MOTIVATION

BIOSOCIAL APPROACHES

STEPHEN B. KLEIN

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McGRAW-HILL BOOK COMPANY
New York St. Louis San Francisco Auckland Bogotá Hamburg
Johannesburg London Madrid Mexico Montreal New Delhi
Panama Paris São Paulo Singapore Sydney Tokyo Toronto

To my wife, Jan,
and my children, Dora, David, and Jason,
for their encouragement, understanding,
and love

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234567890DODO898765432

ISBN 0-07-035051-5

This book was set in Goudy Old Style by Black Dot, Inc. (ECU).
The editors were Patricia S. Nave and Susan Gamer;
the designer was Anne Canevari Green;
the production supervisor was Dominick Petrellese.
The drawings were done by VIP Graphics.
R. R. Donnelley & Sons Company was printer and binder.

Library of Congress Cataloging in Publication Data

Klein, Stephen B.
Motivation: biosocial approaches.

(McGraw-Hill series in psychology)
Bibliography: p.
Includes indexes.
1. Motivation (Psychology) I. Title. II. Series.
BF503.K53 153.8 81-11741
ISBN 0-07-035051-5 AACR2

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PREFACE

My children recently asked me why I wanted to write this book. After I described several reasons which I believe motivated me, they seemed convinced of my insanity. Their question is not atypical; people frequently want to know the reason for their behavior or the behavior of others. The aim of this textbook is to describe discoveries which have been made during the past hundred years about the motivational determinants of behavior.

The chapters fall into three sections, or groups. The first section, Chapter 1, describes the history of motivational thought. You'll see the changes which have occurred in the psychological view of motivation during the past century and how contemporary motivational thinking has been shaped by the ideas developed during the past.

The second group of chapters (Chapters 2, 3, and 4) focuses on the three major processes governing motivated behavior. Chapter 2 details the concept of drive, a theory which assumes that impulse automatically motivates behavior. Chapter 3 looks at the cognitive approach, a view which theorizes that behavior is flexible and is guided by the expectation of gaining a desired reward or avoiding an unpleasant event. Chapter 4 presents biological systems which have an important influence on all motivated behavior. Some biological systems affect all motivated actions; others influence only specific behaviors. The internal processes which control all behaviors are described in Chapter 4. The biological systems which govern specific motivated responses are detailed in the third group of chapters.

Whereas Chapters 2 through 4 describe the general processes which motivate all behaviors, Chapters 5 through 13—the third group of chapters—detail the motivational basis of nine separate behaviors. To illustrate the influence of the basic processes which guide motivated behavior, a wide range of behaviors are presented: Chapter 5 discusses the motivational basis of eating behavior; Chapter 6 describes the processes which motivate sexual behavior; Chapter 7 presents the determinants of aggressive actions; Chapter 8 details the causes of depression; Chapter 9 discusses the motivational basis of

affiliative behavior; Chapter 10 describes the processes which motivate achievement behavior; Chapter 11 presents the factors which enable us to behave consistently; Chapter 12 details the processes which motivate people to adhere to social norms of acceptable behavior; Chapter 13 discusses the motivational basis of cooperation and helping behavior. The wide range of behaviors presented in this third group of chapters will give the instructor enough flexibility to structure a course to suit his or her specific goals and allow the student to see how the basic principles detailed in Chapters 2, 3, and 4 apply to specific motivated behaviors.

This text presents the important contributions of both animal and human research since both are crucial to our understanding of the motivational basis of behavior. In many instances, animal experimentation and human experimentation have yielded identical results, indicating the generality of the processes governing a specific motivated behavior. In some situations, only animal research can be ethically conducted; in others, only human research can identify the motivational basis of activity which is unique to people. This text describes the research necessary to illustrate the motivational basis of particular behaviors.

Several features have been incorporated into this textbook to increase the relevance of the abstract concepts which govern motivated behavior. At the beginning of each chapter is a vignette intended to give you a preview of the material to be presented in that chapter as well as to stimulate your interest. Many real-world examples of motivational concepts provided throughout the text will, it is hoped, allow you to see how the abstract concepts detailed in the text actually determine motivated behavior. Applications of the basic concepts described in the textbook are included to demonstrate that the basic motivational principles have been successfully used to alter behavior. My students have appreciated the balanced approach between a description of basic motivational processes and a presentation of how these basic principles produce a specific behavior. I hope that you, too, will like this approach.

This textbook has had input from many people. I thank the students in my motivation classes who read drafts of the chapters and pointed out which sections they liked, which they disliked, and which were unclear. Not only was their feedback very helpful to me, but I'm certain that it contributed to the readability and the quality of the text. Two of my students, Sue Rosenberg and Margaret Zimmerman, read most of the chapters and made extensive suggestions; their help is greatly appreciated.

I also thank my colleagues who reviewed chapters of this text. I am especially grateful to Dr. Janusz Grezak, University of Warsaw, Poland; Dr. Leonard Hamilton, Rutgers—The State University; Dr. Robert Hicks, San Jose State University; Dr. Phyllis Hornbuckle, Virginia Commonwealth University; Dr. Milton Trapold, Memphis State University; Dr. Robert Wilson, West Virginia College of Graduate Studies, and Dr. Barbara Winstead, Old Dominion University, for their special contribution to the text.

The staff at McGraw-Hill played an important role in the creation of this text. The psychology editors, Nelson Black and Pat Nave, guided the development of the text from its inception to this final product. Susan Gamer, the editing supervisor, ensured that the text was not only easy to read but also esthetically appealing.

The contribution of my wife, Jan, is difficult to put into words. She deciphered the first draft of every chapter, made useful comments, and typed—and retyped—the manuscript. Without her great effort, patience, and support, this book could not have been written. I apologize to my children, Dora, David, and Jason, for the time they spent alone while their parents worked on this text and appreciate their understanding during the two-year period of preparation. I only hope that they will feel their sacrifice was worthwhile.

Stephen B. Klein

CONTENTS

CHAPTER 1

HISTORICAL VIEWS OF MOTIVATION

The joy of discovery

Laura entered college 3 years ago to become an anthropologist. Her interest in primitive cultures had been stimulated by Margaret Mead's writings. However, during the past year, several psychology courses have proved more exciting and challenging than her anthropology classes, and she now wants to obtain a degree in clinical psychology. Laura's interest in psychology has also been spurred by her younger brother Jonathan's addiction to heroin. Jonathan, an outstanding student before his addiction, became dependent upon drugs, quit school, and finally ran away from home. Laura has become determined to understand the factors which motivate addictive behavior and to learn how to contribute to the development of an effective therapy for drug addiction.

Dr. Bellamy, Laura's advisor, suggested that she enroll in a course in motivation to meet the psychology department's degree requirements. Studying rats and countless experimental results did not appeal to Laura; in fact, she dreaded taking this course. She was interested only in people and wondered how the course could benefit her. But she was afraid that not taking the class would influence Dr. Bellamy's evaluation of her for graduate school, and so she enrolled.

Laura soon discovered that her preconceived idea of the motivation course was wrong. She found that human and animal research complement each other in revealing the nature of the processes which motivate behavior. The experiments, far from being boring, made the motivational principles described in class seem realistic. Laura learned that many factors determine (or motivate) a person's behavior; some of these factors increase, while others decrease, the likelihood of certain behaviors. The class taught her how basic research has stimulated the development of techniques for modifying behavior and how an understanding of the principles of motivation benefits even the most ardent student of clinical psychology.

Another important idea which Laura

gained from the course was an appreciation of the fact that although psychology has changed dramatically during the past two decades, contemporary thought about motivation represents a synthesis of theories proposed by previous generations of psychologists. She had expected to find early psychologists and their ideas irrelevant; instead, she came to see that these ideas have shaped modern psychology. Laura discovered that although psychologists in the past attempted to use a single approach to describe the motivational process, contemporary psychology recognizes that several processes motivate our behavior. She learned that both biological and psychological factors motivate behavior and that the motivational process is governed by complex, yet lawful, principles. Laura now feels that the knowledge gained from the class will undoubtedly help her develop an effective treatment for addictive behavior.

You will discover from this text what Laura learned about motivation in her course. I hope that your experience will be as positive as hers. The discussion begins by tracing the history of motivational thought.

EARLY PHILOSOPHICAL THOUGHT

Last year, my 8-year-old son participated on a local recreation league flag football team. When asked why he wanted to play, he responded, "To get a trophy." His older brother had earned several trophies playing ball; he too wanted one. My son's response suggests that he was aware of the reason why he wanted to play football, and he freely chose to participate in accordance with his motivation. His behavior illustrates the manner in which early philosophers such as Aristotle and Plato portrayed human nature. They believed that people have *free will* and that behavior is governed by intellect and reason. Thus, if we behave in a socially inappropriate manner, we have freely chosen that behavior and are, therefore, accountable for our actions. Although many contemporary psychologists no longer accept this view of human nature, the "free will" view of human behavior still dominates our social and legal system. Our society generally views those who commit crimes as doing so willfully. Being accountable, criminals are expected to pay for their freely chosen, but unacceptable, behavior by fine or imprisonment.

In the late seventeenth century, René Descartes described his dualistic view of animal and human behavior. He believed that different processes motivate animal and human action. Descartes proposed that animals are similar to machines in that their behavior is mechanistic and determined by their internal processes—instincts and reflexes. Unlike human beings, they have neither reasoning abilities nor free will. Having no "mind," lower animals cannot be held accountable for their behavior. Human beings, on the other hand, are capable of determining their own fate; the mind controls their action, while the body determines the behavior of lower animals. According to the eighteenth-century philosopher Immanuel Kant, our knowledge and rationality should control our passions and our body. In 1859, Charles Darwin's *On the Origin of Species* challenged this idealized view of human beings as a unique and essentially cerebral species; his theory acknowledged the animal nature in all of us.

DARWIN'S INFLUENCE

The idea that the process which motivates the behavior of humans is distinctively different from that of lower animals came under attack during the 1860s; the controversy concerning the nature of human behavior still rages today. Charles Darwin proposed that the differences between humans and lower animals are quantitative rather than

qualitative, that the major force motivating all animals, including humans, is survival. Humans may be more adept at survival, but the same general process determines the nature of both humans and lower animals. According to Darwin, survival requires that animals and people possess specific characteristics—both behavioral and physical—which are *adaptive* to their environment. If an animal, either human or nonhuman, has these characteristics, it will survive. For example, a deer that can run faster than its predator will survive. In contrast, animals or humans that do not possess the adaptive characteristics will perish; the sluggish deer becomes the cougar's meal. Darwin's phrase *survival of the fittest* reflects his observation that in an environment with limited resources, only the able creatures will live to reproduce. An important—and obviously controversial—aspect of Darwin's theory is the assumption that humans are not unique but are motivated by the same factors that influence the behavior of other animals.

Theory of Evolution

As revolutionary as Darwin's evolutionary theory was, much of the alarm expressed by theologians and philosophers probably resulted from its misinterpretation rather than any inherent antireligious content. In fact, Darwin presented only a statement of the structure of our environment; his theory did not suggest a lack of guidance for this system. Darwin asserted that each successful species possesses characteristics enabling it to survive in a particular environment. When an environment changes, the species must either respond to that change or become extinct. If the environmental change is a slow one, some members of the species may adapt through adventitious genetic mutations, and others may possess characteristics adaptive to their new environment; they alone will live to reproduce, passing along to their offspring their adaptive characteristics. Thus, a species changes as a result of selective loss of some group members. For example, if an environment becomes colder, only those bears with a very thick coat will survive, and future generations of bears will have thicker coats than the average in the preceding generations. If the environment should continue to change, a different species of animal will evolve, a species adapted to the new environment. Unfortunately, too rapid a change in the environment typically results in extinction of a species. *Evolution* represents the changes of the behavioral and physical characteristics that a species undergoes in order to survive in a new environment. Knowledge of the evolutionary process is not limited to biologists. Cattle breeders have known for generations that a fatter or healthier breed of cattle can result from selective breeding. During "natural" evolution, the environment itself selectively breeds the members of a species, "choosing" which ones will survive and reproduce.

Darwin's theory shocked society and presented it with a controversy. The prevailing philosophical view suggested that humans—motivated by reason and knowledge—were unlike other animals. In contrast, Darwinian thought presented humans as motivated by the same biological pressures influencing lower animals. From this viewpoint, the forces motivating our behavior are beyond our control. The conflict between these two views of human nature—the *mentalism* of the early philosophers versus the *mechanistic* view of Darwin—has occupied the attention of many psychologists since the late nineteenth century. We turn now to psychology's response to this conflict.

Functionalism

To a great extent, *functionalism* developed to incorporate evolutionary theory into the earlier philosophical view of human nature. The functionalists expressed varied ideas concerning the mechanisms motivating human behavior; in fact, the only common

element among the functionalists was their belief in the adaptive function of behavior. According to John Dewey (1886), the mechanistic survival behaviors of the lower animals have been replaced in the human being by the mind, which has evolved as the primary mechanism for human survival. The function of the brain is to enable the individual to adapt to the environment. Thus, while Dewey's functionalism stressed the importance of survival and environmental adaptation—characteristics of Darwin's evolutionary theory—it retained the *dualism* evident in early philosophical thought by asserting that the manner of human survival is different from that of lower animals.

In contrast to Dewey's dualism, William James, a nineteenth-century psychologist, argued that the major difference between humans and lower animals is the character of their respective inborn or instinctive motives. According to James, human beings possess a larger number of instincts which guide behavior (for example, rivalry, sympathy, fear, sociability, cleanliness, modesty, and love) than lower animals do. These human social instincts directly enhance (or reduce) our successful interaction with our environment, and thus our survival. William James (1890) also concluded that all instincts have a mentalistic quality possessing both purpose and direction, attributes previously accorded only to humans. His is essentially a continuity theory, which—unlike Dewey's dualism—did not demand a distinctive break between humans and nonhuman animals. William McDougall expanded James's ideas into a major instinct theory of motivation.

McDougall's Hormic Theory

McDougall (1908) proposed that instincts are the most important determinants of human behavior. In his view, there are ten major instincts: flight, repulsion, curiosity, pugnacity, self-abasement, self-assertion, reproduction, gregariousness, acquisition, and construction. The first seven instincts operate by producing a distinctive emotional state which directly motivates behavior. For example, our flight instinct produces an internal fear, and the emotion of fear motivates avoidance of a dangerous event. Thus, instincts do not directly motivate behavior: the emotion accompanying the instinct produces behavior. According to McDougall, the last three major instincts do not produce distinctive emotions. The complexity of human behavior, in McDougall's view, is due to the combination of instincts and their distinctive emotions.

McDougall thought that an instinct represents an innate predisposition to perceive the presence of a particular object and to react emotionally to that object. This emotional reaction produces an impulse which causes us to respond in a specific manner to that object. McDougall named his approach *hormic psychology* (from the Greek *hormē*, "impulse") in order to convey the impulsive character of an instinct. As an example of his approach, consider sexual behavior: the presence of a sexual object stimulates the reproductive instinct. The tender emotion produced by this instinct creates the urge for sexual behavior.

There were several controversial aspects of McDougall's approach to motivation. *First, he did not envision an instinct as a reflexive response to an object; rather, he thought that an animal or human decides whether or not to behave.* This concept of self-determination, *vitalism*, was central to McDougall's theory. It implied that both animals and humans actively participate in the decision-making process. *Second, McDougall felt that an animal or human possesses knowledge of the purpose and direction of its behavior.* This awareness of the goal-orientation of behavior is called *teleology*. Many questioned McDougall's vitalistic and teleological approach to motivation; the idea that the supposedly human qualities of awareness and free will applied to animal behavior was difficult to accept. *Finally, McDougall believed that though learning could modify the behavioral response to an instinct and the type of situation arousing the instinct, learning could not alter the underlying*