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MOTIVATION

The Organization of Action

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Preface

The topic of motivation has long had an anomalous status in psychology. What is motivation, anyway? One can define its domain so broadly that it encompasses all of psychology, or so narrowly that it threatens to vanish entirely.

Despite this, one feels that the psychology of motivation must be an area of inquiry in its own right. After all, there are books about it. And yet it seems to me that most textbook treatments leave the reader still wondering, "Yes, but what is the field of motivation *about?*"

Most undergraduate texts on motivation fall into one of two classes. First, the book may be a collection of *theories*. It will have separate chapters on Hull, Freud, Heider, Maslow, and other prominent theorists.

Such books do provide an appetizing smorgasbord of ideas, but they have drawbacks. They tend to be badly out of date, treating Hull's theory as if it were a contemporary force (it is not), and Lorenz's theory as if it were held by all or even many ethologists (it is not). Then too, they emphasize points of difference and controversy at the expense of points of convergence and cross-fertilization. Many of them play off "animal drive-based theories" against "human cognitive theories," neglecting the interplay between animal and human research that characterizes much of the field, as in hunger and thirst, attachment, helplessness, and the convergence of operant and economic points of view.

Most worrisome of all, the reader of such texts is likely to come away with "Smith says this, Jones says that" as her or his conception of motivation. Inasmuch as Smith and Jones are probably talking about different things in the first place, this does not help the student to develop a coherent view of the field.

Books of the second kind are collections not of theories, but of *topics*. There will be a chapter on sex, a chapter on aggression, a chapter on

achievement, and so on, but with little indication of the ideas that cut across these topics and relate them to one another. Readers of these treatments will be in (temporary) possession of masses of data and of specialized interpretations, but little in the way of overview. When the grab-bag of facts is forgotten or outdated or both, what is the student left with?

The present text is an attempt to present a coherent overview of theory and research in motivation. Despite the great diversity of topics that are called "motivational," I think there are certain themes that underlie them —or if not all of them, at least adjacent ones, so that readers can move from topic to topic without ever finding themselves on wholly unfamiliar ground. In focusing on these unifying ideas, my attempt has been to build bridges rather than fences; to show how different traditions—animal and human, behaviorist and cognitive—complement and learn from each other.

My emphasis, then, is on the ideas that cut across specific topics of research and theorizing. A preview of these unifying themes will also provide a view of the organization of this book.

The first two chapters are introductory. Chapter 1 presents the field of motivation as dealing with the causation of action; it illustrates the methods by which we seek to determine the causes of action; and it presents three points of view—the psychodynamic, behavioristic, and cognitive—as to what the explanations will look like when we find them. Chapter 2 places these three points of view in historical context, showing the intellectual trends in Western society of which they are parts.

In the second section, we zero in on "simple," biologically based motivational systems. Chapter 3, dealing with hunger and thirst, introduces some fundamental ideas: negative feedback, the hierarchical organization of action, and the joint control of behavior by internal and external influences. Also fundamental is the concept of a multiple-control system. Drinking can be triggered by more than one input. And water-seeking behavior can be expressed by many different actions, including arbitrary learned ones. Indeed, the openness of the response class provides us a preliminary definition of goal-directed motivated behavior: If the actor will take whatever means is available to attain a goal, it is motivated. Throughout, a recurrent theme is that animal research has much to teach us about humans, if only by leading us to ask questions of human beings that would not otherwise occur to us.

Chapter 4, on sex and aggression, draws on these now-familiar concepts (especially the principle of joint internal/external control), and adds some new ones. We pick up the impact of *ethology* on motivational research. We examine the concept of *instinct*, and the distinction between goal-directed behavior, controlled by its consequences, and stimulus-bound behavior, controlled by its antecedents. Finally, we look at the important role of *culture* in human behavior. If our sexual and aggressive

repertoires are built up around an instinctive core—and they may be—still society selects from those repertoires, determining how, whether, toward whom, and in what circumstances aggressive or sexual action will be taken.

Chapter 5 considers how these multiple influences are organized and translated into action by the brain. We see how general principles of nervous system function—summation, inhibition, convergence and divergence—correspond to the principles of motivated behavior we have identified; and how they apply at many levels of organization, from control of muscle contractions to control of whole organized systems in the brain. Chapter 6 builds on these ideas to consider non-specific influences on behavior, and their mediation by non-specific physiological systems—the autonomic and brainstem arousal systems.

Chapter 7 considers some relatively simple cases of learned motives and incentives. Conditioning figures prominently here, as in conditioned reinforcement and conditioned-fear interpretations of avoidance. There are other mechanisms, however, that do not involve conditioning in the usual sense, such as imprinting and the mere-exposure effect. The opponent-process theory combines and reviews many of these ideas.

The third part of the book turns to the problem of purpose or goal-directedness in behavior. Chapter 8 presents the modern behaviorist view of purpose—reinforcement theory. A serious attempt is made to present this view both critically and accurately (most treatments do one or the other).

Chapter 9 presents the cognitive perspective on purpose. Here we meet a new and important idea, the role of representations or *images*; for example, cognitive maps and search images. We can then extend the definition of motivated behavior: An animal is motivated if it will take whatever action is available to attain an imagined goal. Again we have a negative-feedback loop, which acts to reduce the difference between the existing state of affairs and the imagined goal state. This process operates at multiple levels of the hierarchy, so we have Miller, Galanter, and Pribram's treatment of *plans*. Finally, one further step: If the actor can imagine various actions and their outcomes, then she can select, from among the actions so considered, the one whose imagined outcome has highest value. This takes us to *decision theory*, a framework on which much of the rest of the book is based.

Chapter 10 explores some ramifications of decision theory. Here we meet a delicious irony: Operant investigations, the prototype of modern behaviorism, and economic theory, a historical wellspring of modern cognitive psychology, are sharing ideas and findings. The unifying idea is that organisms must allocate limited resources—money for humans, time and energy for everybody. Ethological research finds a place in this melting pot, as in mate selection and foraging theory. Finally, building on the behaviorist insight that cognitive operations *are* actions, we see ourselves as operating under cognitive constraints—we make decisions

under limitations of time, energy, and ability. Solutions to that allocational problem include the *framing* of decisions and the use of decision strategies other than optimizing ones.

In the final section, we focus on human motivation, though still with an eye open for what other species have to teach us. Chapter 11 looks at points of contact between motivational and cognitive research. Decision theory implies a close partnership between subjective probabilities or beliefs (cognitive) and values or utilities (motivational). We examine the attribution process and the role of heuristics, schemata, and other cognitive shortcuts, both because they affect our beliefs and therefore our actions, and because they are solutions to the cognitive allocation problem: making sense of the world without too much expense in cognitive time and effort. We then turn to the search for cognitive coherence and clarity as a motive in its own right, with its derivatives, cognitive conservatism and cognitive dissonance. Next comes the question of motivational influences on cognitive processes: perception, memory, and judgment. Finally, we look at new points of convergence among old ideas: the cognitive alternatives to motivational explanations of prejudice and of "selfserving" attributions.

In Chapter 12 on emotion, we find that we need all the background we now have to understand contemporary thought. We move from brain mechanisms in emotion, through ethological studies of emotional expression, to the role of expectancies (Kagan), intentions (Mandler), and attributions (Schachter). We also see again the great importance of culture as a selecting influence.

Chapter 13 examines a selection of social motives. We begin with attachment, a topic that usually is not treated in books like this, though it ought to be. The treatment is extended to liking and loving, where we meet old friends in a new context—external arousal of motivation, reinforcement, and decision theory. We then look once again at culture, and try to see more specifically how its values become our values, and how these values, thus internalized, take hold of our actions.

In Chapter 14, we end our journey with a sample of more abstract motivational phenomena—achievement, helplessness, and the possibility of a self-actualizing motive. Here we see how even historical events and trends can be treated (1) as a source of useful data and (2) as instances of human behavior that our theories must account for. Then, as a final recapitulation of a theme, we consider the sociobiology of altruism, as a case study of how animal-based research and theorizing can raise—though not, by itself, resolve—fundamental questions about human motivation.

Oscar Wilde said of one of his characters: "Like all people who try to exhaust a subject, he exhausted his listeners." My emphasis on ideas by no means implies that I have downplayed research. But one writer's mournful comment on the feeding literature could apply to any of our

topics: There isn't any finding, anywhere, that someone has not failed to replicate! My experience is that a flood of contradictory findings and arguments only confuses *and* exhausts a student; and anyway it would be out of date before the book appears. But while our ideas are not settled, they're not chaotic either. The basic intellectual themes should stay around for a while, and it is these that students need to master.

Therefore, for each topic I have presented some pivotal investigations that illustrate the ideas, support them, or make trouble for them. These examples show the kinds of research on which ideas, and criticisms, are based.

On matters of style, two difficulties should be mentioned. Both are pronoun problems.

Many readers will have been taught that the words "he," "she," and their relatives are properly restricted to humans, and that an animal is an "it." I have followed this convention when it seemed natural to do so, but only then. If a sentence deals with a rat in a maze with some food, and an *it* could refer to the rat or the maze *or* the food, one can either elaborate the sentence, recast it, or clear it all up with a gendered pronoun. I have chosen the latter. And in discussing parental or sexual behavior, often "he" or "she" is the word that comes most naturally even for animals. I have let nature take her course.

Then there is the problem of a gender-neutral generic pronoun. My solution—not a perfect one; there is no perfect one—has been to use both masculine and feminine as generics, using one or the other arbitrarily in any given case. On this matter, Jane Bryant Quinn has expressed a writer's dilemma far better than 1 could have done: "Politically I'm a feminist, but professionally I cherish the rhythm of prose. Personally, I wish I could have it both ways."

While this book was being written, my colleagues and friends—they are the same people—saved me from many opacities and many outright blunders. Richard Nisbett, University of Michigan, Paul Rozin, University of Pennsylvania, and Barry Schwartz, Swarthmore College, read the entire manuscript in draft form—sometimes several draft forms. In addition, various students and colleagues helped me with specific draft chapters: Peter Brunjes, James Deese, Bella DePaulo, Bob Emery, Linda Gonder-Frederick, George Manderlink, John A. Nevin, Sandra Scarr, Marjorie Schacher, Sue Wagner, and especially Tim Wilson. And at Norton, Donald Fusting made many helpful comments on the first draft, the second draft, the third draft, and this draft. His criticisms improved the writing; his encouragement sustained the writer.

These wonderful people not only put up with my calls for help, but also gave careful attention and thought to what the book said, what it said well and what it said ill; and in the latter case, they gave me still more of their time to clear up my misconceptions. I thank them all. There were times,

however, when we disagreed, and the final version reflects my own judgments. My friends are not responsible for the errors that remain. They tried!

Sue Wagner took off my shoulders most of the burden of compiling the bibliography. That's a long and dull task, but it shall not be a thankless one. Thanks, Sue—very much.

I also owe a great debt of thanks to my family—Bea, Debbie, and Evan—who did not so much put up with me as put up without me! Over many months when I was absent-minded or absent-bodied or both, for days at a time, they were patient, forbearing, and supportive, and fed me besides.

But the book's greatest debt is to my mother, Nell, to whom it is dedicated. She taught me how to read; then she gave me *good* books to read (without, of course, calling them that), and thereby taught me how to write. Above all, she taught me that ideas are fun. How neat it is that I can make a living by sharing that fun!—as here.

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