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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