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978-0-521-85428-3 - Understanding Trauma: Integrating Biological, Clinical, and Cultural Perspectives

Edited by Laurence J. Kirmayer, Robert Lemelson and Mark Barad

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Understanding Trauma

Integrating Biological, Clinical, and Cultural Perspectives

This book explores the individual and collective experiences of trauma from the perspectives of neuroscience, clinical science, and cultural anthropology. Each perspective presents critical and conceptual challenges for the development of an integrative model of the impact of trauma. The first section reviews the neurobiology of fear conditioning and extinction, and the effects of early life stress on the development of neural systems related to vulnerability to persistent effects of trauma. The second section of the book reviews a wide range of clinical approaches to the treatment of the effects of trauma in different populations, including refugees. The final section of the book presents cultural analyses of personal, social, and political responses to massive trauma and genocidal events in a variety of societies. This work goes well beyond neurobiological models of conditioned fear and the clinical syndrome of posttraumatic stress disorder to examine how massive traumatic events affect the whole fabric of a society, calling forth collective responses of resilience and moral transformation.

Laurence J. Kirmayer is James McGill Professor and Director, Division of Social and Transcultural Psychiatry in the Department of Psychiatry at McGill University. He is editor-in-chief of *Transcultural Psychiatry*, a quarterly scientific journal, and directs the Culture and Mental Health Research Unit at the Department of Psychiatry, Sir Mortimer B. Davis–Jewish General Hospital in Montreal, where he conducts research on mental health services for immigrants and refugees, the mental health of indigenous peoples, and the anthropology of psychiatry.

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*Integrating Biological, Clinical,
and Cultural Perspectives*

Edited by

LAURENCE J. KIRMAYER

McGill University

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The Foundation for Psychocultural Research

MARK BARAD

University of California, Los Angeles



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In memory of Carl Gold and Bessie Blanshay, who fled pogroms to find a new life – LJK

*Dedicated to Dorothy Lemelson and the memory of Jerome Lemelson:
Without your love, assistance, and encouragement, this project and the ongoing work of the FPR would not have been possible – RL*

*For Ronnie Barad, my sister, who inspired my interest in psychiatry
– MB*

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Foreword

Robert Jay Lifton, M.D.

As I write this in October 2005, the people of New Orleans and adjacent areas have been experiencing multiple levels of trauma, including the destruction of their homes by fierce winds and lethal flooding; deaths of family and friends, sometimes helplessly witnessed, and their own escape from that fate; loss of contact with family members; and a general breakdown of social order – all with a sense of having been abandoned by their government, which was only partly relieved when help finally arrived.

These forms of trauma were mainly a result of Hurricane Katrina but also of Hurricane Rita, which hit some of the same areas just ten days later. Both storms were extraordinary in their destructive power. Hundreds of thousands of people are undergoing dimensions of trauma that will affect their psyches, their bodies, and their overall sense of human viability. Though some will undoubtedly show impressive resilience in finding new life patterns, many will be left with permanent psychological pain and impairment.

Within just weeks following those hurricanes, a disaster of much greater magnitude occurred in the form of an earthquake in Pakistan, killing at least 40,000 people and leaving millions at profound risk.

This book seeks to explore the scope of human trauma, wherever it occurs. The diagnostic category of posttraumatic stress disorder becomes a baseline, a psychological indicator. Any such category will have its contradictions and confusions, but it does at least provide a structure for a very real and often neglected form of human suffering. In pursuing the ramifications of posttraumatic stress disorder, we are engaged not only in a scientific project but in an ethical one as well. Our challenge is to bring both compassion and intellectual rigor to the full array of suffering associated with trauma, from that of the individual person to the all-inclusive human community, and to seek understanding of interactions that occur at every level.

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A dramatic example of these interlocking levels of trauma comes from my own study of Hiroshima survivors. At the individual-psychological level, I found that survivors who had been sufficiently close to the hypocenter of the bomb experienced a lifelong immersion in death: a sequence of exposure to a sea of death at the moment of the explosion; the witnessing or experiencing of acute radiation effects during the days and weeks that followed and of delayed effects in the form of leukemia and other cancers years later; and finally the acquisition of the death-haunted identity of the *hibakusha*, or atomic-bomb survivor. Some survivors experienced an overarching sense of the end of everything. A history professor described climbing a hill and then looking down in astonishment to see that “Hiroshima had disappeared. . . . Hiroshima didn’t exist – that was mainly what I saw – Hiroshima just didn’t exist.” And a physicist told me of noting how black his body had become and that “everything seemed dark, dark all over. Then I thought, ‘The world is ending.’” In a single sentence, he connected the burns on his body with an early sense of the danger that the new weapon posed for humankind.

Many survivors found meaning in conveying that danger by telling their stories, whether to others in Hiroshima or to people in various parts of the world. These energetic efforts to contribute to broader knowledge and wisdom could also enhance their own healing.

Here we encounter survivors’ consuming struggle for meaning, for some kind of edifying narrative that can render their pain significant. No event, however traumatic, contains inherent meaning. Rather, such meaning is constructed by those exposed directly to it and by others more removed from it.

Meanings can vary enormously, as was impressed on me by two polarized responses to the Holocaust in the late 1960s. A group calling itself the Jewish Defense League, some of whose members came from survivor families, embraced the slogan “Never again!” and took on a quasifascist character, invoking the Holocaust to justify violence against designated enemies. At about the same time, a group of Auschwitz survivors asked me to join them in protesting the massacre by U.S. soldiers of 500 Vietnamese civilians in the village of My Lai, an atrocity which had just been reported in the American press. As one Auschwitz survivor put it, the My Lai massacre was “too close” to his own experience. However antithetical these two meanings, both were expressed with the searing emotion that an overwhelming immersion in death can evoke.

Our country has been undergoing what I call a war over meaning. Hurricanes Katrina and Rita occurred at a time of painful national conflict in relation to the Iraq war, when official assertions of its nobility and necessity were being questioned. Those doubts about Iraq have especially entered into responses to Katrina. With that hurricane, the lines between a natural disaster and a manmade disaster became completely blurred. There

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were decisive errors of human negligence – failure to take steps to protect a highly vulnerable city and, longer term, to control global warming, which scientists believe contributed greatly to the magnitude of destruction. We are led to ask whether every disaster is not in some measure manmade, whatever the natural forces at play.

No one can completely escape elements of responsibility for the traumatic events that bedevil our world, least of all those of us who are professionally concerned with what we call posttraumatic stress disorder. As a significant part of our professional responsibility, we do well to probe energetically not just the effects but the causes of trauma and to raise our voices publicly in contesting these destructive forces and in advocating more life-enhancing social policies.

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Preface

The idea for an interdisciplinary book on trauma emerged from a series of workshops organized and funded by the nonprofit Foundation for Psycho-cultural Research (FPR). The FPR was founded in 2000 by Robert Lemelson to support interdisciplinary work in neuroscience, psychology, and anthropology. The FPR is dedicated to bringing researchers and clinicians together to think across disciplinary boundaries and address issues of fundamental clinical and social concern. This book is the first in what we expect will be a series of volumes on work at the intersection of culture, brain, and mind. Participants at the first FPR workshop, “New Research on Culture–Brain Interactions,” which took place in Ojai, California, in June of 2001, agreed on psychological trauma as a three-year topical focus that could engage the various disciplines – anthropology, psychology, psychiatry, history, and neurobiology – in meaningful conversation. The incongruity and horror of 9/11 added a sense of urgency to the dialogue, and the second FPR workshop in June 2002 focused specifically on posttraumatic stress disorder as the future conference theme. However, at the urging of the anthropologists, the discussion opened onto a wider set of issues, considering how fear, threat, and danger are experienced across cultures and over time.

Most of the chapters in the present volume are based on papers presented at the first public FPR conference held in December 2002, entitled “Posttraumatic Stress Disorder: Biological, Clinical, and Cultural Approaches to Trauma’s Effects,” which was co-sponsored by the University of California, Los Angeles. Some of the participants in that conference were unable to contribute to this book and the chapters by Silove, Rousseau and Measham, and BenEzer were invited afterward. All of the contributors have had the chance to read each other’s work and have tried to make links across disciplines and domains.

As editors, we have benefited from discussions with many colleagues and friends. Laurence J. Kirmayer thanks his colleagues Allan Young,

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Preface

Cécile Rousseau, Jaswant Guzder, John Sigal, Eric Jarvis, Carol Kidron, and the participants in our seminar in the anthropology of psychiatry for many stimulating conversations about the cultural and clinical meanings of trauma and its treatment. Deepest thanks to Elizabeth Anthony for her intellectual and creative companionship and unfailing support throughout this project.

Robert Lemelson thanks the FPR board members for their wise stewardship and their provision of funding that enabled the writing of this volume, particularly Dr. Marvin Karno, for suggesting the idea of an interdisciplinary conference on PTSD, and Claudia Mitchell-Kernan and her staff, in particular Susan Townsley of the UCLA Graduate Division, for their invaluable support of our efforts and cosponsorship of the PTSD conference. Special thanks to Dr. Allan Tobin, former head of the Brain Research Institute at UCLA, who has served with such generosity of spirit as a mentor throughout the process. Lemelson also thanks the members of the Culture, Brain, and Development program and the Medicine, Mind, and Culture seminar, both at UCLA, where some of the ideas for this book were explored and discussed. Collaborative work with his Indonesian colleagues was also indispensable, and he wants to thank Dr. Luh Ketut Suryani, Dr. I. Gusti Putu Panteri, Dr. Made Nyandra, and especially Dr. Mahar Agusno and Dra. Ninik Supartini, whose friendship and support throughout his research he deeply appreciates. Finally, deep gratitude to the participants and patients who so generously gave their time to share the stories that provide the basis for the introduction and the concluding chapter.

Mark Barad thanks his generous neuroscience colleagues for their input into the issues surrounding the neuroscience of fear, and particularly Michael Fanselow, Mark Bouton, and Gregory Quirk. A special word of thanks to Marie-Françoise Chesselet for suggesting his participation in the mission of the FPR.

An undertaking of this scope involves many people behind the scenes. Dr. Constance Cummings has provided skillful editorial assistance and sage advice from the inception to the completion of this volume. Dr. Mamie Wong and other staff of the FPR have provided invaluable support. As director of the FPR, Irene Sukwandi skillfully managed the overall process of the conference and book writing project and ensured its smooth unfolding. Her hard work and dedication are reflected in every aspect of this book. We would also like to thank Philip Laughlin, formerly of Cambridge University Press and now at Springer, for guiding us through the proposal process; Eric Schwartz of Cambridge for his editorial guidance; and senior editorial assistant Armi Macaballug, who indefatigably responded to our questions.

Our special thanks to Susan Morse, whose painting graces the cover of this book. Finally, we would like to thank the outstanding scholars and

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clinicians who have contributed to this volume. It has been a pleasure and a privilege to take part in this colloquy, which we hope will stand as an inspiring example of the creative power of interdisciplinary work.

LJK

RL

MB

Los Angeles, December 2005

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List of Abbreviations

β -NGF	nerve growth factor
ABN	arched-back nursing
ACR	acoustic startle response
ACTH	adrenocorticotrophic hormone
ANS	autonomic nervous systems
APA	American Psychiatric Association
BDNF	brain-derived neurotrophic factor
bFGF	basic fibroblast growth factor
BNST	bed nucleus of the stria terminalis
BPD	borderline personality disorder
BZ	benzodiazepine
CBT	cognitive behavioral therapy
cDNA	complementary DNA
CE	central nucleus of the amygdala
ChAT	choline acetyltransferase
COMT	catechol- <i>O</i> -methyl transferase
CPP	2-carboxypiperazin-4-yl-propyl-1-phosphonic acid (NMDAr antagonist)
CR	conditioned response
CREB	cAMP-response-element-binding protein
CRF	corticotropin-releasing factor
CRH	corticotropin-releasing hormone
CRH-ir	CRH immunoreactivity
CRH-TG	CRH transgenic (mice)
CS	conditioned stimulus
DCS	<i>D</i> -cycloserine
DHEA	dihydroepiandrosterone (DHEA)
DSM	<i>Diagnostic and Statistical Manual</i>
DST	dexamethasone suppression test

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List of Abbreviations

EMS	emotional motor system
FM	fibromyalgia
fMRI	functional magnetic resonance imaging
GABA	gamma-aminobutyric acid
GAD	glutamic acid decarboxylase
HPA	hypothalamic–pituitary–adrenal (axis)
Hz	hertz
IBS	irritable bowel syndrome
IL	infralimbic cortex
LVGCCs	L-type voltage-gated calcium channels
LDL	low-density lipoprotein
LG	licking and grooming (of rat pups)
LG-ABN	licking and grooming–arched-back nursing (of rat pups)
LTP	long-term potentiation
mPFC	ventral medial prefrontal cortex
N-CAM	neural-cell adhesion molecule
NMDA	<i>N</i> -methyl <i>D</i> -aspartate (receptors)
NR2B	NMDA receptor 2B
PET	positron emission tomography
PL	prelimbic cortex
PPI	prepulse inhibition
PVN(h)	paraventricular nucleus of the hypothalamus
SNS	sympathetic nervous system
SSDRAs	species-specific defense reactions
trkB (mRNA)	neurotrophic tyrosine kinase receptor (messenger RNA)
US	unconditioned stimulus