To the specialist in biological taxonomy and evolution we shall leave the evaluation of the book's contribution to the physical sciences. As cultural anthropologists, the reviewers were mildly distressed by the shaky philosophical scaffolding which the author deemed it needful to construct to support the "*new* new systematics." This distress was generated by two difficulties: first, a failure to exploit the resources of formal logic and semantic theory in the service of scientific taxonomy; and second, by a curious and unnecessary dependence on the argument that a given classification is better than another because it is more "natural." The insistence upon this point is particularly surprising in view of Simpson's expressly stated convictions that "some classifications pertain to a wider range of inductions or to more meaningful generalizations than others and are in that sense 'better,' or more useful" and that "there cannot be one ideal and absolute scheme of classification for any particular set of objects, but . . . must always be a number of classifications, differing in their basis according to the purpose for which they have been constructed" (p. 25). The view that a principle criterion of the worth of a classification is the "naturalness" of the categories generated by it must appear naive to anyone accustomed to the comparative study of kinship systems, or of any other kind of folk taxonomy. To argue that it is more "natural" to classify animals on the basis of phylogenetic relationship than to do it on the basis of morphological similarity is like arguing that it is more "natural" to classify kinfolk by an Eskimo than by a Crow kinship system. The only justification needed for the *new* new systematics is that it makes distinctions, and permits a nomenclature, which are maximally meaningful and useful to the people using it, here and now.

OTHER

The Strategy of Conflict. THOMAS C. SCHELLING. Cambridge: Harvard University Press, 1960. vii, 309 pp., 2 appendices, 36 figures, index. $6.25.

Reviewed by ALLAN D. COULT, *University of California, Davis*

The author is primarily concerned with delineating models of bargaining behavior which are presumably useful in studying the empirical procedures by which individuals or groups attempt to optimize their gratifications through the process of negotiation with other individuals or groups. The models are of two types, i.e., verbal models, and their mathematical analogues. The latter are patterned after various types of models familiar in game theory; Schelling states that his entire subject "falls within the theory of games." He maintains that bargaining behavior is best represented in terms of a non-zero-sum game, although game theory has been mostly concerned with zero-sum games. This characteristic of bargaining is due to the desirability of coordination between participants which is ruled out, by definition, in zero-sum games.

The verbal models of bargaining outlined in the book appear to be very useful and worth a good deal of study, but the mathematical models supplementing them add little except a demonstration that it is possible to represent one model in terms of the other. Schelling, himself, recognizes the limitations of mathematical models in stating that "the mathematical structure of the payoff function should not be permitted to dominate the analysis" (p. 162), and in arguing that "players" not only are influenced by the nonmathematical aspects of bargaining but that they *should* be influenced by them (p. 108).

A discussion of the nonmathematical properties of bargaining is recurrent throughout the book with frequent emphasis on the role of tacit agreements. It is demonstrated that agreement over boundaries, of whatever nature, is frequently a function of the tacit recognition of certain qualitative differences, which, because of their *Gestalt* character, cannot be resolved into quantitative terms. Agreement, therefore, occurs be-

cause the various participants share a common psychological structuring of phenomena. (The discussion of the role of *Gestalten* in boundary determination shows an interesting convergence with ideas developed by G. Bateson [Ruesch and Bateson, *Communication*, New York: W. W. Norton and Company, Inc., 1951]). The reader may recognize that this constitutes one of the many alternative formulations of the concept of culture.

For this reviewer, Schelling's most interesting idea is that in bargaining the advantage frequently is with the person who lacks a certain type of information, providing that the other participants are aware of this ignorance. A simple example of this is provided by the author in outlining a situation wherein two persons desire to meet with one another. If A knows where B is and B knows that A knows, and if B does not know where A is and A knows that B does not know, then B's lack of information constitutes an advantage since he has only to remain where he is and A must come to him. Many more serious possibilities of the advantages of ignorance are pointed out by Schelling, particularly in reference to international diplomacy. The reader is shown that in bargaining it is as important to know when not to have information as to have information.

As Schelling recognizes, this study does not set forth a model of the entire field of conflict but focuses mainly on those elements which are analogous to nonzero-sum games. A complete model would entail, among other things, a discussion of the elements analogous to zero-sum games. Such an analysis may be found, for example, in L. Hart's *Strategy* (New York: Fred A. Praeger, Inc., 1946).

With the above restrictions, Schelling has presented a very useful development in the metatheory of conflict and his ideas will, no doubt, serve as one of the foci of further advancements in this area.

Science and the Structure of Ethics. ABRAHAM EDEL. (Vol. II, No. 3 of International Encyclopedia of Unified Science.) Chicago: University of Chicago Press, 1961. iv, 101 pp., notes. $2.25.

Reviewed by ETHEL M. ALBERT, *University of California, Berkeley*

In this slim volume, Professor Edel summarizes his theory of the relation of science, especially psychology and social science, to ethics, drawing on his numerous publications on the subject. (Cf., for example, *Ethical Judgment: The Use of Science in Ethics*, reviewed in AMERICAN ANTHROPOLOGIST 57:1348–49, and May Edel and Abraham Edel, *Anthropology and Ethics*, reviewed in AMERICAN ANTHROPOLOGIST 62:533–43.) Part I, "The Nature and Complexity of the Problem," indicates the different ways in which science may be relevant to ethics, viz., "*the place of scientific results in ethical theory, the role of scientific method in ethical theory*, and *the impact of the scientific temper in ethical theory*" (p. 1, author's italics). The possible uses of science to develop a more satisfactory ethical theory than is at present at our disposal are then explored. Part II, "The Theory of Existential Perspectives," is concerned with the different bases, e.g., scientific or theological, of diverse ethical theories. Suggestions are offered as to the ways in which biological and social science might be used in ethical theory. In Part III, "The Role of Science in Conceptual and Methodological Analysis," the author outlines a theory of the way social-behavioral science could be used in evaluation. The concluding section, Part IV, "Decision, Freedom, and Responsibility," presents the thesis that ethical situations subjected to suitable psychological analysis will appear more determinate than at first sight. It suggests a solution for the time-worn problem of free will in ethics and determinism in science. This is a convenient brief statement of Professor Edel's ethical theory, suitable as summary for those who know his writings and as a simple, systematic introduction for those who do not.