

Bruce Ecker, Robin Ticic, and Laurel Hulley

Unlocking the Emotional Brain



Memory Reconsolidation
and the Psychotherapy of
Transformational Change

SECOND EDITION



“Ecker, Ticic, and Hulley have outdone themselves in expanding and enhancing a book that is already considered by many a modern classic in the field. The first edition of this book influenced countless therapists around the world. I suspect this second edition is destined to have an even greater impact.”

Alexandre Vaz, PhD, *director of training, Sentio Counseling Center, and editor of the APA series The Essentials of Deliberate Practice*

“The first edition of *Unlocking the Emotional Brain* has been widely and rightly celebrated for its groundbreaking, integrative clinical framework, and this new edition offers the reader all that and even more. All psychotherapists and clinical researchers can find tremendous value in the clarity of this book’s teaching of the therapeutic power and unifying reach of memory reconsolidation. With its publication, the field of psychotherapy has made a significant, evolutionary, and transformative leap forward.”

David S. Elliott, PhD, *co-author of Attachment Disturbances in Adults*

FROM THE FIRST EDITION:

“Truly a revolutionary book.”

Jaak Panksepp, PhD, *founder of the field of affective neuroscience, Emeritus Professor of Psychology at Bowling Green State University*

“Beautifully written, the authors present an elegant integration of neuroscientific findings and psychotherapy technique, resulting in a step-by-step method for relieving longstanding symptoms and suffering. Even the most seasoned clinician will be inspired to learn from these masters.”

Patricia Coughlin, PhD, *clinical faculty at the University of New Mexico School of Medicine, author of Maximizing Therapeutic Effectiveness in Dynamic Psychotherapy*

“*Unlocking the Emotional Brain*... brings the recent ground-breaking brain research on memory reconsolidation to the mental health field... This is the first psychotherapy book to delineate the sequence of experiences the brain requires to heal. No matter how good a therapist you already are, reading this book will make you better.”

Ricky Greenwald, PsyD, *founder/Director, Trauma Institute and Child Trauma Institute, author of EMDR Within a Phase Model of Trauma-Informed Treatment*

“A transtheoretical, effective and efficient approach... for deep, transformational change in pernicious emotional implicit learnings... This is a significant ‘breakthrough’ book.”

Michael F. Hoyt, PhD, *author of* *Brief Psychotherapies: Principles and Practices*

“A refreshing and audacious book that throws open the doors and blows the dust from the corners of clinical practice... [T]he authors... add a startlingly effective process to the repertoire of every clinician [and] build powerful alliances across clinical approaches...”

Ann Weiser Cornell, PhD, *author of* *Focusing in Clinical Practice: The Essence of Change*

“*Unlocking the Emotional Brain* is destined to be a landmark publication... I’m sensing an emerging consensus in the field of psychotherapy... I think memory reconsolidation and this book could be the hub around which the various approaches unite... It is essential reading for therapists of all stripes...”

David Van Nuys, PhD, *Emeritus Professor of Psychology, Sonoma State University*

Unlocking the Emotional Brain

This highly influential volume, now in a much-expanded second edition, delivers major advances for psychotherapy, all empirically grounded in memory reconsolidation neuroscience. A great increase of therapeutic effectiveness can be gained, thanks to a clear map of the brain's innate core process of transformational change—a process that does not require use of any particular system or techniques and is therefore remarkably versatile. Twenty-six case examples show the decisive ending of a vast range of major symptoms, including depression, anxiety, panic, shame, self-devaluing, anger, perfectionism, alcohol abuse, sexual aversion, compulsive eating and obesity, paralyzed self-expression, and teen ADHD—all transformed through deeply resolving underlying disturbances such as complex trauma, lifelong oppression by systemic racism and homophobia, childhood sexual molestation, parental narcissistic domination, violent assault trauma, natural disaster trauma, and childhood traumatic aloneness and neglect. This is a transdiagnostic, transtheoretical, lucid understanding of therapeutic action, based, for the first time in the history of the psychotherapy field, on rigorous empirical knowledge of an internal mechanism of change, and it achieves a fundamental unification of the confusingly fragmented psychotherapy field: diverse systems no longer seem to belong to different worlds, because they now form a wonderful repertoire of options for facilitating the same core process of transformational change, as shown in case examples from AEDP, Coherence Therapy, EFT, EMDR, IFS, IPNB, ISTDP, psychedelic-assisted therapy, and SE. It's now clear why therapy systems that differ strikingly in technique and theory can produce the same quality of liberating change. Practitioners who value deep connection with their clients are richly rewarded by the experiential depth that this core process accesses, where no awareness had previously reached, whether sessions are done in person or via online video. It is an embarrassment of riches, because in addition we gain the decisive resolution of several longstanding, polarizing debates regarding the nature of symptom production, the prevalence of attachment issues, the operation of traumatic memory, the functions of the client–therapist relationship, the role of emotional arousal in the process of change, and the relative importance of specific versus non-specific factors.

Bruce Ecker, MA, LMFT, is Co-Director of the Coherence Psychology Institute, co-originator of Coherence Therapy, and co-author of the *Coherence Therapy Practice Manual and Training Guide*, *Depth Oriented Brief Therapy: How to Be Brief When You Were Trained to Be Deep and Vice Versa*, and *The Listening Book*.

Robin Ticic, BA, HP Psychotherapy (Germany), is Director of Development and Training for the Coherence Psychology Institute, co-author of *The Listening Book*, author of the parenting guide *How to Connect with Your Child*, and a certified trainer of Coherence Therapy.

Laurel Hulley, MA, is co-originator of Coherence Therapy, Director of Education for the Coherence Psychology Institute, co-founder of the Julia Morgan School for Girls, and co-author of the *Coherence Therapy Practice Manual and Training Guide* and *Depth Oriented Brief Therapy: How to Be Brief When You Were Trained To Be Deep and Vice Versa*.

Unlocking the Emotional Brain

Memory Reconsolidation and the
Psychotherapy of Transformational Change

Second Edition

**Bruce Ecker, Robin Ticic,
and Laurel Hulley**

Second edition published 2024
by Routledge
605 Third Avenue, New York, NY 10158

and by Routledge
4 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2024 selection and editorial matter, Bruce Ecker, Robin Ticic, and Laurel Hulley; individual chapters, the contributors

The right of Bruce Ecker, Robin Ticic, and Laurel Hulley to be identified as authors of this work has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

First edition published by Routledge 2012
Classic Edition published by Routledge 2022

Library of Congress Cataloging-in-Publication Data

Names: Ecker, Bruce, editor. | Ticic, Robin, editor. | Hulley, Laurel, 1947- author.

Title: Unlocking the emotional brain : memory reconsolidation and the psychotherapy of transformational change / edited by Bruce Ecker, Robin Ticic, and Laurel Hulley.

Description: Second edition. | New York, NY : Routledge, 2024. |

Includes bibliographical references and index.

Identifiers: LCCN 2023047288 (print) | LCCN 2023047289 (ebook) |

ISBN 9781032139135 (hbk) | ISBN 9781032139128 (pbk) |

ISBN 9781003231431 (ebk)

Subjects: LCSH: Emotion-focused therapy. | Emotions. |

Memory. | Psychotherapy.

Classification: LCC RC489.F62 E35 2024 (print) |

LCC RC489.F62 (ebook) | DDC 616.89/14--dc23/eng/20231222

LC record available at <https://lcn.loc.gov/2023047288>

LC ebook record available at <https://lcn.loc.gov/2023047289>

ISBN: 978-1-032-13913-5 (hbk)

ISBN: 978-1-032-13912-8 (pbk)

ISBN: 978-1-003-23143-1 (ebk)

DOI: [10.4324/9781003231431](https://doi.org/10.4324/9781003231431)

Typeset in Times New Roman
by KnowledgeWorks Global Ltd.

For all who help others dispel the
thick mirages of emotional learning,
escape the prison cells of memory,
and enjoy the inner freedom to live
as their truest self



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Contents

| | |
|--|-------|
| <i>List of Symptoms Ended in this Book's Case Examples</i> | xv |
| <i>Foreword by Alexandre Vaz</i> | xvi |
| <i>Preface to the Second Edition</i> | xix |
| <i>Acknowledgements</i> | xxi |
| <i>About the Authors</i> | xxiii |
| <i>List of Contributing Authors in Part 3</i> | xxiv |

PART I

The Emotional Coherence Framework: Equipping Psychotherapists for Unprecedented Effectiveness 1

1 Maximum Psychotherapeutic Effectiveness: The Reality of Transformational Change 3

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

The brain's innate process of profound unlearning:

Memory reconsolidation 4

The coherence of symptom production and symptom cessation:

Emotional learning and unlearning 6

The overall framework 9

Book preview 10

The Emotional Coherence Framework and your clinical development 13

2 How the Brain Unlearns: Memory Reconsolidation Explained 15

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

The key that unlocks emotional memory: Prediction error 15

The MR process of profound unlearning 18

The unlearning sequence: A critical set of experiences 20
Transformational change defined by three markers 22
The many varieties of MR in psychotherapy 23
Therapists' most frequent questions about MR 24
The specificity of unlearning 24
Does the MR process of unlearning require emotional arousal? 25
How MR advances the "corrective emotional experiences" framework 26
How the unlearning sequence differs from extinction 28
What happens to the neural encoding of an unlearned schema? 29
Why neuroscientists discuss MR only for fears and addictions 30
From lab to therapy session: The therapeutic reconsolidation process (TRP) 31
The TRP is an evidence-based methodology 35
Transformational change versus emotional regulation 38
Use of the TRP for evaluation of therapeutic MR claims 40
Conclusion 41

3 The Transformational Psychotherapy of Emotional Unlearning 44

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

Total focus on the TRP: Coherence Therapy 45
Case example of anxious low self-esteem 48
Symptom identification (Step A) 48
Coherence of the symptom 49
Discovery phase (Step B) 50
Integration phase (Step B continues) 55
The anatomy of a symptom-requiring schema 59
Transformation phase begins: Finding contradictory knowledge (Step C) 61
Schema unlearning via juxtaposition experiences (Steps 1–2–3) 63
Verification of schema nullification (Step V) 66
Transformational versus counteractive change 68
The process in summary 68
The TRP applied for traumatic memory and PTSD 70

Defining trauma and traumatic memory 71
Two main types of traumatic memory 72
Complex attachment trauma 73
The TRP applied for dispelling resistance 74
The TRP applied for the neurodiverse population 75
Conclusion 77

**4 The Moments of Fundamental Change in Slow Motion:
 Three Case Examples of Coherence Therapy**

79

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

How to identify targets for unlearning 80
Sources of disconfirming knowledge 83
Case examples and techniques 83
Case example: Obsessive attachment to former lover 84
 Preview of technique for finding disconfirmation 84
 Symptom identification 85
 Finding the symptom's coherence 85
 Finding a disconfirmation: Mismatch detection 86
 Guiding a series of juxtaposition experiences 88
 Outcome 89
Case example: Pervasive underachieving 90
 Preview of technique for finding disconfirmation 90
 Symptom identification 91
 Finding the symptom's coherence 91
 Finding a disconfirmation: Mismatch detection 95
 Guiding a series of juxtaposition experiences 96
 *Resistance to transformation: Its coherence and
 dissipation* 97
 Verification step 99
 Outcome 100
Case example: Stage fright 100
 Preview of technique for finding disconfirmation 100
 Symptom identification 101
 Finding the symptom's coherence 101
 Finding a disconfirmation: Empowered re-enactment 102
 Outcome 104
 Commentary: Re-enactment 105
Conclusion and summary of techniques 106

5 Is It Always About Attachment?: Emotional Coherence and the Great Attachment Debate 109

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

The many domains of emotional learning 109

Attachment learnings 115

Terms of attachment 118

Optimizing attachment therapy 119

Varieties of TRP fulfillment in attachment therapy:

Case examples 121

Schema disconfirmation via therapeutic dyad 122

Alternatives to the therapeutic dyad for disconfirmation 125

When disconfirmation via therapeutic dyad is not possible 135

Conclusion: A coherent resolution 140

6 A Framework for the Unification of Psychotherapy: Introduction to Part 2 143

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

The core process shared by therapies of transformational change 144

Is it really always MR? 148

A unifying map of the psychotherapy universe 151

Unification of the specific versus common factors duality 153

Unification of psychotherapy and brain science 155

Unification summary 157

Welcome to Part 2 157

PART II

Hidden in Plain Sight: One Core Process in Therapies of Transformational Change 161

7 Accelerated Experiential Dynamic Psychotherapy (AEDP) 163

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

8 Emotion-Focused Therapy (EFT) 172

BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY

| | |
|--|-----|
| 9 Eye-Movement Desensitization and Reprocessing (EMDR) | 180 |
| BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY | |
| 10 Internal Family Systems Therapy (IFS) | 190 |
| BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY | |
| 11 Interpersonal Neurobiology (IPNB) | 207 |
| BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY | |
| 12 Intensive Short-Term Dynamic Psychotherapy (ISTDP) | 212 |
| BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY | |
| 13 Psychedelic-Assisted Therapy: Ayahuasca | 226 |
| BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY | |
| 14 Somatic Experiencing® (SE) | 241 |
| BRUCE ECKER, ROBIN TICIC, AND LAUREL HULLEY | |
| PART III | |
| The Versatility of Coherence-Focused Psychotherapy | 247 |
| 15 A Father's Tormenting Guilt: Deep Resolution in Seven Coherence-Focused Sessions | 249 |
| PAUL SIBSON | |
| 16 Up on Top from Down Below: Ending Compulsive Drinking Using Coherence Therapy | 258 |
| C. ANTHONY MARTIGNETTI | |
| 17 Bypassing Bypass Surgery: Using Emotional Coherence to End Compulsive Eating | 271 |
| NIALL GEOGHEGAN | |
| 18 Hearing Hostile Voices: Ending Psychotic Symptoms at Their Coherent Roots | 276 |
| TIMOTHY A. CONNOR | |

| | | |
|-----------|--|------------|
| 19 | Releasing Blocked Self-Expression from the Wounds of Systemic Racism: Coherence Therapy for a Deep Recalibration of Vulnerability | 291 |
| | BRUCE ECKER | |
| 20 | Don't Be That Way: Liberation from Lifelong Homophobic Oppression via Coherence-Guided Narratology | 316 |
| | GAIL NOPPE-BRANDON | |
| 21 | Life in the Stranglehold of Rules: Using Meditative Experience for Ending Insecure Attachment within Coherence Therapy | 326 |
| | MICHAEL LYDON | |
| 22 | Young Teen Medicated and Misdiagnosed ADHD: Ending Hyperactive Behavior by Finding Its Underlying Coherence | 345 |
| | GAIL NOPPE-BRANDON | |
| 23 | Plunging Moods and Erratic Behaviors "For No Reason": A Six-Year-Old Boy's Secret Fear Dissolves in Coherence Therapy | 351 |
| | MONIKA CIECHOWICZ | |
| 24 | It's My Fault: Group Coherence Therapy for Nine-Year-Old Children with Divorcing Parents | 360 |
| | RENEE BUSSANICH | |
| | <i>Glossary</i> | <i>363</i> |
| | <i>References</i> | <i>370</i> |
| | <i>Index</i> | <i>386</i> |

List of Symptoms Ended in this Book's Case Examples

| <i>Chapter</i> | <i>Symptoms ended</i> | <i>Therapy</i> |
|----------------|---|----------------------|
| 3 | anxious self-doubting and lack of self-confidence | Coherence Therapy |
| 4 | obsessive attachment to former lover | " |
| 4 | pervasive underachieving | " |
| 4 | stage fright | " |
| 5 | reactive anger | " |
| 5 | avoidance of emotional closeness | " |
| 5 | social anxiety, perfectionism, unworthiness, complex trauma | " |
| 5 | aversion to marital sexuality | " |
| 7 | shame, depression, avoidance of affect, depersonalization, ungrieved grief, a dark aloneness and sense of being hunted, panicky anxiety | AEDP |
| 8 | depression, isolation, helplessness, shame, self-blame, feeling unworthy of love, complex attachment trauma | EFT |
| 9 | panic attacks, guilt, self-condemnation after natural disaster trauma | EMDR |
| 10 | terror of others' anger | IFS |
| 11 | flight from emotional involvement in couple relationships | IPNB |
| 12 | failed couple relationships, depression, severe ulcerative colitis | ISTDP |
| 13 | complicated grief after suicide of mother, family estrangement | Psychedelic-Assisted |
| 14 | change of personality into being compulsively submissive and unpredictably explosive | SE |
| 15 | guilt, shame, self-blame, self-hatred, perfectionism, depression, sleeplessness, outbursts of aggression, isolation | Coherence Therapy |
| 16 | alcohol abuse, social anxiety | " |
| 17 | compulsive eating, obesity | " |
| 18 | paranoid delusions, hallucinations, depression, shame and self-hatred over disability | " |
| 19 | compulsive inaction on writing, painting | " |
| 20 | social anxiety and blocked self-expression in interpersonal interactions | " |
| 21 | obsessive, bossy self-talk preoccupied with following rules, panic | " |
| 22 | young teen's disruptive, unfocused, uncooperative behavior at school | " |
| 23 | plunging moods and erratic behaviors of a six-year-old boy | " |
| 24 | children's self-blame for parents' divorce | " |

Foreword

It's one o'clock in the morning at a New York City diner in 2018. I'm having some very late-night pancakes with Bruce Ecker. As we discuss ideas for projects, I take in his intoxicating enthusiasm. After years of passionate discussions with him, I find myself thinking: "He *really* might be on to something."

So much of our lives is influenced by the fog of past experiences. We adapt to less-than-ideal circumstances, and we reshape our perception of both reality and ourselves. We do this without fully realizing the price that is often paid along the way. Now, the authors of this book ask: "Imagine a world where the past need not hold us captive"—where the burden of painful experiences could be gently unraveled and rewritten. This is the promise of memory reconsolidation (MR).

This book is a comprehensive guide to understanding and applying the principles of MR to promote deep and lasting change in psychotherapy. In these pages, you will find experts who have spent decades painstakingly going over the extensive body of MR research, creatively experimenting with its principles clinically, and developing a coherent framework for the unification of psychotherapy. This is all tied together by the many poignant case studies showing the transformative power of MR to dispel symptoms at their roots.

To find myself writing a foreword for this book is not only a luxury but, to a certain extent, an irony. For years I was skeptical of anything like this—a framework that could eloquently integrate different therapeutic approaches, while simultaneously providing clear steps to achieve profound therapeutic change. One needs only cursory knowledge of the history of psychotherapy to find fads and hypes of all kinds permeating through the decades. Would MR be another? Could neuroscientific lingo be, as some have argued, just the new religion of our times?

Possibly. However, despite my initial skepticism, I now feel optimism is warranted, largely because of MR's focus on *mechanisms* and *principles of change*, instead of treatment manuals or specific techniques. Put simply, there is now so much evidence that manualized treatments ("one size fits all") cannot hope to explain why some therapists are more effective than others. Many prominent researchers have argued persuasively that the qualities of the *therapist* are a far better predictor of client outcomes than the use of any particular therapy model or technique. However, those who subscribe to this "common factors"

understanding of psychotherapy face at least two daunting challenges. The first is that, in real-life practice, clinicians need mental maps complex enough to inform their interventions on a moment-by-moment basis. Second, we still need to understand why and how some therapists excel at producing lasting change in their clients. The therapeutic application of MR research answers these questions, through focusing not on theory and not on specific techniques, but rather on clear, empirically identified *principles of change* that can guide clinicians and explain moments of profound change. These principles, the *therapeutic re-consolidation process* (TRP), are at the heart of this book. And, frankly, they are something I wish I had learned as I was starting out in psychotherapy. (Funnily enough, my own current trainees recently said: “Why are we only now learning about this?!”)

An impactful experience in my own professional development was analyzing hundreds of hours of video-recorded sessions from different therapists and therapy models. In doing so, it became obvious that some therapists seemed to be promoting deep change in their clients, at least some of the time, while others seemed to be often stuck in a stalemate. While the effective therapists differed widely in their approaches, to my mind a few commonalities could be found. They tended to be highly focused on their clients’ internal experience, namely the core painful emotions and meanings that were at the roots of their problems; they skillfully promoted visceral, experiential activation of these painful emotions and meanings in the here-and-now; and they creatively facilitated powerful new experiences that directly targeted and fundamentally revised that core material. I saw this happen most often in experiential and relationally oriented psychotherapies, such as EFT, AEDP, ISTDP, EMDR, and Schema Therapy—for me an uncomfortable finding because it didn’t align with my initial, conventional assumption that, paraphrasing Alice in Wonderland, “all therapy models have won, and all must have prizes”—the prevailing view, based on the statistics from many randomized control trials, that all types of therapy have equal efficacy. I was later to find the first edition of this book, and saw that it went above and beyond in not just mirroring my surprising observations, but did so with an awe-inducing degree of detail.

Bruce Ecker is one of the most inspired and inspiring clinicians I have ever seen in practice. Bruce and his colleagues have outdone themselves in expanding and enhancing a book that is already considered by many a modern classic in the field. New and old readers alike will benefit from clarifications provided, for example, in [Chapter 2](#), where the authors address therapists’ most frequently asked questions about MR. Indeed, the ideas presented here have such extraordinary potential for the future of psychotherapy integration, a topic masterfully covered in [Chapter 6](#) and amply demonstrated in [Parts 2 and 3](#) of the book. I will simply say that the MR framework has the rarest of advantages for the unification of psychotherapy, in that it guides the clinician in a rigorous manner, while simultaneously respecting the multitude of ways in which deep change can be facilitated. Also, to the authors’ credit, the enthusiastic voice that permeates this

book is one that welcomes future findings and contributions. As readers delve deeply into these pages, they are urged to keep experimenting with and researching these principles, to enhance even more how future therapists and clients may benefit from them.

The first edition of this book influenced countless therapists around the world. I suspect this second edition is destined to have an even greater impact. I delight in anticipating the future generation of therapists who are blessed with having another piece of the clinical puzzle, if not entirely solved, illuminated better than ever.

Alexandre Vaz, PhD

Director of Training, Sentio Counseling Center
Series Editor, *The Essentials of Deliberate Practice*
(American Psychological Association Press)

Preface to the Second Edition

We predict that “How do I love thee? Let me count the ways”¹ is how the worldwide community of psychotherapists and counselors will come to feel toward memory reconsolidation because of the many major advances in both understanding and therapeutic effectiveness that our empirical knowledge of it generates.

This book’s first edition, published over a decade before this second edition, has been translated into Spanish, Italian, French, German, Polish, and Korean. What some practitioners value most is the great increase of therapeutic effectiveness thanks to having a clear map of the brain’s innate core process of transformational change—a process that does not require use of any particular system or techniques of psychotherapy. What others love best is the transtheoretical, lucid understanding of therapeutic action that unifies the confusingly fragmented therapy field. And all who greatly value deep connection with their clients are richly rewarded by the experiential depth that this core process accesses—truly at the very core of each client’s personhood, where no awareness had yet reached.

It is an embarrassment of riches, because we also gain the decisive resolution of several longstanding, polarizing debates regarding the nature of symptom production, the operation of traumatic memory, the prevalence of attachment issues, the functions of the client–therapist relationship, the role of emotional arousal in the process of change, and the relative importance of specific versus non-specific factors. This is not to mention how satisfying and enjoyable it is to acquire and inhabit this deeply natural integration of the subjective process and the objective understanding of transformational therapeutic change—the art and the science of psychotherapy at its most effective best.

Certainly it will take time for all of those gifts to register and reorient the many entrenched encampments that the vast psychotherapy field comprises, but there is already much progress. Responses to this book’s first edition, published when very few therapists had yet heard of memory reconsolidation (MR), have consistently

1 The first line of Elizabeth Barrett Browning’s most famous and best-loved poem, Sonnet 43, in her collection *Sonnets from the Portuguese* (1850).

expressed a celebratory counting of the ways. One recent email to us read, “The core process of transformation via empirically validated neuroscience is one of the most appealing aspects of your work. Previously, real and enduring therapeutic change seemed completely shrouded in mystery. . . . Thank you again on behalf of my patients and me personally as well. . . . I am full of hope and seeing some great initial results!” And another: “I began experimenting with Gestalt 2-chair work and had some surprising results (i.e., rapid transformation that lasted)... but without an understanding of *why* it worked. . . . Then, I came across *Unlocking the Emotional Brain*. It changed my clinical work and life.”

The fundamental relevance and importance of MR in psychotherapeutic change are now recognized widely throughout the field, so much so that workshops and trainings in most of the focused, experiential therapy systems, such as those featured in [Part 2](#) of this book, now make a point of showing that the system’s methodology makes use of MR, usually with reference to this book’s first edition. There is, however, wide variation in the scientific accuracy of the explanations offered for how MR functions and how the specific elements of the MR process are fulfilled. One of our main motivations for this second edition of the book is to make it easier to understand MR and, therefore, less likely that claims of MR utilization are made for theoretical formulations of psychotherapy that in fact are inconsistent with how MR functions. That was the guiding spirit in our extensive revisions of the chapters in [Part 1](#), which incorporate everything we have continued to learn, during the last decade, about teaching this material. Only if MR is *accurately understood* throughout the psychotherapy field will its great potential benefits be fully realized.

The doubling in size of [Part 2](#)—from four to eight different psychotherapy systems—expresses another of our main motivations, namely, to demonstrate how well MR serves as a framework of unification of the severely fragmented world of psychotherapy. That fragmentation into competing theoretical schools was free to develop because for a century, remarkably, the field of psychotherapy had no consensus of empirical knowledge of an internal mechanism of psychological change. We now have that knowledge from MR research findings, and unification emerges unambiguously—hence our title for [Part 2](#), “Hidden in Plain Sight: One Core Process in Therapies of Transformational Change,” even including psychedelic-assisted therapy ([Chapter 13](#)).

[Part 3](#) expands from four to ten cases the book’s contributed demonstrations of transformational change achieved for a tremendous range of presenting conditions and core issues, by therapists who have an equally wide range of personal styles. Change is “transformational,” as we define the term, when a major symptom (unwanted pattern) ceases *completely* and never again occurs, without any further efforts to prevent it. In [Part 3](#) our purpose is to show not only how real it is that transformational therapeutic change is possible to produce with great versatility in a systematic manner, but also that the stage is fully set for transformational change to now become the standard of effectiveness in the psychotherapy field. That, we feel, is the fundamental message of this book.

Acknowledgements

Finding words to properly acknowledge the contributing authors of the case examples in [Part 3](#) of the book is a challenge. We want them to feel deeply thanked for sharing with us their daring adventure with each client—because each case *is* a daring adventure when your aim is guiding your clients first to recognize, and then to dissolve and liberate themselves from, their most distress-laden emotional learnings. Our contributors’ accounts of their therapeutic journeys, allowing readers to glimpse both their therapeutic skills and acumen and their clients’ courage and depth of heart—normally so well hidden in each person—are a wonderful gift. We thank them as well for their patience with our rounds of editorial development.

We want to express a very big thanks to Barcelona psychotherapist Michał Jasiński for bringing to this book the case examples of psychedelic-assisted therapy in [Chapter 13](#) and child therapy in [Chapter 23](#). Notes in each of those chapters describe his quite substantial roles and efforts in producing those important cases for inclusion here. Our appreciation goes to him also for bringing this book’s framework to the psychotherapy field in his home country of Poland through conducting numerous trainings and presentations there, resulting in the Polish translation of this book’s first edition.

Lisbon-based clinical psychologist Alexandre Vaz collaborated extensively with one of us (BE) to illuminate how the findings of psychotherapy outcome research serve to reveal the full significance of memory reconsolidation for the psychotherapy field. That collaboration generated two presentations at international conferences¹ and two journal articles,² and here has strongly enriched [Chapters 1](#) and [2](#) with the expert knowledge that Alex generously provided. We are grateful to him also for providing the Foreword to this second edition of the book.

The same one of us (BE) expresses thanks here for helpful responses clarifying memory reconsolidation research findings received from neuroscientists

1 Videos of these presentations are available online at <https://youtu.be/IHnn2Wf4NFI> and <https://youtu.be/WzdxMNz6YRc>

2 Vaz and Ecker (2020) and Ecker and Vaz (2022)

Alejandro Delorenzi, Cecilia Forcato, Timothy Jarome, Emiliano Merlo, and Javiera Oyarzún.

Melissa M. Reading has our gratitude for her unstinting support and generosity in reading closely our chapter manuscripts and finding where and how to enhance their conceptual and linguistic clarity. If ever we've known anyone who is at least as obsessed with clarity as we are, it is Melissa, and it has been a joy to receive her help, in which her astute understanding of our framework was always apparent. Happily this was a two-way street, as one of us can comprehend her physics doctoral thesis and various research publications.

Routledge publisher Anna Moore invited this second edition of the book, and then helped the project along with the same kindness and tuned-in responsiveness that we remember vividly from the first time around. Her supportiveness of our work is our great good fortune. We also appreciate the assistance received from Kasra Koushan in enhancing our references to supporting research.

Our gratitude flows also to our dear international colleagues who brought about the translation of this book's first edition into various languages: Guillem Feixas Viaplana in Barcelona, Laura Bastianelli in Rome, and Sophie Côté and Pierre Cousineau in Quebec. Such dissemination of this body of knowledge is really marvelous.

Each of the three authors also wants to express thanks here to the other two for an unwavering spirit of good-natured collaboration based on our shared recognition of the extraordinary value of the body of knowledge represented in this book. Working together to firmly install this knowledge in the psychotherapy field has been its own very rich reward.

We will stop there, though rivers of acknowledgment are due also to many pioneers of both psychotherapy and neuroscience research on memory reconsolidation, on whose shoulders we are standing.

Bruce Ecker
Robin Ticic
Laurel Hulley
June 30, 2023

About the Authors

Bruce Ecker, MA, LMFT, is Co-Director of the Coherence Psychology Institute, co-originator of Coherence Therapy, and co-author of the *Coherence Therapy Practice Manual & Training Guide*; *Depth Oriented Brief Therapy: How to Be Brief When You Were Trained To Be Deep and Vice Versa*; and *The Listening Book*, as well as numerous psychotherapy journal articles and book chapters. Clarifying how transformational therapeutic change takes place is the central theme of his clinical career, and he has contributed many innovations in concepts and methods of experiential psychotherapy. Since 2006 he has led the development of the clinical application of the neuroscience of memory reconsolidation, driving major advancements in the effectiveness and unification of psychotherapy and identifying its most potent underlying mechanism of change. He has been a frequent presenter at conferences and workshops internationally, and leads the Institute's team of researchers. He resides in New York City.

Robin Ticic, BA, HP Psychotherapy (Germany), is director of development and training for the Coherence Psychology Institute, co-author of *The Listening Book*, and author of the parenting guide *How to Connect with Your Child*, as well as numerous psychotherapy journal articles. She is in private practice, specializing in trauma therapy, near Cologne, Germany, and is a certified trainer of Coherence Therapy, following many years as a psychologist for the Psychotraumatology Institute of the University of Cologne. She has extensive experience in parent counseling, courses, and presentations, and has been honored for community service.

Laurel Hulley, MA, is co-originator of Coherence Therapy, Director of Education and Paradigm Development for the Coherence Psychology Institute, a co-founder of the Julia Morgan School for Girls in Oakland, California, and co-author of the *Coherence Therapy Practice Manual & Training Guide* and *Depth Oriented Brief Therapy: How To Be Brief When You Were Trained To Be Deep and Vice Versa*, as well as numerous psychotherapy journal articles, book chapters, and clinical video viewer manuals. She is a lifelong denizen of Greenwich Village in New York City.

List of Contributing Authors in Part 3

Renee Bussanich, MA, is a licensed clinical mental health counselor in practice in Asheville, North Carolina, USA.

Monika Ciechowicz, MA, is a child and adolescent psychologist in independent practice in the Polish town of Rumia near Gdańsk.

Timothy A. Connor, PsyD, is a licensed psychologist on the staff of Oregon State Hospital in Portland, Oregon, USA.

Bruce Ecker, MA, LMFT, is co-creator of Coherence Therapy and Co-Director of the Coherence Psychology Institute. He is located in New York City, in private practice with a California clinical license.

Niall Geoghegan, PsyD, is a licensed psychologist in Berkeley, California, USA, and a Certified Advanced Practitioner of Coherence Therapy.

Michael Lydon, LCSW, sees clients online from Ipswich, Massachusetts (Boston North Shore area). He is a Certified Practitioner of Coherence Therapy and a Realization Process assistant teacher in online certification trainings, and is a senior teacher in private practice.

C. Anthony Martignetti, PhD, before his passing in 2015 was in practice in Lexington, Massachusetts, USA as a Licensed Mental Health Counselor, a Certified Diplomate of the American Psychological Association, and a Doctoral Addictions Clinician of the National Board of Addiction Examiners.

Gail Noppe-Brandon, LCSW, MPA, MA, is in private practice in New York City and is an Associate Instructor of the Coherence Psychology Institute and a Certified Advanced Practitioner of Coherence Therapy.

Paul Sibson, Dip-Counselling, Dip-Psychotherapy, before his passing in 2023 was in practice in Kendall, UK as a Licensed Psychotherapist under the British Association for Counseling & Psychotherapy (BACP) and the UK Council for Psychotherapy (UKCP).

Part I

**The Emotional Coherence
Framework**

Equipping Psychotherapists for
Unprecedented Effectiveness



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

1 Maximum Psychotherapeutic Effectiveness

The Reality of Transformational Change

Bruce Ecker, Robin Ticic, and Laurel Hulley

Presume not that I am the thing I was.

—William Shakespeare, *King Henry IV, Part 2*

The sessions that we therapists find most fulfilling are those pivotal ones in which a client experiences a deeply felt shift that thoroughly and lastingly dispels longstanding negative patterns of emotion, thought, behavior, or somatic disturbance—a transformational change. Such profound change is the maximum possible level of therapeutic effectiveness.

In the clinical literature, transformational change has been reported and documented in detail for a wide range of symptoms and for various different systems of psychotherapy (e.g., Badenoch, 2011; Coughlin, 2006, 2017; Ecker, 2018; Ecker & Hulley, 1996; Greenberg, 2010; Lipton & Fosha, 2011; Manfield, 2003). However, in the psychotherapy outcome research literature, what has long been defined as successful therapy is a partial, moderate reduction of symptoms. For over 40 years, the level of therapeutic improvement measured in randomized controlled trials (RCTs) and meta-analytic reviews has consistently been a change of about one standard deviation in the mean score on outcome measures, which usually represents merely a 20 to 25 percent reduction in the measured strength of symptoms (Shedler, 2015; Smith & Glass, 1977; Wampold & Imel, 2015). Based on those RCT results, mild incremental change has long been the standard of successful treatment in the clinical field.

Any occurrences of transformational change in outlier cases within an RCT remain invisible and buried under the overall statistical analysis of the data. As a result, there has been scant, if any, recognition of even the possibility of transformational change in psychotherapy outcome research literature. The therapy systems that do recognize and aim for transformational change have quite different conceptual models for how and why it happens, as well as very different methods and techniques for inducing it. That fragmented situation begs the question of whether those different systems achieve transformational change through

fundamentally different internal mechanisms of the mind or brain, or through embodying a shared core process that engages the same internal mechanism.

The brain's innate process of profound unlearning: Memory reconsolidation

The answer to that centrally important and basic question was a mystery until relatively recently, due to the fact that for a century, the psychotherapy field had developed without empirically identifying *any* internal mechanism of the mind or brain that produces lasting change (Ecker & Vaz, 2022; Goldfried, 2019, 2020). Nor had any internal mechanism of lasting change been found by either psychologists or neuroscientists conducting memory research throughout the twentieth century. Lacking such shared empirical knowledge, the psychotherapy field fragmented into hundreds of competing systems, all of them free to postulate how change occurs, with a corresponding methodology for inducing it.

That situation changed fundamentally after the 1997–2000 period, when neuroscientists discovered *memory reconsolidation* (MR), an innate, experience-driven mechanism of the brain for unlocking and revising memory holding previously acquired knowledge of the world. (For a detailed account of that discovery, see Riccio et al., 2006.) A 2006 psychotherapy conference had the first keynote address on the therapeutic potential of MR (Ecker, 2006). Of greatest significance for psychotherapy are the dozens of studies with both animal and human subjects that have used the MR mechanism to achieve the full unlearning and nullification of an acquired emotional response (reviewed by Clem & Schiller, 2016; Ecker, 2018, 2021). Those observations made MR a strong candidate mechanism for transformational change occurring in therapy sessions.

In those dozens of laboratory studies demonstrating complete unlearning, the details of behavioral procedure varied widely, but in every study the procedure induced *the same series of subjective experiences* in subjects (Ecker, 2015a, 2018, 2021). (If that idea initially seems strange, just consider that many different behavioral procedures can induce in a person the same recognizable, distinct experience of *laughing*.) That crucial set of experiences will be spelled out in [Chapter 2](#). In this book's case examples of transformational change from nine different, widely used therapy systems, that same distinct set of experiences is shown to have occurred in each case just before the appearance of the markers of transformational change, which include the lasting disappearance of a chronic emotional reaction. The prompt timing between creation of the distinct experiences and the unique, strong effect of transformational change—shown to occur across diverse symptoms presented by diverse persons in therapy with diverse therapists—is a strong indication of causation, not merely correlation.

Therefore the question posed above can now be answered: Different systems of therapy achieve transformational change through a shared core process that engages the same internal mechanism: memory reconsolidation. A unifying framework has

emerged, within which “transformational therapeutic change can be recognized as a process that is both deeply subjective and scientifically well defined” (Ecker & Vaz, 2022, p. 9). This makes it possible for transformational change to now become the natural standard of effectiveness in the psychotherapy field.

In order to map out, lay bare, and show the remarkable versatility of the MR process of transformational change, the chapters in [Part 1](#) use cases of Coherence Therapy, and then [Part 2](#) shows the same process fulfilled in a representative case example from each of these eight therapeutic systems:

- AEDP (Accelerated Experiential Dynamic Psychotherapy) in [Chapter 7](#)
- EFT (Emotion-Focused Therapy) in [Chapter 8](#)
- EMDR (Eye Movement Desensitization and Reprocessing) in [Chapter 9](#)
- IFS (Internal Family Systems Therapy) in [Chapter 10](#)
- IPNB (Interpersonal Neurobiology) in [Chapter 11](#)
- ISTDP (Intensive Short-Term Dynamic Psychotherapy) in [Chapter 12](#)
- Psychedelic-Assisted Therapy in [Chapter 13](#)
- SE (Somatic Experiencing®) in [Chapter 14](#)

Case examples of transformational change from five other systems, not included in this book, have likewise been shown to embody the same core process (Alexander Technique, Neurolinguistic Programming, Progressive Counting, Social-Cognitive Transactional Analysis, and Tapping; for an online list of all such demonstrations, see <https://bit.ly/15Z00HQ>). All of these systems can carry out the MR process of transformational change despite the fact that the specific steps of this process are not recognized or identified in how each system defines its own particular methodology and conceptual framework. These various methodologies don’t automatically *always* fulfill that core process, but when they do, that is when transformational change occurs, as shown in [Part 2](#). The methodology of Coherence Therapy, on the other hand, consists explicitly of exactly the steps of the core process, which makes case examples of Coherence Therapy particularly instructional for teaching and demonstration purposes in [Part 1](#).

Based on both MR research by neuroscientists (summarized in [Chapter 2](#)) and extensive clinical observation and experience, it is now empirically justified to view this one core process as the universal, direct cause of the markers of transformational change whenever they begin to appear in any therapy session. So, whatever therapy system(s) you prefer to use—including those not in the thirteen noted above—the frequency of your own sessions producing major, liberating breakthroughs will increase significantly by *knowingly* using your system(s) to fulfill this process of MR. That is what we’ve heard from psychotherapists around the world who have adopted this framework, and that is the promise that this book holds for you. In [Part 3](#) are cases contributed by practitioners of Coherence Therapy, illustrating the applicability and facilitation of the core process to a huge diversity of challenging symptoms of adults and children.

The coherence of symptom production and symptom cessation: Emotional learning and unlearning

It turns out to be demonstrable unambiguously in therapy sessions that the vast majority of the unwanted patterns or “symptoms” presented by seekers of psychotherapy are generated by the contents of memory—specifically by learned *mental models*, or *schemas*, consisting of particular constructs, held in implicit memory, outside of awareness. The brain’s completely nonverbal, implicit, yet highly specific meaning-making and modeling of the world is innate and begins very early in life. For example, infants three months old form expectational models of contingency and respond according to these models (DeCasper & Carstens, 1981), and 18-month-old children can form mental models of other people as wanting things that differ from what they themselves want and will give the other what he or she wants (Repacholi & Gopnik, 1997), and can form models that distinguish between intentional and accidental actions (Olineck & Poulin-Dubois, 2005).

Mental models or schemas are perceived patterns generalized and extracted from specific experiences. Such models live in a different memory system from the memory of the original experiences and events, which researchers term *episodic* memory. Rather, it is *semantic* memory systems that hold one’s learned mental models. The term “memory” in common usage narrowly means only memory of events or facts, but it is schema memory, semantic memory, that matters most for facilitating transformational change in therapy sessions. Reactivation of a particular schema by current perceptions or circumstances is not, as a rule, accompanied by reactivation of any episodic memory of the experiences in which the schema was originally learned; nor does the schema itself come into conscious awareness, though it can *become* experienced consciously with suitable therapeutic facilitation. Here are examples of emotional schemas that have been put into words after coming into direct affective awareness:

- Making a mistake means I’m worthless and unacceptable and deserve the shaming that will come, so I’ve *got* to do everything perfectly.
- If Mom shows emotional distress, it’s immediately my job and my responsibility to get her out of it, or else I’m an unlovable, worthless failure.
- It’s really dangerous if too much is going well for me, because that would attract some major blow from the universe, so I *must* avoid having anything I’m really happy or satisfied with.

The mental models that generate symptoms are versions of the world that were learned and installed into memory during emotionally intense life experiences, but with no awareness of forming and learning them and no representation of them in words or concepts. We therefore often refer to these schemas as *emotional learnings*, but remember: It is the learned model of the world, not the

emotion that arises from that model, that is at the root of the problem and that is the crucial target of change.

According to the distress-laden mental model underlying a particular symptom, that symptom is intensely necessary to have, adaptively and emotionally—which is why it is produced. That memory-based, coherent process of symptom production will be directly apparent in every one of the twenty-six case examples in this book. Transformational change results from subjecting a symptom's revealed, underlying mental model to the brain's innate process and mechanism of *unlearning*, which is memory reconsolidation. Profound unlearning of a mental model means its version of the world no longer feels at all real or true, whereas previously it felt compellingly real and inherently true. This fundamentally resolves the distress generated by that mental model and ends the symptom(s) it had been necessitating.

When reduction of a symptom is mild, obviously its source and cause still exist, so relapses can and do occur. In contrast, after the mental model at the root of symptom production has been unlearned and nullified, relapse is not possible and the symptom is fully eliminated.

The brain has numerous types of memory, including, for example, spatial, object recognition, body movement sequence, procedural, and smell memory, among others—each of which can be a component of an episodic memory of an event, or of a semantic memory of a pattern. Memory reconsolidation, the brain's versatile mechanism of memory modification, can produce many different types of change in many different types of memory (Nader, 2015). It can strengthen, weaken, or modify the details of memory contents and expression, and it can incorporate new elements into an existing memory or join the memory of a new experience to an existing memory (e.g., Agren, 2014; Lee et al., 2017). So, using MR to cause the full unlearning and annulment of a particular schema is just one specialized use of MR—but it is the use that is most important for psychotherapy, because that is transformational change, the most liberating and effective result of psychotherapy.

Therapists witness daily in their practices the extraordinary durability and tenacity of implicit emotional learnings, such as those listed above, which continue to trigger and rule life with full strength in adulthood, decades after they were learned in childhood. That unfading persistence of underlying, symptom-generating learnings across decades of life, long after the original circumstances that induced their formation have ceased to exist, is often taken as meaning that they are “maladaptive” or “pathogenic” and that the symptoms they produce signify a dysregulation of emotional brain networks. However, when the revealed schemas turn out to have full coherence as emotional learnings in the context of a person's actual life experience, as well as an adaptive, protective purpose, such pathologizing conceptualizations seem ill-founded (Ecker, 2015a, 2018; Ecker & Hulley, 2000; Neimeyer & Raskin, 2000). Furthermore, memory research has established that learnings accompanied by strong emotion

form neural circuits in subcortical implicit memory that are exceptionally durable, normally lasting a lifetime (e.g., McGaugh & Roozendaal, 2002). The brain is working as evolution apparently shaped it to do when, decades after the formation of such emotional knowledge, this tacit knowledge is triggered in response to current perceptual cues and launches behaviors and emotions according to the original adaptive learning. Such faithful retriggering is, in fact, the proper functioning of the brain's emotional learning networks, not a faulty condition of disorder or dysregulation—unless one is prepared to say that it is a dysregulation of evolution itself, not of the individual. Of course, having a non-pathologizing view of emotional schemas does not make their tenacity any less impressive. So it is indeed a big deal that we now have clear, empirical knowledge of the brain's own rules for thoroughly depotentiating emotional learnings through MR.

The understanding that a person's unwanted emotions, behaviors, or thoughts may be generated by non-conscious emotional learnings or conditioning has of course figured centrally in many forms of psychotherapy. The approach in this book embodies two major advancements: first, the swift and accurate experiential retrieval of those emotional learnings, bringing them into direct awareness, and second, the non-theoretically based, research-corroborated methodology of memory reconsolidation for prompt unlearning and dissolution of those retrieved learnings at their emotional and neural roots.

Viewing symptom production as having a psychological cause in emotional learning is quite at odds with neuroscience research that aims to identify the molecular and cellular processes involved in, for example, anxiety responses, in order to develop drugs that would block or moderate such responses (e.g., Mucha et al., 2023). That reductionistic approach assumes that flawed operation of molecular or cellular processes is causal of unwanted psychological conditions. While such bottom-up, neurobiological causation certainly occurs in some conditions, it is shown to be untrue in all those cases, such as those documented in this book, where the unwanted psychological condition disappears promptly and permanently after a particular emotional schema has been thoroughly unlearned, so that it no longer reactivates or feels subjectively true. In such cases, the true cause of, for example, the person's chronically high anxiety was the schema in implicit memory, and the molecular and cellular processes involved in producing that state of anxiety were functioning properly in service of adaptive emotional learning systems. Therefore, the strategy of preventing that person's experience of anxiety by pharmacologically disabling the bottom-up mechanisms of anxiety generation leaves the distress-laden implicit schema intact and only blocks its affective expression into conscious experience. That is what some individuals do non-pharmacologically by maintaining a state of emotional dissociation, which is well known to psychotherapists to be the principal cause of somatizing, the creation of somatic symptoms due to blocking affective experience of emotional distress (for a vivid example

of which, see [Chapter 12](#)). So, it seems likely that the treatment of psychological symptoms by pharmacological interference of bottom-up processes may be a major cause of somatic symptoms in that manner.

The overall framework

This book provides a unifying account of:

- *emotional learning and memory*, with emphasis on its adaptive, coherent nature and the specific content and structure of symptom-generating emotional implicit learnings
- *the unlearning and nullification of emotional implicit knowledge* through the sequence of experiences required by the brain for memory reconsolidation to operate
- *the therapeutic reconsolidation process*, which is the entire set of steps needed for consistently putting into practice the required sequence of experiences in psychotherapy sessions

We call this unified body of knowledge the *Emotional Coherence Framework*, and we predict that it will expand your clinical vision and mastery invaluablely, as it has ours. The therapeutic reconsolidation process, or TRP, consists of steps that guide you as therapist without cramping your individual style. An unlimited range of techniques can be used to create the set of experiences that fulfills this process, which is largely why your creativity and individual style of working continue to have great scope of expression in this approach. It involves richly experiential work that utilizes your skills of emotional attunement and focuses the use of your empathy so as to cooperate closely with the brain's rules for accessing and dissolving the emotional learnings at the root of your clients' presenting symptoms. Major, longstanding symptoms can cease as soon as their very basis no longer exists, as shown in the many case examples in this book. All of the depth, intimacy, and humanity of talk therapy at its best are preserved in this approach, for these valued qualities of therapy are key ingredients for successfully using the TRP to free clients from entrenched negative reactions, old attachment patterns, unconscious core schemas, traumatic memory, emotional wounds, and compulsive behaviors.

New learning can create new neural encoding throughout one's lifetime, but it is only when new learning also revises and *replaces* the encoding of old learning that transformational change occurs, and this is precisely what the TRP achieves. The process fulfills the brain's requirements for allowing a new learning to rewrite and nullify an old, unwanted learning—and not merely suppress and compete against the old learning or “regulate” it. The result is lasting transformational change, as distinct from incremental change and ongoing symptom management.

The emotional learning and memory system converts the past into an expectation of the future, without our awareness, and that is both a blessing and a curse. It is a blessing because we rely daily on emotional implicit memory to navigate through all sorts of situations without having to go through the relatively slow, labor-intensive process of figuring out, conceptually and verbally, what to do; we simply know what to do and we know it quickly. It is easy to take for granted the amazing efficiency and speed with which we access and are guided by a truly vast library of implicit knowings. Yet our emotional implicit memory is also a curse because it makes the worst experiences and emotional learnings in our past persist as felt emotional realities in the present and in our present sense of the future, keeping us “prisoners of childhood.”

In the three examples of schemas listed on p. 6, it is apparent that what seems and feels to the person so real about the world is not an external reality at all, but rather a vivid illusion or mirage maintained by emotional memory. It hardly seems an exaggeration to regard the limbic brain’s power to create emotional reality as a kind of magic, or *maya*, that immerses one in a potent spell that feels absolutely real and would last for a lifetime. However, we now know how to induce the emotional brain to use its power to break and dissolve emotional spells that it previously created. The prison of emotional memory, built over the aeons in the course of evolution, comes with a key, and that key has now been found. The limbic life sentence can be commuted. That is what this book spells out.

Of course, learning and memory are not at the root of *all* of the conditions that therapy seekers present. Examples of conditions not based in memory, and therefore not fundamentally dispellable by any type of MR process, include hard-wired neurological situations (such as those causing difficulties with learning or sensory experience) and biological conditions (such as hypothyroidism that causes a mood state of depression). Viewing symptom production as dysregulation may be accurate in such cases, but they are a small minority of those encountered by psychotherapists in general practice.

Book preview

The twenty-six case examples of this book show the TRP applied to dispel a very wide range of symptoms and sufferings. If a particular symptom that you want to see addressed by the TRP is not covered here, you may be able to find a published case for it in the online index at <https://bit.ly/2tKXdYX>.

Here is a broad view of the territory ahead in the chapters of **Part 1**:

Chapter 2 explains how memory reconsolidation works by telling the story of the dramatic scientific turnaround caused by its discovery and showing why our knowledge of this phenomenon sets up major advances for psychotherapy. A clear, scientific distinction emerges between transformational change (in which

problematic emotional learnings are fully depotentiated and symptoms cannot recur) and incremental, partial change (which results from the counteracting of symptoms, requires ongoing effort to maintain, and remains susceptible to relapse). We map out how MR research findings optimally and directly translate into psychotherapeutic application, defining the therapeutic reconsolidation process as a versatile experiential methodology that undergirds psychotherapy for the first time with empirical knowledge of an internal mechanism of change.

Chapter 3 presents the case of a man seeking therapy for his daily self-doubting and anxious insecurity at work, in order to demonstrate how psychotherapy can focus on carrying out the steps of the TRP for a given presenting symptom. This chapter also covers the basics of MR, so that the more detailed account of MR in **Chapter 2** need not be fully digested in order to understand and begin using this therapeutic framework. It may be surprising to see that in following a potent process of change confirmed by neuroscientists in the laboratory, the richly human and humane qualities of the client–therapist relationship and the depths of personal meaning experienced by the client are not sacrificed at all. If **Chapter 2** of this book is its scientific bedrock, **Chapter 3** is the heart of its vision for therapy: facilitation of the TRP. The TRP is an integrative and open-access methodology because it is phenomenological and avoids theory-based interpretations, and because it does not impose particular techniques to be used for guiding clients into the necessary sequence of experiences. Thus any case example that illustrates the TRP for instructional purposes shows some particular set of techniques or system of therapy applied for creating those crucial experiences. For that instructional purpose in **Part 1** of this book, we use a particular form of therapy—Coherence Therapy—because, as noted earlier, its methodology follows the TRP steps explicitly and recognizably. It is especially easy and transparent, in other words, to see the TRP in case examples of Coherence Therapy. The chapters of **Part 2** show the TRP occurring in other systems implicitly, embedded within their methodologies.

Chapter 4 puts the key moments of transformational change under still closer scrutiny in three case examples, so that you can see exactly what is involved and how well-defined and guidable the necessary experiences are. The examples—involving obsessive attachment, pervasive underachieving, and stage fright—all show the collaborative journey with each client and the therapist’s choicefulness and creativity in finding how to guide each client into the key experiences. The journey metaphor is an apt one, because knowledge of the TRP serves very much as a compass and a map for working effectively in the territory of the client’s non-conscious emotional learnings. Coherence Therapy supplies the therapist with a set of versatile techniques designed especially for the steps of the TRP, while always encouraging the therapist to improvise variations, or adapt techniques from other therapies, or invent new techniques as best suits the unfolding process with each client. Once again—because it bears repeating—the process is not defined by any particular techniques (the journey’s concrete modes of

transportation), including the basic techniques normally taught in Coherence Therapy, though of course the techniques have to be *experiential* because the core process consists of certain *experiences*, as distinct from cognitive insights.

Chapter 5 focuses on working with insecure attachment using the TRP and the conceptualization of attachment work in the Emotional Coherence Framework. We will see that the fully experiential retrieval of a given symptom's underlying emotional learnings—the shift from implicit knowing to explicit knowing, as required for consistent success with the TRP—makes apparent whether these underlying learnings are attachment-related, not attachment-related, or a combination of the two. This allows a non-speculative, non-theoretical determination of whether a given presenting symptom is or is not a manifestation of insecure attachment—often a matter of considerable controversy among both clinicians and researchers. Such clarity regarding the nature of the underlying learnings in turn sheds light on the optimal role and possible uses of the client–therapist relationship with a given client; there is quite a range of strongly held opinions about this, as well. Here, too, the Emotional Coherence Framework provides an illuminating perspective of a non-theoretical nature, and can help steer us clear of theoretical biases in clarifying some of the more complex and thorny issues in psychotherapy.

Chapter 6 expands upon the TRP serving as a unifying framework for the psychotherapy field, thereby setting the stage for **Part 2** in which that unification is demonstrated concretely and unambiguously for eight major therapeutic systems. The discussion here includes the challenge that the TRP poses to non-specific common factors theory and why this may auger a fundamental shift in perspective on common factors theory; and we note supporting findings from psychotherapy process research.

Part 2 of the book consists of **Chapters 7 to 14**, which examine case examples of transformational change from the eight quite different systems of psychotherapy listed above. The original account of each case is fine-grained, allowing the kind of moment-to-moment scrutiny required for detecting whether the component experiences of the therapeutic reconsolidation process occurred. We show that they did, demonstrating the unifying value of the TRP. This framework of unification is also supported by the fact that memory reconsolidation, the existence of which was first established in 2000, remains (as of this writing in 2023) the only type of neuroplasticity known to neuroscience that is capable of fully depotentiating and functionally eliminating a specific emotional learning, as in each of these eight case examples.

Part 3, comprising **Chapters 15 to 24**, consists of case examples contributed by practitioners of Coherence Therapy. We selected these cases because they complement and extend the illustrations of the TRP in **Parts 1 and 2** in various ways: different, important types of symptoms dispelled (indicated in the table of contents), child clients from six to fourteen years old, the therapists' diversity

of styles and choices, larger numbers of sessions in several cases, and candid accounts of how the therapist grappled with challenges and obstacles along the way, including client resistance and the need for technique improvisation. We think you will be fascinated and inspired, as we were, by these true tales of therapeutic adventure and triumph.

The Emotional Coherence Framework and your clinical development

In conducting trainings in this approach since 1993, we have seen that most psychotherapists and counselors—ourselves included—seek certain kinds of satisfaction in their practices in order to sustain the inspiration and meaningfulness that originally attracted them to this challenging, difficult work. To conclude this introductory chapter, we list common dilemmas that our therapist colleagues and trainees have described as developing over time in their clinical work, motivating them to seek some revitalizing approach. Along with each dilemma, we preview how this book helps meet these professional challenges.

As a therapist I feel I ought to know, in advance, the interventions that will eliminate my client's symptoms, and that burden gives me angst. That assumption and the angst it generates are dispelled by understanding symptom production in terms of coherent, implicit emotional learnings that are unique to each client. For example, each of your panic attack clients has a unique emotional learning history. It is only after finding and revealing a client's specific emotional learnings that a pathway to a liberating change can then be found, without needing to know in advance what the pathway will be.

My client's symptoms seem to be maintained by some powerful but elusive force that has a life of its own. Client and therapist can readily find and thoroughly demystify the source of the power driving unwanted states and behaviors. The source consists of implicit emotional learnings that are urgently committed to certain tactics for avoiding suffering and ensuring well-being. You can bring about transformational change through welcoming, valuing, and cooperating with these learnings instead of battling them.

Searching for relevant information in a client's past too often feels like looking for a needle in a haystack. Bringing to light the truly relevant elements in your client's emotional memory can become quicker, easier, and more accurate by using simple coherence-guided experiential methods designed for that purpose.

I feel that my efforts are too easily rendered ineffectual by clients' resistance. Like other seemingly negative responses, resistance is coherent and full of accessible emotional meaning that can pivotally assist the therapeutic process if it is honored and sensitively “unpacked” and understood.

I frequently help clients deeply understand the causes of their symptoms, yet no real shift occurs and their suffering persists. That's because revealing and understanding the underlying emotional learnings is only the first half of the process of transformational change. The rest of the process is well-defined in the TRP, but doesn't just happen by itself, as a rule.

I want my sessions to provide me more often with learning experiences for growth of my clinical skill and understanding. The process explained in this book will teach you to make new uses of your existing skills as well as add new skills to your repertoire. Guiding clients to retrieve implicit emotional learnings into awareness involves steady tracking of a client's experience in each session, supplying you with ongoing feedback on your clinical choices, as does eliciting client feedback early in each session on the effects of the previous session and between-session task.

At the end of my workday, I seldom feel satisfied that I've facilitated new breakthroughs that end my clients' sufferings. Real breakthroughs can be a frequent occurrence in your day-to-day practice, thanks to the knowledge we now have of the brain's built-in process for profound change of existing, core emotional learnings. For us clinicians, hearing a client report a decisive change in glowing terms is a moment of deep professional fulfillment. Imagine enjoying several such moments every week...

2 How the Brain Unlearns

Memory Reconsolidation Explained

Bruce Ecker, Robin Ticic, and Laurel Hulley

A very little key will open a very heavy door.

—Charles Dickens

It may seem too obvious to state that unlearning is a reversal of learning, but when it is the neural encoding of learning and unlearning that we are considering, understanding that reversal is *not* so obvious. It turns out that a very complex process is being reversed—the process that memory researchers have termed *consolidation*, which transforms a fragile initial neural encoding, formed immediately after a learning experience and easily undone by various procedures, into a stable, durable neural encoding in long-term memory, elsewhere in the brain (McGaugh, 2000).

Before the discovery of memory *reconsolidation* (MR) in the 1997–2000 period (reviewed by Riccio et al., 2006), nearly a century of extinction studies had achieved only temporary suppression of a consolidated, acquired emotional response, with no evidence of destabilizing the stable state of the neural encoding of that response, nor of fundamentally unlearning the target emotional learning (Bouton, 2004). Extinction studies showed that extinction training forms a separate learning in a physically separate memory system from that of the target learning, and that the extinction learning competes against, but does not replace, the target learning (e.g., Bouton, 2004; Foa & McNally, 1996; Milner et al., 1998; Phelps et al., 2004).

Researchers therefore believed consolidation to be a one-time, one-way process producing a permanent, locked state that made an emotional memory “indelible” for a lifetime (LeDoux et al., 1989), in both animals and humans.

The key that unlocks emotional memory: Prediction error

The discovery of MR was something of an upheaval for the neuroscience of learning and memory because that discovery consisted of detection of the destabilization, or de-consolidation, of a consolidated emotional learning in rats

(Nader et al., 2000). Through Pavlovian conditioning, those researchers first created the learned, fear-laden expectation of an electric shock occurring after an audio tone, expressed by the rats as freezing in response to the tone. One day later, after that memory had become consolidated, the memory and its behavioral expression could be nullified by first presenting only the tone to reactivate the memory, and then soon administering a chemical agent that prevents a new, not-yet-consolidated learning from ever consolidating, but has no effect on consolidated memories. The fact that erasure of the conditioned response resulted from this treatment appeared to mean that in response to reactivation, the consolidated memory's neural encoding became de-consolidated into a "labile," destabilized condition. If administered at 6 hours after reactivation, the chemical agent had no effect, indicating that by then, memory restabilization or reconsolidation had occurred. Annulment of the memory in this pharmacological manner was possible only during the "reconsolidation window" of about 5 hours. (As can be seen in the last two sentences, the term "reconsolidation" is used by neuroscientists in two different ways—to denote the relocking or restabilization of a neural encoding at the end of the labile period, or to refer to the brain's overall process of destabilizing and then restabilizing the neural encoding of a specific memory. In this book, we have attempted to make each use of the term clear by its context.)

Nader et al. (2000), as well as other authors of early MR studies, interpreted their observations to mean that memory reactivation had caused de-consolidation, allowing pharmacological erasure. Their conclusion that every reactivation of a memory induces its destabilization, followed by its reconsolidation, quickly became established, canonical knowledge throughout the neuroscience field, as well as in science journalism.

After several years of entrenchment of that model, in 2004 a study by Argentinian neuroscientists showed that destabilization did *not* occur in response to reactivation alone (Pedreira et al., 2004). Rather, what induced destabilization, launching the MR process, was reactivation of the target learning *plus* a concurrent, additional experience of a "mismatch" between what the reactivated learning expected and what was actually now perceived. The brain's de-consolidation requirement of that mismatch experience, also known as an experience of *prediction error*, thereafter has been confirmed by at least 30 other studies (listed online at <https://bit.ly/2b8IbJH> and by Ecker, 2018). The fundamental role and importance of a prediction error experience for triggering destabilization and launching the MR process is indicated by the publication from 2015 to 2019 of four different review articles focused entirely on the dependence of MR on prediction error (Exton-McGuinness et al., 2015; Fernández et al., 2016; Krawczyk et al., 2017; Sinclair & Barense, 2019). In their review of MR research, Silva and Gräff (2023, p. 9) plainly summarize, "PE was found to be paramount for memory reconsolidation in multiple lines of evidence, in both rodents and humans." It has also been shown that the procedures of the early MR studies, including that of Nader et al. (2000), did indeed contain the necessary mismatch

experience (Bellfy & Kwapis, 2020; Ecker, 2015a), but evidently it went unnoticed by the study authors.

Across those numerous studies confirming the prediction error requirement, concrete procedures for creating the mismatch experience and thereby inducing destabilization have varied greatly, showing clearly that what matters to the brain is the subjective experience of violation of expectation, not the particular procedure used for creating that experience. This distinction between external *procedures* and internal *experiences* proves to be crucial for both understanding experimental results and for the translation of MR research findings into therapeutic application (Ecker, 2018, 2021). It means that psychotherapists are not constrained to using any particular *techniques* for creating the key *experiences* that recruit the MR process, as is shown abundantly in the rest of this book.

However, even as confirmations of the prediction error requirement accumulated steadily after 2004, the erroneous initial inference that each and every reactivation of a memory induces the MR process continued to be believed and promulgated by many neuroscience researchers for well over a decade. This disarray and unawareness of the prediction error requirement has had numerous unfortunate effects, including studies of MR done with no mismatch in the post-reactivation procedure, resulting in both failure to induce memory destabilization and misinterpretations of experimental results (e.g., Cammarota et al., 2004; Hernandez & Kelley, 2004; Mileusnic et al., 2005; reviewed by Ecker, 2015a).

Researchers view prediction error as a type of “boundary condition” on the MR process, meaning a variable condition or parameter that allows MR to occur only within a certain range of its variation. Many studies have systematically varied the details and degree of prediction error (post-reactivation violation of expectation) in order to reveal the range within which MR occurs, and indeed the observations show that a mismatch implemented in the *procedure* can be either too weak or too strong to create a prediction error *experience* that destabilizes the target learning (e.g., Alfei et al., 2015; Chen et al., 2021; Díaz-Mataix et al., 2013; Jarome et al., 2012b; Li et al., 2017; López et al., 2016; Merlo et al., 2014; Piñeyro et al., 2014; Schroyens et al., 2017; Sevenster et al., 2013, 2014). In both cases, destabilization and MR do not occur, so the target memory persists unchanged by the procedure. “Too weak” means the mismatch was too subtle to be unambiguous as a mismatch, or even noticed; and “too strong” means the mismatch differed from expectations so much that the experience registered subjectively as not relevant to the target learning’s expectations, and therefore was not experienced as an *error* of expectation (which has been conceptualized as the perception of a different “latent cause” in terms of Bayesian analysis of evolving knowledge; see Courville et al., 2006; Gershman et al., 2013). Analyzing mismatch procedures in that way in human MR studies has been shown by Ecker (2021) to yield a consistent, unified explanation of why twenty studies succeeded and fourteen studies failed to eliminate an acquired emotional reaction.

These nuances and complexities of achieving memory destabilization via prediction error in laboratory studies have been viewed by researchers as a problem for therapeutic application (e.g., Beckers & Kindt, 2017; Treanor et al., 2017). However, that problem does not actually exist because, as explained by Ecker (2018, p. 52):

the delicacy of mismatch [i.e., of creating prediction error and memory destabilization] observed in laboratory studies is a direct effect of the artificially precise structure of the target learnings created by researchers, not an inherent feature of the reconsolidation process that would necessarily carry over into the clinical setting. ... [T]he detailed structure and content of the target learning determine the post-reactivation experiences that will, or will not, mismatch and destabilize the target learning. Thus the finding that Pavlovian target learnings are mismatched and destabilized by post-reactivation procedures that may vary within only a narrow range of parameters is entirely due to the precisely ordered structure of Pavlovian target learnings designed by researchers.

In a similar manner, a careful analysis of important differences between the unnatural conditions in laboratory studies and the conditions in psychotherapy sessions reveals that several other identified potential obstacles to successful clinical use of MR are found not to exist. For extended discussion and analysis of these issues, see Ecker (2018, pp. 51–60). This book is a testament to the absence in psychotherapy of those obstacles anticipated on the basis of assumptions that apply only in laboratory studies.

The MR process of profound unlearning

As noted, the full annulment or “erasure” of an emotional learning was first accomplished using a chemical agent to render the destabilized neural encoding of the target memory defunct. Soon, however, came studies showing that without any such pharmacological treatment, the target memory could be permanently altered by relevant new learning during the reconsolidation window (e.g., Galluccio, 2005; Walker et al., 2003), presumably by directly revising or “re-writing” its neural encoding according to the new learning. Then came the first successful use of this MR methodology of *behavioral updating* to fully *unlearn* and eliminate a fearful emotional learning, or threat memory, in animals (Monfils et al., 2009) and humans (Schiller et al., 2010). Full, lasting unlearning is precisely what extinction studies had never achieved. Numerous other, subsequent studies then demonstrated the same striking effect—the unlearning and nullification of a fear-generating threat memory response via behavioral updating (reviewed by, for example, Bellfy & Kwapis, 2020; Clem & Schiller, 2016; Ecker, 2021; Elsey & Kindt, 2017; Silva & Gräff, 2023).