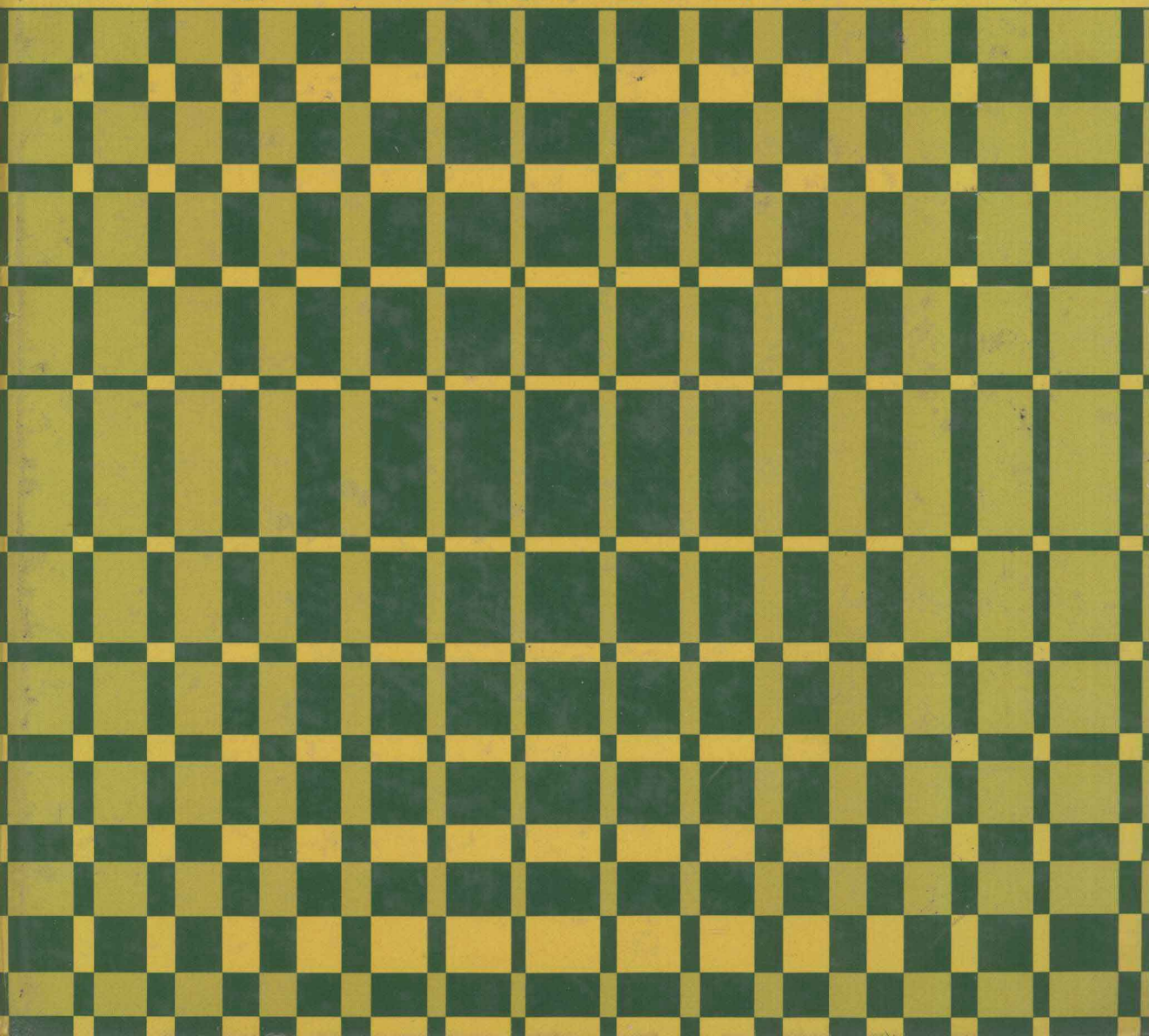
BERNARD L. BLOOM

HEALTH PSYCHOLOGY

A PSYCHOSOCIAL PERSPECTIVE



Health Psychology

A Psychosocial Perspective

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Dedication

To Joan, my gentlest critic, whose caring and love particularly during the past two years helped make this book possible, and whose thoughtful comments and suggestions helped make this book a far more interesting one to read.

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Preface

As its subtitle suggests, this book looks at the newly developing field of health psychology from a psychosocial point of view. I have come to health psychology from the fields of clinical psychology and community mental health—which traditionally have examined human behavior from the psychosocial point of view—and I believe that the future will see a growing partnership of these three fields in considering issues of physical health and illness.

The research of the past two decades has made a compelling case that there is a biology of health, a psychology of health, and a sociology of health and that—whether we are thinking about treatment or about prevention of illness—these three domains must be studied in their natural interactions. Culture invades physiology, and we are seeing a dramatic trend toward an ecumenical view of health and illness. I am hopeful that this book will encourage readers to think about their own health and the health of others from this broader perspective, and that reading it will provide a sense of excitement about how psychological principles and methods can be used to improve our health and increase the effectiveness of our treatments when people become ill.

No field of psychology is more important in the development of public social policy than is health psychology. One of the great tragedies of our rich country is our failure to value the health of all of our citizens. Millions of Americans are without any form of health insurance and cannot afford adequate health care. Hundreds of thousands of elderly Americans must spend themselves into poverty in order to become eligible for an adequate level of medical care. Many countries, where less is spent per capita for health care than in the United States, have lower maternal mortality rates, lower death rates (particularly during the years of childhood), and longer life expectancies.

I hope this book will have an impact not only on what you know about the psychology of health and illness, but also on how you think about health and its importance in any society. There is far more material in the field of health psychology than can be covered in a single book, and I have provided supplementary references throughout to help you obtain additional information on topics that might be of special interest to you.

I want to express special thanks to Ruth Brown and to John and Jaye Zola, who read and commented on the first draft of this book, and to Professor Janet Lapp, California State University at Fresno; Professor Edward Krupat, Massachusetts College; and Professor Charles Kaiser, College of Charleston, whose careful and expert criticisms of the penultimate draft have earned my admiration and gratitude.

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The Conceptual History of Health Psychology

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INTRODUCTION

This chapter sets the stage for the study of health psychology by discussing five introductory topics. First, the field of health psychology is defined and is placed within the conceptual and methodological context of the larger fields of psychology and epidemiology. Second, the development of the current interest in health psychology is put in a historical context. We briefly explore three historically sequential orientations to the understanding of health and illness—miasma theory, germ theory, and biopsychosocial theory. Third, a number of important concepts related to health and illness are introduced and examined. Included among these concepts are (1) psychosomatic disorders, (2) the health field, and (3) health as a status versus health as a process. Fourth, basic issues that need to be considered in the measurement of health are identified. And finally, a brief overview of human anatomy and physiology is provided as a useful background for the remainder of the volume.

If we start with the commonly accepted definition of psychology as the scientific study of behavior (see, for example, Bourne & Ekstrand, 1985), then

we may consider the field of health psychology as the scientific study of health- and illness-related behavior. The concept of behavior is a broad one in this definition and includes thoughts, attitudes, and beliefs as well as observable actions. Thus, *the field of health psychology concerns itself with the scientific study of behavior, thoughts, attitudes, and beliefs related to health and illness.*

The Methods of Science

In no specialized field of psychology is the word *scientific* more important than in the field of health psychology. The importance of good health and the avoidance of illness in our society can hardly be overemphasized. After all, when we discuss health and illness, we are talking about life and death. Accordingly, it is no surprise that we all search for ways to stay healthy, and that in that search we can easily follow remedies that have little or no demonstrated validity (see, for example, Cassileth, Lusk, Strouse, & Bodenheimer, 1984). Health-related matters have become front-page news, and the national wire services have recently begun the routine monitoring of such professional publications as the *Journal of the American Medical Association* and the *New England Journal of Medicine.*

There is hardly an area of human behavior that is more influenced by mythology, anecdote, and unverified claims than behavior related to health and illness. Thus, it is especially important in a health psychology textbook to describe that field from a scientifically defensible point of view.

Employing a scientific approach to the study of health-related behavior will ultimately permit (1) the measurement and description of behavior, (2) the explanation of behavior, (3) the prediction of behavior, and (4) the control and modification of behavior.

The scientific method has general principles for the definition of constructs and variables, for the development of theory and concepts, and for the evaluation of evidence. These principles provide rules for answering the two general questions implied in any process of inquiry: (1) What do you mean? and (2) How do you know? Answering the first question requires the development of measurement procedures that are reliable and valid. Answering the second requires the use of research methods that lead to trustworthy conclusions.

The rules that govern the use of the scientific method are important not only for establishing the validity of hypotheses but also for refuting them. Indeed, scientific discourse deals only with propositions that can be refuted, even if only theoretically. If we hold health-related beliefs or engage in health-related behaviors that we believe are irrefutable, that is, that we would retain regardless of any evidence to the contrary, we may have interesting and important conversations about them, but these conversations are not science. The scientific method, as a strategy for establishing knowledge, has, however, had enormous impact in certain domains of inquiry, certainly including the field of psychology, and this book will concern itself with the contributions of these methods to health- and illness-related behavior and thought processes.

EVALUATING HEALTH-RELATED RESEARCH. The foregoing comments about the methods of science are not to suggest, however, that the research that has been conducted in the field of health psychology is invariably methodologically sound. Indeed, reviews of research in the field of health psychology are critical of many of the studies that have been reported in the literature (see, for example, Bradley, 1983; Ziesat, 1981). As with other fields of inquiry in the social sciences, newer research is often sounder than older research (Miller, 1983). The importance of sound research methodology can be seen in a recent survey of twenty-two health psychologists, in which Taylor (1984) found that this group assigned top priority in the training of health psychologists, to the development of methodological expertise, both regarding research design and data analysis.

Epidemiologic Methods in the Study of Disease Prevalence

Scientists who seek to determine what factors play a role in the distribution and determinants of any disease process are called *epidemiologists.* As a preface to the discussions of the links between psychosocial factors, on the one hand, and health and illness, on the other hand, it is important to provide a brief overview of how such connections are made by epidemiologists in the scientific literature.

Scientists are accustomed to taking two general approaches to the study of the relationship between some suspected casual agent and some disease or disorder. One approach is called *retrospective,* and such studies are often referred to as *case-control* studies. This approach consists of comparing a group of people with the disease under study with a matched control group of people without the disease, in terms of suspected factors in their history. In the case of smoking and lung cancer, for example, a retrospective study would obtain a sample of persons with lung cancer (the cases) and a matched sample of people without lung cancer, either a healthy group or a group of persons with some other disorder (the controls), and determine whether there is a significantly more frequent prior history of smoking in the group with lung cancer than in the group without the disease. Such retrospective studies are relatively inexpensive to carry out and a large number of past-history variables can be explored in a single study. Accordingly, retrospective studies are generally conducted first in the implementation of a research program attempting to identify causal factors in a disease.

The second approach is called *prospective,* and such studies are usually referred to as *cohort* studies. To continue using the example of smoking and lung cancer, in this type of study a group, or cohort, of smokers is identified along with a matched control group of nonsmokers. The two groups are followed for an appropriate period of time in order to determine what the risk of lung cancer is in both groups. Prospective cohort studies ordinarily take a good deal longer than retrospective case-control studies and thus are substantially more expensive to conduct. It is only from prospective studies, however, that the actual risk of

becoming ill can be calculated as a function of whether or not the suspected causal circumstance is present (MacMahon & Pugh, 1970). In a retrospective study, many potential causal factors can be evaluated in their relationship to one particular disorder. In a prospective study, many pathological consequences of one suspected causal factor can be evaluated.

In the case of the suspected relationship between smoking and lung cancer, about fifteen retrospective studies were reported before the first prospective study was undertaken (MacMahon & Pugh, 1970).

CRITERIA FOR ESTABLISHING CAUSE. One of the principal tasks of the field of epidemiology is to understand causative factors in illness. Accordingly, it is important to understand the criteria that are generally used by epidemiologists to establish a causative relationship. Six criteria are generally used, although it should be stressed at the outset that discovering one factor is implicated as the cause of some particular disease does not mean no other factor is involved.

The criteria typically used in epidemiological research for establishing cause (Koop and Luoto, 1982) include:

(1) *Consistency of the association.* This criterion requires that diverse methods of approach provide similar conclusions. The association must be observed repeatedly by multiple investigators, in different locations and situations, at different times, using different methods of study. The more consistently the finding is observed, the more confident one can be about its validity.

(2) *Strength of the association.* The most direct measure of the strength of the association of some psychosocial factor and the risk of some disease is the comparison of death or mobidity rates from the disease among persons with that psychosocial factor present and without that psychosocial factor present. The greater the difference in those rates, the more likely is it that the suspected causative factor is implicated.

(3) *Specificity of the association.* Specificity is judged by the extent to which the presence of a presumed causative factor is associated with one and only one disease. Although the demonstration of specificity makes a causal hypothesis more acceptable, lack of specificity does not mean that the suspected agent is causally unrelated to any of the disorders with which it is associated.

(4) *Temporal relationship of the association.* This criterion requires that exposure to the suspected causative factor must precede the disease. Prospective cohort studies appear to meet this criterion since, by design, they identify study samples in terms of the presence or absence of the presumed prior causative factor.

(5) *Coherence of the association.* This criterion for evaluating the causal significance of an association is based upon its degree of agreement with known facts in the natural history of the disease. Coherence requires, among other criteria, that descriptive epidemiologic results on disease occurrence correlate with measures of exposure to the suspected agent. Perhaps the most important consideration is the observation of a dose-response relationship between agent