

PREFACE

I have written this book with two purposes in mind. It is structured as an introduction to evolutionary theory and genetics for anthropology students, but it also presents a point of view which I hope will be of some value to my colleagues. This point of view grows out of Darwinian evolutionary theory and represents an extension of it to problems of human behavior including culture. I have attempted to place my view of "cultural evolution" within the context of the biological model and to offer both a criticism and an analysis of previous views of human behavior within the evolutionary framework. The book begins with a section on evolutionary theory and genetics. This is followed by a summary presentation of behavioral genetics and behavioral evolution. The second section is offered as a bridge between classical genetic and evolutionary theory and an analysis of culture. The last section examines social evolutionary theories and presents an extension of the biological model to human behavior. The final chapter offers some potential empirical applications.

In writing this book I have attempted to draw on pertinent data and theory from the fields of biology, ecology, psychology, anthropology, and cybernetics. Cybernetics provides a key to an important aspect of evolution: the development of self-regulating or

homeostatic systems. These systems are in effect the outcome of evolution. They must be analyzed from two points of view. First, they must be viewed as structures in which internal organization is geared to efficient operation. Changes in one aspect of internal organization therefore affect other aspects of the system. Second, these systems exist in time and space (their specific environments) and can be fully understood only in terms of the environmental pressures which have affected their development. The environments of these systems consist of both their physical surroundings and other populations of the same and different species with which they interact.

I am indebted to a host of scholars for the ideas presented in this book. My thinking has been particularly stimulated by the works of Theodosius Dobzhansky, Ernst Mayr, George Gaylord Simpson, and W. Ross Ashby. In addition, I owe a debt to Morris Goodman, whose writing on the evolution of primates has been particularly thought-provoking.

Course work with Clellan Ford of Yale University sparked my original interest in the relationships between biology and culture, and conversations with my colleagues at Columbia University, particularly with Andrew P. Vayda, Paul Collins, and Marvin Harris, have helped to sharpen my focus on this subject.

A summer at the Institute of Behavioral Genetics at Berkeley stimulated my interest in the genetic aspects of mammalian behavior.

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