FOR SOME TIME the world has been trying to grasp the significance of a nuclear holocaust, to imagine the resulting destruction, and to find possible ways to cope with the disaster. The magnitude of the threat was stark and terrifying indeed during the days of the "great confrontation" in the Cuban missile crisis when total annihilation hung over us all. It was in the aftermath of this shaking event that the symposium herein reported was held in Philadelphia, in December 1962, under the combined auspices of the American Association for the Advancement of Science and the American Psychiatric Association through its Committee on Research. Here we tried to understand what it meant to live through the atomic blast in Hiroshima, prisoner-of-war camps, enemy occupation, the uncertainties of space flights, and threats of death from mortal illness. A major portion of these proceedings has been preserved in the present volume, which ranges broadly and deeply over the spectrum of fears and terrors that beset modern man.

A highly select group of scientists from different disciplines — some with personal experience of disaster, all with basic data and observations — gathered together to share knowledge and to search for common scientific and conceptual themes that might apply to a great variety of situations of abnormal stress. The enrichment experienced by this scientific group encouraged the authors to organize and present the material of the conference within a single volume.

The contributors to this symposium volume have presented a broad variety of stress situations that share a common theme—the threat of impending disaster. The responses to these varied stress situations were characterized by consider-

able ambiguity, since the disasters, though imminent, had not as yet occurred. A further similarity lay in the fact that the individual could exercise little or no control over the situation and society could not provide adequate avenues of response to it. An attempt was made to select as contributors to the symposium individuals from different disciplines so that no single point of view would be forced upon the proceedings.

The symposium begins with a theoretical section. James G. Miller, employing general systems theory, conceptualizes an overloading of the system through sensory input as one method of producing overwhelming threat. His paper deals with an analysis of the general properties of systems and the manner in which they compensate for input overloading.

Different perceptions of concomitant emotional reactions to the same stimulus are explored by Richard S. Lazarus through the paradigm of the concept of perceptual set and the fit between set and attitudinal factors. In addition to the presentation of his own research, the author addresses himself to the problem of studying stress in the laboratory.

Kurt and Gladys Lang use a sociological approach, emphasizing collective reactions rather than the individual response to threatening situations. They point out the implications of the fact that adaptation of the individual and adaptation of the group are not necessarily compatible.

Stimulus properties and response patterns to the stress signal are discussed in the second section. The paper by Harry B. Williams employs traditional models of perception to account for differential impact of warning messages. His examples tend to demonstrate that the nature of the stimulus configuration may influence whether adaptive or maladaptive responses are made to a disaster situation.

Stephen B. Withey concentrates on the response patterns and successive adjustments made to threatening stimuli through the principle of feedback. His thesis is that an understanding of response patterns requires the study not only of the traditionally enumerated stages in disaster phenomena, but

also of the way in which each preceding step alters the perception and thus the nature of the succeeding step.

The remaining sections of the symposium deal with specific types of threatening situations. The threat of nuclear disaster is discussed by three psychiatrists. Lester Grinspoon analyzes the role of defense mechanisms in the reaction to nuclear threat. He examines the attitudes toward the fallout shelter program and the general apathetic reaction to the contemplation of nuclear attack. The prominence of denial as a mechanism of defense is of particular interest here.

Roy Menninger reports on a pilot study of the reaction of psychiatric patients to the Cuban crisis. Although the attitudes of patients reflected stereotyped reactions of the population, he found that the patients responded in terms of their own personality dynamics when asked what solution they would advocate.

One of the few published accounts of the reactions of victims of the Hiroshima bombings appears in the contribution of Robert J. Lifton. This retrospective study illustrates not only the incomprehensible magnitude of the disaster, but also the confusion, guilt, and anxiety of the survivors.

Space flight presents new and potentially threatening situations for which society has no previous experience. Sheldon J. Korchin and George E. Ruff show that personality configurations and life experiences may be factors in the degree to which an individual adapts to highly threatening situations. How much of the adaptation is also due to training and preparation is a matter for further study.

The situation of helpless exposure to arbitrary or unpredictable exercise of power over life and death by an enemy is reported in two papers. The first deals with experiences of American soldiers in prisoner-of-war camps. The paper illustrates that the only model for response available to the soldiers was their stereotyped notion of the American prison system, and that expectations drawn from this model were inappropriate. Albert D. Biderman demonstrates that under

such conditions the viability of the individual depends on the solidarity of the group.

Claus Bahne Bahnson discusses survival in a different type of situation by examining behavior under wartime occupation by enemy forces. Using a model which postulates the interchangeability of external and internal threat, he relates threat of such occupation as well as threat of death from somatic illness to early childhood learning experiences.

A different type of stress situation is covered in the last part of the symposium. Responses to the threat of physical illness and death, although the most universal of all situations, have perhaps not received as much systematic study as have other stress situations. These are discussed from two different points of view.

John P. Spiegel views the threat of death from the point of view of differences in cultural attitudes toward death and illness and points out the role that value systems play in determining behavior in such situations.

Thomas P. Hackett and Avery D. Weisman, who examined a number of patients with severe or terminal illness, discuss the problem of how the reality testing of these patients is influenced by environmental cues. Their paper examines the manner in which patients deal with anxiety, and the way in which the perception of their illness is mediated by the persons ministering to them.

Although the symposium does not contain any study of natural disasters, the final paper by George W. Baker contains a review of some disaster research studies, their methodological problems, and an appraisal of the current status of this field. Dr. Baker suggests guidelines for future research applicable not only to natural disaster but also to the type of threatening situation discussed in the symposium.

The editors of the symposium have brought together the works of these authors to serve two basic purposes. For students of psychology, psychiatry, and the allied social sciences, this volume is intended to provide basic information as well as theoretical perspectives about man's reactions to

situations of impending disaster. The problems discussed within the papers are both substantive and methodological. It is hoped that certain common elements may be abstracted from the variety of situations analyzed here. A full coverage of disaster research has not been attempted here, nor do we offer a cross section of all types of disaster situations. For example, studies of natural catastrophes and of more biologically oriented research have been largely omitted. We hope that such omissions will not convey an erroneous impression of the state of the field, but will rather stimulate further thought and investigation by our readers.

Though none of the papers presents suggestions for direct action, the reader is invited to see as a second purpose of this volume a contribution to the formulation of programs for action. Each of the papers may offer implications for action to persons engaged in civil defense and preparedness activities, as well as to the citizen who is concerned about such problems. The possibilities for practical applications may range from ways of dealing with group solidarity in prisoner-of-war camps to a more thoughtful approach to working with terminally ill patients. It is for this reason that the editors have gone beyond the confines of the laboratory and methodological discourse and have included subjective and anecdotal material along with the more experimentally oriented articles.

The editors acknowledge appreciatively the interest in the topic of the symposium evinced by the American Association for the Advancement of Science. This interest, and the sponsorship of the Committee on Research of the American Psychiatric Association, greatly facilitated the task of organizing the symposium and contributed to the stimulating experience of these sessions.

The success of the meetings was in no small part due to the able leadership of Francis J. Braceland, M.D., and Kenneth Appel, M.D., who, in their capacity as chairmen and discussion leaders, gave freely of their time and interest. The impact of the contributions in this volume was further enhanced by

the two able discussants, Jerome Frank, M.D., and Donald Michael, Ph.D., whose thought-provoking comments were appreciated by audience and speakers alike.

George H. Grosser Henry Wechsler Milton Greenblatt