UNIFYING PSYCHOTHERAPY
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UNIFYING PSYCHOTHERAPY
Principles, Methods, and Evidence
From Clinical Science

Jeffrey J. Magnavita, PhD, ABPP, FAPA
Jack C. Anchin, PhD, FAPA
I dedicate this book to my dear, sweet Chris; you are everything beautiful and precious to me

– Jack C. Anchin

This book is also dedicated to Dr. Charles and Josephine Gardner who passed away before this volume was published. Their presence is missed but their spirits live on in their family, friends, and students

– Jeffrey J. Magnavita
This volume, *Unifying Psychotherapy: Principles, Methods, and Evidence From Clinical Science*, represents a joint effort that has come to fruition after germinating over the course of more than a decade-long relationship. We have spent considerable time discussing our notions about how to advance our effectiveness by taking the best of clinical science and theory. We believe that the time for unifying clinical science and psychotherapy is upon us, and hope this volume generates broader interest in unification, as well as provides a new paradigm for clinicians. It is important to share with our readers the roots and context of our unifying perspective, and why we think we have something unique to contribute. We realize there are many professional books available and appreciate that you are considering reading this one, and believe it will at least pique your curiosity. We have enjoyed and grown from our scholarly explorations and collaboration. It is important to state that our primary commitment is to our psychotherapeutic work—we both maintain full-time independent practices—that between us amounts to almost six decades. We believe that theory and practice, supported by relevant research, are essential to our effectiveness, and one of the reasons why people seek our service. We share Cummings and Cummings’s (2013) admiration for and perspective of the great physician Sir William Osler, who said:

> He who studies medicine without books sails an uncharted sea. But he who studies medicine without patients does not go to sea at all.

Cummings and Cummings (2013) write that psychotherapy shares similar features with medicine and comment on Osler’s perspective:

> This is as true for the practice of psychotherapy as it is for the practice of medicine, but unfortunately too many books on the practice of psychotherapy are written by academic clinicians...
who may be good teachers and researchers, but they do not see patients.

We believe that researchers and academic clinicians bring much to our clinical science, but as psychotherapists, with decades of clinical experience, we have something unique to offer our readers. Clinicians know, as we do, that facing those in suffering, on a daily basis, is not for the faint hearted, heavy with responsibility and often lonely. We make complex decisions every day with limited empirical evidence to guide us. Clinical decision making in our view cannot be learned from a book, a research journal, or a manual, but rather requires clinical experience to appreciate the complexity of human nature and the skills of being a healer. Sometimes a novelist is able to say things in a way that deeply resonants with us. Michael Robotham’s (2010) protagonist, a psychologist-psychotherapist, describes this way of processing information in his novel Bleed for Me:

Sometimes we know things even if we don’t know we know them. Maybe all we have is a fluttering sensation in our stomachs or a nagging sense of doubt or an unexplained certainty that something has happened.

Call it intuition or perception of insight. There is no sixth sense—it is a simple mental process where the brain takes in a situation, does a rapid search of its files, and among the sprawl of memories and knowledge it throws up an immediate match, a first impression. (pp. 153–154)

Malcolm Gladwell in Blink calls this phenomenon “thin splitting.” This rapid instinctive response, called intuition, is too often overlooked or dismissed as unscientific. We are beginning to understand more about the various information processing systems of the brain, which suggest both a rational, more deliberative one and a rapid, emotional one. “Genuine intuition” is based on a solid foundation of knowledge and exercised by experience. Assimilation of knowledge is essential and separates professionals from psychics. This knowledge blended with experience provides the basis for complex pattern recognition, which is one of the hallmarks of effective psychotherapy and an important aspect of a unified approach. We attempt this by drawing on multiple and converging areas of science and knowledge to guide our pattern recognition.

In Search of the “Holy Grail”

The field of psychotherapy has long been engaged in a search for the “Holy Grail—the most potent therapeutic approach—with applicability
to the widest array of psychological disorders and expressions of human suffering” (Anchin & Magnavita, 2006, p. 26). We are propelled to find the psychotherapeutic approach that will help us attain the “pure gold” of mental health—character change and permanent symptom alleviation. Many pioneers have offered their approaches with a promise of redemption from suffering if one adopts and adheres to their model. Most of these figures have both nourished our hope and disappointed us. We, along with our professional colleagues, have experienced many forms of treatment that we practice in our own hope for enlightenment and to alleviate suffering. We or our family members are likely to be mental health consumers at one time or another. We are no exception on this seemingly noble quest for the most potent and enduring approach for our families, our patients, and ourselves. The pathway each of us has traversed has not been different from that of many other psychotherapists. Indeed, the route we—and we suspect many others—have taken has been more akin to a maze than a singular road forward. Sometimes working as a psychotherapist feels more like living in a Kafkaesque-inspired labyrinth between navigating the health care system and the Tower of Babel in our field, and the competition from renegade practitioners who offer pathways to change using unfounded methods.

We have studied and been trained in various systems of psychotherapy, each of which shine light on something we didn’t know or understand, illuminating and crystallizing our perspective. We are excited when new approaches offer us novel ways to conceptualize our psychotherapeutic work, or teach us new techniques and methods to utilize when our treatment is stuck and the trusted strategies in our clinical toolkit prove ineffective. We find these experiences to be remoralizing, when we can’t find what works with some of the people we treat, and a novel approach or perspective offered inspires hope. We also have experienced disappointment when so many of the approaches that we have studied and learned failed to deliver what they promised. Looking back over our professional and personal journey, we each seem to have taken what we found to be innovative and of clinical utility and continued our search for the Holy Grail. We maintain hope that science and practice working in synchrony can advance our knowledge of human behavior and refine how we can help those who need our services. We believe that the search for the Holy Grail of clinical science and psychotherapy rests on a foundation of unification. This book is not a final stage but a beginning in a continuing evolution toward unifying clinical science and psychotherapy.

The Current State of Affairs—Alphabet Soup

There are currently over 1,000 different names for approaches to psychotherapy (Garfield, 2006), and to no small extent our field has become
an alphabet soup of acronyms for different therapeutic schools and approaches, some major and some minor. I (JJM) have contributed to proliferating approaches, believing at the time that these offered something unique. Yet, in retrospect, these are variations, not new approaches. It seems as if psychotherapy suffers from acrynomia—an addiction to acronyms. Our therapeutic soup now includes RET, CBT, FFT, STDP, ISTDP, ACT, ISTDP, AEP, EMDR, and the list goes on and on. To add to the confusion, many approaches have their own often-esoteric language, which creates a Tower of Babel. Oftentimes, a similar phenomenon is described with different terms, contributing to confusion and fragmentation in the field. Dollard and Miller (1950) were some of the original investigators to address this issue of theoretical confusion in the 1950s when they translated psychoanalytic terms into behavioral ones, demonstrating how different language can be used to describe similar phenomena. Are there really substantive differences among the vast array of current approaches to psychotherapy and their respective constructs? How can clinicians reasonably be expected to select among the range of approaches, techniques, and modalities of treatment to formulate a treatment package for each patient system? We believe unifying psychotherapy better addresses these concerns.

A goal of many innovators has been to develop their own school or approach and then find adherents who can disseminate what they have developed; recruiting and training other clinicians in one’s own model has become big business for our field. Oftentimes, when we examine approaches it appears that the similarities often outweigh the differences, except in the case of certain uniquely distinctive approaches even these share the fundamental core processes with others. Along with the many approaches to psychotherapy, there are many therapeutic tribes, and we belong to a few ourselves. There is often a reification of constructs as if they without doubt represent “reality.” At one conference, panelists talked about “punitive superegos” as if these are real entities and not just metaphorical terms. At another, we heard panelists dismiss the notion of an unconscious mind or its relevance to psychotherapists and clinical scientists.

Does having all these separate approaches harm or help our work? Research efforts may suffer as a result of this proliferation of so many brands of therapy that might have only minor differences. Accumulating evidence for an approach is thwarted because independent efforts validating an approach that only has minor differences is going to weaken the evidence base and waste precious resources. This phase of differentiation of psychotherapeutics, with so many approaches being promulgated, many with only minor differences, was likely a necessary phase in the development of our field. A new stage in the evolution of psychotherapy seems apparent and necessary. As we shall learn in this volume,
differentiation is a normal phase of development in any complex system, with integration and synthesis coming during later stages, but never ceasing as more information is gathered and science advances.

The field of psychotherapy has all too often been preoccupied with pitting one approach to psychotherapy against another to see which one is best. We are still thrilled when we discover a new perspective that seems to better guide our conceptual and clinical efforts—but is holding racehorses among approaches the best way to advance knowledge? The perspective we offer in this volume is of a unified psychotherapy based firmly on the best available evidence from clinical science, and we have found it to be highly useful. Unified psychotherapy is a multiperspective approach that provides the clinician with a framework to select from an array of technical interventions based on an understanding of relational principles. There are other problems when we become overly adherent to any approach—we want to fit everybody into our Procrustean bed.

If You Only Have a Hammer—Everything Looks Like a Nail

The therapeutic approach offered by a clinician is typically based on the type of training the clinician has received, and his or her philosophical beliefs and therapeutic preferences. Recently, one of us evaluated a patient who had made a severe suicide attempt and was hospitalized. Initially she had consulted a mental health professional and told him that she was suicidal; he prescribed medication and asked her to pray. She later made an almost lethal suicide attempt. She said he never asked her about what she was experiencing or what led to her despair. She stated, “I needed to talk but no one seemed interested in listening.” There are many devoted and excellent therapists who practice in challenging settings and get good results. There are also many who believe that what they do is the only way to address issues, and if their approach doesn’t work it was the patient’s fault because he or she wasn’t cooperative or ready. In one of my (JJM) recent cases, a woman came in for treatment after having a tree fall on her car and being trapped. Her first psychotherapist never asked her any questions, he just sat and waited for her to talk. After six months the patient asserted herself and told the therapist that this approach was not working, to which the therapist replied “it works with my other patients.” There was never any offer of a first-line evidence-based exposure therapy that should have been considered. In this case it seemed that if one only has one therapeutic hammer, every patient’s issues look like a nail.

How Clinicians Make Sense out of Complexity

How can clinicians be expected to select among the range of approaches, techniques, and modalities of treatment? With over 1,000 approaches to
 psychotherapy, and many more for the treatment of mental disorders, how can clinicians operate with this level of complexity and expect to be effective? Are there really substantive differences among the approaches to psychotherapy? How can we reasonably be expected to select among the range of approaches, techniques, and modalities of treatment? Treatments for mental disorders range from biological to spiritual, with every conceivable combination in between. Some clinicians believe single-photon emission computed tomography (SPECT) scans of an individual’s brain hold the key to diagnosis and treatment planning, and yet others believe in the healing capacity of existential–humanistic or mindful experiences.

The Challenge for Mental Health Consumers
Putting aside for the moment our own challenges as mental health professionals and psychotherapists, consider what mental health consumers have to deal with when they seek treatment. Consulting various mental health clinicians for a psychological disturbance such as anxiety or depression may result in being prescribed psychotropic medication, cognitive–behavioral therapy, psychodynamic therapy, spiritual counseling, experiential therapy, or an array of other therapies. We are only now beginning the process in North America of developing treatment guidelines based on empirical evidence to hopefully guide us as well as the public in answering these questions of what approach works for whom ( APA Treatment Guidelines Initiative ). With so much branding, what are consumers supposed to do to find effective treatment? What if all approaches were different ways of approaching a problem and could be understood as working at different domain levels of a complex system?

One senior clinician told us that she was not concerned with what consumers had to deal with. How can this not be our concern? Limited access to mental health services is a major international issue that causes much suffering. The fragmentation in the field is difficult enough to untangle for those who are professionals. How can the public possibly choose what is appropriate with so many approaches from which to choose? Clinical science and its related disciplines does itself harm when we present such a chaotic state of affairs.

Challenge to Psychotherapy and Clinical Science
Practitioners who have either begun or continued their personal journey of growth as a psychotherapist in this first quarter of the 21st century do so in a daunting environment. These are difficult times in the United States, with increasing demands being placed on mental health professionals and expectations that may be unrealistic. For example, with the increasing incidence of gun-related violence, some believe that we should be able
to predict and stop these horrific incidents. The challenge of providing quality mental health services is a common theme among psychotherapists who do complex work requiring advanced education and training, but whose services are undervalued by insurance companies who view mental health providers as technicians. We think that unification guided by science offers a brighter future because there will be less fragmentation.

We agree with Kendler (2005), who called for psychiatry—and in our reading, by implication clinical science—“to move from a prescientific ‘battle of paradigms’ toward a more mature approach that embraces complexity along with empirically rigorous and pluralistic explanatory models” (p. 433). We hope that this volume proves engaging and thought provoking. Our sincere wish is that this volume assists you in doing your clinical work with greater hope, patience for yourself and, most of all, greater clinical utility.
This volume is the result of over a decade of fertile collaboration. We believe that the model we present in this volume is an amalgam of our combined six decades of clinical experience and our passion for trying to understand the complexity of conducting psychotherapy in a way that makes sense given the correspondingly daunting complexities of the human being. We first met at a yearly Society for the Exploration of Psychotherapy Integration (SEPI) conference and immediately felt like we were kindred spirits in sharing a passion for conducting psychotherapy as our major career choice, as well as pursuing similar lines of intellectual inquiry regarding the next stage in the evolution of psychotherapy. At our first introduction, we immediately clicked and were struck by our similar vision for unifying clinical science and psychotherapy, which we present in its most current form in this volume. We have both enjoyed this stimulating intellectual and scholarly journey and have felt a true mind blend when working out the issues we struggled with as this model evolved. Our friendship and respect have been the foundation of our collaboration. From this deep synergy has emanated a number of publications and symposia presentations exploring the topic of unification. We are also proud to have launched the Journal of Unified Psychotherapy and Clinical Science (JUPCS) with our collaborator Dr. Steve Sobelman, who is also a dear friend and innovator in many areas and from whom we have learned much.

There are many people who have shared this journey with us along the way, some of whom we have known on a personal level and others through intensively studying their scholarly, scientific, and clinical work. We have learned from some of the great masters and have explored many forms and approaches to psychotherapy and healing. Here I (JCA) wish to express my special gratitude to Dr. Donald J. Kiesler. I was indeed blessed to have Don as my major professor and mentor throughout graduate school. Departed but never forgotten, Don's kindness and graciousness, his powerfully motivating belief in me, the breadth and depth of...
knowledge he imparted about interpersonal psychotherapy and psychotherapy research, and ways of thinking, conceptualizing, and integrating that I absorbed through the incredible good fortune of being his student are inscribed deep within me.

Of the many people who have influenced us on this long journey toward unification, some have shared our view and, as importantly, others have challenged the notion of unification, offering a number of credible points that sharpened our thinking. Among the many people we want to thank is Dr. Arthur Staats, who was one of the pioneering figures in the unification of psychology and who graciously came to Washington, DC to participate in a symposium we presented on unification. We also have been shaped and influenced by many pioneers from the psychotherapy integration movement to whom we express our appreciation, including Drs. Marvin Goldfried, Stanley Messer, George Stricker, and Paul Wachtel. Dr. Theodore Millon has been a significant psychological and interpersonal presence over the course of our work, and we extend our sincere gratitude for his abiding influence and support. We would also like to express appreciation to David Barlow for his influence and interest in our work, and, for JCA, his indelible role modeling early in my career of what it means, at its very best, to be a scientist-professional. We also want to thank the members of the editorial board of *JUPCS*, an exceptionally talented, diverse mixture of scholars who, in agreeing to serve on the journal’s board, have provided validation and support that means more to us than they may know. Dr. David Allan, another of our collaborators, was the first to begin using the term unified psychotherapy and his work continues to be very influential and challenging of the status quo.

There has been a small and growing group of incredibly smart and iconoclastic scholar clinicians who have urged us on and acutely shared our vision, including Drs. Gregg Henriques, Craig Shealy, Timothy Melchert, Ken Critchfield, Michael Alpert, Tom Sexton, Jay Lebow, Howard Liddle, and Andre Marquis. We are grateful to each of you. We would also like to thank many of our friends and colleagues from the Division of Psychotherapy and the Society for Psychotherapy Research. I (JCA) would also like to extend my appreciation to Drs. Frank Fincham, J. Gayle Beck, Craig Colder, John Roberts, Leonard Simms, and Stephen Tiffany, academicians par excellence, for their explicit support over the course of my involvement with the University at Buffalo’s (UB) distinguished doctoral program in clinical psychology. I would like to thank, as well, the many outstanding graduate students in UB’s clinical program to whom I have been been privileged to provide clinical supervision for well over a decade and counting. Your keen intellects, refreshing openness to different ways of clinically thinking and working, and enthusiasm for learning the art and science of psychotherapy have, in
multiple ways, contributed to my own growth and development as a psychotherapist.

I (JJM) also want to express my sorrow and that of the professional community over the loss of Dr. Dan Galper whose untimely death has been hard for many of us. Dan was a great teacher and friend who taught us so much about developing practice guidelines.

Many of our close friends and colleagues have also provided unflagging support. Special thanks goes to a close friend and passionate psychiatrist Dr. Vincent Stephens, whose untimely death occurred before the publication of this volume. Dr. William Alder has been a support over two decades supplying JJM with valuable references and new developments from his extensive library. Dr. Frank Knoblauch should also be recognized as a stalwart support over the years, always adding a fresh perspective during our many hours over the past two decades reviewing videotapes of our psychotherapy sessions and offering advanced training in psychotherapy. Dr. Daniel Trigoboff, a soaring intellect, has been and continues to be a source of enormous support for JCA; our nearly three-decade-long friendship and the multitude of rich conversations we have had over this time on topics ranging from philosophy, psychotherapy, and science to history, culture, and indeed the cosmos, have enriched my being and my thinking immeasurably.

We would also like to express our appreciation to Sheri W. Sussman, Executive Editor extraordinaire. Her excited belief in this project, insightful editorial feedback, and unwavering patience throughout have been invaluable in this volume’s coming to fruition. We are appreciative, as well, to Katie Corasaniti, Associate Editor, for the many beneficial forms of input and help she provided as this project unfolded and moved toward production.

Lastly, we are indebted to our families for the numerous ways—past and present—that they have contributed to this book’s becoming a reality. My (JCA’s) parents, Edward and Anita, may they rest in peace, are profoundly loved internalized others to whom I return time and again. How I wish I could share this book with them. I also extend deep appreciation to my two brothers, Steve and Marv, with whom I share a cherished closeness. To my two wonderful sons, Scott and David, I say, with appreciation that is really beyond words, “thank you” for your love and all that you bring to my life. Now with families of your own, may you experience the joy that I have known and continuously experience in the gift of having you as my sons. I (JJM) would also like to thank my three beautiful and intelligent daughters, Elizabeth, Emily, and Caroline who often accompany me on my professional trips making my work much more fun and interesting. We also want to thank our amazing patients who we learn so much from and who are so affirming of our endeavors to move the field forward. Most importantly we wish to thank our wives
Anne G. Magnavita and Chris Anchin for their loving support, tolerance, and understanding in accepting the stress and strain of both of us writing and teaching, while conducting full-time private practices. The life of a doctor of the mind has its tremendous privilege but also carries with it considerable strain associated with the responsibility that goes along with caring for those in states of emotional suffering that at times seem more than anyone should bear.
You are about to encounter a fresh, challenging, and indeed bold treatise on not only the current status but also the future of psychotherapy. The two authors of this groundbreaking volume are not only extremely well versed in integrating large bodies of current research over a number of disciplines, but also expert psychotherapists with decades of clinical experience. This dual expertise allows them to explore the essential realm that lies both within and between research and clinical practice. Over the following chapters they not only present but also synthesize very recent clinical and scientific data to assert that the field is now experiencing a paradigm shift, and that a new phase of unified psychotherapy is emerging from these rapid advances in our knowledge.

The book represents a significant expansion of the biopsychosocial model of health and illness, first elaborated by George Engel (1977, 1980) at the University of Rochester Medical School, and later incorporated into medicine, psychiatry, and clinical psychology. This model continues to provide an over-arching, holistic, and integrative conception of the human experience by postulating hierarchically arranged yet interacting biological, psychological, and sociocultural domains within the individual. The authors describe how the biopsychosocial perspective has significantly increased our understanding of human development and functioning across the life span, and has acted to elucidate the deeper mechanisms that underlie both healthy adaptive states and pathological maladaptive states. Here, following recent trends in a number of disciplines, they expand the biopsychosocial construct by integrating current relational conceptions into the core of the model. They state, “At every level of the biopsychosocial system, the influence of the relational matrix on development, functioning, and change is ubiquitous. Indeed, the pervasive relationalism in which biopsychosocial structures and processes are awash
may well be the ultimate unifying principle of personality, psychopathology, and psychotherapy.”

In the following pages, Magnavita and Anchin describe the manifestations of the current paradigm shift:

Perhaps reflecting the quiet yet growing influence of systemic perspectives on mainstream thinking, theoretical and empirical lenses in both clinical and basic psychological science have been expanding beyond the reductionistic metapsychology that dominated the 20th century. The direction has been toward achieving a more holistic understanding of complex interrelationships among clusters of domains constituting human structure, process, and functioning along the continuum from psychopathological to healthy states. Influential examples include (a) Schore's (1994, 2003a, 2003b, 2012) interdisciplinary work linking such domains as neuroscience, developmental neurochemistry, interpersonal processes (including the centrality of attachment), unconscious mechanisms of affect regulation and dysregulation, and the self. ...

Over the past two decades my contributions to the emergent field of interpersonal neurobiology have been firmly grounded in the biopsychosocial perspective in part because I did my undergraduate work at the University of Rochester. In this Introduction, I will offer a number of applications of my theoretical models to various developmental and clinical phenomena. I will focus on my latest book, The Science of the Art of Psychotherapy, including its Introduction, “Toward a New Paradigm of Psychotherapy.” That work expands upon a plenary address I delivered to the American Psychological Association’s 2009 Annual Convention, “The Paradigm Shift: The Right Brain and the Relational Unconscious” (Schore, 2009a). My expositions of “affect regulation theory,” which integrate biology and psychology and focus on the “holistic” right brain, are an example of what Magnavita and Anchin describe as translational theoretical research, “the purpose of which is to translate findings from basic scientific research into applications within the applied clinical realm.” The forthcoming chapters of this volume masterfully present a large number of authors who describe in some detail the essential relational, holistic processes that are activated in both the developmental and psychotherapeutic contexts. At various points, I cite these updated psychological formulations, focusing specifically on attachment, the therapeutic alliance, and transference-countertransference phenomena, and then offer my work on the neurobiological mechanisms that underlie these essential biopsychosocial phenomena.
I also discuss the recent advances in neuroscience in conceptions of brain laterality. A large body of research shows that “the right and left human brain hemispheres differ in macrostructure, ultrastructure, physiology, chemistry, and control of behavior” (Braun et al., 2002, p. 97). It is now accepted that functional lateralization is crucial for brain efficiency because it enhances neural capacity by allowing separate, parallel, and specialized processing in the two hemispheres (Vallortigara, 2006). Indeed in the most comprehensive review of the massive body of laterality research, McGilchrist (2009) concludes that the differences between the two hemispheres are profound, and that each expresses not only a distinct mode of functioning but also wholly different perspectives on the world. These updated ideas about brain asymmetry translate into clinical constructs of an analytical, rational left-lateralized conscious explicit self (a conscious mind), and a holistic, emotional right-lateralized unconscious implicit self (an unconscious mind). Throughout, my purpose is to demonstrate that clinicians need to be aware of the advances in neuroscience, and that this knowledge can significantly enhance their understanding of not only their patients, but also their own subjectivity in facilitating therapeutic changes, especially in the patient’s right-lateralized brain/mind/body.

INTERPERSONAL NEUROBIOLOGY OF ATTACHMENT: INTERACTIVE REGULATION AND THE MATURATION OF THE RIGHT BRAIN

As the reader will note, one of the fundamental themes of the ongoing paradigm shift and this book is attachment. Indeed, Magnavita and Anchin boldly assert, “the impact of attachment theory on conceptualizations of personality, psychopathology, psychological health, and psychotherapy over the past several decades has been nothing short of explosive.” Overviewing current advances in the field, they conclude that attachment

… is a biologically hard-wired motivational system that from the moment of birth onward impels the human being to seek contact with others—and as such, the attachment system operates as the infrastructural foundation of all interpersonal relationships and the building block of larger relational constellations. The early attachment system is one of the building blocks of personality, as well as influential in the structuralization of the brain.

Underscoring its essential biopsychosocial functions, they further note that evolution has imprinted into the human being several behavioral systems designed to optimize survival and the individual’s adaptation to life.
Over four volumes and numerous articles and chapters, I have utilized an interdisciplinary perspective to describe the developmental psychological, biological, and neurochemical processes that underlie the formation of an attachment bond of emotional communication between the infant and primary caregiver (Schore, 1994, 2003a, 2003b, 2012). Throughout my work, I have offered a large body of research and clinical data that underscores the centrality of this evolutionary mechanism for all later aspects of human development, especially adaptive social–emotional functions that are essential for survival. Building upon and expanding John Bowlby’s (1969) pioneering work that integrated psychology, biology, and psychoanalysis, the biopsychosocial perspective of modern attachment theory (Schore & Schore, 2008) incorporates current advances in developmental and affective neuroscience to offer an overarching theoretical model of the relational, psychobiological origins of attachment dynamics. A major purpose of this interpersonal neurobiological theory is to generate both heuristic experimental research and clinically relevant models of human social–emotional development. I now offer a succinct summary of the model, first proposed in 1994, and subsequently expanded over the last two decades.

A central principle of modern attachment theory dictates that an essential evolutionary and developmental task of the first 2 years of human life is the co-creation of an attachment bond of emotional communication between the infant and the primary caregiver. Building upon prenatal communications between mother and fetus, in ensuing perinatal and postnatal periods, affective transactions are rapidly transmitted within the dyad using more and more complex nonverbal sensoriaffective communications. To facilitate this emotional communication, the mother must be psychobiologically attuned to the dynamic shifts in the infant’s bodily based internal states of central and autonomic arousal. Although initially these communications are expressed in olfactory, gustatory, and tactile modalities, by the end of the second month, the dyad utilizes more integrated visual and auditory channels of communications in mutual gaze episodes.

The early developing attachment mechanism represents the primordial expression of what Magnavita and Anchin term “the relational matrix,” which imparts a “ubiquitous influence of social-interpersonal processes at every level of human development, functioning, and change.” In the first year of life, the sensitive primary caregiver perceives and appraises nonverbal expressions of the infant’s more and more intense states of positive and negative affective arousal. Through these communications, the primary caregiver can then regulate the infant’s postnatally developing central nervous system (CNS) and autonomic nervous systems (ANS). The attachment relationship thus mediates the dyadic regulation of bodily based emotional arousal. In this ongoing co-created dialogue,
the “good enough” mother and her infant co-construct multiple cycles of both “affect synchrony” that upregulates positive affect (e.g., joy-elation, interest-excitement) and “rupture and repair” that downregulates negative affect (e.g., fear, sadness). These cycles of inter- and intrasubjective attunement/misattunement/re-attunement represent a preverbal psychobiological relational matrix that forms the core of the infant’s emerging implicit corporeal self.

There is now an agreement that emotion is initially regulated by others, but over the course of infancy it increasingly becomes self-regulated as a result of neurophysiological development and actual lived experience. Such adaptive capacities are central to the emergence of self-regulation, the ability to flexibly regulate an expanding array of positive and negative psychobiological states in various dynamic relational contexts, thereby allowing for the assimilation of various adaptive emotional–motivational states into a coherent and integrated self-system. Optimal relational experiences that engender a secure attachment with the primary caregiver thus facilitate both types of self-regulation: interactive regulation of emotions accessed while subjectively engaged with other humans in interconnected contexts, and autoregulation of emotions activated while subjectively disengaged from other humans in autonomous contexts. This model is consonant with Mitchell’s (1988) description of “self-regulatory” and “field regulatory” processes: “the mind operates with motivations concerning self-regulation as well as regulation of the interpersonal field” (p. 9). Developmental studies clearly show that both modes of self-regulation are generated in optimal attachment dynamics of interactive psychobiological regulation. Modern attachment theory defines emotional well-being as nonconscious yet efficient and resilient switching between these two modes (interconnectedness and autonomy), depending upon the relational context. Internal working models of attachment encode both of these modes of coping strategies of affect regulation. At the most fundamental level, modern attachment theory is a regulation theory.

Affectively charged relational attachment dynamics represent the biopsychosocial mechanism by which we are sociophysiologically connected to others to coregulate our internal homeostatic affective states. Attachment, the interactive regulation of emotion, thus represents the regulation of biological synchronicity between and within organisms (Bradshaw & Schore, 2007; Schore, 1994). At all points of the life span, this interactive psychobiological regulation supports the survival functions of the human implicit (unconscious) self-system (Schore, 2003a, 2003b). This principle is echoed in current developmental brain research, where Ovtscharoff and Braun (2001) report,

The dyadic interaction between the newborn and the mother … serves as a regulator of the developing individual’s internal
homeostasis. The regulatory function of the newborn–mother interaction may be an essential promoter to ensure the normal development and maintenance of synaptic connections during the establishment of functional brain circuits. (p. 33)

In this manner, dyadic attachment regulatory transactions impact the development of psychic structure, that is, they generate brain development (Schore, 1994).

In a number of contributions, I have elucidated how the maturation of the emotion processing limbic–autonomic circuits of, specifically, the infant’s developing right brain are influenced by implicit intersubjective affective transactions embedded in the attachment relationship with the primary caregiver (Schore, 1994, 2003a, 2011, 2012). Implicit processing underlies the quick and automatic handling of nonverbal affective cues in infancy, and it is “repetitive, automatic, provides quick categorization and decision-making, and operates outside the realm of focal attention and verbalized experience” (Lyons-Ruth, 1999, p. 576). The nonconscious joint processing of these attachment communications is the product of the operations of the infant’s right brain interacting with the mother’s right brain. Representations of attachment experiences are incorporated into right-lateralized implicit–procedural memory as an internal working model that encodes nonconscious strategies of affect regulation. The regulatory functions of mother–infant social–emotional interactions thereby imprint right brain circuits in critical periods of infancy (Ammaniti & Trentini, 2009; Cozolino, 2002; Henry, 1993; Schore, 1994, 2003a, 2012; Siegel, 1999).

Confirming this model, neuroscientists now document that the right hemisphere shows an earlier maturation than the left in prenatal and postnatal stages of human development (Gupta et al., 2005; Sun et al., 2005), that the strong and consistent predominance for the right hemisphere emerges postnatally (Allman, Watson, Tetreault, & Hakeem, 2005, p. 367), and that the mother’s right hemisphere is more involved than the left in emotional processing and mothering (Lenzi et al., 2009). Studying structural connectivity asymmetry in the perinatal brain with newborn infants at the beginning of the first year, Meaney and his colleagues conclude,

[I]n early life the right cerebral hemisphere could be better able to process … emotion (Schore, 2000; Wada and Davis, 1977). This idea appears consistent with our findings of rightward asymmetry in … limbic structures … These neural substrates function as hubs in the right hemisphere for emotion processes and mother and child interaction. (Ratnarajah et al., 2013, p. 193)

Tronick’s recent research on infants in the middle of the first year reports 6-month-old infants use left-sided gestures generated by the right
hemisphere to cope with the stressful face-to-face–still-face paradigm. They interpret these data as being “consistent with Schore’s (2005) hypotheses of hemispheric right-sided activation of emotions and their regulation during infant–mother interactions” (Montirosso, Cozzi, Tronick, & Borgatti, 2012, p. 826). Using near-infrared spectroscopy to study infant–mother attachment at the end of the first year, Minagawa-Kawai et al. (2009) observed, “Our results are in agreement with those of Schore (1999, 2000) who addressed the importance of the right hemisphere in the attachment system” (p. 289).

Implicit attachment transactions thus shape the experience-dependent maturation of right (and not left) cortical–subcortical systems, and in this manner they impact later personality development and functions. Magnavita and Anchin emphasize that the “processes associated with the self and those associated with being in relationship with others is always implicit.” The implicit (unconscious) self-system of the right brain that evolves in preverbal stages of development thus represents the biological substrate of Freud’s dynamic unconscious (Schore, 2002a). A growing body of studies report that unconscious processing of emotional information is mainly subsumed by a right hemisphere subcortical route (Gainotti, 2012), that unconscious emotional memories are stored in the right hemisphere (Gainotti 2006), and that this hemisphere is centrally involved in maintaining a coherent, continuous, and unified sense of self (Devinsky, 2000; McGilchrist, 2009). From infancy throughout all later stages of the lifespan, this right-lateralized system’s rapidly acting emotional processes are centrally involved in the control of vital functions supporting survival, in enabling the organism to cope with stresses and challenges, and thus in emotional resilience and well-being. Indeed, a body of research now indicates that right- (and not left-) lateralized prefrontal systems are responsible for the highest-level regulation of affect and stress in the brain (Cerqueira, Almeida, & Sousa, 2008; Perez-Cruz et al., 2009; Schore, 1994; Stevenson, Halliday, Marsden, & Mason, 2008; Sullivan & Gratton, 2002; Wang et al., 2005).

Right Brain Attachment Communications Within the Therapeutic Alliance

It is important to note that early social–emotional experiences may be either predominantly regulated or dysregulated, imprinting secure or insecure attachments, respectively. Developmental neuroscience now clearly demonstrates that all children are not “resilient,” but “malleable,” for better or worse (Leckman & March, 2011). In marked contrast to an optimal attachment scenario, in a relational growth-inhibiting early environment of abuse and/or neglect, the primary caregiver of an insecure disorganized–disoriented infant induces traumatic states of enduring
negative affect in the child (Schore, 2001a, 2002b). This caregiver is too frequently emotionally inaccessible and reacts to her infant’s expressions of stressful affects inconsistently and inappropriately (massive intrusiveness and/or massive disengagement), and therefore shows minimal or unpredictable participation in the various types of arousal regulating processes. Instead of modulating, she induces extreme levels of stressful stimulation and arousal, very high in abuse and/or very low in neglect. Because she provides little interactive repair, the infant’s intense negative affective states last for long periods of time.

Watt (2003) observes, “If children grow up with dominant experiences of separation, distress, fear and rage, then they will go down a bad pathogenic developmental pathway, and it’s not just a bad psychological pathway but a bad neurological pathway” (p. 109). More specifically, during early critical periods, frequent dysregulated and unrepaired organized and disorganized insecure attachment histories are “affectively burnt in” the infant’s early developing right brain (Schore, 1994, 2003a, 2009b). Less than optimal early relational experiences, including the “relational trauma” of abuse and neglect (Schore, 2001a), are imprinted into right cortical–subcortical systems, and these insecure internal working models are nonconsciously accessed at later points of interpersonal emotional stress. Affect regulation theory suggests that these right-lateralized insecure working models are central focus of the affectively focused treatment of early forming self-pathologies and personality disorders. Such right brain relational deficits are described by Feinberg and Keenan (2005):

The right hemisphere, particularly the right frontal region, under normal circumstances plays a crucial role in establishing the appropriate relationship between the self and the world… dysfunction results in a two-way disturbance of personal relatedness between the self and the environment that can lead to disorders of both under and over relatedness between the self and the world. (p. 15)

All forms of therapy currently view affect dysregulation and associated relational deficits as fundamental elements of every psychiatric disorder, including personality disorders, and therefore share a common goal of improving the effectiveness of emotional self-regulatory processes (Schore, 2001b, 2009c, 2102).

Bowlby (1988), a psychoanalyst, asserted that the reassessment of nonconscious internal working models of attachment is a primary goal of any psychotherapeutic encounter. These interactive representations of early attachment experiences encode strategies of affect regulation, coping mechanisms for maintaining basic regulation and positive affect in the face of stressful challenges from the social environment. Acting at levels
beneath conscious awareness, this internal working model is accessed to appraise, interpret, and regulate social–emotional information and guide action in familiar and especially novel relational interpersonal environments. Following Bowlby’s interdisciplinary perspective, my work indicates that the patient’s unconscious internal working model of attachment, whether secure or insecure, is reactivated in right-lateralized implicit–procedural memory and reenacted in the psychotherapeutic relationship.

The implicit attachment mechanism is a relational affect communicating and regulating system of the right hemisphere, which I have suggested is the biological substrate of the human unconscious. Neuroscientists now contend that “the left side is involved with conscious response and the right with the unconscious mind” (Mlot, 1998, p. 1006), and that the right hemisphere processes unconscious emotional material, while the left is involved in the conscious processing of emotional stimuli (Wexler, Warrenburg, Schwartz, & Janer, 1992). In my own work, in the discipline of neuropsychoanalysis, I have described the structural and functional properties of a “relational unconscious,” whereby “one unconscious mind communicates with another unconscious mind” (Schore, 2003a, p. xvi). This interpersonal neurobiological mechanism, a primary vector of what Magnavita and Anchin term “the relational matrix,” mediates right-brain-to-right-brain communications across an intersubjective field embedded within the therapeutic alliance (Schore, 1994, 2002a, 2012). Thus, in contributions on the central role of attachment dynamics in psychotherapy, I have focused not on the verbal narratives expressed between the left brain conscious minds of the patient and the therapist, but on the moment-to-moment nonverbal dialogues between the right-brain unconscious minds of both members of the therapeutic dyad. Affectively focused, relationally oriented therapeutic contexts that activate right-brain intersubjective communications attempt to explore and alter inefficient nonconscious insecure internal working models of the self and the world.

In light of the commonality of implicit intersubjective right-brain-to-right-brain emotion communicating and regulating mechanisms in the caregiver–infant relationship and the therapist–patient relationship, developmental attachment studies have direct relevance to the treatment process. Across the life span, the right hemisphere is dominant for nonverbal communication (Benowitz et al., 1983) and subjective emotional experiences (Wittling & Roschmann, 1993), and so the implicit, unconscious communication of affective states between the right brains of the members of the patient–therapist dyad is best described as “intersubjectivity.” Decety and Chaminade’s (2003) characterization of higher functions of the right brain is directly applicable to the psychotherapy of disorders of the self: “Mental states that are in essence private to the self may be shared between individuals … self-awareness, empathy, identification with others, and more generally intersubjective processes, (and)
are largely dependent upon … right hemisphere resources, which are the first to develop” (p. 591).

In “heightened affective moments” within a psychotherapy session, the attachment bond at the psychobiological core of the therapeutic alliance acts as a communication channel for the patient’s right brain “relational unconscious.” In optimal therapeutic contexts, this right-lateralized system that unconsciously processes social and emotional information is activated on both sides of the therapeutic alliance. These implicit clinical dialogues convey much more essential organismic information than left brain explicit, verbal information. Rather, right-brain interactions beneath the words nonverbally communicate critical nonconscious bodily based affective relational information about the inner world of the patient (and therapist). Decety and Chaminade’s assertion that “mental states that are in essence private to the self may be shared between individuals” clearly describes the intimate context of psychotherapy.

This model applies to all patients, but especially those with early attachment disorders. The operational principle in this work is, just as the left brain communicates its states to other left brains via conscious linguistic behaviors, so the right nonverbally communicates its unconscious states to other right brains that are tuned to receive these communications. In his recent book on psychotherapy with developmental trauma, Philip Bromberg (2011) concludes,

Allan Schore (2003a) writes about a right brain-to-right brain channel of affective communication—a channel that he sees as “an organized dialogue” comprised of “dynamically fluctuating moment-to-moment state-sharing” (p. 96). I believe it to be this process of state-sharing that … allows … “a good psychoanalytic match.” (p. 169)

Writing on working with borderline patients who present with a history of attachment trauma and right-brain deficits (Meares, Schore, & Melkonian, 2011), Russell Meares (2012) suggests, “an important component of this approach is a form of therapeutic conversation that can be conceived … as a dynamic interplay between two right hemispheres.”

Psychobiologically attuned communications of the right-lateralized “emotional brain” of the patient and the empathic therapist allow for rapid moment-to-moment, right-brain-to-right-brain “state sharing,” an organized, co-created, dynamically changing dialogue of mutual influence. As in early development, in this intersubjective matrix, both partners simultaneously adjust their patterns of social attention, stimulation, and accelerating/decelerating arousal in response to the partner’s signals, thereby matching the dynamic contours of different emotional–motivational self-states. According to Bromberg (2011),
Self-states are highly individualized modules of being, each configured by its own organization of cognitions, beliefs, dominant affect and mood, access to memory, skills, behaviors, values, actions, and regulatory physiology. (p. 73)

I suggest that, with clinical experience, psychotherapists of all schools become experts in these relational intersubjective processes, and that this increased “implicit relational knowledge” (Stern et al., 1998) enhances therapeutic effectiveness (for recent clinical examples of right-brain-to-right-brain tracking see Bromberg, 2011; Gantt & Badenoch, 2013; Kalsched, 2013; Marks-Tarlow, 2012; Meares, 2012; Montgomery, 2013; Schore, 2012).

Affect regulation theory offers a deeper understanding of the mutual psychobiological processes that underlie any clinical encounter, whatever the verbal content. It is now accepted that the “nonverbal, pre-rational stream of expression that binds the infant to its parent continues throughout life to be a primary medium of intuitively felt affective-relational communication between persons” (Orlinsky & Howard, 1986, p. 343). Lyons-Ruth (2000) characterizes the affective exchanges that communicate early implicit relational knowledge within the therapeutic alliance. She observes that most relational transactions rely on a substrate of affective cues that give an evaluative valence or direction to each relational communication. These occur at an implicit level of bidirectional cueing and response that occurs much too fast for verbal processes and conscious reflection. Neuroscience now characterizes the fundamental role of the right brain in these rapid nonverbal face-to-face affective communications. At all stages of the life span, “The neural substrates of the perception of voices, faces, gestures, smells and pheromones, as evidenced by modern neuroimaging techniques, are characterized by a general pattern of right-hemispheric functional asymmetry” (Brancucci, Lucci, Mazzatenta, & Tommasi, 2009, p. 895).

In forthcoming chapters, Magnavita and Anchin assert that “the clinician needs to serve in a pattern recognition function, achieved through continually identifying and bringing the patient’s attention to these patterns, as well to the limitations they impose and the costs they exact.” They cite Millon (2000), who states, “Our task as therapists is not to see how we can blend intrinsically discordant models of therapeutic technique, but to match the pattern of features that characterize each patient, and then to select treatment goals and tactics that mirror this pattern optimally.” Neuroscience demonstrates that the clinician’s right and not left brain is involved in this critical therapeutic function. Van Lancker Sidtis (2006) concludes, “Pattern recognition and comprehension of several types of stimuli, such as faces, chords, complex pitch, graphic images, and voices, has been described as superior in the normal right hemisphere” (p. 223).
In the clinical literature, Scaer (2005) describes essential implicit communication patterns embedded within the therapist–patient relationship:

Many features of social interaction are nonverbal, consisting of subtle variations of facial expression that set the tone for the content of the interaction. Body postures and movement patterns of the therapist ... also may reflect emotions such as disapproval, support, humor, and fear. Tone and volume of voice, patterns and speed of verbal communication, and eye contact also contain elements of subliminal communication and contribute to the unconscious establishment of a safe, healing environment. (pp. 167–168)

These implicit nonconscious right brain/mind/body nonverbal communications are bidirectional and thereby intersubjective. On the other side of the therapeutic alliance, Meares (2005) observes,

Not only is the therapist being unconsciously influenced by a series of slight and, in some cases, subliminal signals, but also is the patient. Details of the therapist’s posture, gaze, tone of voice, and even respiration are recorded and processed. A sophisticated therapist may use this processing in a beneficial way, potentiating a change in the patient’s state without, or in addition to, the use of words. (p. 124)

This bidirectional mechanism underlies Casement’s (1985) proposal,

It is usual for therapists to see themselves as trying to understand the unconscious of the patient. What is not always acknowledged is that the patient also reads the unconscious of the therapist, knowingly or unknowingly. (p. 3)

These right-brain-to-right-brain communications, more so than conscious verbalizations, reveal the personality of the therapist as well as the client (see Schore, 2003b, for a right-hemisphere-to-right-hemisphere model of projective identification, a fundamental process of deep implicit communication between the relational unconscious systems of patient and therapist).

Affect regulation theory emphasizes the clinician’s shift from constricted left hemispheric attention that focuses on local detail to more widely expanded right hemispheric attention that focuses on global detail (Derryberry & Tucker, 1994), a characterization that fits with Freud’s “evenly suspended attention.” In any session, the empathic therapist is consciously, explicitly attending to the patient’s verbalizations to objectively

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diagnose and rationalize the patient’s dysregulating symptomatology. However, the therapist is also listening and interacting at another level, an experience-near subjective level, one that implicitly processes moment-to-moment attachment communications and socioemotional information at levels beneath awareness. An essential relational element of any treatment encounter is how we work with what is being communicated, but not symbolized with words. How we understand and relate to an unexpressed unconscious emotion depends on our capacity to receive and express nonverbal communications.

In discussing “presymbolic” processing, Bucci (2002) observes, “We recognize changes in emotional states of others based on perception of subtle shifts in their facial expression or posture, and recognize changes in our own states based on somatic or kinesthesis experience” (p. 194). These bodily based implicit communications are expressed within the therapeutic alliance between the patient’s and therapist’s right brain/mind/body systems. McGilchrist (2009, p. 437) observes, “The right hemisphere, is ... more closely in touch with emotion and the body (therefore with the neurologically ‘inferior’ and more ancient regions of the central nervous system)....” (p. 437). Dorpat (2001) describes reciprocal “primary process communication,” and suggests that, “The primary process system analyzes, regulates, and communicates an individual’s relations with the environment” (p. 449). Furthermore, Dorpat concludes, “Affective and object-relational information is transmitted predominantly by primary process communication. Nonverbal communication includes body movements (kinesics), posture, gesture, facial expression, voice inflection, and the sequence, rhythm, and pitch of the spoken words” (p. 451).

Writing on therapeutic “nonverbal implicit communications” Chused (2007) asserts, “It is not that the information they contain cannot be verbalized, only that sometimes only a nonverbal approach can deliver the information in a way it can be used, particularly when there is no conscious awareness of the underlying concerns involved” (p. 879). These ideas are echoed by Hutterer and Liss (2006), who state that nonverbal variables such as tone, tempo, rhythm, timbre, prosody, and amplitude of speech, as well as body language signals, may need to be reexamined as essential aspects of therapeutic technique. It is now well established that the right hemisphere is dominant for nonverbal (Benowitz et al., 1983) and emotional communication (Blonder, Bowers, & Heilman, 1991), as well as emotional prosody (George et al., 1996). The right hemisphere is thus important in the processing of the “music” behind the patient’s words.

It has long been assumed in the psychotherapeutic literature that all forms of language reflect left hemispheric functioning. Current neuroscience now indicates that this is incorrect. Indeed, in a recent review, Ross
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and Monnot (2008) conclude, “Thus, the traditional concept that language is a dominant and lateralized function of the left hemisphere is no longer tenable” (p. 51). They report,

> Over the last three decades, there has been growing realization that the right hemisphere is essential for language and communication competency and psychological well-being through its ability to modulate affective prosody and gestural behavior, decode connotative (non-standard) word meanings, make thematic inferences, and process metaphor, complex linguistic relationships, and non-literal (idiomatic) types of expressions. (p. 51)

Neurobiological data suggest, “While the left hemisphere mediates most linguistic behaviors, the right hemisphere is important for broader aspects of communication” (van Lancker & Cummings, 1999, p. 95). Intersubjective, relational affect-focused psychotherapy is not the left brain “talking cure,” but the right brain “communicating cure.”

In this intersubjective dialogue, the psychobiologically attuned intuitive clinician tracks the nonverbal moment-to-moment rhythmic structures of the patient’s internal states from the first point of contact, and is flexibly and fluidly modifying his/her own behavior to synchronize with that structure. This, in turn, co-creates with the patient a growth-facilitating context for the establishment of an attachment bond of emotional communication and the dyadic organization of the therapeutic alliance. The attachment connection between them is thus established and deepened over time, allowing for the reexpression of unconscious socioemotional experiences that resonate with the original infant–mother attachment history. Over the ensuing stages of the treatment, the sensitive, empathic clinician’s monitoring of unconscious psychobiological process, rather than conscious verbal content, calls for right brain attention to match the patient’s implicit affective-arousal states. The empathic intuitive therapist also resonates with the client’s simultaneous implicit expressions of engagement and disengagement within the co-constructed intersubjective field (for interpersonal neurobiological discussions of right-brain clinical intuition, see Marks-Tarlow, 2012; Schore, 2012). These neurobiological mechanisms directly relate to Magnavita and Anchin’s description of Beutler and Clarkin’s (1990) clinical work: “An effective therapist intuitively is able to respond to the unique characteristics and needs of the patients, and in this process to apply a variety of interventions that encourage movement and enhance the persuasive power of the interpersonal experience of psychotherapy” (p. 265).
Transference–Countertransference and Right-Brain-to-Right-Brain Mechanisms of Therapeutic Change

Affect regulation theory’s right-brain perspective of the treatment process allows for a deeper understanding of the critical intersubjective factors that operate at implicit levels of the therapeutic alliance, beneath the exchanges of language and explicit cognitions. An essential therapeutic context for this nonconscious mechanism is the transference–countertransference relationship. There is now a growing consensus that despite the existence of a number of distinct theoretical perspectives in clinical work, the concepts of transference and countertransference represent a common ground. Magnavita and Anchin describe the fundamental process of transference, originated in psychodynamic theories but now accepted in all schools of psychotherapy. They state,

In this process, the patient unconsciously transfers onto the therapist certain schemas of self and others, including embedded expectancies, emotions, and motivations, that have been developed on the basis of relational experiences with previous significant others and overtly plays these out through in-session enactment of his or her intimately related maladaptive interpersonal patterns.

The neuropsychoanalytic perspective of affect regulation theory describes the central role of implicit right-brain-to-right-brain nonverbal communications (facial expression, prosody-tone of voice, gesture), in unconscious transference–countertransference affective transactions, which revive earlier attachment memories, especially of intensely dysregulated traumatic affects. Gainotti (2006) observes, “the right hemisphere may be crucially involved in those emotional memories which must be reactivated and reworked during the … treatment” (p. 167). In discussing the role of the right hemisphere as “the seat of implicit memory,” Mancia (2006) notes: “The discovery of the implicit memory has extended the concept of the unconscious and supports the hypothesis that this is where the emotional and affective—sometimes traumatic—presymbolic and preverbal experiences of the primary mother–infant relations are stored” (p. 83). These implicit procedural memories are expressed in “heightened affective moments” as transferential right-brain-to-right-brain nonverbal communications of fast-acting, automatic, regulated, and especially dysregulated bodily based stressful emotional states. Transference has been described as “an expression of the patient’s implicit perceptions and implicit memories” (Bornstein, 1999, p. 170).
Recent psychoanalytic models of transference now contend that “no appreciation of transference can do without emotion” (Pincus, Freeman, & Modell, 2007, p. 634), and that “transference is distinctive in that it depends on early patterns of emotional attachment with caregivers” (p. 636). Clinical theoreticians describe transference as “an established pattern of relating and emotional responding that is cued by something in the present, but oftentimes calls up both an affective state and thoughts that may have more to do with past experience than present ones” (Maroda, 2005, p. 134). This conception is echoed in descriptions of right-brain functions in neuroscience, about which Shuren and Grafman (2002) assert:

The right hemisphere holds representations of the emotional states associated with events experienced by the individual. When that individual encounters a familiar scenario, representations of past emotional experiences are retrieved by the right hemisphere and are incorporated into the reasoning process. (p. 918)

Other researchers report that the right hemisphere is fundamentally involved in the unconscious processing of emotional stimuli (Mlot, 1998) and in autobiographical memory (Markowitsch et al., 2000).

In classical writings, Racker (1968) proposed, “Every transference situation provokes a countertransference situation.” Translating this into modern neuropsychoanalytic terms, transference–countertransference transactions are expressions of nonconscious, bidirectional, affectively charged right brain–mind–body nonverbal communications between patient and therapist. These reciprocal psychoneurobiological exchanges reflect activities of both the CNS and the ANS. Behaviorally, the patient’s transferential communications are expressed in spontaneous nonverbal, visual, and auditory affective cues that are rapidly expressed from the face and voice of the patient. Countertransference is similarly defined in nonverbal implicit terms as the therapist’s “autonomic responses that are reactions on an unconscious level to nonverbal messages” (Jacobs, 1994, p. 749). In my first book I stated,

Countertransferential processes are currently understood to manifest in the capacity to recognize and utilize the sensory (visual, auditory, tactile, kinesthetic, and olfactory) and affective qualities of imagery which the patient generates in the psychotherapist … countertransference dynamics are appraised by the therapist’s observations of his own visceral reactions to the patient’s material. (Schore, 1994, p. 451).
Consonant with this conception, Magnavita and Anchin cite Gelso and Hayes’ (2007) definition of countertransference: “the therapist’s internal and external reactions that are shaped by the therapist’s past or present emotional conflicts and vulnerabilities” (p. 130).

As she monitors her somatic countertransferential responses, the empathic clinician’s psychobiologically attuned right-brain tracks, at a preconscious level, not only the patterns of arousal rhythms and flows of the patient’s dysregulated affective states, but also her own stressful somatic countertransferential, interoceptive, bodily based affective responses to the patient’s implicit right brain facial, prosodic, and gestural transferential communications. Updated models of psychotherapy describe the clinical importance of “making conscious the organizing patterns of affect” (Mohaupt, Holgersen, Binder, & Nielsen, 2006). Once again, neuroscience reveals the psychoneurobiological mechanisms that underlie psychotherapy. Recall, “transference is distinctive in that it depends on early patterns of emotional attachment with caregivers” (Pincus et al., 2007). Neuroscientists now assert, “Simply stated, the left hemisphere specializes in analyzing sequences, while the right hemisphere gives evidence of superiority in processing patterns” (Van Lancker & Cummings, 1999, p. 95).

Through these right brain mechanisms, the intuitive psychobiologically attuned therapist, on a moment-to-moment basis, nonconsciously focuses her right brain countertransferential broad attentional processes (Derryberry & Tucker, 1994) upon patterns of rhythmic crescendos/decrescendos of the patient’s regulated and dysregulated states of affective autonomic arousal. Freud’s (1915) dictum, “It is a very remarkable thing that the Ucs of one human being can react upon that of another, without passing through the Cs” (p. 194, italics added) is thus neuropsychoanalytically understood as a right brain-to-right brain communication from one relational unconscious to another. In this manner, “The right hemisphere, in fact, truly interprets the mental state not only of its own brain, but the brains (and minds) of others” (Keenan et al., 2005, p. 702).

Right brain-to-right brain transferential–countertransferential communications, especially of unconscious negative emotion (Sato & Aoki, 2006) and dissociated affects (Schore, 2012), accompany reexpressions of relational attachment trauma in enactments. Magnavita and Anchin cite Brown and Lane’s (2000) clinical description of enactment, which acts both as a defense against unbearable feeling and an attempt to communicate one’s untold story:

Unable to communicate through language, the traumatized, severely disturbed patient may draw the therapist into situations that symbolize his or her traumatic experience. The interaction mirrors the patient’s past and may evoke the patient’s
disowned, dissociated feelings and conflicts in the therapist, inducing the therapist to respond in ways that feel alien (pp. 71–72).

According to Borgogno and Vigna-Taglianti (2008),

In patients whose psychic suffering originates in ... preverbal trauma ... transference occurs mostly at a more primitive level of expression that involves in an unconscious, way ... not only the patient but also the analyst ... These more archaic forms of the transference–countertransference issue—which frequently set aside verbal contents—take shape in the analytical setting through actual mutual enactments. (p. 314)

Ginot (2007, p. 317) notes, “Increasingly, enactments are understood as powerful manifestations of the intersubjective process and as inevitable expressions of complex, though largely unconscious, self-states and relational patterns” (see chapter 5 in Schore, 2012 for an extensive inter-personal neurobiological model of working within clinical enactments).

The intensely negative affects communicated in enactments were neither shared nor interactively regulated by the original attachment object in the historical context, but now the patient has the possibility of a reparative relational experience. In these potentially “corrective emotional experiences” (Alexander & French, 1946), intensely dysregulated bodily based conscious and especially unconscious negative affects are communicated within the intersubjective field co-constructed by two individuals, an energy-transmitting field that includes not just two minds, but also two bodies (Schore, 1994, 2003a, 2003b, 2012). At the psychobiological core of the co-constructed intersubjective field is the attachment bond of emotional communication and interactive regulation. Implicit intersubjective communications are interactively regulated and dysregulated psychobiological processes that mediate shared conscious and unconscious emotional states, not just “mental” states. Affect regulation theory thus describes how beneath the exchanges of language, the implicit affects of the client are not only communicated to but also regulated by implicit systems of the therapist.

This relational enactment mechanism represents an interaction between the patient’s emotional vulnerability and the clinician’s emotional availability (the ability to “take” the transference). It is most fully operational during ruptures of the therapeutic alliance, described by Aspland et al. (2008) as “points of emotional disconnections between client and therapist that create a negative shift in the quality of the alliance” (p. 699), that act as “episodes of covert or overt behavior that trap both participants in negative complementary interactions” (p. 700). Although such ruptures of the alliance are the most stressful moments of the treatment,
these “collisions” of the therapist’s and patient’s subjectivities allow not only for right brain communications but also for potentially interactive regulations of intensely dysregulated affective states.

The essential biological function of attachment communications in all human interactions, including those embedded in the psychobiological core of the therapeutic alliance, is the regulation of right brain/mind/body states. Aron (1998) observes,

[Patient and analyst mutually regulate each other’s behaviors, enactments, and states of consciousness such that each gets under the other’s skin, each reaches into the other’s guts, each is breathed in and absorbed by the other … the analyst must be attuned to the nonverbal, the affective … to his or her bodily responses. (p. 26)]

The importance of this intersubjective right brain/mind/body limbic-autonomic “deep contact” is stressed by Whitehead (2006):

Every time we make therapeutic contact with our patients we are engaging profound processes that tap into essential life forces in our selves and in those we work with … Emotions are deepened in intensity and sustained in time when they are intersubjectively shared. This occurs at moments of deep contact. (p. 624, italics added)

At moments of deep contact, intersubjective psychobiological resonance between the patient’s relational unconscious and the clinician’s relational unconscious produces an amplification of arousal and affect, and so unconscious affects are deepened in intensity and sustained in time. This dyadic increase of emotional intensity (energetic arousal) allows dissociated bodily based affects beneath levels of awareness to emerge into consciousness of both members of the therapeutic dyad (Schore, 2012).

In this manner, therapeutic “heightened affective moments” afford an opportunity for interactive regulation of dysregulated affects, including traumatic affects. Neuroscientists assert, “The ability to modulate emotions is at the heart of the human experience … emotional self-regulatory processes constitutes the core of several modern psychotherapeutic approaches” (Beauregard, Levesque, & Bourgouin, 2001, p. RC165). Echoing this principle in the clinical literature, Ogden (2005) and her colleagues conclude,

Interactive psychobiological regulation … provides the relational context under which the client can safely contact, describe and eventually regulate inner experience … It is the patient’s experience of empowering action in the context of
safety provided by a background of the empathic clinician’s psychobiologically attuned interactive affect regulation that helps effect ... change. (p. 22)

In a groundbreaking article in the clinical psychology literature, Greenberg (2007) describes a “self-control” form of emotion regulation involving higher levels of cognitive executive function that allows individuals “to change the way they feel by consciously changing the way they think” (p. 415). He proposes that this explicit form of affect regulation is performed by the verbal left hemisphere, and unconscious bodily based emotion is usually not addressed. This regulatory mechanism is at the core of verbal-analytic understanding and controlled reasoning and is heavily emphasized in models of cognitive behavioral therapy. In contrast to this conscious emotion regulation system, Greenberg describes a second, more fundamental implicit affect regulatory process performed by the right hemisphere. This system rapidly and automatically processes facial expression, vocal quality, and eye contact in a relational context. Therapy attempts not control but the “acceptance or facilitation of particular emotions,” including “previously avoided emotion,” to allow the patient to tolerate and transform them into “adaptive emotions.” Citing my work, he asserts, “it is the building of implicit or automatic emotion regulation capacities that is important for enduring change, especially for highly fragile personality-disordered clients” (2007, p. 416).

In cases of early attachment failures and resultant self-pathologies, deep emotional contact, and implicit interactive affect regulation are central mechanisms of right-brain psychotherapy processes. Such work implies a profound commitment by both participants in the therapeutic dyad and a deep emotional involvement on the part of the therapist (Tutte, 2004). These types of cases, difficult as they may be, represent valuable learning experiences for the therapist, and they call for expert skills. In this challenging work, more so than cognitive understanding, relational factors lie at the core of the change mechanism; however, affect regulation theory’s trans-theoretical clinical perspective that describes the basic interpersonal neurobiological mechanisms of therapeutic action applies to all patients, and all forms of psychotherapy.

Relevance of the Paradigm Shift in Brain Lateralization for a Unifying Biopsychosocial Model of Psychotherapy

In this last section of the Introduction, I want to offer some further thoughts about the contributions of interpersonal neurobiology to the central theme of this groundbreaking book, the emergence of a unifying paradigm of psychotherapy. In the chapters that follow, Magnavita and Anchin offer a wealth of interdisciplinary scientific and clinical data that support a
biopsychosocial perspective of psychotherapy, a holistic framework for guiding psychotherapy unification. They cite Singer’s (in press) observation that “the older therapeutic orientations of cognitive, behavioral, psychodynamic, humanistic, biological, and so on are breaking down and being replaced by a more integrated and less partisan vision of the person.” Indeed, they put forth a compelling argument that a transtheoretical holistic framework can cohesively organize and interrelate our rapidly expanding knowledge about personality, psychological health, and pathology into more effective psychotherapeutic processes and methods. This, in turn, they say, is in line with the APA Task Force on Evidence-Based Practice (2006) conclusion that “clinical practice should be predicated on the best available research integrated with the clinician’s expertise within the context of a particular patient” (Norcross, Hogan, & Koocher, 2008, p. xi).

I would strongly agree, but add that “the best available research” must include the rapid, if not spectacular advances of knowledge in neuroscience, and that this needs to be incorporated into psychotherapy training programs. Current information from developmental and affective neuroscience on the unique structure–function relationships of the right-brain not only directly supports but also operationalizes the biopsychosocial model. In addition, neuroscience, especially interpersonal neurobiology, can expand the model and serve as a theoretical and experimental source of a more complex and efficient model of treatment. The explicit knowledge we gain from studying the rapidly expanding amount of clinically relevant interdisciplinary information from literally every scientific discipline is essential to our professional growth. However, to be optimally effective in treating the regulatory and interpersonal deficits of both Axis I psychiatric and Axis II personality disorders, the expert clinician must access not only the patient’s left lateralized conscious mind and explicit self, but also even more importantly the patient’s right lateralized unconscious mind and implicit, bodily based self. Neuroscience now confirms that the right hemisphere is dominant for implicit learning (Hugdahl, 1995), and that the left hemisphere is involved with conscious response and the right with the unconscious mind (Mlot, 1998).

In an extraordinary feat of neurobiological scholarship on human brain asymmetry, Iain McGilchrist (2009) synthesizes hundreds of studies to argue that the right and left hemispheres create coherent, utterly different, and often incompatible versions of the world, with competing priorities and values. He concludes,

If what one means by consciousness is the part of the mind that brings the world into focus, makes it explicit, allows it to be formulated in language, and is aware of its own awareness, it is reasonable to link the conscious mind to activity, almost all of which lies ultimately in the left hemisphere. (p. 188)
On the other hand,

The right hemisphere, by contrast, yields a world of individual, changing, evolving, interconnected, implicit, incarnate, living beings within the context of the lived world, but in the nature of things never fully graspable, always imperfectly known—and to this world it exists in a relationship of care. (p. 174)

He then discusses the unique integrative functions of the right hemisphere:

I believe that the relationship between the hemispheres is not equal, and that while both contribute to our knowledge of the world, which therefore needs to be synthesized, one hemisphere, the right hemisphere, has precedence, in that it underwrites the knowledge that the other comes to have, and is alone able to synthesize what both know into a usable whole. (p. 177)

Indeed, McGilchrist cites a large body of neurobiological, neuropsychological, neuroanatomical, and neurochemical evidence indicating that the right hemisphere is “holistic” and nonlinear; is sensitive to context and “the relational aspects of experience;” and is dominant for empathy, theory of mind, emotional receptivity and emotional expressivity, self-awareness, and sense of self.

In parallel writings and consonant with my own work on the unique functions of the right-lateralized implicit self, Keenan, Gallup, and Falk (2003) assert,

By casting the right hemisphere in terms of self, we have a revolutionary way of thinking about the brain. A new model of the brain, therefore, must take into account the primary importance of the right hemisphere in establishing and maintaining our sense of awareness of ourselves and others. (p. 252)

It is undoubtedly true that both brain hemispheres contribute to effective therapeutic treatment, but in light of “the primacy of affect,” the right brain, the “emotional brain,” is dominant in all forms of psychotherapy. Over the course of treatment, in an array of emotionally charged clinical “heightened affective moments,” the skilled therapist is flexibly accessing a storehouse of right brain implicit relational knowledge and a wide range of affective experiences gained over the course of his or her career. Affect regulation theory dictates that at the most essential level, the intersubjective work of psychotherapy is not defined by what the therapist says to
or does for the patient (left brain explicit focus). Rather, the key mechanism is how to be with the patient, especially during affectively stressful moments when the patient’s subjectivity is disintegrating in real time (right brain implicit focus).

In the forthcoming chapters, Magnavita and Anchin propose that “the aim of unified psychotherapeutics is to increase differentiation and integration of component parts.” I suggest that this biopsychosocial principle most directly applies to the growth and integration of hierarchical cortical and subcortical systems of the right brain (see Schore, 2012). Over the course of long-term treatment, a more complex structure evolves, which in turn can process more complex right brain functions (intersubjectivity, empathy, affect tolerance, and stress regulation). Ultimately, effective psychotherapeutic treatment of early evolving self-pathologies (including personality disorders) can facilitate changes of both increased integration and differentiation within the right brain, the biological substrate of the human unconscious, including alterations of the nonconscious internal working model and more effective coping strategies of affect regulation. This interpersonal neurobiological mechanism allows optimal treatment to potentially transform “insecure” into “earned secure” attachments. Characterological changes in what used to be termed “psychic structure” that ensue from deeper work alter not only the conscious left mind but also the unconscious right mind. The growth-facilitating relational environment of effective psychotherapy can thus promote the experience-dependent bio-psycho-social maturation of the right hemisphere, which is more closely linked to the physiological changes in the body (Spence, Shapiro, & Zaidel, 1996), and is dominant for processing self-awareness (Keenan & Gorman, 2007), and social interaction than the left (Decety & Lamm, 2007; Semrud-Clikeman, Fine, & Zhu, 2011).

In the following pages of this remarkable volume, the authors describe the psychobiological change mechanism of psychotherapy,

... the therapist and patient are collaboratively reworking the patient’s memories, and thus the intrapsychic and interpersonal levels of change are inseparably tied to changes at the substrative neurobiological levels in which affectively charged memories are stored and from which they emerge. (see, e.g., Cozolino, 2006; Schore, 2012)

Indeed, a body of studies now indicates that psychotherapy induces changes in the brain (see Schore, 2012). Glass (2008) summarizes these findings: “Recent research in brain imaging, molecular biology, and neurogenetics has shown that psychotherapy changes brain function and structure. Such studies have shown that psychotherapy effects regional cerebral blood flow, neurotransmitter metabolism, gene expression, and
persistent modifications in synaptic plasticity” (p. 1589). He further refers to the problem of “variability” in how well psychotherapy is done, “which is determined by training, experience, and natural ability. There is an art, as well as a science, of doing psychotherapy” (p. 1589, italics added).

As this Introduction ends, it is my pleasure to now hand you over to the creative minds of Jeffrey Magnavita and Jack Anchin. You are in for a rich amalgam of updated biopsychosocially based clinical theory that integrates the biological, psychological, and cultural realms, overarching summaries of research across a number of sciences and clinical disciplines, wide-ranging reviews of individual, couples, group, and family psychotherapy, and ultimately, I think, an intellectually stimulating and compelling argument for a unifying paradigm for psychotherapy.

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Part I

THEORY AND EVIDENCE FOR UNIFYING PSYCHOTHERAPY
A new phase of unified psychotherapy is emerging from rapid advances being made in clinical science and related disciplines. Technological innovations, new trends in health care, globalization, the flowering of neuroscience, and the prominence of multiculturalism, along with rapidly accumulating scientific evidence from many other disciplines, are changing the field. Entwined with these expansive changes, different realms of scientific and clinical activity are fathoming the multilevel, multidomain complexities and intricacies of human development, mental health, disorder, and change. This exciting coalescence of developments reflects a more holistic perspective, moving beyond the single-domain perspectives that dominated 20th-century clinical science and psychotherapeutics. It offers the tantalizing suggestion that, before our very eyes, the field is undergoing a profound shift, evolving from the previous century’s pre-paradigmatic efforts toward development of a singular, comprehensive paradigm containing the potentiality to advance and accelerate integration and synthesis of multiple and diverse realms of knowledge and study. This movement toward developing a unifying psychotherapeutic paradigm is at once ambitious and pragmatic, linked ultimately by the goal of heightening the effectiveness of efforts at promoting mental health and preventing, diagnosing, and treating psychological disorders (Clinical Sciences Enterprise Task Force, 2006). In this first chapter, we lay the groundwork for the remainder of the volume by
presenting fundamental issues and perspectives informing our work. As will become evident, principles and methods presented in subsequent chapters build heavily on these foundations.

THE PRE-PARADIGMATIC STASIS IN PSYCHOLOGY AND PSYCHOTHERAPY

Historical prescience for the intriguing, unifying developments taking place in psychology and psychotherapy resides in no less a figure than William James, the father of American psychology. James had a keen interest in the ever-growing diversity of phenomena and “knowledge elements” (Staats, 1991) encompassed by the rapidly emerging discipline of psychology, reflected in his definition of the latter as “the Science of Mental Life, both of the phenomena and their conditions. The phenomena are such things as we call feelings, desires, cognitions, reasonings, decisions, and the like; and superficially considered, their variety and complexity is such as to leave a chaotic impression on the observer” (p. 1). James was also fascinated with the issue of making sense of the endlessly kaleidoscopic composition of human experience and being—not to subjugate this staggering diversity of phenomena (for James, endless plurality was inherent to the human condition) but rather to seek the unifying chord that enabled understanding of how this plurality could be organized into a singular whole containing coherent meaning. For James, the critical issue was how to hit the balance between “the one and the many” (1907/1992, p. 71).

Within the variegated discipline of psychology, this quandary has resonated across the decades since James’s seminal writings about the tension between plurality and unification, for the relevance of this issue never ceases. As the discipline has progressed, it has conspicuously differentiated into different fields of study (Henriques, 2011; Marquis, 2012), with mixed consequences. On the one hand, this intradisciplinary diversity has been critically valuable to the ever-greater breadth and depth of knowledge accumulated about mind and behavior. On the other hand, there are those who view this ever-growing mass of knowledge elements as counterproductively partitioned into disparate realms of understanding, insufficiently organized and interrelated, and consequently costly to the discipline’s advancement and maturation as a science (see, e.g., Henriques, 2011). For some, this fractionation poses a threat to the discipline’s very existence (see, e.g., Bandura, 2001). Consequent calls for the unification of psychology (see, e.g., Chao, 2002; de Groot, 1989; Gilgen, 1987; Henriques, 2003, 2004, 2011; H. Kendler, 1987, 2002; Koch, 1981; Royce, 1987; Staats, 1987, 1991, 1999; Sternberg, 2004; Sternberg & Grigorenko, 2001; Viney, 1989; Wertheimer, 1988; Yanchar & Slife, 1997; Yela, 1987) offer
an array of arguments counterposing contentions that the discipline’s disparate composition is not only inescapable but in fact beneficial—and the debate continues apace.

This abiding tension between “the one and the many” is fractally mirrored in the primary concern of this volume, the multifaceted field of psychotherapy. Over the course of the field’s brief but eventful over 100-year history, theoretical and technical diversity has been the rule. Beginning with the psychoanalytic and psychodynamic orientation and proceeding through the overlapping emergence of behavioral, humanistic, cognitive, systemic, biomedical, multicultural, and integrative approaches (Anchin, 2012; Magnavita, 2012; Melchert 2013), the field has spawned multiple schools of thought about how best to psychotherapeutically treat human pain and suffering. These orientations have also each given rise to numerous other branches, such that we now have more than 400 specific approaches to psychotherapy (Corsini & Wedding, 2008). The plurality afforded by this multiplicity of approaches is pragmatically and functionally invaluable, given patients’ seemingly inevitable complexities as the psychotherapeutic process unfolds. Moreover, plurality has enabled the scientific examination of psychotherapy’s effectiveness from diverse perspectives and with a cadre of empirical methods. From this 60-some years of psychotherapy research in the modern era (Anchin, 2008b), irreproachable evidence has accrued demonstrating that psychotherapy works; a vast array of within- and between-school investigations of psychotherapy demonstrates that psychotherapy can indeed effectively ameliorate numerous forms of psychological pain and suffering (see, e.g., Wampold, 2001). This conclusion has most recently been formally recognized in the American Psychological Association’s (2013) Resolution on the Recognition of Psychotherapy Effectiveness.

Ironically, however, the enormous plurality of psychotherapeutic concepts, strategies, and techniques has spawned double-edged consequences. In an incisive analysis highly in sync with the spirit of the present volume, Melchert (2013) observed the persistent conflict and confusion stemming from the continuing prominence of “the traditional theoretical orientations” (p. 11) serving as the conceptual foundations of practice and education in professional psychology. Among problems elaborated by Melchert (2013) is the fact that each of these orientations offers an incomplete explanation of personality, psychopathology, and behavior change; different theoretical approaches continue to proliferate, despite disagreement as to the most appropriate approach to understanding human psychology; no single approach has yet to achieve dominance, with the largest number of adherents to any single approach, including integrative, remaining in the minority; and disagreements persist regarding the most appropriate training model for professional psychology. “Theoretical and conceptual confusion” (Melchert, 2013, p. 13) in the field thus persists.
Melchert (2013) also identified four issues underlying this vexing state of affairs: philosophically, many orientations are rooted in widely varying and discrepant foundational assumptions about human nature; many psychological theories are constructed in a way that renders them scientifically nonfalsifiable—that is, nonamenable to refutation—and hence they are poor theories in a scientific sense; none of the traditional theoretical orientations can fully accommodate the tremendous complexity of human mind, behavior, functioning, and development and their multicausal character; and until recently, scientific tools for penetrating and understanding this complexity have been of limited power and precision, perhaps making development of an array of theoretical explanations inevitable.

Interlaced with these issues are additional problems associated with the diversity of theoretical orientations underpinning psychological practice. To no small extent, a tribal mentality continues to exist among adherents to different theoretical orientations, whose different esoteric language systems contribute significantly to fractionation continuing to plague the field (Magnavita, 2008). Moreover, the overlap and even outright redundancy of phenomena encompassed by the staggering diversity of terms, concepts, and techniques spawned by different theoretical orientations are considerable, yet consensual bodies of knowledge have yet to be developed. Consequently, needless terminological confusion reigns, which impedes the creation of bodies of knowledge “that would be accepted as recognized knowledge, and that would serve to draw separate empirical-theoretical endeavors together” (Staats, 1987, p. 41). Conceptual redundancy’s drag on the field’s advancement is further compounded by enduring schisms, for example, determinism versus agency, empiricism versus constructivism/hermeneutics, and nomothetic versus idiographic methodologies.

All of these factors contribute to the field’s continued stasis in a pre-paradigmatic state (Kuhn, 1970). Thus, we agree with Melchert’s (2013) assessment that, while there can be no denying that the field has shown “remarkable growth and many achievements” (p. 11), the pace of continued maturation and advancement, especially in today’s environment of rapid, technology-driven knowledge expansion, is constrained by continued reliance on “outmoded theoretical frameworks for education, practice, and research” (p. 12).

Perhaps, then, it is not surprising that recent efforts to advance the field are increasingly focusing on issues that encompass but also go beyond specific traditional orientations. Intensified efforts to bridge the gap between research and practice (Teachman, Drabick, Hershenberg, Vivian, Wolfe, & Goldfried, 2012); growing recognition of the value of both quantitative and qualitative methodologies in clinical research (e.g., Anchin, 2008a, 2008b; Shahar, Anchin, Gottdeiner, Levy, & Mor, 2012);
heightening interest in pantheoretical constructs, factors, and measures (e.g., Carter et al., 2012; Levitt & Williams, 2010; Lukowitsky & Pincus, 2011; Pincus, 2010; Spinhoven, Geisen-Bloo, van Dyck, Kooiman, & Arntz, 2007); and calls for a common language system (e.g., Norcross, 2005) all exemplify the growing shift toward identifying and addressing trans-theoretical issues as pivot points for propelling forward movement. In our view, identifying and grappling with these issues are vital steps on the path to elevating psychotherapy’s effectiveness and efficiency, but, like the traditional orientations, they too are at risk of becoming disparate areas of development, each yielding valuable insights and understandings that nevertheless remain segmented.

In appraising this state of affairs, we have come to believe, in agreement with a growing chorus of clinical scientists and practitioners (Henriques, 2011; Henriques & Stout, 2012; Mahoney, 2003; Mayer, 2004; Melchert, 2011, 2013; Marquis, in press; Constantino, Boswell, Barnecke, & Castonguay, in press; Millon & Grossman, 2012; Schore, 2012; Singer, 2005; Wolfe, 2008), that the field’s progress can be accelerated through incorporating a holistic framework that can cohesively organize and interrelate our ever-accumulating multisource knowledge about personality, psychological health and pathology, and effective psychotherapeutic processes and methods. A holistic framework also provides a bridge that can help connect contemporary transtheoretical endeavors (see Tschacher, Junghans, & Pfammatter, in press). Indeed, since the latter are all focused on one facet or another of the complexity of phenomena that collectively compose the science and practice of psychotherapy, would the field not benefit from a way to cohesively interconnect the bodies of knowledge and understanding generated by these various debates?

A HOLISTIC PERSPECTIVE

Holism is a position within philosophy of science, a branch of philosophical inquiry that broadly deals with “the most fundamental assumptions and first principles of thought” (Miller, 1992, p. 6) that underlie scientific theories, research methodologies, and specific procedures for applying that knowledge in ways intended to be salutary. R. Elliott (2008) vividly conveyed the fundamentality of such assumptions in the science and practice of psychotherapy:

underlying assumptions or implicit philosophies ... drive the whole therapeutic and research enterprise, with the force of unconscious moral imperatives. In other words, the assumptions are there, guiding what we do with clients in therapy and research, whether we are aware of them or not.... it is
these guiding assumptions that provide the moral grounding for our work, that justify what we do, and that supply the scientific framework within which our work is ultimately judged. (p. 41)

Slife and Williams (1995), Mahoney (2005), Miller (1992), Rychlak (1976), and Woolfolk and Richardson (2008) are among others who have eloquently argued the case that no facet of scientific and clinical thinking can escape the influence of underlying philosophical assumptions relative to the focus of interest—whether these are, for example, maladaptive core beliefs, problematic interpersonal styles, or specific patterns of family dysfunction. Therapeutic targets are anchored in theoretical systems—cognitive therapy, interpersonal therapy, family therapy, and so on—whose respective anchorings are “fundamentally predicational … relying upon assumptions, preferential biases, preferred paradigms, meaningful worldviews, and so forth” (Rychlak, 1992, p. xvi).

As a fundamental assumption, “holism (from ὅλος, holos, a Greek word meaning all, whole, entire, total)” (Wikipedia, 2010) maintains that a complex system (exemplified by the human brain, a person, or a societal institution) functions as a totality, a unified whole, that is “more than or different from the sum of its parts” (Östreng, 2007, p. 12) and manifests properties not contained in any of the parts themselves. A holistic perspective holds that properties characterizing a given complex system (e.g., the brain’s plasticity; a person’s resilience; a social institution’s functions) are emergent in that they develop out of interrelationships—the “interconnectedness, interdependencies and interactions” (Östreng, 2007, p. 12)—that continuously transpire between and among the whole’s constituent parts. As crystallized by Mabry, Olster, Morgan, and Abrams (2008), “Emergent properties are those properties that can only be seen at the system level and are not attributes of the individual components themselves (e.g., a flock emerges when a group of birds flies together; it is a property of the system, not of any individual bird)” (p. S218).

A holistic approach to understanding a complex system proceeds through synthesis, “acknowledg[ing] the impact of multiple variables, complex interactions among variables, and multiple levels of analysis” (Haynes, 1992, p. xi). The concept of nonlinearity is embedded in the process of synthesis, and among its defining characteristics is the notion that the directionality of influence processes between parts is reciprocal and multidirectional. For example, in the case of a triad involving a therapist, individual psychotherapy patient, and the latter’s spouse, the therapist and patient reciprocally influence each other within a given session in verbal and nonverbal ways; by the same token, a multidirectional influence process unfolds when a change in the patient following a specific session prompts the latter’s spouse to call the therapist with expressions
of concern, which the therapist then shares with the patient in the next session, and based on their discussion, the patient asks her spouse to attend the next session.

The concept of part–whole relationships is also central to holistic understanding, in that a given part acquires meaning based on the role it plays in the total system—but by the same token, the total system cannot be comprehensively understood without reference to its heterogeneous, constituent parts and their interrelationships. In the same vein, thorough understanding of any particular constituent part is achieved only insofar as that understanding grasps how that part affects and is affected by other parts constituting the whole (Magnusson & Torestad, 1993).

Striking the chord of holism in composing a unifying framework for psychotherapy begs the question about the role occupied by reductionism, a position in the philosophy of science characteristically depicted as holism’s polar opposite and hence as incommensurable. This issue of holism “versus” reductionism, indeed often characterized as “the debate over ‘wholes’ and ‘parts’” (Corning, 1998, p. 134), is of no small importance to advancing the field, for it embodies two distinctly different approaches to understanding why and how things happen as they do in “the world of nature and the social world of humankind” (McClellan & Dorn, 2006, p. 129). As Malanson (1999) points out, this difference “is significant because the extremes lead to fundamentally different questions and to different answers to the same questions” (p. 746)—an issue that certainly pertains to the innumerable questions of interest to those working scientifically and clinically in the fields of personality, psychopathology, and psychotherapy.

Thus, in contradistinction to a holistic perspective, reductionism pursues understanding of a complex system, not through synthesis, but rather through analysis—that is, by breaking it down into its constituent parts and developing detailed knowledge about each of those parts and their respective properties (see Polkinghorne, 1983). In this perspective, the whole is understood as the additive effect of each of its elemental constituents; as classically stated, the whole is equal to the sum of its parts. Moreover, “it is a feature of reductionist explanation that parts are assumed to affect other parts in a linear or one-way manner, and interpretation proceeds from the parts to the whole” (Chandler, 1995, n.p.). Intimately related, a highly valued form of knowledge in this model is evidence of a one-way (unidirectional) cause–effect relationship between variables; thus, X (the therapist) exerts causal effects on Y (the patient), and Y causally affects Z (her spouse), but the direction of influence is always one way.

Although a holistic perspective is of primary importance in a unifying paradigm for clinical science and psychotherapy, eschewing reductionism is in point of fact not only inconceivable but also wholly
undesirable. As critically pointed out by Malanson (1999, p. 746), in reality, a gradient exists between holism and reductionism, and therefore in applying a unifying frame for understanding a complex system, one need not choose between either a holistic perspective or a reductionist perspective. Rather, adopting a both/and perspective—that is, examining the interplay between both reductionistic analysis and holistic synthesis—is conceived as the optimal course in pursuing comprehensive understanding of a complex system. No intrinsic incommensurability exists between these two approaches to understanding, in that each concentrates on a distinctly different form of knowledge about the particular human system under consideration: “[reductionism] focuses on the properties of parts, [holism] on the relationship between them. Put together, they stand out as supplementary rather than conflicting, as inclusive rather than exclusive” (Ostreng, 2007, p. 12).

Pursuing understanding of a phenomenon or entity through taking back and forth between alternative lenses, in this case reductionism and holism, is the essence of dialectical thinking (Anchin, 2008c; Rychlak, 1976)—fundamental to the process of unification (Anchin, 2008c; Marquis, in press). Though referencing the specific domain of environmental studies, Mebratu’s (2001) perspective on the relationship between reductionism and holism has direct applicability to pursuing a unifying paradigm for the clinical sciences and psychotherapy:

Fundamentally, the holistic view recognizes the validity of the reductionist way of thinking within the broader domain of the holistic view. In this context, disciplinary sciences, as reductionist as they are, will remain to be the best source of gaining in-depth knowledge about the parts. But, when it comes to complex systems, the limitation of the reductionist view needs to be rectified through the application of the holistic view. Recognizing the relationship between the holistic and reductionist view is one of the major challenges that must be addressed by the scientific community in its efforts of dealing with environmental issues. (n.p.)

We maintain the very same challenge confronts the scientific and clinical communities in their shared objective of unraveling and understanding the complexities of personality, psychopathology, psychological health, and psychotherapy. Ostreng (2007) concisely crystallized this dialectical challenge: “breaking complex systems down into their individual components by the method of reductionism is only a first approximation of the truth, and while it may afford many useful insights, it behooves scientists to put the pieces together again by way of holism” (p. 12).

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BIOPSYCHOSOCIAL SYSTEMS METATHEORY: A HOLISTIC FRAMEWORK FOR GUIDING PSYCHOTHERAPY UNIFICATION

Undergirded by holism and its embedded dialectic between analysis and synthesis, unifying the clinical sciences and psychotherapy is centered on developing a singular paradigm capable of facilitating progress toward a set of ongoing and intertwined objectives; specifically:

- Identifying and investigating all of the domains and their composite structures and processes, which in thoroughly interdependent fashion comprise the individual as a living system and thus are essential to understanding the entire spectrum of human development and functioning from healthy, adaptive states to pathologic, maladaptive states
- Guiding theory and research on the generative interconnections and interdependencies among these different domains, structures, and processes
- Extending conceptual tendrils into other fields of study in order to optimize the breadth and depth of attainable knowledge
- Systematically organizing and interrelating these ever-expanding bodies of single and multidomain knowledge into a coherent narrative that has fidelity with the complexity of the human experience and brings meaning and intelligibility to this enormous diversity of knowledge elements
- Developing unifying strategies, principles, and methods of psychotherapeutic intervention in the service of maximizing beneficial utilitarian application of this knowledge

To the field’s great advantage (see Anchin, 2012), a principal way forward for realizing these objectives is already before us in the form of biopsychosocial systems metatheory. This unifying framework, highly robust in composition and heuristically rich in implications, is innervated by holism, and hence the analysis–synthesis dialectic, in each of its component parts.

The Nature of Metatheory

Metatheory is definable literally as theory about theory, and while it has become a focus of scientific interest in its own right (see L’Abate, 2012; Wallis, 2010), in the present context we stress its totalizing structure and function. Metatheory can be understood as a comprehensive conceptual
scaffold that organizes and integrates more specific theories that conceptually and empirically map different aspects of a given phenomenon, however simple or complex (Anchin, 2008c; cf. Wallis, 2010). Pursuing unification and its multifaceted objectives without the guidance provided by metatheory is unimaginable. Underscoring the massive complexities within and interconnecting personality, psychopathology, and psychotherapy, Melchert (2013) explained why this is so:

it is not currently possible for a true unified theory of psychology to provide the foundation for unifying [professional psychology] around a single scientific approach—such a theory is unlikely to be discovered for a very long time (if ever). Instead, the solution to this problem is (naturally) the same as it was for the natural sciences. When it comes to discrete, less complex phenomena, scientific laws and theories are often able to explain the processes involved. Explanations of highly complex phenomena involving many variables and processes are frequently not yet available, however. As a result, metatheoretical frameworks and models are needed to integrate what is known and provide approximate explanations of these phenomena (Mitchell, 2009; Rodgers, 2010). Metatheoretical frameworks attempt to identify the most essential characteristics that need to be integrated to understand complex phenomena. . . . (p. 15)

Metatheory, in its comprehensiveness, thus knits together into an overarching and coherent conceptual structure the different theories and their related scientific findings relative to a given phenomenon of interest in the servicing of advancing the study, understanding, and explanation of that phenomenon. Metatheory’s viability rests strongly on dialectical thinking (Anchin, 2008d) in that, relative to mapping the territory of interest, a dialectical frame views any particular conceptual and/or empirically based datum as certainly important in its own right, reflecting metatheory’s analytic, deconstructive dimension. However, by virtue of metatheory’s supraorganizing purpose, the meaning of any given single piece of information ultimately derives from its contribution to apprehending the territory in its totality—an expression of metatheory’s synthetic, reconstructive dimension (see Wallis, 2010). Abrams and Hogg (cited in Wallis, 2010) provided a wonderfully clear metaphor that captures this vitally important mapping function of metatheory:

A metatheory is like a good travel guide—it tells you where to go and where not to go, what is worthwhile and what is not, the best way to get to a destination, and where it is best
to rest a while. Metatheoretical conviction provides structure and direction, it informs the sorts of questions one asks and does not ask, and it furnishes a passion that makes the quest exciting and buffers one from disappointments along the way. (p. 116)

Clinical practice is ultimately guided by theoretical systems, which provide pathways toward change and health. Metatheory comprises an overarching framework subsuming sets of pattern recognition tools that emerge from theories to map the clinical landscape as we traverse the clinical landscape.

The Biopsychosocial Model of Health and Illness

In pursuing unification, the biopsychosocial model of health and illness provides clinical scientists, practitioners, and educators with the all-important travel guide. Offered by George Engel (1977, 1980, 1997) to both medicine and psychiatry as a more comprehensive alternative to the prevailing biomedical approach to understanding and treating physical and mental health and illness (see also Fava & Sonino, 2008), the biopsychosocial model provides an all-inclusive, holistic conception of the human being through encompassing the hierarchically arranged biological, psychological, and sociocultural domains that in thoroughly interlocking fashion explain human psychology and behavior. Moreover, given human verbal and nonverbal experiencing of consciousness and internal subjectivity, the biopsychosocial model necessarily incorporates within its purview the vibrant domain of phenomenology, underscoring that, in real time, human biopsychosociality is a lived experience; as such, it is ineluctably entwined with such complex processes and elements as intentionality, agency, purpose, values, and meaning (Anchin, 2003, 2006, 2012; Henriques, 2011; Krippner, Ruttenber, Engelman, & Granger, 1985; Magnusson, 1995). Notable in this regard is the fact that, while the biopsychosocial model is a scientifically based framework, Engel “understood with remarkable clarity, depth and eloquence, that science and humanism are not dichotomies” (Ryff & Singer, 2000, p. 170). Thus, while he saw it as essential that the physician operate in an “observational [mode]” (p. 170) by using the biopsychosocial model to guide “reliable and informed scientific work in the clinical realm” (p. 170), he also recognized the vital importance of the “relational model,” which

required attending to the human realm, in which language, symbols, thoughts, and feelings are the means by which private experience is organized and communicated. “It is through

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dialogue that the physician learns the nature and history of the patient’s experiences and clarifies on the one hand what they mean for the patient, and on the other hand, what they might mean in terms of other systems of the natural hierarchy, be they biochemical and physiological, or psychological and social” ([Engel, 1998], p. 8). Engel’s wisdom was in understanding that the two modes constitute not separate alternatives, but “a single integrated means for data disclosure, clarification, and interpretation” ([Engel, 1998], p. 8). (Ryff & Singer, 2000, p. 170)

Melchert (2013), confronting the critical question as to whether “enough is known to justify a transition away from the clearly incomplete and inadequate theories of the past to a single, unified, science-based [biopsychosocial] methatheoretical orientation” (p. 16), maintained that in point of fact “[t]he evidence…is overwhelming” (p. 16). In this respect, it is instructive to note that the biopsychosocial framework “has been adopted within several of the clinical specializations in [professional psychology] (e.g., in child, school, health, and addiction psychology, neuropsychology, and geropsychology; see Martin, Weinberg, & Bealer, 2007; Seagull, 2000; Shah & Reichman, 2006; Suls & Rothman, 2004; Williams & Evans, 2003)” (Melchert, 2013, p. 16). Further, evidence continues to amass that comprehensive understanding of psychological health and well-being (e.g., Ryff & Singer, 2000, 2006; Strack, 2005) and the development, onset, and maintenance of diverse adult psychopathologies (e.g., Gabbard, 2005; Gilbert, 2004; Kiesler, 1999; Zucker, 2006) necessitates the multidomain, multicausal explanations afforded by the biopsychosocial model. Collectively, these developments bring the truth to Kiesler’s (1999) forward-looking assertion that “for the first time, it is possible for the mental health field and its respective scientific disciplines to converge and integrate their efforts under an identical theoretical umbrella” (p. xii).

Kiesler’s use of an umbrella as a metaphor to capture the integrative and unifying function of the biopsychosocial model is itself noteworthy. Through placing a concept in another conceptual framework (Meyer, 2005), metaphor fleshes out important meanings in the former that may remain implicit or hidden; it helps us “better understand … by defining the less concrete by means of reference to a more concrete concept (Lakoff & Johnson 1980)” (p. 1601).

In this respect, Ryff and Singer (1998) draw on the ladder as another metaphor for depicting the biopsychosocial model, specifically to illuminate the pertinence of reductionist and holistic perspectives, analysis and synthesis, in studying the biopsychosocial composition of human life. Pointing out that “positive human health, with its emphasis on complex mind–body processes that must be tracked through time, is a daunting biopsychosocial agenda” (p. 23), they explain that “stratigraphic
approaches, which differentiate layers of living into their cultural, social, psychological, and biological components (Geertz, 1973), are not sufficient for the task” (p. 23). Rather, it is necessary “to go beyond the separated layers into the synthesis of how they come together” (p. 23). Aware that “[s]uch agendas may evoke praise for their scope at the same time that they prompt contempt for their audacity” (p. 23), they revisit Melnechuk’s wise admonishment that the scientific gains in precision (e.g., specificity of the physiological mechanisms of emotional responses) must be matched by a broadening of scope that reaches across a wide territory. The span from social events and human feelings to DNA and microbioelectric fields may seem long, but to those who seek a comprehensive understanding of health the analytical levels are as close together as a nested set of hollow Russian dolls. … One can prefer to focus on a given level of this series and yet perceive the series as a ladder that can be climbed holistically up as well as reductionistically down (Melnechuk, 1988, p. 222). (Ryff & Singer, 1998, p. 23)

Still, a third metaphor—the holograph—provides a valuable representational frame for crystallizing the biopsychosocial model’s embodiment of part–whole relationships. A holograph can be pictured as a three-dimensional map of a complex system that visually organizes an array of data culled from different lenses; this three-dimensional image encompasses multiple part–whole relationships expressed in unity. In holographically viewing an entity—however simple or complex—the observer’s visual image changes as a function of such factors as the angle or perspective from which the holographic image is viewed, as well as the level of resolution applied (molecular to molar), but this percept, this image, is always part of the whole (Anchin, 2012). Thus, a holographic rendering of the complex biopsychosocial ecology in which the human experience is thoroughly encased allows us to visualize simultaneously any given part within its totalistic context. To illustrate, if we imagine a crying toddler being comfortingly hugged by a loving mother in the kitchen of their home, a three-dimensional, holographic rendering of this situation visually “allows one to spin, zoom in or out, and fly over” (Stebly, 1998) this situation, thereby always seeing some particular part (e.g., the toddler’s facial expression; mother embracing her child) but simultaneously in the context of the whole.

Systems Concepts and Principles
In his seminal paper introducing the biopsychosocial concept of health and illness, Engel (1977) explicitly tied the model to systems theory. He recognized that the latter offered a formal methatheoretical structure for
encompassing the biological, psychological, and social levels interactively at play in the occurrence, manifestations, and experience of physical disease and psychiatric disorder, and he delineated advantages stemming therefrom:

Since systems theory holds that all levels of organization are linked to each other in a hierarchical relationship so that changes in one affect change in the others, its adoption as a scientific approach should do much to mitigate the holism-reductionist dichotomy and improve communication across scientific disciplines. For medicine, systems theory provides a conceptual approach suitable not only for the proposed biopsychosocial concept of disease but also for studying disease and medical care as interrelated processes. (p. 134)

As discussed elsewhere (Anchin, 2012), Ludwig von Bertalanffy propelled systems thinking to prominence through his general systems theory, “an attempt to understand the universal rules and principles by which systems in general operate” (Magnavita, 2005, p. 36). Beginning with its articulation in the mid-20th century (von Bertalanffy, 1950) and through ensuing developments (von Bertalanffy, 1968), general systems theory introduced ground-changing conceptions into the science of living systems. Suffice it to say that over the 60-plus years since general systems theory first laid down roots, it has proven to be seminal—a spawning ground for the growth of different directions in systems thinking; these include cybernetics (Francois, 1999; Heylighen & Joslyn, 2001; Kenny, 2009; Pouvreau & Drack, 2007; Umpleby, 1990), chaos theory (Barton, 1994; Chamberlain, 1998; Kossman & Bullrich, 1997; Kiel & E. Elliott, 1996; Kautz, 2011; Werndl, 2009), nonlinear dynamical theory (Anchin, 2005; Burlingame & Hope, 1997; Guastello, 2001; Smith & Thelen, 2003; Thelen & Smith, 2006), and complex adaptive systems (Gell-Mann, 1994; Levin, 2003; Miller & Page, 2007; Morowitz & Singer, 1995). These different approaches to systems thinking have been fruitfully applied across the physical, life, and social sciences (see, e.g., Ashby, 1954, 1956; Barton, 1994; Bateson, 1972; Boulding, 1956; Byrne, 1998; Capra, 1996, 2005; Checkland, 1981; Glass & Mackey, 1988; Gottman, 1979; Haken, 1977; Kauffman, 1995; Lorenz, 1972; Maturana & Varela, 1980; Miller, 1978; Nicolis & Prigogine, 1977; Nowotny, 2005; Pumain, 2010; Senge, 1990; Simon, 1962; Vallacher & Nowak, 2007; Watzlawick, Beavin, & Jackson, 1967).

Systems theory—more accurately characterizeable as systems metatheory—puts meat on the bones of holism. By definition, the essence of any system is wholeness. Thus, we can beneficially divide any such system into the heterogeneous array of subsystems, or parts, of which it is composed and in which it is ecologically situated—and, we can focus in on
any one of these subsystems in highly concentrated fashion. Nevertheless, in reflecting the understanding that this diverse array of subsystems is bound together into a singular whole form, a coherent unity, through complex processes of reciprocal influence and interdependence (Capra, cited in Funch, 1999; Joslyn, 1992; von Bertalanffy, 1968), the systems perspective forcefully reminds us of the “big picture” (Mabry, Olseter, Morgan, & Abrams, 2008; Magnavita, 2008), and that the system’s properties as a whole emerge out of subsystems’ interactions and interrelationships.

Additional key principles more or less shared by systems-oriented theorists, researchers, and clinicians, which will be elaborated in the context of different facets of the unifying approach discussed in ensuing chapters, include the following (Anchin, 2012):

- A living system is characterized by purposefulness and intentionality, an active agent motivated toward achievement of goals, attainment of desired states, and realization of valued ends (Carver & Scheier, 1999; Magnusson & Torestad, 1993; Mayer, 2004; Millon & Grossman, 2012; Singer, 2005)
- A living system is an open—as opposed to a mechanical and closed—system because, in order to live, it must “exchange information, energy, and material with the many other systems within which they are nested and which they themselves encompass” (Reis et al., 2000, p. 847)
- A living system is dynamic, which entails thinking in terms of movement, change, and activity over time, and in turn points to the centrality of process in systems thinking (Capra, 1996, p. 42)—paraphrasing Fay (1996), in real time the human organism is a verb, not a noun
- A systems perspective emphasizes the nonlinear nature of interrelationships between and among subsystems by directing attention to mutual effects, reciprocal interactions, feedback loops, networks, and cycles. Nonlinearity also holds that there can be a disproportionate relationship between the size of an input (e.g., small) and the magnitude of its effect (e.g., large).
- In systems thinking, every structure is seen as manifesting itself through processes (Capra, 1996); the organized configuration of relationships among subsystems and their specific features that can be mapped as having a particular structure unfolds, in real time, as a fluid process of interwoven multivariate activity
- Self-regulatory processes are characteristic of living systems (Bertalanffy, 1968; Capra, 1996; Carver & Scheier, 1999; Vallacher & Nowak, 1999)
• A “delicate balance between the forces of stability and the forces of instability” (Gleick, 1987, p. 309), between order and disorder, is inherent to living systems (see also Mahoney, 1991)

• The multilevel, nested structural composition of the human being as a complex system renders human processes thoroughly contextual in nature (Anchin, 2008c; Capra, 1996; Chu, Strand, & Fjelland, 2003; Kagan, 2012)

• Unpredictability is a major property of complex systems as a consequence of reciprocal interactions among a large number of interlocking elements, which are themselves in flux (Mahoney, 1991; Rihani, 2002)

• Whether due to endogenous and/or exogenous factors, disruptions in the balance between stability and instability in a complex system have the capacity to shift the latter into a phase of marked disequilibrium and turbulence denoted by the concept of chaos (Anchin, 2008c; Chamberlain, 1998; Kiel & Elliott, 1996)

• New order, reflected in structural and processual change that can range from adaptive to maladaptive, emerges from chaos by virtue of a living system’s intrinsic capacity to engage in self-organization (Capra, 1996; Holland, 1995; Mahoney & Moes, 1997; Perna & Masterpasqua, 1997)

In its various iterations, systems theory has now been in existence for over 60 years, while the biopsychosocial model has been making its way through the life and social sciences for over 35 years. Integrating these rich, time-honored frameworks creates a metatheoretical paradigm that captures and defines in one fell swoop the enormous multilevel structural complexity of the human living system, while acknowledging the inherently unified manner in which this structure operates within the ecological sphere. This paradigm has sufficient breadth to encompass the vast plurality of phenomena, from microlevel domains to macrolevel domains, differentially mapped and to varying degrees empirically substantiated by current theoretical orientations. Importantly, however, this framework does not specify in an a priori way the specific terminology and concepts for mapping those domains and their composite subsystems, operating instead as an overarching scaffold that serves an organizing function. Biopsychosocial systems metatheory thus provides a unifying framework without the exclusionary processes associated with any single theory, which would otherwise place constraints on the structures and process of relevance to personality, psychopathology, and psychotherapy. To the extent that the field forges an increasingly interconnected body of psychotherapeutically
related knowledge, casting this within a biopsychosocial systems metatheoretical framework thus seems all the more logical. At the same time, in spotlighting as a core postulate the intrinsic interrelatedness of phenomena that in real time is manifested in processural fashion, the biopsychosocial systems paradigm, in its philosophical foundations, is isomorphic with holism and its fundamental emphasis on the interwoven nature of phenomena.

### ADDITIONAL DEVELOPMENTS REFLECTING THE VALUE OF A UNIFYING PARADIGM FOR PSYCHOTHERAPY AND THE CLINICAL SCIENCES

These considerations operate as significant components of our rationale for proposing biopsychosocial systems metatheory as a viable framework for unifying psychotherapy and the clinical sciences. However, additional developments convergently point to unification as a building dynamism in the field’s evolution and to advantages of biopsychosocial systems metatheory as the paradigm for organizing and synthesizing these developments. These include limitations of the psychotherapy integration movement, burgeoning interest in interdependencies between multilevel structures and processes in human functioning, personality and psychopathology, the evidence-based practice movement in psychology, and calls for addressing health problems through cross-disciplinary collaborations (Anchin, 2012).

**Limitations of the Psychotherapy Integration Movement**

Psychotherapy integration emerged as a formal movement beginning in the early 1980s, fostered by a number of developments:

1. Proliferation of therapies
2. Inadequacy of single theories and treatments
3. External socioeconomic contingencies
4. Ascendancy of short-term, problem focused treatments
5. Opportunity to observe various treatments, particularly for difficult disorders
6. Recognition that therapeutic commonalities heavily contribute to outcome
7. Identification of specific therapy effects and evidence-based treatments
8. Development of a professional network for integration (Norcross, 2005, p. 5)
Driven by four main currents—technical eclecticism, the common factors approach, theoretical integration, and assimilative integration—the integrative movement has advanced the field significantly over the course of its 30-some years of evolution. Among the movement’s consistent emphases have been identifying and explicitly harnessing into the treatment process key common therapeutic factors that operate across approaches, as well as systematically integrating and synthesizing specific principles, constructs, and techniques from two or more single-school approaches to create more encompassing, versatile, and effective therapeutic amalgams than any single approach taken alone. In the process, psychotherapy integration has dramatically reduced dogma, enhanced conceptual diversification, and emboldened clinical flexibility.

By the same token, a distinct limitation of psychotherapy integration is the relative lack of personological comprehensiveness characteristic of any given specific integrative approach. Because it characteristically begins at the level of theory associated with selected single-school approaches and then expands to the blending of techniques, any given integrative approach tends to cover only a limited number of the multiple domains and subsystems of the human personality system and psychopathology (Anchin & Magnavita, 2006). In his observation of debates among psychotherapy integrationists, Millon (2000) parsed out the central issue:

These discussants have things backward so to speak, because they start the task of intervention by focusing first on technique or methodology. Integration does not adhere in treatment methods or in their theories, be they eclectic or otherwise. Integration inheres in the person, not in our theories or in the modalities we prefer. It stems from the dynamics and interwoven character of the patient’s traits and symptoms. Our task as therapists is not to see how we can blend intrinsically discordant models of therapeutic technique, but to match the pattern of features that characterize each patient, and then to select treatment goals and tactics that mirror this pattern optimally. (p. 49)

Thus, from the outset, unified psychotherapy emphasizes organismic holism by encompassing all the major domain systems composing personality and psychopathology and their interconnections, in turn providing a more comprehensive, multiparadigmatic framework for psychotherapy (Anchin & Magnavita, 2006). Indeed, Stricker and Gold (2011), observing the appearance of unified approaches to conceptualization and intervention to be “a recent trend that has emerged in psychotherapy integration” (p. 478), adjudged that it “may in fact mark the end of psychotherapy integration as we know it” (p. 478).
Burgeoning Interest in Interdependencies Between Multilevel Structures and Processes in Human Functioning, Personality, and Psychopathology

Perhaps reflecting the quiet yet growing influence of systemic perspectives on mainstream thinking, theoretical and empirical lenses in both clinical and basic psychological science have been expanding beyond the reductionist metapsychology that dominated the 20th century. The direction has been toward achieving more holistic understanding of complex interrelationships among clusters of domains constituting human structure, process, and functioning along the continuum from psychopathological to healthy states. Influential examples include (a) Schore’s (1994, 2003a, 2003b, 2012) interdisciplinary work linking such domains as neuroscience, developmental neurochemistry, interpersonal processes (including the centrality of attachment), unconscious mechanisms of affect regulation and dysregulation, and the self; (b) Andersen and colleagues’ (e.g., Andersen & Chen, 2002; Andersen & Przybylinski, 2012; Andersen & Saribay, 2003; Miranda & Andersen, 2010) theory and research on the intricate relationship between the relational self and the phenomenon of transference through integrating concepts and methodologies from social cognition (e.g., mental representations of self and others), emotion, motivation, and interpersonal behavior; (c) Cacioppo and colleagues’ (e.g., Cacioppo, 2002; Cacioppo, Bernston, Sheridan, & McClintock, 2000; Norman et al., 2010) approach to understanding complex behavior and the mind through theoretical and empirical multilevel integrative analyses focusing on the intrinsic unity among the biological, cognitive, and social domains; and (d) theory and research in the multidisciplinary field of “relationship science” (Berscheid, 1999; Reis, 2007), which center on studying the interpersonal context of such phenomena as human evolution, brain development, physical and mental well-being, cognition, and emotion (see Reis, Collins, & Berscheid, 2000).

These examples of theory and research focused on interrelationships among different domain-level phenomena, in conjunction with still other “compelling examples of behavioral research that integrates theory and methods within and outside of psychology” (Eisenberg, Robertson, & Sher, 2000, p. 805), are reshaping our ways of understanding human development, functioning, psychological health, and psychopathology. In this same vein, they provide firm footing for Eisenberg et al.’s (2000) contention that “whereas much of the 20th century [in psychology] was a period of division and segregation of intellectual interest, the 21st century promises to be one of convergence and integration” (p. 805). From the still broader perspective of advancing collaboration between different mental health professions, these more holistically oriented investigative
foci within clinical and basic psychological science are highly concordant with K. Kendler’s (2005) call for psychiatry “to move from a prescientific ‘battle of paradigms’ toward a more mature approach that embraces complexity along with empirically rigorous and pluralistic explanatory models” (p. 433).

The Evidence-Based Practice Movement in Psychology

Evidence-based practice in psychology (EBPP) has been formalized as policy of the American Psychological Association (APA) (2006), and it provides further justification for the desirability, viability, and utility of a unifying paradigm for psychotherapy and clinical science. EBPP entails “the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences” (APA, 2006, p. 280).

In elaborating on this definition, the APA (2006) pointed out that “psychological services are most likely to be effective when they are responsive to the patient’s specific problems, strengths, personality, sociocultural context, and preferences (Norcross, 2002)” (p. 278). This principle clearly asserts the importance of taking into account the complex and idiographic nature of the patient’s personality and psychopathology in influencing treatment strategy, interventions, and outcomes; unified psychotherapy’s multilevel, multidomain model of personality and psychopathology, anchored in biopsychosocial systems metatheory, provides an organizing, systematic framework for explicitly operationalizing this specificity principle. Indeed, as Gilbert (2004) pointed out, while the biopsychosocial approach is holistic, “it also recognizes the importance of individual differences … how your systems interact may be different than mine” (p. 106).

Also notably consistent with the underlying philosophy of unified psychotherapy is APA’s (2006) indication that “research suggests that sensitivity and flexibility in the administration of therapeutic interventions produces better outcomes than rigid application of manuals or principles (Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996; Henry, Schacht, Strupp, Butler, & Binder, 1993; Huppert et al., 2001)” (p. 278). This collective finding from psychotherapy process and outcome research denotes the imperativeness of tailoring even evidence-based manuals and psychotherapeutic principles to the patient at hand, underscoring from another perspective the importance of therapist openness to and skill at drawing on the potential contributions of concepts, interventions, and processes of all the major approaches to psychotherapy on a case-by-case basis, among defining components of unified treatment (Anchin & Magnavita, 2006).
Calls for Addressing Health Problems Through Cross-Disciplinary Collaborations

In his preface to the 2007 strategic prospectus of the NIH Office of Behavioral and Social Sciences Research (OBSSR), Abrams (2007; see also Mabry, Olster, Morgan, & Abrams, 2008) summarized the framework and causal model (see Haynes, 1992; Haynes, O’Brien, Kaholokula, & Witteman, 2012) most appropriate for conceptualizing human health and illness based on growing bodies of research; he described an approach that places at center stage the complex biopsychosociality of both physical and mental health and illness and the corresponding shift toward an increasingly systemic causal model in the clinical and health sciences:

Robust findings are mounting with evidence of how biology, behavior, and the social and physical environments are dynamically intertwined in the ways that they promote health or produce disease, disability, and death. The emerging view is that differences in patterns of health and disease represent the embodiment of a dynamic interaction of genes and environment over time. Two previously separate, often competing worldviews about health and illness may finally be converging: (1) the biomedical view of causation, and (2) the socio-behavioral-ecological view of causation. The biological “causes” and the socio-behavioral-ecological “causes of the causes” are two sides of the same coin. Historically powerful scientific models of linear causality and reductionism are giving way to the ideas of multiple causal pathways and “causal loops” within complex adaptive systems.

This shift toward a comprehensive complex-systems metamodel also undergirded OBSSR’s emphasis on cross-disciplinarity as essential to advancing the understanding and successful treatment of pressing and persistent human health problems. Pointing to the need for “strong partnerships among the biological, social, behavioral, economic, and public health sciences”, Abrams (2007) maintained that “solutions to some of our biggest health challenges may depend on whether scientists from different disciplines are able to learn each other’s languages, listen across the gulfs that separate their sciences, and forge a new conceptual synthesis across their disciplinary boundaries.”

In accord with this perspective, OBSSR (2007; Mabry et al., 2008) explicitly identified interdisciplinary research as among the major directions for meeting these challenges. In issuing this call, interdisciplinarity was defined in the terms put forth by Rosenfield (1992) in her influential
differentiation of three modes by which scientific disciplines can unify their efforts to address complex health problems. As crystallized by Stokols, Hall, Taylor, and Moser (2008):

**Multidisciplinarity** is a process in which scholars from disparate fields work independently or sequentially, periodically coming together to share their individual perspectives for purposes of achieving broader-gauged analyses of common research problems. Participants in multidisciplinary teams remain firmly anchored in the concepts and methods of their respective fields. **Interdisciplinarity** is a more robust approach to scientific integration in the sense that team members not only combine or juxtapose concepts and methods drawn from their different fields, but also work more intensively to integrate their divergent perspectives, even while remaining anchored in their own respective fields [Klein, 2008]. **Transdisciplinarity** is a process in which team members representing different fields work together over extended periods to develop shared conceptual and methodologic frameworks that not only integrate but also transcend their respective disciplinary perspectives. (pp. S78–S70)

Mabry et al. (2008) point out that much of the current work at OBSSR “involves moving from multidisciplinary to interdisciplinary science” (p. S212), and volumes by Higginbotham, Briceno-Leon, and Johnson (2002) and Kessel, Rosenfield, and Anderson (2003, 2008) amply illustrate the rich heurism and productive yield of this specific form of cross-disciplinarity. Cicchetti and Toth (2009) similarly discussed the centrality of interdisciplinary collaboration to “contributions, challenges, and future directions” (p. 16) of developmental psychopathology. Notably, in the context of discussing research on normal and maladaptive development, they, like OBSSR, observed the inseparable linkage between interdisciplinarity and a complex systems paradigm:

When disciplines function in isolation, they run the risk of creating theories that ultimately will be incorrect because vital information from other disciplines has either been ignored or is unknown. As is true in systems neuroscience, it is essential that an integrative framework that incorporates all levels of analysis about complex systems in the development of psychopathology or in the promotion of resilience be utilized. Rather than adhering to a single domain or unitary disciplinary focus, striving for a multi-domain, multi-level synthesis may impel researchers to broaden their visions and thereby
lead to the formulation of integrative developmental theories that can elucidate both normal and abnormal forms of ontogenesis across developing systems. (p. 20)

Even as interdisciplinary work continues to grow, transdisciplinarity in the health sciences is also drawing increasing attention (see, e.g., Klein, 2008). For example, Mabry et al. (2008) expressed OBSSR’s long-range projection that “over time, collaboration among diverse scientists may shift from multidisciplinary and interdisciplinary work to a full transdisciplinary synthesis that has the potential to produce new disciplines, as in psychoneuroimmunology, cognitive and social neurosciences, and behavioral genetics” (p. 5216). The broadening and deepening understanding of human functioning, health, and illness contributed by these new disciplines provides powerful evidence of the advances in knowledge that can flow when two or more disciplines unify their efforts in ways that engender new conceptual and methodological syntheses that transcend unidisciplinary study of phenomena (see Stokols, 2006, n. 2).

Moreover, salient processes, methodologies, and issues characterizing interdisciplinarity and transdisciplinarity have become topics of study in their own right. Analyses and discussion have focused, for example, on specific factors that can impede or facilitate these different forms of collaboration (Stokols, 2006); generic principles for guiding research performance and evaluation (Klein, 2008); advances in the conceptualization, organization, and assessment of transdisciplinary research that may derive from deploying the concept of heterarchy (Kessel & Rosenfield, 2008), “defined as ... the ‘relation of elements to one another when they are unranked or when they possess the potential for being ranked in a number of different ways’” (Crumley, cited in Kessel & Rosenfield, 2008, p. 5231), as an alternative to the notion of hierarchy and its connotation of differential levels of power among elements; and ways in which systems thinking can facilitate the effective translation of transdisciplinary research findings to applied settings (e.g., clinical and community-wide practice; Leischow, Best, Trochim, Clark, Gallagher, Marcus, & Matthews, 2008).

**SUMMARY**

There is a growing consensus among many scholars, clinical researchers, theorists, and practitioners that psychotherapy and the clinical science on which it rests is moving to a phase of unification. William James, the father of American psychology, saw the need for unifying the multiple realms and domains of psychology. New developments in science and theory are paving the way for a new paradigm in clinical science and psychotherapy situated on a foundation of holism, systems theory, and biopsychosocial
Understanding the key principles of how complex living systems operate, foundational to which is the interrelatedness of the various domains of the human system, is critical to using a unified framework in practice. Employing the metaphor of a hologram we can depict the multi-perspective image that emerges from simultaneously viewing the clinical phenomena through multiple lenses from the micro to the molar. This holographic representation achievable with a unified framework ensures that the holism of the individual as he or she is embedded in the layers of the biopsychosocial system are taken into consideration and that this information is used to guide treatment.

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