

Behavior of NONHUMAN PRIMATES

MODERN RESEARCH TRENDS

EDITED BY

Allan M. Schrier, Harry F. Harlow, Fred Stollnitz



VOLUME II



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To our wives, Judith, Peggy, and Janet

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Preface

Research on the behavior of nonhuman primates has mushroomed in the last decade. Not many years earlier, primate behavior was a major area of study in only two laboratories in the United States, and only a few isolated field studies had been made. Today, in addition to the pioneering Yerkes Laboratories of Primate Biology and the University of Wisconsin Primate Laboratory, there are primate behavior laboratories in many university psychology departments and government research institutions, and long-term field studies have become almost common. But the wealth of new data on primate behavior is relatively inaccessible to most behavioral scientists. It cannot be described adequately in books covering the wider field of animal behavior or comparative psychology, and the original research reports are scattered through hundreds of volumes of scientific journals.

To make a substantial part of this new knowledge of primate behavior more readily available, we have tried to obtain thorough and up-to-date descriptions of fifteen important research areas. The resulting volumes do not include every study in the literature on primate behavior; rather, each of the chapters attempts to give a coherent, integrated view of its particular area. Some historical background is provided, but the emphasis is on modern research trends. We hope that these chapters will provide new perspectives not only to researchers using nonhuman primates as subjects, but also to other readers—for example, to those who are mainly interested in human behavior but are also curious about man's closest relatives, and to those who study rat behavior but wonder how well rodent results (and rodent theories) can be extrapolated to primates. Studies of nonhuman primates have already been influential in the conceptual development of the behavioral sciences; this influence may well increase as work on primate behavior becomes better known.

We have assumed that many readers would be familiar with the study of behavior, but not necessarily with concepts and techniques specific to primate research. Each chapter either describes techniques and problems fully enough for nonspecialists or provides cross-references to detailed descriptions in other chapters. In addition, Volume I, which concentrates on studies of learning and problem-solving, starts with a chapter that emphasizes methods used in many of these studies.

Nonhuman primates are referred to by their vernacular names in this book. Identification of some animals presents special problems, which are discussed further in the Appendix, but we may note here that the scientific name is also given in each chapter the first time that a particular vernacular name is mentioned. A classification of living primates is presented on the endpapers of each volume. Although very little is said about the prosimians in this book, we believe that this gap in our knowledge is temporary and that the approaches to behavior that have been so fruitful with apes and monkeys will soon be extended to the prosimians.

In acknowledging our gratitude to others, we recognize immediately our double debt to the authors, who literally made these volumes possible. We thank them first for their contributions, which reflect their high competence as researchers and scholars, and second for their cooperation with editors who thought that their specialties might be of interest to nonspecialists and tried to edit accordingly. We are also grateful to a number of other people: Harold Schlosberg, the late chairman of the Brown University Psychology Department, who was an encouraging and understanding friend; other members of the Department, who provided valuable advice on several questions related to their special areas of interest; Kathryn M. Huntington, who tirelessly typed and retyped manuscripts in various stages of revision; Richard A. Lambe and Karen E. Lambe, who were an excellent proofreading team; Vicky A. Gray, who gave editorial assistance in a variety of ways; and Kenneth Schiltz, who labored through the University of Wisconsin's photographic files to find figures for several chapters. Preparation of this book was supported in part by U. S. Public Health Service Grant MH-07136, from the National Institute of Mental Health.

April, 1965

ALLAN M. SCHRIER
HARRY F. HARLOW
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Chapter 8

The Affectional Systems¹

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I. INTRODUCTION

One of the many ways in which primates differ from other animals is in the strength, duration, and diversity of their affectional systems, systems which bind together various individuals within a species in coordinated and constructive social relations. Five affectional systems may be described for most primate forms. Each system develops through its own maturational stages and differs in the underlying variables which produce and control its particular response patterns. Typically the maturational stages overlap rather than being discrete during the course of

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