Book Reviews

Anthropological Hypothesis

Kinship and Culture. FRANCIS L. K. HSU, Ed. Aldine, Chicago, 1971. viii, 510 pp., illus. $12.50.

This collection of essays is the result of a conference held at Burg Wartenstein in the summer of 1966 to explore the fruitfulness of the "Hsu hypothesis." It is as much a measure of the paucity of hypotheses in modern anthropology as of the power of this particular one that Hsu was able to solicit the participation of such eminent figures as Talcott Parsons, Marion Levy, Anthony Wallace, Fredrik Barth, and Paul Bohannan.

Hsu's hypothesis briefly stated by him is as follows:

> The dominant attributes of the dominant dyad in a given kinship system tend to determine the attitudes and action patterns that the individual in such a system develops toward other dyads in this system as well as toward his relations outside the system [p. v].

The "dyads" are the dyadic relationships which obtain between any two members of the set of four—father, mother, son, and daughter—comprising the nuclear family; each such relationship is supposed to be endowed with certain inherent, unchanging attributes.

Hsu seems to have arrived at this hypothesis from his comparison of Chinese, Indian, and American society, which are said to be dominated respectively by the father-son, mother-son, and husband-wife dyads. In his contribution to the present volume, he argues that Chinese culture differs from American in that the former is more traditional and places greater emphasis on lineage membership, whereas the latter stresses autonomy of the individual and values motives of erotic cathexis over those of filial piety. This is all fine, though hardly novel. But Hsu makes it very difficult for us to follow beyond this point and accept that these facts are caused by differing dominant dyads, and not vice versa, or further that all cultures can be explained in these terms. One wonders how Hsu arrived at his list of attributes, since they neither form a powerful set of contrasting features nor exhaust the possible attributes of kin relationships. And one looks in vain for a possible mechanism which might convince us that the chain of causation indeed runs as Hsu says it does, and which one would suppose his hypothesis would require, since his work is almost wholly untainted by any suggestion of a theory of socialization.

One is further put off by the offhand manner in which Hsu tosses out generalities about complicated subjects. To take only one example, Hsu compares the religions of China, Japan, India, and The West (*sic*) by showing us four pictures, each representing a single god taken from the vast pantheons of those incredibly complex cultures; then he argues that the difference between Chinese and American society is proved by the fact that the Chinese god of long life is not erotic, whereas the virgin and child chosen to represent "Western Civilization" are; the Shiva lingam and phallus-headed Japanese long-life god represent intermediate stages. This sort of work would receive a failing grade if it were done by a graduate student.

But even if one ignores all the difficulties and attempts to put Hsu's hypothesis to the test in one's own work, one immediately encounters obstacles. How does one recognize a dominant dyad? What indeed does "dominant" mean? Even if I approach my data from Nepal with all the good will in the world, I am at a loss to understand how I am to decide upon one single most important kinship dyad. And my fate would be worse in a society where, for example, the mother's brother/sister's son relationship is important, since this does not figure in Hsu's system at all. Many of the contributors to this volume seem to be troubled by the same reservations that I have expressed here, and few find wholehearted support for the hypothesis in their data. A summation of the findings would show the hypothesis to be neither proved nor disproved, but simply inadequately formulated.

Some of the contributors take Hsu's glorification of his idea as a scientific hypothesis seriously and write articles which seek to imitate what they take to be science and to actually put the hypothesis to some kind of empirical test. These are generally the less successful papers. Some of them find the undeniable parts of the theory to be indeed undeniable, such as Rohlen's finding that there are similarities between the strong patrilineal systems of China and of Tikopia. But the question of causation, which is what might make the hypothesis interesting, is not touched, nor is the question of mechanism. Many contributors find it necessary to somehow amend the hypothesis in the light of their data; Edgerton, Fernandez, Kopytoff, and R. Berndt write papers with interesting and rich data, but end up finding Hsu's proposed attributes, as Berndt laconically puts it, "not sufficiently broad or precise" to deal with all the possibilities and permutations. The best article in the group which treats Hsu's hypothesis as a hypothesis is that by Hunt, who finds that the realities of the familial determinants of personality dynamics in his Mexican field community allow of no simple reduction to a dominant dyad, though he thinks that the search for universal attributes is an interesting and potentially fruitful one. The worst paper in this category is by Strodtbeck, who behind a smoke screen of hard statistics from his project on attitudes toward water pollution feels free to make the wildest imaginable generalizations about north central India and sex role differentials, revealing quite a remarkable degree of ethnocentrism, male chauvinism, and contempt for the subject of his research.

Other contributors take Hsu's more general concern with the inner dynamics and structural implications of family roles as a good jumping-off point to write articles of their own on the same subject. These tend to be the best articles in the collection. Barth writes a very elegant piece comparing the solutions to the problem of the male's achievement of independence in two patrilineal societies in the Middle East in terms of ecological determinants. Van der Veen shows how the core conflict with which Hsu deals is the problem of reconciling individual and group needs. Wallace contributes a very nice analysis of the content of the prophecies of the Iroquois prophet Handsome Lake in terms of the necessity of adjusting

kin relationships to new reservation realities.

Parsons gives a sweeping, speculative, and very intriguing paper examining the parallel dyads of husband-wife and brother-sister as metaphors or models for other kinds of social arrangements over the course of European history. Here his thinking is congruent with the recent work of David Schneider and Terence Turner on the subject of the elementary forms of kinship, converging on a more sophisticated statement of systems theory with refinements from Lévi-Strauss, Piaget, symbolic analysis, and other such sources. One is struck by the contrast between this style of Parsonianism and the kind represented by much of the less interesting work in this volume: it was the application of wholly inappropriate empiricist-positivist pseudoscience methods and attitudes that led to the disaffection of many contemporary anthropologists with what they took to be Parsonianism, not the system itself, which I think will only now begin to emerge with its real virtues appreciated.

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Marine Invertebrates

Experimental Coelenterate Biology. HOWARD M. LENHOFF, LEONARD MUSCATINE, and LARY V. DAVIS, Eds. University of Hawaii Press, Honolulu, 1971. x, 282 pp., illus. $12.

This small book is very much what the title proclaims and, as well, presents reviews and original findings by the editors, two visiting instructors (R. Mariscal and A. Reed), and a group of 15 graduate students. The impetus came from a program sponsored by the National Science Foundation, devised by the staff of the Hawaii Institute of Marine Biology, and utilizing the facilities of the Institute's laboratory on Coconut Island, Oahu. The intent of the program was to train graduate students in experimental research. No single aspect of coelenterate biology was selected for the program, although the approach was primarily biochemical. The volume is divided into four parts, which speak for the breadth of approach, as follows: Growth and Development; Feeding Behavior, Food Transport, and Metabolism; Endosymbiosis with Algae; and Calcification. No research is reported on neurophysiology, an active field of coelenterate biology, and behavioral studies are limited to feeding behavior. Nor are any of the reports ecological, although some of the results obtained have ecological implications. The research was carried out in 1967.

Of particular value are the introductory chapters by various of the editors to each of the four sections of the book. The section Growth and Development is introduced by two chapters, one by Lenhoff and one by Davis. Lenhoff's chapter is interesting, not because of its breadth as a review, but because of his attempt to elucidate the principles of coelenterate culture methods. Surely the particular success in the raising of various hydras is largely responsible for the detailed advances in knowledge that have come from study of these beasts. Davis provides in his chapter a careful review of culture methods for colonial hydroids and a useful discussion of stolonal growth and elongation. The introduction to the section Feeding Behavior, Food Transport, and Metabolism by Lenhoff is divided between a review of the chemical control of feeding behavior and a more general review of work on the metabolism and biochemistry of coelenterates. His review draws heavily on work of his own and his collaborators. Buried in this section of the book is a particularly useful appendix to a chapter by Mariscal. This consists of a revised key, with illustrations, to coelenterate nematocysts. The two final sections of the book are introduced by chapters by Muscatine. These are both scholarly chapters and are important and useful reviews of the endosymbiosis of algae and coelenterates and of calcification in corals. No one should begin a study of these subjects without thoughtful use of these chapters.

Science (**160**, 1141 [1968]) carried a report of the program that gave rise to this volume and a succinct summary of the research findings that are published in it. These need not be reviewed again here. However, the book has an unusual aspect. The introduction states that 8 of the 25 papers (chapters) have already appeared in scientific journals. From the footnotes of chapters 8 through 11 and 13 through 16, one can determine where and by whom these eight papers were published. No further comment may be called for than to note that of these eight previously published papers all ascribe a junior authorship to Lenhoff, while Muscatine and Davis share a junior authorship along with Lenhoff on one paper each.

Current and future students of coelenterates will find this volume a handy general reference, and it deserves a place in the library of anyone interested in marine biology.

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Electrolysis

Ionic Interactions. From Dilute Solutions to Fused Salts. S. PETRUCCI, Ed. Academic Press, New York, 1971. Two vols. Vol. 1, Equilibrium and Mass Transport. xiv, 410 pp., illus. $19.50. Vol. 2, Kinetics and Structure. xiv, 282 pp., illus. $16.50. Physical Chemistry, vol. 22.

These volumes, part of a series under the general editorship of Ernest M. Loebl, set out to cover diverse sources of information on ion-ion and ion-solvent interactions in the entire range from dilute solution to fused salt. Equilibrium and transport properties are examined in the first volume both to see how they give insight into ionic interactions and, because of their practical importance, to see how these properties can be predicted or correlated from a consideration of ionic interactions. Statistical mechanics forms the basis for discussion of the Debye-Hückel electrostatic theory, ion pairing, and conductance. (Debye's model is frequently referred to as the "primitive" model, the implication being that something better is available.) Extensive attention is devoted in the second volume to experimental means of determining what species are present in the solution—to infrared, Raman, ultraviolet, and visible spectra. The dynamics of solvation and relaxation from a perturbation in pressure or temperature provides additional insight into the species present and their lifetimes. Absent are nuclear magnetic resonance spectroscopy, x-ray investigation of radial distribution functions, studies of the kinetics of reactions of ions in solution, and a consideration of the kinetic theory of liquids.

The authors provide a good introduction to the literature and, in a very complex field, give a passable account of theory and results. At times, it should be mentioned, this becomes