Book Reviews

Keeping Our Habitation Habitable

Future Environments of North America. Transformation of a Continent. Proceedings of a conference at Warrenton, Virginia, April 1965, sponsored by the Conservation Foundation. F. FRASER DARLING and JOHN P. MILTON, Eds. Natural History Press, Garden City, N.Y., 1966. 785 pp., illus. $12.50.

The scenario of this conference is good, the proceedings are frequently eloquent, and the cast, approximately 40 scholars of various disciplines in the life sciences and social sciences, has high professional qualifications, but the resulting volume has several shortcomings. The central themes are neither clearly identified nor directly addressed. The reader is left hanging; although he has gone through some good territory, the path has been circuitous, and it is not always clear where it has led.

The purpose of the conference, as announced by its chairman, Frank Fraser Darling, was to "ponder the implications of the increasingly dominant influence of man upon his environment." The book is arranged in six major sections—(i) The Organic World and Its Environment, (ii) Regions: Their Developmental History and Future, (iii) Economic Patterns and Processes, (iv) Social and Cultural Purposes, (v) Regional Planning and Development, (vi) Organization and Implementation—each of which includes invited papers from five or six authors, along with general discussions which the papers prompted. Divergence is as broad within the sections as between them. There is no clear beginning and end, and hence few substantive conclusions to be drawn. Indeed, there is no common idiom that carries through the discussion. Yet, perhaps surprisingly, the book is very good reading and is probably a significant volume.

Most of the concern reflected in the volume is related to three broad questions: (i) How should we conceive the environments of North America, and what are appropriate goals for their management? (ii) Through what intellectual apparatus—concepts and methods of analysis—can the key relationships within these environmental systems be identified and analyzed, and what information concerning these systems is needed for management purposes? (iii) Through what institutions or system of incentives can an improved program for environmental management be designed and implemented? These questions are important and sturdy, and despite the absence of a common language the conferees went a good way in responding to them, although with differing degrees of consensus. The volume would have benefited greatly by a concluding chapter written after the conference had adjourned, delineating the extent of agreement, which is difficult to ascertain from the published record. From the recorded discussions, the following positions emerge on these three general questions.

The way the environment is conceptualized is, of course, closely related to the goal orientation of the perceiver. Thus, it is not surprising to find the discussion backing into familiar argument—and at times polemics—concerning the similarities and differences between ecology (as a surrogate for the biological sciences) and economics (as a proxy for the social sciences). At issue are a set of related questions: which should be dominant in structuring an investigation of human activities on the planet; whether economics and ecology are mutually exclusive philosophically; whether beneficial cooperation is possible, and whether they simply address entirely different and unrelated phenomena.

After preliminary skirmishes, symbiosis is proposed. Parallels between economics and ecology are suggested in the concepts they employ (equilibrium, development, population, and exchange), and on the basis of which empirical investigations have been undertaken in both fields. The relationships investigated by the two sciences, although sometimes similar, are observed through quite different parameters. Happily the false dichotomies of concern for man versus concern for nature, and population control versus resources management, are exploded at several points in the conference. Opportunities for the complementary application of economics and ecology to environmental problems are suggested by both camps. The central problem of perceiving environmental management as being implemented within a system—whether or not prefaced by "eco"—in which relevant variables can be identified and central relationships quantified is stressed. Ecology is looked to for providing the basic information with which such a system can be specified, while economists are seen as having a methodology and techniques of analysis useful in identifying alternative management options and contrasting them on the basis of significant social parameters. The volume thus leaves us with a sense of optimism about new insights that will be forthcoming from future teamwork between these two disciplines, but says little about how this will evolve. Nevertheless, if the conference lays to rest the notion of their mutual antagonism, which in the past has significantly hampered their joint application to problems of environmental management, it will have achieved a major purpose.

The question of time—whether environmental management programs should be relatively conservative (implicitly favoring the future) or more depleting (implying greater emphasis on the present)—is raised but not analyzed. The social scientists in the discussion do not extend economic logic to the question of comparing values secured at different points in time.

With respect to the conceptual and methodological tools required for the investigation of environmental systems, there appears to be general agreement that a number of disciplines should participate and that no one of them can generate all the information required. No consensus is apparent in the volume as to whether the design of environmental management research is to be a multidisciplinary or interdisciplinary exercise. Although the difference between them is mentioned at several points, the full implications of the two approaches are not developed. The specific problem of establishing an adequate information system for environmental management

is not broached directly, nor are criteria mentioned that can indicate what constitutes adequate information for various levels of management decision.

On the question of planning and implementing environmental management, attention is focused on the need for affected parties to play a more decisive role than in the past. The conferees correctly stress the importance of designing better institutional arrangements to permit interested parties to perceive, articulate, and bargain over proposals for environmental alteration.

The volume closes with an address by Lewis Mumford which cautions against planners' preoccupation with history, suggesting that social values derive from man's purpose, not his past. He concludes that unless we identify that purpose in its full—not merely marginal—dimensions, we will be carried along by historical momentum and rendered incapable of doing more than pondering our future environments as the inevitable consequence of the past.

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Sex Roles: Biology and Culture

The Development of Sex Differences. ELEANOR E. MACCOBY, Ed. Stanford University Press, Stanford, Calif., 1966. 361 pp., illus. $8.50.

The psychology of sex differences is a hardy perennial that never remains below the surface of active inquiry for longer than a generation. The contemporary revival takes its nurture from diverse sources. New evidence for biological factors comes from naturalistic observations of primates and the dramatic behavioral consequences of experimental alteration of hormone levels early in life. The recent theoretical emphasis on a person's perceptions of his role, which is supplementing the traditional preoccupation with motives, naturally generates a concern with sex role behavior. Thus the probing of sex differences is a natural derivative of a basic change in theoretical outlook and a series of empirical surprises.

There have not been many summaries of this new material, and Eleanor E. Maccoby of Stanford University has done a service by bringing together in this volume five essays—three psychological, one anthropological, and one physiological—with an epilogue and a 100-page annotated bibliography. Each of the essays is a relatively independent entity, and each contains pockets of provocative information.

David A. Hamburg and Donald T. Lunde, summarizing the relation of hormonal factors to behavior, note that if androgen is administered to pregnant primates, subsequent female pseudohermaphroditic offspring show activity levels and threatening postures that resemble the behavior of the normal young male. Other experimental work suggests that hypothalamic centers are influenced by both castration and altered hormonal levels during the early days of life. These changes in neural organization have a profound influence on future behavior.

The cross-cultural observations are congruent with some of the biological differences. Roy G. D'Andrade's discussion of cross-cultural uniformity in the assignment of instrumental roles indicates that dangerous activities are assigned predominantly to males, whereas harmless domestic tasks are given typically to the female. Preschool boys in various cultural settings are more likely to be aggressive than are girls; girls are more likely to show affection and nurturance to peers. The physiological, primate, and cross-cultural data are refreshingly consonant and argue strongly for fundamental neurological and physiological differences between male and female, with cultures responding to these differences in the assignment of tasks and the establishment of patterns of reward and punishment.

When we move much closer to the problem and turn our eye toward psychological dimensions within our own society, the differences between boys and girls seem less stark and can be interpreted as the product of experience, if one wishes. Maccoby's essay on intellectual processes posits a fundamental dimension in problem-solving tasks running from inhibition to boldness, with overlap of the sexes only in the middle range. Extreme passivity and inhibition are assumed to be characteristic of more females than males, extreme boldness and impulsivity in intellectual approach characteristic of more males than females. This dimension, which clarifies some of the data, could be the product of different socialization practices, with or without the catalytic action of biological factors.

The single theoretical debate matches Walter Mischel and Lawrence Kohlberg in the two middle chapters. Mischel proposes a simplifying hypothesis—sex differences in behavior are the result of selective praise and punishment and the child's imitation of appropriate sex models. Boys play baseball because they expect a favorable social reaction for this behavior and because they see other boys do it. There is no doubt that the incentive of social acceptance and the imitation of models are vital, but Mischel does not engage the critical issue that Kohlberg is most concerned with, namely, why do boys imitate a male model? Kohlberg argues for cognition and makes the child less passive to the vicissitudes of the environment. The young child is learning labels for many objects in his experience: apples, cows, books, and—himself. When he learns that he is called "boy," and recognizes the relation between that label and the actions and values of other objects that share that name, he drifts toward the selective adoption and rejection of sex-appropriate behaviors, independent of the action of the social environment. He has learned a category and rushes to elaborate it. A boy will want to climb a mountain or burglarize a gas station because he has learned that these actions are partial operational definitions of the concept "male." Much of the controversy between Mischel and Kohlberg stems from the fact that they are concerned with slightly different dependent variables. Mischel wants to explain the external topography of behavior; Kohlberg is interested in the internal elaboration and labeling of the self.

The annotated bibliography covers the standard motivational categories of aggression and dependency, as well as cognitive processes, and, although selective, is of value. The text's soft spots can be noted succinctly. The essays are uneven, and despite the Mischel-Kohlberg debate have little connecting theme. The authors generally subordinate theoretical integration to summary of the literature, and Sanford M. Dornbusch's attempt to synthesize the material cannot bear the burden that belongs to all. Nonetheless, the book is timely and well written and will be helpful to those who appreciate and seek to understand *la différence*.

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