that propositions about patterns of marriage exchange cannot be central to kinship analysis because they do not contribute to the crucial problem of processual continuity over time, as do propositions relating to filiation and descent.

Kinship and the Social Order sets out guidelines for understanding "how the system works"; questions as to how the system came to be what it is, as well as causal questions, are not admissible. Fortes propounds no "laws," in the style of Radcliffe-Brown; possibly he considers generalization premature at the present stage of inquiry. However, in principle the comparative analysis of kinship and polity is expected to reveal concomitant variations and patterned consistencies and these, presumably, should be generalizable.

In reflecting on the paradigmatic cases and the comparative references that exemplify this carefully worked out theoretical scheme, I cannot escape an uneasy impression that the framework is better adapted for discerning likenesses in kinship systems than for dealing with differences. To the extent that this is the case, it seems to me to reflect certain inadequacies in the closed system with which Fortes operates. Why, for example, should the political variable be assigned a theoretical status incommensurate with that of the economic variable? Economics surely is as much an analytic variable as politics; I can think of no logical rea-

son why the former should not be incorporated systematically into the conceptual framework in the same way as the latter. A generally similar argument applies to the variable of stratification, in my opinion, although its analytic status, perhaps, is less clear. An advantage of this procedure is that variables which have the same logical status are not assigned different analytic weight; at the same time, the scheme requires the systematic examination of variables whose interaction with kinship may be of a high order of significance. Finally, it seems to me that cross-cultural comparisons which specify the character of the economic and stratification variables in addition to the politico-jural domain of Fortes would yield more precise statements of similarities and differences in kinship structure leading, in turn, to classificatory insights which could entail further refinement of the conceptual framework.

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On the Nature of Science

The Methodological Heritage of Newton. Based on a conference, London, Ontario, April 1967. ROBERT E. BUTTS and JOHN W. DAVIS, Eds. University of Toronto Press, Toronto, 1970. xii, 172 pp. $5.50.

Crossing the boundary of two related—but often compartmentalized—fields, this collection of essays on the methodological heritage of Newton has a message for both the historian and the philosopher of science. The message is twofold: (i) that the history and philosophy of science are in many ways concerned with the same question (fundamentally, "What is science?"); and (ii) that from their different standpoints practitioners of each field have a lot to tell those of the other.

Neither historians nor philosophers should be surprised to learn that Newton's influence extends far beyond the confines of science per se to the broader realms of methodology and philosophy. One of the major themes uniting this collection of essays is the documentation of that influence. The essays of F. E. L. Priestley, John W. Davis, Gerd Buchdahl, L. L. Laudan, and Robert E. Butts together argue the profound effect of Newton's ideas on discussions of scientific methodology and epistemology in the century following his death. The most striking impact, as one might expect, resulted from Newton's introduction of force into the conceptual framework of science, and from his concomitant disavowal of hypotheses. Buchdahl argues—and the theme is implicit in the other essays mentioned—that the introduction of force (in modern language, a theoretical term) ultimately resulted in a change in the metaphysical description of the physical world. Explanations were no longer restricted to the terms of the orthodox mechanical philosophy, matter and motion, but could also be couched in terms of various attractive and repulsive forces. Such a change of conceptual framework is bound to have had far-reaching significance. Eighteenth-century discussions of space, matter, method, knowledge, and God's role in the physical world all followed directly from Newton's introduction of forces.

As the essays of Hanson and Feyerabend reveal, Newton's influence in the philosophy of science extends beyond the 18th century up to present discussions of the structure of science. Contemporary discussions between the traditional positivistic philosophers of science (Hempel, Nagel, Reichenbach, *et al.*) and the new breed of philosophers (Hanson, Feyerabend, and Kuhn) can be viewed as yet further examination of Newtonian methodology. Does science proceed from neutral facts to general theories that represent continually closer approximations to the truth, as the "classical empiricists" (Feyerabend's phrase for the Newtonians) would have us believe? Or would the scientific endeavor be more appropriately described in other terms entirely? For example, Feyerabend argues that perhaps there do not exist any neutral (theory-free) facts to serve as a starting point. Perhaps some radically different description of science is needed.

Whatever the outcome of this debate—probably the most significant discussion taking place in the history and philosophy of science today—the debate raises the perennial question of the interrelation between the history and philosophy of science. The essays of Hanson and Feyerabend illustrate how deeply the historians and philosophers can affect each other, if they choose to take each other seriously. They have shown that if philosophy of science grows out of a close examination of the history of science, striking insights into the nature of science can be gleaned, insights which simply do not arise in more traditional philosophy of science which, at best, simply uses history as a convenient source of examples. The historians likewise stand to gain from this mutual relevance, a fact evident from the influence of the new philosophy of science on the thinking of historians of science. The whole issue of the role of conceptual frameworks (paradigms) in determining the characteristics of science in a given era—an issue clearly evident in the more purely historical essays in this volume—would not arise in the absence of serious philosophical thinking on the part of the historians.

In addition to the intrinsic value of the essays themselves in unraveling historical and philosophical questions regarding the methodology of science, this collection raises broader questions concerning the direction in which the field seems to be heading. From either point of view, it should be of interest to anyone seriously interested in the nature of science.

The utility of this interesting book is somewhat diminished by the absence of an index.

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Possible Biological Models

Fish in Research. A symposium, Vermillion, S.D., Nov. 1968. OTTO W. NEUHAUS and JOHN E. HALVER, Eds. Academic Press, New York, 1969. xii, 312 pp., illus. $8.50.

The participants in this symposium were asked to look at their areas of research and consider "what unique information of biochemical and physiological processes can be gained by using fish as experimental animals." As expressed in the welcoming address the challenge was "not so much to review what is known concerning fish, but to determine how studies on fish can yield unique insights into biochemical and physiological phenomena." The 16 contributions are grouped according to four major topics: cancer, metabolism, genetics, and nutrition.

Although some of the authors are content to review their own recent research, several in each section take the opportunity to stress the unique findings arising from research on fish and the importance of fish as model systems for fundamental biological stud-