

COMPREHENSIVE TEXTBOOK OF PSYCHIATRY/IV

VOLUME 1
FOURTH EDITION

EDITORS

Harold I. Kaplan, M.D.

Professor of Psychiatry, New York University School of Medicine
Attending Psychiatrist, University Hospital of the New York University Medical Center
Attending Psychiatrist, Bellevue Hospital, New York, New York

Benjamin J. Sadock, M.D.

Professor and Vice Chairman, Department of Psychiatry,
New York University School of Medicine,
Attending Psychiatrist, University Hospital of the New York University Medical Center;
Attending Psychiatrist, Bellevue Hospital, New York, New York



WILLIAMS & WILKINS
Baltimore/London



Editor: Sara A. Finnegan
Associate Editor: Victoria M. Vaughn
Design: Joanne Janowiak
Development Editor: Anne D. Craig
Illustration Planning: Lorraine Wrozek
Production: Norvell E. Miller, III and Raymond E. Reter

Copyright ©, 1985
Williams & Wilkins
428 East Preston Street
Baltimore, MD 21202, U.S.A.

All rights reserved. This book is protected by copyright. No part of this book may be reproduced in any form or by any means, including photocopying, or utilized by any information storage and retrieval system without written permission from the copyright owner.

The editors and the publisher of this textbook have made every effort to ensure that the drug dosage schedules herein are accurate and in accord with the standards accepted at the time of publication. Readers are advised, however, to check the product information sheet included in the package of each drug they plan to administer to be certain that changes have not been made in the recommended dose or in the indications and contraindications for administration and for adverse reactions. This recommendation is of particular importance in regard to new or infrequently used drugs.

Made in the United States of America

First Edition, 1967
Second Edition, 1975
Reprinted 1976
Third Edition, 1980
Reprinted 1981, 1983

Library of Congress Cataloging in Publication Data

Main entry under title:

Comprehensive textbook of psychiatry/IV.

Rev. ed. of: Comprehensive textbook of psychiatry/III. 3rd ed. c1980.

Bibliography: p.

Includes index.

1. Psychiatry. I. Kaplan, Harold I. II. Sadock, Benjamin J., 1933- . III. Comprehensive textbook of psychiatry/III. [DNLM: 1. Mental disorders. 2. Psychiatry—History. WM 100 C736]

RC454.C637 1985 616.89 83-25952

ISBN 0-683-04510-5

Composed and printed
in the United States of America

FOREWORD

It is difficult to write a foreword to a textbook of such exceptional excellence and deserved renown as this one. In many ways, the book serves as its own introduction and its own best statement. Nevertheless, for every project that even fools will not dare to undertake, there is usually an academic who will attempt the endeavor if there is a chance it will get into print.

The unique feature that distinguishes *Homo sapiens* from the other creatures who inhabit the planet is the degree of development of those higher nervous system functions that humans subsume under the construct of mind. The human mind has fascinated countless observers throughout recorded history. For many centuries, the formal study of the functions of the mind was assumed by theologians and philosophers. It was inevitable that the concept of disorders of the mind would ultimately emerge. That which functions, can malfunction. This insight was obvious to both the theologians and the philosophers, although they differed as to their explanations for causes of the malfunctioning. This historical tradition of observation, inference, and conclusion without either an empirical base or hypothesis testing is an important one in psychiatry. Similarly, the search for causality as the explanation of phenomena also has played a critical role in Western thought.

It was not until the late 18th and early 19th centuries that physicians began to become increasingly involved in the study of mental abnormalities. The traditions of causal explanation and observation, inference, and conclusion also continued with the medical observers. It was only with the flowering of scientific medicine in the middle to the late 19th century that psychiatry began to move away from its philosophical roots and toward an empirical and experimental approach to disorders of the mind.

The late 19th century was a time of great activity in scientific matters, and psychiatry was not excluded. The work of Kraepelin toward the development of a systematic nosology of psychiatric illness was going on simultaneously with Bleuler's efforts to recognize the essential heterogeneity and syndrome nature of mental illness. Freud undertook the task of making comprehensible that which had been considered incomprehensible. He showed that the content of symptoms and psychotic thought had meaning and, in fact, did behave lawfully and communicate information to the properly attuned observer. Kraepelin represented the most organic end of the spectrum, with Freud being closest to the philosophical and spiritual tradition. Freud often used the term "soul" to refer to the human mind. This reminder of the use of "soul" is in no way to denigrate Freud's scientific contributions but, rather, to recognize that he saw the constructs of psychological observation to be things that did not lend themselves merely to biological reductionism.

Clearly, there can be no mental function nor human behavior without an underlying neural substrate. The recognition that there is no mentation without a nervous system has led some colleagues to believe that understanding neural activity and organization is all that is necessary to comprehend the mind. Unfortunately, the alphabet and grammar of mo-

lecular biology is not isomorphic with the alphabet and grammar of self-observation and consciousness. There can be no Rosetta stone to translate the hieroglyphs of one into the Latin letters of the other.

During World War I and to a far greater degree during World War II, psychiatry became recognized as a legitimate medical specialty that, in fact, could be useful in swiftly returning troops to combat duty and in preventing long-term morbidity. The successes of psychiatry during World War II led to an inordinately exciting period of psychiatric expansionism. Perhaps even the term "colonialism" would be appropriate to describe this expansion, as psychiatry acquired ever-increasing areas of human activity as part of its "natural" territory. The manifest destiny of psychiatry threatened to spread to all the products of human mentation.

By the mid-1960s, psychiatry had fulfilled the ultimate liberal fantasy of promising everything to everyone forever and for free. This pathetic overselling of psychiatry resulted in many unfortunate consequences, not the least of which was profound disillusionment in both the public and the profession. It seemed to some cynical observers that the only group toward whom psychiatrists showed no particular interest was that of chronic psychotic patients.

In 1967, the first edition of the *Comprehensive Textbook of Psychiatry* appeared. In this writer's judgment, it had an extraordinarily salutary effect on the field. It was not only a comprehensive textbook, but it was one that was based on the behavioral sciences. There were chapters ranging from genetics and physiology to epidemiology and sociology. The textbook said very clearly that there was a scientific base that served as the foundation for clinical psychiatry and, more importantly, that there were boundaries that defined its outer limits. The book also had an important subliminal message in its emphasis on clinical syndromes, as well as basic science. Many of the social concerns that dominated psychiatry at that time were touched upon in the textbook, but they were presented as peripheral concerns, not central ones. It is difficult to assess the historical importance of any book, be it *Uncle Tom's Cabin* or the *Comprehensive Textbook of Psychiatry*. This writer deeply believes that the direction of American psychiatry was changed, and for the better, by the appearance of the first edition of this textbook.

In its second and third edition, the book grew in size, partially to reflect new gains in knowledge and partially to reflect the increased quality of scholarship that was going on in the field. The fourth edition also carries a subliminal message. The field is now strong enough scientifically to prune itself of excessive details that are more defensive than enlightening. Psychiatry no longer has to prove that it is scientific. It no longer has to prove that it has boundaries and that its major emphasis is on the care of the severely ill. It no longer has to claim its medical roots and origins. The reduced size of the fourth edition makes that statement with clarity and dignity.

It is curious how an idea in the mind of a colleague that subsequently gave rise to the *Comprehensive Textbook of Psychiatry* has had such an important influence on close to a

generation of psychiatrists, as well as on the field in general. It is the standard textbook and is recognized as such by virtually everyone. Contributors are proud and eager to participate and persons who are not invited to do so are frequently more than merely disgruntled. This reaction, too, speaks profoundly of the farsightedness of the editors.

Behavior is at the core of clinical psychiatry. Behavior can be studied physiologically, psychologically, or socially. Ideally, it should be studied in every way possible, so that the efforts of professionals to understand human behavior may capture something of the complexity and richness of the phenomena they observe. If anything differentiates the training of the psychiatrist from other mental health professionals, it is the ability to live in several of these domains simultaneously. It is always tempting to lean toward biological reductionism; the words sound so scientific and are so seductive. Unfortunately, they are also wrong. For those people who are tempted to fall into this heresy, the fourth edition of the *Comprehensive Textbook of Psychiatry* will be an excellent support in the task of maintaining equanimity in the face of complexity.

Many of the chapters on the basic sciences are truly outstanding; they are presented with clarity and would be of value to a variety of nonpsychiatric disciplines. The clinical chapters again emphasize disorders and disturbances of mental functioning. The editors have selected leaders in the field to write these chapters. Emphasis has also been placed on the ability of the contributor to write prose that is not stultifying. There is no reason for the reader to be obtunded by scholarship; boredom is not a prerequisite for learning.

There has been considerable reorganization of many sections of the fourth edition. A number of new contributors

have been recruited, and the reader must decide individually how successful these changes have been. The intent was to strengthen areas that seemed weak to the editors and to emphasize that which is clinically relevant.

In this writer's judgment, the fourth edition is the strongest of all the editions to date. The pruning that has been done will strengthen the plant and thereby will enhance the impact of this edition on the practice and teaching of psychiatry. All psychiatrists are indebted to the editors for what they have done and continue to do at so much personal cost.

It is awkward for this writer to acknowledge his debt to Harold Kaplan and Benjamin Sadock because, in addition to being colleagues, they are personal friends and members of the same medical school faculty. It is an irony of Western culture that one can acknowledge indebtedness to a stranger more easily than to those who are near and dear. Despite that convention, this writer would like to acknowledge publicly the debt he has to these two men for their continued dedication and commitment to scholarship in its finest form.

An old English aphorism has it that the proof of the pudding is in the eating. Clearly, the proof of a textbook is in its utilization and acceptance by the field. Time will tell if the fourth edition is as successful as its predecessors. It is difficult for this writer to conceive that it will not be. This edition leaves little doubt that, as long as the editorship of the textbook remains with Harold Kaplan and Benjamin Sadock, the field of psychiatry will continue to be well served.

ROBERT CANCRO, M.D., MED.D.SC.

New York University Medical Center, 1984

PREFACE

This is the fourth edition of the *Comprehensive Textbook of Psychiatry* to be published in the brief period of 17 years. As in previous editions, the editors have included the newest advances in the diagnosis and treatment of psychiatric disorders and have integrated those subjects with the behavioral sciences and other topics related to psychiatry. An eclectic and multidisciplinary approach has become the hallmark of this textbook.

This edition contains 201 sections written by 186 contributors and constitutes a thorough and complete introduction to clinical psychiatry, with the prescribed aim of fostering professional competence. The material is sufficiently comprehensive in scope to prepare the reader thoroughly to meet the standards of the National Board of Medical Examiners and the American Board of Psychiatry and Neurology.

This book forms part of a tripartite effort by the editors to provide a thorough educational system for both student and practitioner to facilitate the learning of psychiatry.

At the head of this system is the *Comprehensive Textbook of Psychiatry*, which is global in depth and scope, designed for and used by psychiatrists, behavioral scientists, and all workers in the mental health field. Next is the *Modern Synopsis of the Comprehensive Textbook of Psychiatry*, a shortened and highly modified version, especially helpful to medical students, psychiatric residents, and, for quick reference purposes, to the practicing psychiatrist. The *Study Guide and Self-Examination Review of the Modern Synopsis of the Comprehensive Textbook of Psychiatry*, consisting of multiple choice questions and answers and derived from the *Modern Synopsis*, forms the last part of the triad. That book is designed for students of psychiatry who require a brief review of the behavioral sciences and general psychiatry in preparation for a variety of examination situations.

Together, the three books create a multiple approach to the teaching, study, and learning of psychiatry.

NEW CHANGES IN THIS EDITION

New format The major change is the reduction in size from three volumes in the last edition to one volume in this edition, which is also being published in a two-volume set for the convenience of those readers who prefer that format. To achieve this goal, the editors eliminated the glossary and certain other subjects that were deemed to be of less clinical relevance.

Following the style of other major medical textbooks, internal citations of the literature have been eliminated and the number of references at the end of each section have been reduced. Contributors were asked to limit themselves to 10 to 15 major books, monographs, or articles in their fields and to include very current references where possible.

Sections rewritten by new contributors Completely rewritten sections have been contributed for this edition. They include sections on the life cycle; Jean Piaget; ethology; sociology; epidemiology; experimental disorders; statistics; Sulli-

van; Jung; other psychodynamic schools; the psychiatric interview, history, and mental status examination; hospitalization and milieu therapy; antisocial behavior and criminality; community psychiatry; malingering; gastrointestinal disorders; cardiovascular disorders; convulsive therapy; miscellaneous organic therapies; headache; consultation-liaison psychiatry; and prevention in psychiatry.

The sections on various organic mental disorders have been rewritten and combined into a single chapter for this edition. Other sections rewritten by new contributors include egodystonic homosexuality; contraception; abortion; psychosexual dysfunction; grief, mourning, and bereavement; suicide; psychiatry and medicine; psychiatry and surgery; psychiatry and the primary care physician; opioid dependence; alcoholism; family therapy; marital therapy; clinical psychology; clinical social work; and geriatric psychiatry.

Childhood disorders The chapters on child and adolescent psychiatry have been heavily rewritten. There are new discussions on the following subjects: psychiatric evaluation of the infant and child; mental retardation; pervasive developmental disorders of childhood; psychological factors affecting physical conditions; attachment disorders of infancy and early childhood; conduct disorders and juvenile delinquency; psychiatric treatment of the adolescent; adoption; organic therapy of childhood disorders; college mental health services; children's reactions to illness, hospitalization, and surgery; and affective disorders.

New sections Many new sections that did not appear previously have been added to this edition. In the chapter on schizophrenia, new sections include somatic treatment and psychosocial treatment. A rewritten section on the individual psychotherapy of schizophrenic disorders has been added, and the entire chapter has been updated.

The area of affective disorders has been totally reorganized to provide the most comprehensive coverage to be found in any general textbook. New sections in that chapter include epidemiology, biochemistry, genetics, psychosocial treatment, and pharmacotherapy.

Other new sections in this edition include the evaluation of DSM-III; science and psychiatry; the role of laboratory tests in psychiatry; pain; stress and psychiatry; psychiatry and ophthalmology; psychiatry and rehabilitation medicine; short-term dynamic psychotherapy; cognitive therapy; biofeedback and behavioral medicine; and other pharmacological agents in psychiatry.

Updated sections In addition to the sections rewritten by new contributors and the new subjects added, every fourth edition contribution that was written by a previous contributor has been thoroughly updated. Each section represents the most current exposition on the subject.

DSM-III The psychiatric disorders discussed in this textbook are in accord with the nosology of the third edition of the

American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) published in 1980.

Many of our contributors had, and still do have, distinct reservations about DSM-III nosology, and in several sections of this book, the reader will find those objections clearly stated. The contributors used such terms as "neurosis," "psychosis," and "psychosomatic," even though those terms are not a part of the official nosology.

Work on a revision of DSM-III commenced in 1983 and will be published as DSM-III-R within a few years. A new edition of the *Manual*, DSM-IV, will probably not appear until the 1990s. The editors have tried to anticipate as many of the changes as possible; for example, DSM-III-R and DSM-IV will be more consistent with the World Health Organization's *International Classification of Diseases* (ICD). Much of the current revision of this *Classification* (ICD-9) is described in this textbook. In addition, the editors have included a new section on the evaluation of DSM-III.

The editors firmly believe that a major textbook such as the *Comprehensive Textbook of Psychiatry* must provide a forum for discussion, evaluation, criticism, and disagreement, while giving due acknowledgment to the official nomenclature. As stated in the last edition, a manual on nomenclature is just that: It is *not* a textbook.

ACKNOWLEDGMENTS

The production of this book was a major undertaking that involved the efforts of many persons. Peter Kaplan, M.D. and James Sadock provided important aid and assistance. Nancy Barrett Kaplan helped throughout the project. Linda Didner Platt was in charge of our secretarial and office staff and handled her responsibilities with great diligence. Others who

helped were Brian Shaw, Phillip Kaplan, Stephen Caminiti, Victoria Sadock, and Gail Brenner, M.D.

At Williams & Wilkins, we especially want to thank Anne Craig and her colleagues for their excellent skills and superb performance in the editing and coordination of this book. Others who helped in production were Victoria Vaughn and Norvell Miller. Sara Finnegan, President of the Book Division at Williams & Wilkins, played a key role at every stage in the production of this book. Over the years she has become a valued friend and advisor. William M. Passano, Jr., Chairman of the Board of Williams & Wilkins and President of Waverly Press, was also most helpful and offered us every assistance during this project.

Virginia A. Sadock, M.D. deserves particular mention for her outstanding help as assistant to the editors. In addition to writing a number of sections for this book, she participated fully in the many editorial discussions and decisions that were made.

Robert Cancro, M.D., Professor and Chairman of the Department of Psychiatry at New York University School of Medicine, joined us as consulting editor in this edition, and we wish to thank him for his outstanding help. He gave us his full support and was constantly encouraging throughout the project.

Finally, we wish to express our deep appreciation to our 186 contributors, who worked with enthusiasm and who were cooperative in every aspect of this textbook.

HAROLD I. KAPLAN, M.D.
BENJAMIN J. SADOCK, M.D.

New York University Medical Center
New York City

CONTRIBUTORS

Gerald Adler, M.D.

Director of Medical Student Education in Psychiatry, Massachusetts General Hospital; Lecturer on Psychiatry, Harvard Medical School; Training Analyst and Supervising Analyst, Boston Psychoanalytic Society and Institute, Boston, Massachusetts.

Nancy C. Andreasen, Ph.D., M.D.

Professor of Psychiatry, University of Iowa College of Medicine, Iowa City, Iowa.

Haroutun M. Babigian, M.D.

Professor and Chairman, Department of Psychiatry, University of Rochester School of Medicine and Dentistry, Rochester, New York.

Arthur J. Bachrach, Ph.D.

Director, Environmental Stress Program Center and Chair of Science in Psychophysiology Naval Medical Command, National Capital Region; Adjunct Professor of Medical Psychology, Uniformed Services University for the Health Sciences, School of Medicine, Bethesda, Maryland.

James B. Bakalar, J.D.

Lecturer in Law, Department of Psychiatry, Harvard Medical School, Boston, Massachusetts.

Lorian Baker, Ph.D.

Neuropsychiatric Institute, University of California at Los Angeles, Los Angeles, California.

David P. Barash, Ph.D.

Professor of Psychology and Zoology, University of Washington, Seattle, Washington.

Robert A. Baron, Ph.D.

Professor of Psychology, Department of Psychological Sciences, Purdue University, West Lafayette, Indiana.

Aaron T. Beck, M.D.

University Professor of Psychiatry, University of Pennsylvania; Attending Psychiatrist, Hospital of the University of Pennsylvania; Director, Center for Cognitive Therapy, Philadelphia, Pennsylvania.

Judith E. Belsky, M.D.

Clinical Assistant Professor of Psychiatry, New York University, School of Medicine; Assistant Attending Psychiatrist, University Hospital of the New York University Medical Center; Assistant Attending Psychiatrist, Bellevue Hospital, New York, New York.

Arthur L. Benton, Ph.D., D.Sc.

Professor Emeritus of Neurology and Psychology, University of Iowa College of Medicine, Iowa City, Iowa.

Victor Bernal y del Rio, M.D.

Executive Director, Puerto Rico Institute of Psychiatry; Professor and Chairman, Department of Psychiatry, San Juan Bautista School of Medicine, San Juan, Puerto Rico.

Wade H. Berrettini, M.D., Ph.D.

Staff Psychiatrist, Section on Psychogenetics, National Institute of Mental Health, Bethesda, Maryland; Adjunct Assistant Professor of Psychiatry and Human Behavior and Pharmacology, Jefferson Medical College, Thomas Jefferson University, Philadelphia, Pennsylvania.

Grady L. Blackwood, Jr., Ph.D.

Formerly Staff Psychologist, Alcohol Treatment Unit, Veterans Administration Medical Center; Formerly Assistant Professor, Department of Psychiatry and Behavioral Sciences, University of Oklahoma Medical Center, Oklahoma City, Oklahoma.

Jonathan F. Borus, M.D.

Associate Professor of Psychiatry, Harvard Medical School; Director of Residency and Fellowship Training in Psychiatry, Massachusetts General Hospital, Boston, Massachusetts.

Jeffrey H. Boyd, M.D., M.P.H.

Research Psychiatrist, Center for Epidemiologic Studies, National Institute of Mental Health, Rockville, Maryland.

John Paul Brady, M.D.

Kenneth E. Appel, Professor of Psychiatry and Professor of Psychology, University of Pennsylvania, Philadelphia, Pennsylvania.

H. Keith H. Brodie, M.D.

James B. Duke Professor of Psychiatry and Law, Duke University School of Medicine; Chancellor, Duke University, Durham, North Carolina.

Richard Worstal Brunstetter, M.D.

Acting Director, Division of Human Resources, National Institute of Mental Health, Rockville, Maryland.

Jack D. Burke, Jr., M.D., M.P.H.

Associate Director for Research, Division of Biometry and Epidemiology, National Institute of Mental Health, Rockville, Maryland.

Robert N. Butler, M.D.

Brookdale Professor of Geriatrics and Adult Development and Chairman of the Gerald and May Ellen Ritter Department of Geriatrics and Adult Development, Mount Sinai School of Medicine, New York, New York.

Justin D. Call, M.D.

Professor and Chief of Child and Adolescent Psychiatry Division, Department of Psychiatry and Human Behavior, University of California, Irvine, California; Supervising and Training Analyst, Los Angeles Psychoanalytic Society and Institute, Los Angeles, California.

Magda Campbell, M.D.

Professor of Psychiatry, New York University School of Medicine; Associate Director, Division of Child and Adolescent Psychiatry, New York University Medical Center; Attending Psychiatrist, University Hospital of the New York University Medical Center; Attending Psychiatrist, Bellevue Hospital, New York, New York.

Robert Jean Campbell, M.D.

Clinical Professor of Psychiatry, New York University School of Medicine; Director and Chief of Psychiatry, Gracie Square Hospital; Attending Psychiatrist, New York University Medical Center; Attending Psychiatrist, St. Vincent's Hospital and Medical Center, New York, New York.

Robert Cancro, M.D., Med.D.Sc.

Professor and Chairman, New York University School of Medicine; Director, Department of Psychiatry, University Hospital of the New York University Medical Center and Bellevue Hospital, New York, New York.

Dennis P. Cantwell, M.D.

Joseph Campbell Professor of Child Psychiatry and Director of Residency Training in Child Psychiatry, Department of Psychiatry, Division of Mental Retardation and Child Psychiatry, Neuropsychiatric Institute, University of California at Los Angeles, Los Angeles, California.

Arthur C. Carr, Ph.D.

Professor of Clinical Psychology in Psychiatry, Cornell University Medical College, New York, New York; Attending Psychologist, Westchester Division of New York Hospital, White Plains, New York.

Elizabeth Wackerman Carter, Dr.P.H., R.N.

Associate Professor of Psychiatric Nursing, Columbia University School of Nursing; Clinical Consultant, New York State Psychiatric Institute, New York, New York; Chairperson, Division on Psychiatric and Mental Health Nursing, American Nurses Association.

Ned H. Cassem, M.D.

Associate Professor of Psychiatry, Harvard Medical School; Chief, Psychiatric Consultation-Liaison Service, Massachusetts General Hospital, Boston, Massachusetts.

William C. Cockerham, Ph.D.

Associate Professor of Sociology and Medicine, University of Illinois at Urbana-Champaign, Urbana, Illinois.

Allen C. Crocker, M.D.

Associate Professor of Pediatrics, Harvard Medical School; Director, Developmental Evaluation Clinic, Children's Hospital; Lecturer in Maternal and Child Health, Harvard School of Public Health, Boston, Massachusetts.

Habib Davanloo, M.D.

Associate Professor of Psychiatry, McGill University; Director, External Services in Psychiatry and Short-term Dynamic Psychotherapy, Montreal General Hospital, Montreal, Quebec, Canada.

John M. Davis, M.D.

Director of Research, Illinois State Psychiatric Institute; Gilman Professor of Psychiatry, University of Illinois, Chicago, Illinois.

John Donnelly, M.D., Sc.D.

Senior Consultant, The Institute of Living, Hartford, Connecticut; Professor of Psychiatry, University of Connecticut School of Medicine, Farmington, Connecticut.

Gordon W. Douglas, M.D.

Professor of Obstetrics and Gynecology and Chairman, Department of Obstetrics and Gynecology, New York University School of Medicine; Director, Obstetrics and Gynecology, University Hospital of the New York University Medical Center and Bellevue Hospital, New York, New York.

Shirley M. Ehrenkranz, D.S.W., M.A.

Dean, New York University School of Social Work, New York, New York.

W. Dennis Engels, M.D.

Associate Professor of Psychiatry, McGill University School of Medicine, Royal Victoria Hospital, Montreal, Quebec, Canada.

Armando R. Favazza, M.D., M.P.H.

Professor of Psychiatry, University of Missouri-Columbia School of Medicine, Columbia, Missouri.

Sherman C. Feinstein, M.D.

Director, Child Psychiatry Research, Michael Reese Hospital and Medical Center; Clinical Professor of Child Psychiatry, University of Chicago Pritzker School of Medicine, Chicago, Illinois.

Stephen Fleck, M.D.

Professor Emeritus of Psychiatry and Public Health, Yale University School of Medicine; Psychiatrist-in-Chief, Yale Psychiatric Institute; Psychiatrist-in-Chief, Connecticut Mental Health Center, New Haven, Connecticut.

Vincent J. Fontana, M.D.

Medical Director, New York Founding Hospital Center for Parent and Child Development; Professor of Clinical Pediatrics, New York University School of Medicine, New York, New York.

Alfred P. French, M.D.

University of California at Davis, Davis, California.

Warren Joseph Gaddipati, M.D.

Associate Clinical Professor of Child Psychiatry, Department of Psychiatry, University of Colorado Health Sciences Center, Denver, Colorado.

Anastasios Georgotas, M.D.

Associate Professor of Psychiatry and Director, Depression Studies Program, New York University School of Medicine; Medical Director, National Institute Mental Health Clinical Research Center, Millhauser Laboratory; Chief, Biological Psychiatry and Psychopharmacology, Bellevue Hospital, New York, New York.

Elliot S. Gershon, M.D.

Chief, Section on Psychogenetics, Biological Psychiatry Branch, National Institute of Mental Health, Bethesda, Maryland.

George L. Ginsberg, M.D.

Associate Professor of Clinical Psychiatry and Director of Graduate Education, New York University School of Medicine; Director of Psychiatric Service, University Hospital of the New York University Medical Center, New York, New York.

Herbert P. Ginsburg, Ph.D.

Professor of Developmental Psychology and Education, University of Rochester, Rochester, New York.

Lynn Rachel Goldin, Ph.D.

Senior Staff Fellow, Section on Psychogenetics, National Institute of Mental Health, Bethesda, Maryland.

Winston Earl Gooden, Ph.D.

Assistant Professor of Psychology, University of Illinois at Chicago, Chicago, Illinois.

Joseph Goodgold, M.D.

Howard A. Rusk Professor of Rehabilitation Research and Chairman, Department of Rehabilitation Medicine; Director of Medical Rehabilitation Services, New York University Medical Center, New York, New York.

Donald W. Goodwin, M.D.

Professor of Psychiatry and Chairman, Department of Psychiatry, University of Kansas School of Medicine, Kansas City, Kansas.

John F. Greden, M.D.

Professor of Psychiatry and Scientific Associate, Mental Health Research Institute; Director, Clinical Studies Unit, University of Michigan Medical Center, Ann Arbor, Michigan.

Alan I. Green, M.D.

Lecturer in Psychiatry, Harvard Medical School; Associate Director of Psychopharmacology, Massachusetts Mental Health Center, Boston, Massachusetts.

Wayne H. Green, M.D.

Assistant Professor of Psychiatry, New York University School of Medicine; Assistant Attending Psychiatrist, University Hospital of the New York University Medical Center; Associate Attending Psychiatrist, Bellevue Hospital; New York, New York.

Milton Greenblatt, M.D.

Director, Neuropsychiatric Institute Hospital and Clinics; Professor of Psychiatry and Executive Vice-Chairman, Department of Psychiatry and Biobehavioral Sciences; University of California at Los Angeles School of Medicine, Los Angeles, California.

Stanley I. Greenspan, M.D.

Chief, Clinical Infant Research Unit, Laboratory of Psychology and Psychopathology, Intramural Research Program, National Institute of Mental Health, Bethesda, Maryland; Clinical Professor of Psychiatry and Behavioral Science and Child Health and Development, George Washington University Medical School, Washington, DC.

Lester Grinspoon, M.D.

Associate Professor of Psychiatry, Harvard Medical School, Boston, Massachusetts.

C. Jess Groesbeck, M.D.

Assistant Professor of Psychiatry, School of Medicine, University of California at Davis, Davis, California; Training Analyst, C. G. Jung Institute of San Francisco and Inter-Regional Society of Jungian Analysts, San Francisco, California; Clinical Director, Utah State Hospital, Provo, Utah; Associate Professor of Psychiatry, College of Medicine, University of Utah, Salt Lake City, Utah.

Samuel B. Guze, M.D.

Spencer T. Olin, Professor of Psychiatry; Head, Department of Psychiatry; Vice Chancellor for Medical Affairs, Washington University School of Medicine; Psychiatrist-in-Chief, Barnes and Renard Hospitals, St. Louis, Missouri.

Thomas P. Hackett, M.D.

Eben S. Draper Professor of Psychiatry, Harvard Medical School; Chief of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts.

Katherine A. Halmi, M.D.

Associate Professor of Psychiatry, Cornell University Medical College, New York Hospital-Cornell Medical Center, Westchester Division, White Plains, New York.

Saul I. Harrison, M.D.

Professor of Psychiatry and Director of Child Psychiatry, Harbor-UCLA Medical Center, Torrance, California; Professor Emeritus of Psychiatry, University of Michigan, Ann Arbor, Michigan.

Ernest L. Hartmann, M.D.

Professor of Psychiatry, Tufts University School of Medicine; Senior Psychiatrist and Director, Sleep Research Laboratory, West-Ros-Park Mental Health Center; Director, Sleep Research Laboratory, Lemuel Shattuck Hospital, Boston, Massachusetts; Director, Sleep Disorders Center, Newton-Wellesley Hospital, Newton, Massachusetts.

Robert M. A. Hirschfeld, M.D.

Chief, Center for Studies of Affective Disorders, Clinical Research Branch, National Institute of Mental Health, Rockville, Maryland.

Marc H. Hollender, M.D.

Professor Emeritus of Psychiatry, Department of Psychiatry, Vanderbilt University School of Medicine, Nashville, Tennessee.

Harry C. Holloway, M.D.

Professor of Psychiatry and Chairman, Department of Psychiatry, Uniformed Services University of the Health Sciences; Psychiatry Liaison, Walter Reed Army Medical Center, Bethesda, Maryland.

Steven E. Hyler, M.D.

Assistant Clinical Professor of Psychiatry, College of Physicians and Surgeons, Columbia University, New York, New York.

Jerome H. Jaffe, M.D.

Professor of Psychiatry, University of Connecticut, Farmington, Connecticut.

Jeannette Jefferson Jansky, Ph.D.

Assistant Clinical Professor of Pediatrics, Columbia University; Educational Director, de Hirsch-Robinson Reading Clinic, Columbia-Presbyterian Medical Center, New York, New York.

Francis J. Kane, Jr., M.D.

Professor of Psychiatry, Baylor College of Medicine, Texas Medical Center, Houston, Texas.

Harold I. Kaplan, M.D.

Professor of Psychiatry, New York University School of Medicine; Attending Psychiatrist, University Hospital of the New York University Medical Center; Attending Psychiatrist, Bellevue Hospital, New York, New York.

Steven E. Katz, M.D.

Professor of Clinical Psychiatry, New York University School of Medicine; Commissioner, Office of Mental Health, State of New York, Albany, New York.

Steven E. Keller, Ph.D.

Research Assistant Professor of Psychiatry, Mount Sinai School of Medicine, New York, New York.

Otto F. Kernberg, M.D.

Medical Director, New York Hospital-Cornell Medical Center, Westchester Division; Professor of Psychiatry, Cornell University Medical College; Training and Supervising Analyst, Columbia University Center for Psychoanalytic Training and Research, New York, New York.

Mitchell L. Kietzman, Ph.D.

Professor of Psychology, Queens College, City University of New York; Associate Research Scientist, Department of Psychophysiology, New York State Psychiatric Institute; Research Associate, Department of Psychiatry, Columbia University College of Physicians and Surgeons, New York, New York; Visiting Professor of Psychiatry, Department of Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

S. Peter Kim, M.D., Ph.D.

Associate Professor of Psychiatry and Director, Center for Transcultural Development Study, New York University School of Medicine, New York University, Department of Psychiatry, New York, New York.

Susan T. Kleeman, M.D.

Associate Clinical Professor of Psychiatry, University of California (San Diego) Medical School, La Jolla, California.

Peter H. Knapp, M.D.

Associate Chairman, Department of Psychiatry, Boston University School of Medicine, Boston, Massachusetts.

Irvin A. Kraft, M.D.

Clinical Professor of Mental Health, University of Texas School of Public Health; Clinical Professor of Psychiatry, and Clinical Professor of Pediatrics, Baylor College of Medicine; Staff, Texas Children's Hospital, Methodist Hospital and St. Luke's Hospital, Houston, Texas.

Markus J. P. Kruesi, M.D.

Medical Staff Fellow, Section on Child Psychiatry, National Institute of Mental Health, Bethesda, Maryland; Fellow in Child and Adolescent Psychiatry, Children's Hospital, National Medical Center, Washington, DC.

Ruth L. LaVietes, M.D.

Professor of Clinical Psychiatry, Director of Child and Adolescent Psychiatry, New York Medical College; Attending Psychiatrist and Director of Psychiatry, Mental Retardation Institute, Westchester County Medical Center, Valhalla, New York; Attending Psychiatrist, Metropolitan Hospital Mental Health Center, New York, New York.

Donald G. Langsley, M.D.

Professor of Psychiatry and Behavioral Sciences, Northwestern University School of Medicine, Evanston, Illinois; Executive Vice President, American Board of Medical Specialties, Evanston, Illinois.

Eugene Laska, Ph.D.

Research Professor of Psychiatry, New York University School of Medicine, New York, New York; Director of Information Sciences Division, Nathan S. Kline Institute for Psychiatric Research, Orangeburg, New York.

Heinz E. Lehmann, M.D.

Professor Emeritus of Psychiatry, McGill University; Active Member, Douglas Hospital; Consulting Psychiatrist, Royal Victoria Hospital; Consulting Psychiatrist, Lakeshore Hospital; Consulting Psychiatrist, St. Mary's Hospital; Consulting Psychiatrist, Royal Victoria Hospital, Montreal, Quebec, Canada.

Daniel J. Levinson, Ph.D.

Professor of Psychology, Department of Psychiatry, Yale University School of Medicine; Director, Project on the Adult Life Course, Connecticut Mental Health Center, New Haven, Connecticut.

Melvin Lewis, M.B., B.S. (London), F.R.C.Psych., D.C.H.

Professor of Pediatrics and Psychiatry and Director of Medical Studies, Child Study Center, Yale University School of Medicine; Attending Physician in Pediatrics and Psychiatry, Yale-New Haven Hospital, New Haven, Connecticut.

Dorothy Otnow Lewis, M.D., F.A.C.P.

Professor of Psychiatry, New York University School of Medicine, New York, New York; Clinical Professor of Psychiatry, Child Study Center, Yale University School of Medicine; Attending Physician, Yale-New Haven Hospital, New Haven, Connecticut.

Robert Paul Liberman, M.D.

Professor of Psychiatry, University of California at Los Angeles; Chief, Rehabilitation Medicine Service-Brentwood VA Medical Center, Los Angeles, California; Director, Clinical Research Unit, Camarillo State Hospital, Camarillo, California.

Louis Linn, M.D.

Clinical Professor Emeritus of Psychiatry, Mount Sinai School of Medicine, City University of New York; Attending Psychiatrist, Mount Sinai Medical Center, New York, New York.

Mack Lipkin, Jr., M.D.

Associate Professor of Medicine, New York University School of Medicine; Associate Attending Physician, University Hospital of the New York University Medical Center; Associate Attending Physician Bellevue Hospital, New York, New York.

Judith E. Lipton, M.D.

Staff, Overlake Hospital, Bellevue, Washington; Staff, Fairfax Hospital, Kirkland, Washington.

S. Arthur Localio, M.D., Med.D.Sc.

Johnson & Johnson Distinguished Professor of Surgery, New York University School of Medicine; Attending Surgeon, University Hospital of the New York University Medical Center; Attending Surgeon, Bellevue Hospital, New York, New York.

Robert B. Malmo, Ph.D., LL.D.

Professor of Psychiatry, McGill University; Medical Scientist, Royal Victoria Hospital, Montreal, Quebec, Canada.

Alfred Edgar Mamelok, M.D., F.A.C.S.

Clinical Associate Professor of Ophthalmology, Cornell University Medical College; Attending Ophthalmologist, New York Hospital Cornell Medical Center; Attending Surgeon, Manhattan Ear, Eye and Throat Hospital, New York, New York.

Peter R. Marler, Ph.D.

Professor, The Rockefeller University, Field Research Center, Millbrook, New York.

Joseph D. Matarazzo, Ph.D.

Professor and Chairman, Department of Medical Psychology; Chief, Medical Psychological Services, School of Medicine, Oregon Health Sciences University, Portland, Oregon.

Åke Mattsson, M.D.

Professor of Psychiatry and Pediatrics; Director, Division of Child and Adolescent Psychiatry; New York University School of Medicine; Attending Psychiatrist, University Hospital of the New York University Medical Center; Attending Physician, Bellevue Hospital Center, New York, New York.

Philip R. A. May, M.D.

Professor, Della Martin Chair in Psychiatry, Neuropsychiatric Institute, University of California at Los Angeles, California; Veterans Administration Medical Center, Brentwood, California; Camarillo State Hospital, Camarillo, California.

F. Patrick McKegney, M.D.

Professor of Psychiatry and Chief, Division of Consultation, Liaison Psychiatry, Albert Einstein College of Medicine, Montefiore Medical Center, New York, New York.

William Thomas McKinney, Jr., M.D.

Professor of Psychiatry, University of Wisconsin Medical School, Clinical Sciences Center, Madison, Wisconsin.

Morris Meisner, Ph.D.

Research Associate Professor, Department of Psychiatry, New York University School of Medicine, New York, New York; Nathan S. Kline Institute for Psychiatric Research, Orangeburg, New York.

William W. Meissner, S.J., M.D.

Clinical Professor of Psychiatry, Harvard Medical School; Staff Psychiatrist; Training and Supervisory Analyst, Boston Psychoanalytic Institute, Boston, Massachusetts.

Jon K. Meyer, M.D.

Professor of Psychiatry, Medical College of Wisconsin; Director of Supervision, Psychotherapy Center, Columbia Hospital, Milwaukee, Wisconsin.

Juan E. Mezzich, M.D., Ph.D.

Associate Professor of Psychiatry and Director, Diagnostic and Evaluation Center and Clinical Information System, Western Psychiatric Institute and Clinic, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

James Grier Miller, M.D., Ph.D.

President, Center for the Study of Democratic Institutions; Adjunct Professor in Psychology, University of California, Santa Barbara, California; Visiting Professor in Psychiatry and Neuropsychiatric Institute, University of California at Los Angeles School of Medicine, Los Angeles, California.

Jessie L. Miller, M.A.

Santa Barbara, California.

John J. Mooney, M.D.

Instructor in Psychiatry, Harvard Medical School; Senior Investigator, Neuropsychopharmacology Laboratory, Massachusetts Mental Health Center, Boston, Massachusetts.

George Mora, M.D.

Assistant Clinical Professor of Psychiatry, New York Medical College, Valhalla, New York; Lecturer, Department of Psychiatry, Columbia University College of Physicians and Surgeons, New York, New York; Clinical Associate Professor of Psychiatry, Albany Medical College, Albany, New York; Research Associate, Department of History of Science and Medicine, Yale University School of Medicine, New Haven, Connecticut; Medical Director, Astor Home for Children, Rhinebeck, New York.

John C. Nemiah, M.D.

Professor of Psychiatry, Harvard Medical School; Psychiatrist-in-Chief, Beth Israel Hospital, Boston, Massachusetts.

John I. Nurnberger, Jr., M.D., Ph.D.

Chief, National Institute of Mental Health Outpatient Clinics and Staff Psychiatrist, Section on Psychogenetics, Biological Psychiatry Branch, National Institute of Mental Health, Bethesda, Maryland.

William V. Ofman, Ph.D.

Associate Professor of Counseling, University of Southern California, Los Angeles, California.

Donald Oken, M.D.

Director, Consultation-Liaison Service, Department of Psychiatry, Pennsylvania Hospital; Clinical Professor of Psychiatry, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania.

J. Christopher Perry, M.D.

Assistant Professor of Psychiatry, Harvard Medical School, Boston, Massachusetts; Assistant Director, Psychiatric Emergency Service, Cambridge Hospital, Cambridge, Massachusetts.

Cynthia R. Pfeffer, M.D.

Associate Professor of Clinical Psychiatry, Cornell University Medical College; Associate Attending Psychiatrist, New York Hospital-Westchester Division; Adjunct Assistant Professor of Clinical Psychiatry, New York University School of Medicine, New York, New York.

Chester M. Pierce, M.D.

Professor of Education and Psychiatry, Faculty of Medicine, Graduate School of Education, Cambridge, Massachusetts; Psychiatrist, Massachusetts General Hospital, Boston, Massachusetts.

Robert Plutchik, Ph.D.

Professor of Psychiatry (Psychology), Albert Einstein College of Medicine; Associate Director, Department of Psychiatry, Bronx Municipal Hospital Center, Bronx, New York.

Sally Provence, M.D.

Professor of Pediatrics, Child Study Center, Yale University School of Medicine; Attending Pediatrician, Yale-New Haven Hospital; Faculty, Western New England Institute for Psychoanalysis, New Haven, Connecticut.

Joaquim Puig-Antich, M.D.

Professor of Psychiatry, Department of Psychiatry and Chief of Child and Adolescent Psychiatry, Western Psychiatric Institute & Clinic, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

John D. Rainer, M.D.

Professor of Clinical Psychiatry, Columbia University College of Physicians and Surgeons; Chief of Psychiatric Research (Genetics), New York State Psychiatric Institute; Attending Psychiatrist, Presbyterian Hospital, New York, New York.

Judith L. Rapoport, M.D.

Chief, Section on Child Psychiatry, Laboratory of Clinical Science, National Institute of Mental Health, Bethesda, Maryland.

Darrel A. Regier, M.D., M.P.H.

Director, Division of Biometry and Epidemiology, National Institute of Mental Health, Rockville, Maryland.

Lynn Whisnant Reiser, M.D.

Assistant Clinical Professor of Psychiatry, Yale University School of Medicine, New Haven, Connecticut.

Morton F. Reiser, M.D.

Charles B. G. Murphy, Professor of Psychiatry and Chairman, Department of Psychiatry, Yale University School of Medicine, New Haven, Connecticut.

Eli Robins, M.D.

Wallace Renard, Professor of Psychiatry, Washington University School of Medicine; Psychiatrist, Barnes Hospital and The Jewish Hospital of St. Louis; Consulting Psychiatrist, Malcolm Bliss Mental Health Center and Children's Hospital, St. Louis, Missouri.

Eliot H. Rodnick, Ph.D.

Professor Emeritus of Psychology, University of California, Los Angeles, California.

Carl R. Rogers, Ph.D.

Resident Fellow, Center for Studies of the Person, La Jolla, California.

Jerrold F. Rosenbaum, M.D.

Assistant Professor of Psychiatry, Harvard Medical School; Chief, Clinical Psychopharmacology Unit and Psychosomatic Medicine Unit, Massachusetts General Hospital, Boston, Massachusetts.

Lester H. Rudy, M.D.

Professor and Head, Department of Psychiatry, University of Illinois at Chicago; Psychiatrist-in-Chief, University of Illinois Hospital; Consultant, West Side Veterans Administration Hospital, Chicago, Illinois.

Benjamin J. Sadock, M.D.

Professor of Psychiatry and Vice Chairman, Department of Psychiatry, New York University School of Medicine; Attending Psychiatrist, University Hospital of the New York University Medical Center; Attending Psychiatrist, Bellevue Hospital, New York, New York.

Virginia A. Sadock, M.D.

Associate Professor of Clinical Psychiatry and Director of Graduate Education in Human Sexuality, New York University School of Medicine; Associate Attending Psychiatrist, University Hospital of the New York University Medical Center; Associate Attending, Bellevue Hospital, New York, New York.

Ruth C. Sanford, M.A.

Adjunct Professor, C.W. Post Center, Long Island University, Greenvale, New York; Co-Director, Center for Interpersonal Growth, Port Jefferson, New York.

Thomas E. Schacht, Psy.D.

Research Assistant Professor, Center for Psychotherapy Research, Vanderbilt University, Nashville, Tennessee; Assistant Professor, Department of Psychiatry and Behavioral Sciences, Quillen-Dishner College of Medicine, Johnson City, Tennessee.

Joseph J. Schildkraut, M.D.

Professor of Psychiatry, Harvard Medical School; Director of the Neuropsychopharmacology Laboratory, Massachusetts Mental Health Center; Director of the Psychiatric Chemistry Laboratory, Department of Pathology, New England Deaconess Hospital, Boston, Massachusetts.

Steven J. Schleifer, M.D.

Assistant Professor of Psychiatry, Mount Sinai School of Medicine, City University of New York; Assistant Attending Psychiatrist, Mount Sinai Hospital, New York, New York.

Clarence G. Schulz, M.D.

Director of Residency Training, The Sheppard and Enoch Pratt Hospital, Towson, Maryland; Training and Supervising Analyst, Washington Psychoanalytic Institute; Adjunct Associate Professor, Department of Psychiatry, University of Maryland School of Medicine; Assistant Professor of Psychiatry, Johns Hopkins University School of Medicine, Baltimore, Maryland.

M. Tracie Shea, Ph.D.

Associate Coordinator, Treatment of Depression Collaborative Research Program, National Institute of Mental Health, Rockville, Maryland; Senior Research Scientist, Department of Psychiatry and Behavioral Sciences, George Washington University, Washington, DC.

G. Pirooz Sholevar, M.D.

Clinical Professor of Psychiatry and Director, Division of Child, Adolescent and Family Psychiatry, Jefferson Medical College, Thomas Jefferson University; Attending Psychiatrist, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania.

Carole Siegel, Ph.D.

Research Associate Professor, Department of Psychiatry, New York University School of Medicine, New York, New York; Nathan S. Kline Institute for Psychiatric Research, Orangeburg, New York.

Larry B. Silver, M.D.

Acting Director, National Institute of Mental Health, Rockville, Maryland; Clinical Professor of Psychiatry, Georgetown University School of Medicine, Washington, DC.

Albert J. Silverman, M.D.

Professor of Psychiatry, University of Michigan Medical Center; Attending Psychiatrist, University of Michigan Hospital, Ann Arbor, Michigan.

Robert Simon, M.D.

Director of Clinical Training, Ackerman Institute for Family Therapy, New York, New York.

George M. Simpson, M.D.

Professor of Psychiatry and Director of Clinical Psychopharmacology, Medical College of Pennsylvania, Philadelphia, Pennsylvania.

Jacob O. Sines, Ph.D.

Professor of Psychology, University of Iowa, Iowa City, Iowa.

Ralph Slovenko, LL.B., Ph.D.

Professor of Law and Psychiatry, Wayne State University School of Law, Detroit, Michigan.

S. Mouchly Small, M.D.

Emeritus Director, American Board of Psychiatry and Neurology; Professor of Psychiatry, State University of New York at Buffalo School of Medicine; Attending Psychiatrist, Erie County Medical Center; Psychiatric Consultant, Veterans Administration Hospital; Attending Psychiatrist, Buffalo General Hospital, Buffalo, New York.

Solomon H. Snyder, M.D.

Distinguished Service Professor of Neuroscience, Pharmacology and Psychiatry and Chairman, Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Philip Solomon, M.D.

Clinical Professor of Psychiatry, University of California (San Diego) Medical School; Attending Psychiatrist University, Sharp, Scripps, and Mercy Hospitals, La Jolla California.

Seymour Solomon, M.D.

Professor of Neurology, Albert Einstein College of Medicine, Yeshiva University; Attending Neurologist and Director of Headache Unit, Montefiore Medical Center, New York, New York.

David Spiegel, M.D.

Associate Professor, Psychiatry and Behavioral Sciences, and Director, Adult Psychiatric Outpatient Clinic, Stanford University School of Medicine, Stanford, California.

Herbert Spiegel, M.D.

Lecturer, Columbia University College of Physicians and Surgeons, New York, New York.

Robert L. Spitzer, M.D.

Professor of Psychiatry, Columbia University College of Physicians and Surgeons; Chief, Psychiatric Research, Biometric Research Department, New York State Psychiatric Institute, New York, New York.

Bonnie Spring, Ph.D.

Associate Professor of Psychology, Harvard University; Assistant Psychologist, McLean Hospital; Staff Psychologist, Massachusetts Mental Health Center, Boston, Massachusetts.

Marvin Stein, M.D.

Esther and Joseph Klingenstein Professor and Chairman, Department of Psychiatry, Mount Sinai School of Medicine, City University of New York; Psychiatrist-in-Chief, Mount Sinai Hospital, New York, New York.

Robert L. Stewart, M.D.

Training and Supervising Analyst, Cincinnati Psychoanalytic Institute; Clinical Professor of Psychiatry, University of Cincinnati College of Medicine, Cincinnati, Ohio.

Robert J. Stoller, M.D.

Professor of Psychiatry, University of California at Los Angeles School of Medicine, Los Angeles, California.

Charles F. Stroebel, Ph.D., M.D.

Professor of Psychiatry, University of Connecticut Medical School and Health Center, Farmington, Connecticut; Lecturer in Psychiatry, Yale University School of Medicine, New Haven, Connecticut.

Hans H. Strupp, Ph.D.

Distinguished Professor of Psychology, Vanderbilt University, Nashville, Tennessee.

Albert J. Stunkard, M.D.

Professor of Psychiatry, University of Pennsylvania, Philadelphia, Pennsylvania.

Stephen J. Suomi, Ph.D.

Chief, Laboratory of Comparative Ethology, National Institute of Child Health and Human Development, Bethesda, Maryland; Adjunct Professor of Psychology, University of Wisconsin, Madison, Wisconsin.

Norman Sussman, M.D.

Clinical Assistant Professor of Psychiatry, New York University School of Medicine; Assistant Attending Psychiatrist, University Hospital of the New York University Medical Center; Attending Psychiatrist, Bellevue Hospital, New York, New York.

Alexandra Symonds, M.D.

Associate Clinical Professor of Psychiatry, New York University School of Medicine; Training Analyst, American Institute of Psychoanalysis; Associate Attending Psychiatrist, University Hospital of the New York University Medical Center, New York, New York.

Martin Symonds, M.D.

Associate Clinical Professor of Psychiatry, New York University School of Medicine; Assistant Dean, American Institute for Psychoanalysis; Associate Attending Psychiatrist, University Hospital of the New York University; Associate Attending Psychiatrist, Bellevue Hospital, New York, New York.

Ludwik S. Szymanski, M.D.

Director of Psychiatry, Developmental Evaluation Clinic, Children's Hospital; Assistant Clinical Professor of Psychiatry, Harvard Medical School, Boston, Massachusetts.

William N. Thetford, Ph.D.

Consultant, Medical Specialist in Family Medicine, David Grant Medical Center, Travis Air Force Base, California.

Troy L. Thompson, II, M.D.

Associate Professor of Psychiatry and Medicine, University of Colorado School of Medicine; Attending Psychiatrist, University Hospital and Colorado Psychiatric Hospital, Denver, Colorado.

Gary L. Tischler, M.D.

Professor of Psychiatry and the Institution for Social and Policy Studies, Yale University; Director, Yale Psychiatric Institute, New Haven, Connecticut.

Robert J. Ursano, M.D.

Lieutenant Colonel, United States Air Force; Associate Professor of Psychiatry and Associate Chairman, Department of Psychiatry, Uniformed Services University of the Health Sciences, School of Medicine, Bethesda, Maryland.

George E. Vaillant, M.D.

Raymond Sobel, Professor of Psychiatry, Dartmouth Medical School, Hanover, New Hampshire; Director, Study of Adult Development, Harvard University Health Services, Cambridge, Massachusetts.

Herbert E. Walker, M.D.

Clinical Professor of Psychiatry, New York University School of Medicine; Associate Attending Psychiatrist, University Hospital of the New York University Medical Center; Associate Attending Psychiatrist, Bellevue Hospital, New York, New York.

J. Ingram Walker, M.D.

Assistant Professor of Psychiatry, Duke University Medical Center; Chief, Mental Hygiene Clinic, Durham Veterans Administration Medical Center, Durham, North Carolina.

Roger Walsh, M.B., Ph.D., F.R.A.N.Z.C.P.

Associate Professor of Psychiatry, University of California at Irvine School of Medicine; Associate Professor, School of Social Sciences, University of California at Irvine, Irvine, California.

Livia S. Wan, M.D.

Professor of Obstetrics & Gynecology and Chief, Family Planning Division, New York University School of Medicine, New York, New York.

Herbert Weiner, M.D.

Professor of Psychiatry, Department of Psychiatry and Behavioral Sciences; Chief, Behavioral Medicine, University of California at Los Angeles, Los Angeles, California.

Myron F. Weiner, M.D.

Professor of Clinical Psychiatry and Vice Chairman, Department of Psychiatry, University of Texas Health Science Center, Dallas, Texas.

Richard D. Weiner, M.D., Ph.D.

Staff Psychiatrist, Durham VA Medical Center; Assistant Professor of Psychiatry, Duke University Medical Center, Durham, North Carolina.

Avery D. Weisman, M.D.

Professor of Psychiatry, Harvard Medical School; Senior Psychiatrist, Massachusetts General Hospital; Training and Supervisory Analyst, Boston Psychoanalytic Institute, Boston, Massachusetts.

Myrna M. Weissman, Ph.D.

Professor of Psychiatry and Epidemiology, Yale University School of Medicine; Director, Depression Research Unit, Connecticut Mental Health Center, New Haven, Connecticut.

Charles E. Wells, M.D.

Clinical Professor of Psychiatry and Neurology, Vanderbilt University School of Medicine, Nashville, Tennessee.

Sidney Lee Werkman, M.D.

Professor of Psychiatry, University of Colorado School of Medicine, Health Science Center, Denver, Colorado.

Jack F. Wilder, M.D.

Professor of Psychiatry and Associate Dean for Planning and Operations, Albert Einstein College of Medicine of Yeshiva University, Bronx, New York.

Janet B. W. Williams, D.S.W.

Associate Professor of Clinical Psychiatric Social Work, Department of Psychiatry, Columbia University College of Physicians and Surgeons; Research Scientist, Biometric Research Department; Associate Director (Research), Department of Social Work, New York State Psychiatric Institute, New York, New York.

Richard J. Wyatt, M.D.

Chief, Adult Psychiatry Branch, Division of Intramural Research, National Institute of Mental Health, Saint Elizabeths Hospital, Washington, DC.

Stuart C. Yudofsky, M.D.

Associate Professor of Clinical Psychiatry and Vice Chairman, Department of Psychiatry, Columbia University College of Physicians and Surgeons; Director, Neuropsychiatric Diagnostic and Treatment Source, Presbyterian Hospital; Deputy Director, New York State Psychiatric Institute, New York, New York.

Miltiades L. Zaphiropoulos, M.D.

Associate Clinical Professor of Psychiatry, Columbia University College of Physicians and Surgeons; Senior Adjunct Attending Psychiatrist, St. Luke's-Roosevelt Hospital Center, New York, New York.

Veva H. Zimmerman, M.D.

Associate Professor of Clinical Psychiatry and Associate Dean, New York University School of Medicine; Associate Attending Psychiatrist, University Hospital of the New York University Medical Center; Associate Attending Psychiatrist, Bellevue Hospital, New York, New York.

Joseph Zubin, Ph.D., M.D. (Honorary), Sc.D. (Honorary)

Distinguished Research Professor of Psychiatry, University of Pittsburgh Medical School; Research Career Scientist, Veterans Administration Medical Center, Pittsburgh, Pennsylvania; Professor Emeritus of Psychology and Special Lecturer in Psychiatry, Columbia University; Attending Biometrician, New York State Psychiatric Institute; Gregory Razran Professor of Psychology, Queens College, City University of New York, New York, New York.

CONSULTING EDITOR

Robert Cancro, M.D., Med.D.Sc.

Professor and Chairman,
Department of Psychiatry,
New York University School of Medicine
Director, Department of Psychiatry, University Hospital
of the New York University Medical Center
Director, Department of Psychiatry,
Bellevue Hospital, New York, New York
Director, Nathan S. Kline Institute for
Psychiatric Research, Orangeburg, New York

Medicine
Surgery, University Hospital
Medical Center
Surgery,

New York
te for
urg, New York

CONTENTS

VOLUME ONE

Foreword	vii
ROBERT CANCRO, M.D., MED. D.S.C.	
Preface	ix
List of Contributors	xi
Chapter 1	
Theoretical Trends in Psychiatry	1
1.1 The Life Cycle	1
DANIEL J. LEVINSON, PH.D. AND WINSTON E. GOODEN, PH.D.	
1.2 General Living Systems Theory	13
JAMES GRIER MILLER, M.D., PH.D. AND JESSIE L. MILLER, M.A.	
Chapter 2	
Contributions of the Biological Sciences	25
2.1 Genetics and Psychiatry	25
JOHN D. RAINER, M.D.	
2.2 Basic Science of Psychopharmacology	42
SOLOMON H. SNYDER, M.D.	
2.3 Sleep	55
ERNEST L. HARTMANN, M.D.	
2.4 Biological Rhythms in Psychiatry	67
CHARLES F. STROEBEL, PH.D., M.D.	
2.5 Sociobiology	70
DAVID P. BARASH, PH.D. AND JUDITH E. LIPTON, M.D.	
Chapter 3	
Neurology	78
3.1 Anatomy and Physiology of the Central Nervous System	78
SEYMOUR SOLOMON, M.D.	
3.2 Neurological Evaluation	83
SEYMOUR SOLOMON, M.D.	
3.3 Clinical Neurology and Neuropathology	104
SEYMOUR SOLOMON, M.D.	
3.4 Clinical Neurology and Pathophysiology	131
SEYMOUR SOLOMON, M.D.	
3.5 Application of Neurology to Psychiatry	146
SEYMOUR SOLOMON, M.D.	
Chapter 4	
Contributions of the Psychological Sciences	157
4.1 Perception, Cognition, and Information Processing	157
MITCHELL L. KIETZMAN, PH.D., BONNIE SPRING, PH.D. AND JOSEPH ZUBIN, PH.D.	
4.2 Jean Piaget	178
HERBERT P. GINSBURG, PH.D.	
4.3 Learning Theory	184
ARTHUR J. BACHRACH, PH.D.	
4.4 Motivation and Affective Arousal	198
ROBERT B. MALMO, PH.D., LL.D.	
4.5 Aggression	213
ROBERT A. BARON, PH.D.	
4.6 Ethology: Animal Models	226
STEPHEN J. SUOMI, PH.D.	
4.7 Ethology of Communicative Behavior	237
PETER R. MARLER, PH.D.	
Chapter 5	
Contributions of the Sociocultural Sciences	247
5.1 Anthropology and Psychiatry	247
ARMANDO R. FAVAZZA, M.D., M.P.H.	
5.2 Sociology and Psychiatry	265
WILLIAM C. COCKERHAM, PH.D.	
5.3 The Family and Psychiatry	273
STEPHEN FLECK, M.D.	
Chapter 6	
Quantitative and Experimental Methods in Psychiatry	295
6.1 Epidemiology	295
DARREL A. REGIER, M.D., M.P.H. AND JACK D. BURKE, JR., M.D., M.P.H.	
6.2 Experimental Disorders	312
WILLIAM T. MCKINNEY, JR., M.D.	
6.3 Sensory Deprivation	321
PHILIP SOLOMON, M.D. AND SUSAN T. KLEEMAN, M.D.	
Chapter 7	
Application of Statistics to Psychiatry	327
EUGENE LASKA, PH.D., CAROLE SIEGEL, PH.D., AND MORRIS MEISNER, PH.D.	
Chapter 8	
Theories of Personality and Psychopathology: Classical Psychoanalysis	337
WILLIAM W. MEISSNER, S.J., M.D.	

Chapter 9			
Theories of Personality and Psychopathology: Cultural and Interpersonal Psychoanalytic Schools . . .	419	14.3	Evaluation of DSM-III 617
9.1 Karen Horney	419		GARY L. TISCHLER, M.D.
ALEXANDRA SYMONDS, M.D. AND MARTIN SYMONDS, M.D.		14.4	Neurosis, Psychosis, and the Borderline States 621
9.2 Harry Stack Sullivan	426		OTTO F. KERNBERG, M.D.
MILTIADES L. ZAPHIROPOULOS, M.D.		Chapter 15	
9.3 Carl Jung	433	Schizophrenic Disorders	631
C. JESS GROESBECK, M.D.		15.1	History and Overview of Schizophrenia 631
Chapter 10			ROBERT CANCRO, M.D., MED.D.SC.
Theories of Personality and Psychopathology: Other Schools	441	15.2	Schizophrenia: Epidemiology 643
10.1 Melanie Klein	441		HAROUTUN M. BABIGIAN, M.D.
OTTO F. KERNBERG, M.D.		15.3	Schizophrenia: Etiology 650
10.2 Other Psychodynamic Schools	451		HERBERT WEINER, M.D.
MYRON F. WEINER, M.D.		15.4	Schizophrenia: Clinical Features 680
Chapter 11			HEINZ E. LEHMANN, M.D. AND ROBERT CANCRO, M.D., MED.D.SC.
Theories of Personality and Psychopathology: Schools Derived from Psychology and Philosophy .	459	15.5	Schizophrenia: Somatic Treatment 713
WILLIAM N. THETFORD, PH.D. AND ROGER WALSH, M.B., PH.D., F.R.A.N.Z.C.P.			GEORGE M. SIMPSON, M.D. AND PHILIP R. A. MAY, M.D.
Chapter 12		15.6	Schizophrenia: Psychosocial Treatment 724
Diagnosis and Psychiatry: Examination of the Psychiatric Patient	482		ROBERT PAUL LIBERMAN, M.D.
12.1 Psychiatric Interview	482	15.7	Schizophrenia: Individual Psychotherapy . . . 734
GEORGE L. GINSBERG, M.D.			CLARENCE G. SCHULZ, M.D.
12.2 Psychiatric History and Mental Status Examination	487	Chapter 16	
GEORGE L. GINSBERG, M.D.		Paranoid Disorders	747
12.3 Psychiatric Report	495		J. INGRAM WALKER, M.D. AND H. KEITH H. BRODIE, M.D.
HAROLD I. KAPLAN, M.D. AND BENJAMIN J. SADOCK, M.D.		Chapter 17	
12.4 Typical Signs and Symptoms of Psychiatric Illness	499	Schizoaffective Disorders	756
HAROLD I. KAPLAN, M.D. AND BENJAMIN J. SADOCK, M.D.			SAMUEL B. GUZE, M.D.
12.5 Psychological Assessment of Intelligence . . .	502	Chapter 18	
JOSEPH D. MATARAZZO, PH.D.		Affective Disorders	760
12.6 Psychological Testing of Personality	514	18.1	Overview of Affective Disorders 760
ARTHUR C. CARR, PH.D.			ROBERT CANCRO, M.D., MED.D.SC.
12.7 Psychological Testing for Brain Damage . . .	535	18.2	Affective Disorders: Epidemiology 764
ARTHUR L. BENTON, PH.D., D.SC.			MYRNA M. WEISSMAN, PH.D. AND JEFFREY H. BOYD, M.D., M.P.H.
12.8 Medical Assessment in Psychiatric Practice .	543	18.3	Affective Disorders: Biochemical Aspects . . . 769
MARC H. HOLLENDER, M.D. AND CHARLES E. WELLS, M.D.			JOSEPH J. SCHILDKRAUT, M.D., ALAN I. GREEN, M.D., AND JOHN J. MOONEY, M.D.
Chapter 13		18.4	Affective Disorders: Genetics 778
Clinical Manifestations of Psychiatric Disorders . . .	550		ELLIOT S. GERSHON, M.D., JOHN I. NURNBERGER, JR., M.D., PH.D., WADE H. BERRETTINI, M.D., PH.D., AND LYNN R. GOLDIN, PH.D.
LOUIS LINN, M.D.		18.5	Affective Disorders: Clinical Features 786
Chapter 14			HEINZ E. LEHMANN, M.D.
Classification in Psychiatry	591	18.6	Affective Disorders: Psychosocial Treatment 811
14.1 Classification of Mental Disorders	591		ROBERT M. A. HIRSCHFELD, M.D. AND M. TRACIE SHEA, PH.D.
ROBERT L. SPITZER, M.D. AND JANET B. W. WILLIAMS, D.S.W.		18.7	Affective Disorders: Pharmacotherapy 821
14.2 Multiaxial Diagnostic Systems in Psychiatry 613			ANASTASIOS GEORGOTAS, M.D.
JUAN E. IZZICH, M.D., PH.D.		Chapter 19	
Chapter 15		Organic Mental Disorders	834
Schizophrenic Disorders	631	19.1	Overview of Organic Mental Disorders 834
15.1 History and Overview of Schizophrenia	631		CHARLES E. WELLS, M.D.
ROBERT CANCRO, M.D., MED.D.SC.		19.2	Organic Syndromes: Delirium 838
15.2 Schizophrenia: Epidemiology	643		CHARLES E. WELLS, M.D.
HAROUTUN M. BABIGIAN, M.D.			
15.3 Schizophrenia: Etiology	650		
HERBERT WEINER, M.D.			
15.4 Schizophrenia: Clinical Features	680		
HEINZ E. LEHMANN, M.D. AND ROBERT CANCRO, M.D., MED.D.SC.			
15.5 Schizophrenia: Somatic Treatment	713		
GEORGE M. SIMPSON, M.D. AND PHILIP R. A. MAY, M.D.			
15.6 Schizophrenia: Psychosocial Treatment	724		
ROBERT PAUL LIBERMAN, M.D.			
15.7 Schizophrenia: Individual Psychotherapy . . .	734		
CLARENCE G. SCHULZ, M.D.			