# Learning Process-Based Therapy

## A Skills Training Manual for Targeting the Core Processes of Psychological Change in Clinical Practice

Stefan G. Hofmann, PhD
Steven C. Hayes, PhD
David N. Lorscheid

"This is an important book that provides a realistic, powerful, and sensible way to conceptualize the issues for individual clients and tailor a unique treatment for each one. Focusing on specific processes rather, Hofmann, Hayes, and Lorscheid direct us to the best ideas from a range of approaches. A wonderful toolbox and conceptual road map for the clinician. This is the voice of modern cognitive behavioral therapy (CBT), and it rings clear."

—**Robert L. Leahy, PhD**, director at the American Institute for Cognitive Therapy, and author of *Emotional Schema Therapy*

"Process-based therapy (PBT) is a comprehensive and innovative model that brings best practices to life. Intelligently written in a series of practical steps, it will advance clinical applications regardless of one's level of experience or theoretical predilection."

—**Jeffrey K. Zeig, PhD**, founder and CEO of The Milton H Erickson Foundation, and architect of The Evolution of Psychotherapy Conference

"Our many distinct therapeutic approaches can be deeply enhanced by the wisdom and practical tools in this timely and important work. Exploring how human beings live within networks of systems, our articulate and thoughtful guides illuminate how an evidence-based approach can be tailored to the individual and the empirically validated processes of change to deepen and strengthen how we help not only reduce suffering, but bring lasting change to those for whom we care. Harnessing research-based knowledge of the embodied and relational human mind and how it both gets stuck in patterns of dysfunction as well as liberated with transformation, this book will be of benefit to anyone helping the development of individuals across the life span."

—**Daniel J. Siegel, MD**, *New York Times* bestselling author of *Mind*, *Aware*, *The Mindful Therapist*, *Mindsight*, and *The Developing Mind*

"With any science, it is often imperative to take a step back, evaluate its progress, and identify bold new future directions. That is exactly what Hofmann, Hayes, and Lorscheid have done with this book. By focusing on processes, rather than content, they articulate a unique way of suggesting, investigating, and implementing effective approaches to best help people reach important life goals. This volume is an important step forward!"

—**Arthur M. Nezu, PhD, DHL, ABPP**, distinguished professor of psychological and brain sciences at Drexel University, and editor in chief of *Clinical Psychology*

"This text does an exemplary job linking processes and treatments, and includes many clinical scenarios that will greatly aid graduate students who are mastering acceptance and commitment therapy (ACT) concepts. I greatly appreciate the incorporation of the evolutionary science (ES) concepts into the meta-model described in the text for predicting and influencing both adaptive and maladaptive behaviors. This is a highly pragmatic approach to delivering PBT."

—**Ruth Anne Rehfeldt, PhD, BCBA-D**, chair of the bachelor's program in psychology, and professor of applied behavior analysis at the Chicago School of Professional Psychology

"This book shines a light on an important aspect of treatment: the transdiagnostic processes that lead to dysfunction and that should be targeted in therapy. The authors present a system for identifying and modifying these critical processes."

—**Judith S. Beck, PhD**, president of the Beck Institute for Cognitive Behavior Therapy, and author of *Cognitive Behavior Therapy*

"Each day, another trademarked intervention package appears on the market. I don't want a new package

and new jargon. Thank goodness for this book. It provides a clear and systematic way to understand effective processes that occur across different packages. It's got me thinking differently about client suffering, in terms of dynamic systems, rather than static 'things.' The book is so practical and easy to understand. I love it."

—**Joseph Ciarrochi, PhD**, research professor at Australian Catholic University, and coauthor of *Your Life, Your Way*; *The Thriving Adolescent*; and *The Weight Escape*

"Something important is missing from evidence-based psychological treatments and the research supporting these interventions—a clear and essential focus on the individual receiving the treatment. The authors, who are among the most distinguished clinical scientists in the world, attack this problem head-on with PBT. In this manual, clinicians will learn to refocus powerful principles of psychological change on the individuals being treated. Every clinician should be familiar with these strategies."

—**David H. Barlow PhD, ABPP**, professor of psychology and psychiatry emeritus, and founder of the Center for Anxiety and Related Disorders (CARD)

"This book is a breath of fresh air. It calls it like it is. The differential treatment model of what treatment for what disorder has had its day. Their proposed process-based approach to treatment moves us forward to a promising new transdiagnostic, transtheoretical approach focused on evidence-based processes of change that fit the needs of a given client. This is the future. A must-read, wonderful contribution."

—**Leslie Greenberg, PhD**, distinguished research professor emeritus of psychology at York University, author of *Changing Emotion with Emotion*, and coeditor of *Patterns of Change*

"I love the idiographic approach to psychotherapy this book describes! PBT offers the clinician a welcome alternative to treatment guided by disorder-focused protocols. This book teaches the therapist to build a model of the individual case, and to use the model to guide treatment—monitoring progress and making adjustments based on the progress-monitoring data as the therapy proceeds. The intellectual framework for the model is mind-expanding and groundbreaking."

—**Jacqueline B. Persons**, director of the Oakland CBT Center; clinical professor at the University of California, Berkeley; and author of *The Case Formulation Approach to Cognitive-Behavior Therapy*

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# PROLOGUE

For decades, mental and behavioral health practitioners have been told in their graduate training programs that their work needs to be “evidence-based.” They learn to read the scientific literature. They are carefully schooled in “diagnoses.” They learn evidence-based protocols. They acquire statistical skills.

But something is wrong. Effect sizes are not rising. The prevalence of problems in mental and behavioral health is not falling. Evidence-based care is far too uncommon. Too many practitioners find this model of evidence-based care to be stultifying. And the field itself is progressing far too slowly.

We believe that what we are seeing is the end of an era—and the beginning of a new one. Evidence-based care came to be defined as the delivery of empirically tested protocols targeting psychiatric syndromes. The biomedicalization of human suffering on which this model stood did not pay off in the way that promoters had hoped. Protocols proliferated and fit the needs of individuals poorly.

It’s time for something fundamentally different.

Process-based therapy (PBT) is a new definition of what evidence-based therapy even means. It’s not a new treatment method—it’s a new way of thinking about treatment methods. We believe that by taking a far more idiographic approach and learning a new form of functional analysis based on processes of change, the field can move forward. This new approach links evidence-based processes to evidence-based treatment kernels, organized into more parsimonious and yet more comprehensive models that will better address what clients really want.

In this book we provide a robust set of skills and tools for learning this new approach that builds on the best of our clinical traditions and on the solid core of intervention science.

It’s time for something fundamentally different. If you are ready to begin, so are we.

Stefan G. Hofmann

Steven C. Hayes

David N. Lorscheid

# CHAPTER 1:

# Rethinking Clinical Science and Practice

Bill, a thirty-year-old man, pursues treatment after a recent breakup from his girlfriend. He is feeling depressed. The breakup led him to ruminate more often, which only lowered his mood even more. Sara is an empathic young therapist who just completed her internship, where she studied a popular cognitive behavioral therapy (CBT) protocol to treat depression. She skillfully conducted each session according to a structured treatment manual for depression. After conducting an initial assessment and providing psychoeducation, she introduced the three-component model of mood, describing its cognitive, emotional, and biophysiological dimensions. She administered monitoring forms to track Bill's behaviors, thoughts, and feelings, and then went on to focus on his dysfunctional thoughts and maladaptive behaviors. Sara particularly targeted Bill's ruminative tendencies, as was described in the therapy manual.

After twelve sessions, Sara assessed Bill's depression using the Beck Depression Inventory (BDI), which showed a moderate but notable decline, and both were fairly satisfied with the outcome. Based on Bill's improvement, he might even have been considered a "responder" if he had been part of a clinical trial. After Sara reached the last session of the protocol, she decided that it was time to stop the treatment. She sent Bill home with the instruction to keep practicing the skills he learned during treatment, including his behavioral activation exercises and the skills to target rumination and other cognitive errors.

When Bill left Sara's office, he thanked her. On his way home, however, he felt a sense of uneasiness. He felt less depressed than before, but he realized that he was not close to where he wanted to be emotionally and in general with his life. He still felt lonely and disconnected after the breakup. He waived it off with the thought that therapy can't do everything, and perhaps he was just not the kind of person who can have committed relationships. The feeling of unease remained, and he wondered what he would do now.

Sara felt good about her case. She followed a well-validated treatment protocol for depression, and she thought that she did a fine job with it. Based on traditional outcome measures, the case was clearly successful, and she chalked it up that way. Her attention soon moved on to other cases and clients, and Bill gradually slid into memory.

Sara would never find out that Bill was feeling uneasy and vulnerable even as he left his last session. She would never learn that in a few months, his loneliness would become an all-encompassing focus, and he would slip back into depression, even having suicidal thoughts.

What might have gone wrong? We cannot be sure that all of Bill's issues could have been addressed successfully, but we can be sure that several of them were not really addressed at all. Sara did not target some aspects of Bill's problems—such as his loneliness, his relationships, and his feeling of social isolation and unhappiness. Bill often thought about these issues and was wondering where they came from and what maintained them. Sara touched on these issues only briefly and thought they would resolve naturally after she had targeted Bill's tendency to ruminate and his depressed mood and actions. Relationship skills were not a notable part of the structured treatment manual, which she knew so well. Since she had successfully treated the depression with an evidence-based set of methods, she believed that would be enough.

Except, it wasn't.

## THE PROTOCOLS-FOR-SYNDROMES GAME

Does Bill have a disease called depression? And how can it be defined? It sounds like an obvious and easily answered question, but it isn't. COVID-19 is a virus that caused a worldwide pandemic. We are in the midst of it as we are writing these words. Many people have died because of the virus. Others who were infected had barely any symptoms, some none at all. Measuring one's body temperature is a quick way to identify those who might

have the virus, but it misses many. A much more accurate test is to look for antibodies, or for the RNA fragments of the virus itself. The presence of those biological markers clearly defines the disease.

There is no such test for depression or anxiety or schizophrenia or any other psychological disorder. Not one. And there is no vaccine that immunizes people from getting a particular mental disorder. Yet, for decades, psychiatry has been holding on to a medical illness model that assumes that symptoms of a psychological disorder are the expressions of an underlying disease. The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) and the *International Classification of Diseases* (ICD) are tools to achieve that end. Earlier versions of the DSM and ICD were based on psychoanalytic theory and assumed that mental disorders are the result of deep-seated conflicts. Modern versions point to dysfunctions in biological, psychological, and developmental processes as the primary cause. Above all, over the last forty years, academic psychiatry has been hoping to identify biological markers for mental disorders, for instance in genes or in brain circuits.

This quest remains unsuccessful, and as scientific knowledge has increased, this long hoped for outcome has slid even further into the distance. For example, full genomic analyses of nearly half a million people have failed to support the relevance of any of the frequently studied genes for common psychiatric disorders (e.g., Border et al., 2019). It appears that genetic factors can interact with each other and with a person's history and context to produce mental struggles many, many different ways.

This lack of success has not led to the abandonment of the latent disease model. Arguably the most popular idea has been that mental disorders are caused by some imbalance of neurotransmitters. Therefore, drug companies developed, tested, and marketed drugs to alter this neurotransmitter system, especially serotonin, dopamine, GABA, and glutamate. These drugs were tested in randomized placebo-controlled trials. Some of these studies reported some modest effect on some of the symptoms of the presumed disorder (but many other studies did not). Some bold and innovative psychological researchers began to compare the efficacy of those drugs to psychological interventions, primarily CBT but also some other forms of evidence-based treatment. In order to keep the psychological treatments symptom focused and to adequately conduct these trials, treatment protocols had to be developed.

The results shook the field. Often published in high-level psychiatry journals, they frequently generated a lot of controversy. The good news was that these trials often found that CBT in particular was as good as or even better than the most effective pharmacological drugs. The bad news, however, was that CBT began losing its theoretical foundation and became a symptom-focused, protocol-based intervention targeting the disorder rather than treating the client. Today, CBT is considered a mainstream, gold-standard psychological treatment, acknowledged and recognized by even the most biologically oriented psychiatrist.

The scientific and social cost of this achievement was high. Despite the wealth of knowledge gathered from clinical trials and meta-analyses of the various forms of evidence-based therapy, outcome results did little by way of explaining important individual differences in presentation and treatment response, or in fostering an understanding of the mechanisms of treatment change, especially when differences of these kinds were averaged across groups. A randomized clinical trial comparing the depression levels of participants across various interventions using a central outcome measure (e.g., Clinical Global Impression scale) treats between-participant variability in responding merely as an estimate of extraneous factors and measurement error. Consequently, information is lost about the unique pattern of improvement or deterioration of the individual and its relation to presentation, context, and treatment. Much of this research involves investigating the likelihood that treatment will work for a diagnosis rather than for the processes, circumstances, and symptoms that characterize the individual.

Meanwhile, an entire generation has grown up with the commercially useful but scientifically false idea that experiencing mental struggles means you have a specific biologically based brain dysfunction. As a result, consumers are less interested in psychotherapy, regardless of what the data suggest. From 1998 to 2007 (the most recent decade with good numbers), the number of people using only psychological change methods fell nearly 50 percent, while the number of those using psychological approaches along with medications fell about 30 percent. What soared was the use of medication alone—nearly two out of three people with psychological struggles now receive *only* medications as interventions (Olfson & Marcus, 2010).

Ultimate success of the "protocols-for-syndromes" game depended on identifying functional disease entities, or at least seeing highly specific treatment effects organized by syndromes. When neither appeared, the scientific path toward a mature form of evidence-based therapy turned into a brute force empiricism in which almost

everything should be compared to almost everything else in a wide variety of syndromes or subsyndromes. The mathematics of this research approach makes it impossible to mount, even if the number of new intervention methods and syndromal entities could magically be held to its current number—which it cannot.

The protocols-for-syndromes era had a coherent set of key assumptions built into its scientific and public health strategy—but every one of them is now being openly challenged and some are now known to be false. At the same time, a powerful alternative strategic agenda is emerging that echoes some of the process-based and idiographic assumptions of the earliest days of behavioral research, as well as the therapy based upon it.

This alternative agenda has taken time to become fully visible due to the other undesirable effects of the latent disease model. For one thing, this model tended to blind treatment developers to the role of normal psychological processes in behavioral outcomes. Furthermore, it neglected clients' preferences for pragmatic outcomes, and instead prioritized the preferred list of signs and symptoms. It reduced human suffering to hypothesized brain abnormalities and biological dysfunctions while deemphasizing the centrality of the individual and their cultural and biopsychosocial context. Critics of the DSM and ICD have argued that disorders are arbitrary labels used to describe typical human experiences that are deemed abnormal. An example of this concept is that different countries have varied expectations and views of what is considered to be normal. A person who claims to talk to spirits might be considered schizophrenic in one culture while being deemed a holy person in another.

The DSM/ICD approach put the treatment utility of diagnosis and assessment on an indefinite hold, as if the ultimate purpose of such categorization—better outcomes—was an afterthought. The lack of treatment utility of the DSM/ICD was taken as a given instead of the shocking indication of failure that it is.

In response to all of these criticisms, the National Institute of Mental Health (NIMH) established the Research Domain Criteria (RDoC) framework, which aims to classify mental disorders based on dimensions of observable behavior and neurobiological measures (Insel et al., 2010). The RDoC framework proposed that underlying psychobiological abnormalities lead to observable patterns that overlap in various psychopathologies. Furthermore, the initiative used different levels of analyses—including molecular, brain circuit, symptom level, and behavioral—to define constructs that are proposed to be core symptoms of mental disorders.

Although RDoC put the focus on underlying processes, in its implementation it was almost entirely focused on biological processes, and it equated psychiatric problems with brain disorders (Hofmann & Hayes, 2019). Both the DSM/ICD and RDoC share the view that psychological distress is caused by a latent disease. Whereas in the DSM/ICD, the belief is that latent constructs are measured through clinical impressions and symptom reports, with RDoC, the view is that latent diseases can be measured with biological and behavioral tests. If the latent disease model itself is false, however, RDoC is too small of a step in the process direction. The lack of evidence for the latent disease model itself needs to be faced in order for practitioners to shift to a central focus on *processes of change:* the mechanisms that lead an individual to change, that are relevant for the individual in context, that provide increased treatment utility and intervention guidance, and that simplify human complexity.

Meanwhile, after the RDoC framework was established, practitioners, government entities, and the public in many parts of the world remained unconvinced about the value of evidence-based psychological care. Protocols were at times difficult to deploy, and the lack of known components and processes of change made them difficult to fit to individuals and their complexity. Most clients given psychosocial treatment did not receive evidence-based care.

## WHAT DO CLINICIANS AND CLIENTS WANT FROM SCIENCE?

Virtually every clinician has encountered a person like Bill. And just like Sara, we can believe we made a difference in the client's life while still barely scratching the surface. Bill and Sara both may be drawn in by the focus on "depression" as something Bill "has" and miss the rich and important details of a man walking through a breakup that triggered deep-seated feelings of loneliness and inadequacy.

People are not diagnostic categories; they are suffering humans, each with their own story, history, and goals. Bill does not "have" depression. He feels depressed (and lonely, and disconnected) because of idiographic biopsychosocial factors, which also include his personal history, his past experience, and his maladaptive ways of coping with adversity.

Bill has his own story that brought him to the point of therapy. Individual human lives are contextual and longitudinal, as are the change processes that alter these life trajectories. Practitioners do not need to fit a set of pseudo-biomedical categories or labels for people's suffering to the person. Instead, they need coherent and broadly applicable models of the processes of change that need to occur—psychologically, biophysiologically, and socioculturally—so as to create desired long-term positive outcomes for the people they serve. Because processes of change are known to be functionally important pathways, a focus on treatment utility can be the *first* step in categorization, not the hoped-for step that never arrives. After all, increasing the likelihood of a truly good outcome is what clinicians and clients alike want from intervention science.

The most popular methodological and analytic tools in use in intervention science are not fully up to that task, even when they are turned in the direction of change processes. When we start fresh, however, we see new ways to frame human difficulties using other available methodological and analytic tools. We see new ways to make progress.

Processes of change represent proximal features of a clinical case over time that reliably predict long-term outcomes. Their proximal nature is important. For example, we know that changes in the way that clients talk about their thoughts and difficulties during early psychotherapy sessions can mediate follow-up outcomes, thus providing an early marker of real progress for practitioners to track in session. Unlike in other areas of expertise, clinicians don't get more competent with more experience, because they don't get immediate feedback on their practice. A process-based focus, however, may provide practitioners with the kind of immediate and functionally useful feedback necessary for experience to lead to expertise.

We define therapeutic processes of change as theory-based, dynamic, progressive, contextually bound, modifiable, and multilevel changes or mechanisms that occur in predictable, empirically established sequences and that can be used to produce desirable outcomes (note that this is a small refinement of Hofmann & Hayes, 2019, p. 38):

- **theory-based**, because we associate them with a clear scientific statement of relations among events that lead to testable predictions and methods of influence;
- **dynamic**, because they may involve feedback loops and nonlinear changes;
- **progressive**, because we may need to arrange them in particular sequences to reach the treatment goal;
- **contextually bound and modifiable**, because they directly suggest practical changes or treatment kernels within the reach of practitioners; and
- **multilevel**, because some processes supersede or are nested within others.

Finally, "it should be noted that the term *therapeutic process* is sometimes used in the literature to refer broadly to the patient-therapist relationship that includes so-called common factors, such as the therapeutic alliance and other factors of the therapeutic relationship. The term therapeutic process, as we use it, can include this more traditional use of the term as long as such processes are based on a clearly defined and testable theory, and meet the empirical standards we are suggesting. It is not, however, synonymous with that traditional use" (Hofmann & Hayes, 2019, p. 38). We will come back to this definition again in chapter 2 when we explain these different parts of the definition in more detail.

In the current paradigm of the medical model, evidence-based therapists either need to restrict their practice to specific syndromes or to acquire expertise in a wide variety of protocols for a variety of syndromes. This is untenable, impractical, and unreasonable and rests on invalid assumptions. The field has struggled to reach widespread resolution over many such issues, and the protocols-for-syndromes approach has failed to resolve them. It is our argument (Hofmann & Hayes, 2019) that intervention science needs to embrace and build on evidence-based processes of change linked to evidence-based procedures. It is time to move forward.

## THE PROCESS-BASED ADVANTAGE

Each treatment approach carries with it its own assessment methods, terminology, and techniques that need to be tailored to the individual as necessary. The process-based vision is one of coherent sets of change processes that can be applied to a wide array of problem domains in an individually tailored manner—presenting practitioners

with a less daunting training task of using change processes to fit treatment kernels to client needs. There is no need in this approach for a priori commitments to "schools" or "therapeutic orientation" or protocols. There are legitimate philosophical differences that need to be addressed, and models of change processes are needed to simplify and organize available evidence. But broad treatment schools, differences in orientation, and "brand name" interventions take a back seat to the individual needs of clients.

A process-oriented system can help diminish fruitless debates over levels of analysis (e.g., it's the brain; no, it's the therapeutic relationship) or preferred dimensions of psychological development (e.g., it's cognitive; no, it's behavioral) that are there even before the specific needs of a specific person are considered. Therapists and researchers would instead shift their focus to the most important biopsychosocial processes for a given client, given their goals and current circumstances, and to identifying the methods that best move them toward those goals with greater freedom to consider processes and methods across traditions and approaches (Hayes & Hofmann, 2018; Hofmann & Hayes, 2019).

Intervention guidance needs to be scientifically coherent, and it needs to have treatment utility that fits the needs of the individual (Hayes et al., 2019). Our argument for a process-based approach is that it will allow evidenced-based therapy to move beyond the pitfalls of protocols for syndromes that have slowed scientific and clinical progress and have made the notion of evidence-based therapy unpalatable to many. By targeting individual client needs and maintaining a focus on change processes, programs of intervention research can be developed that more fully integrate approaches focused on the individual (idiographic) and what we share with others (nomothetic).

This issue is not one of numerosity—it is one of level of analysis. Intensive, frequent assessment linked to dynamic network analyses (which we will describe in chapter 2) can be embedded in randomized controlled intervention trials. This allows a program of research to emerge that is sensitive to the individual as nomothetic questions are examined, without violating logical and statistical assumptions. The goal is to derive a theory-guided and testable model of the processes that are involved in treatment. Many of the procedures needed to target these processes are already known; they only need to be put together in a way to fit the individual (Hayes & Hofmann, 2018).

Such a vision of evidence-based therapy alters Gordon Paul's classic "clinical question" for evidence-based therapy, which drove the earliest days of behavior therapy. Instead of asking, "What treatment, by whom, is most effective for this individual with that specific problem, under which set of circumstances, and how does it come about?" (Paul, 1969; p. 44), a modern process-based approach asks, "What core biopsychosocial processes should be targeted with this client given this goal in this situation, and how can they most efficiently and effectively be changed?" (Hofmann & Hayes, 2019).

This change in the underlying question shifts attention away from identifying effective treatment packages for problem types to deploying effective treatment elements based on systems of therapeutic change processes. For example, instead of finding the best treatment for depression, the focus shifts to finding the best way to improve mood, reduce loneliness, and promote more meaningful and intimate relationships in a client who developed rigidity and patterns of emotional avoidance following the breakup of a relationship. That simple change might give Bill a vastly broader therapy experience and give Sara a richer set of evidence-based tools needed to address Bill's situation.

Our name for evidence-based therapy done in the pursuit of a process-based vision is *process-based therapy*, or *PBT*. PBT is not a new therapy—it is a new model of evidence-based therapy. The goal of PBT is to move toward understanding and targeting the processes of change in a given individual and to move away from nomothetic, group-based analyses that tend to miss important individual processes that may be vital for effective and efficient treatment. PBT emphasizes the importance of function over content and is based on identifying and testing key change processes that build upon each other in order to best treat the individual in a particular context at a particular point in time. As such, treatment is tailored to one's specific issues, in the present moment, while recognizing that effective treatments need not be limited to any one particular therapy orientation (e.g., behavioral or psychodynamic) or treatment strategy, but rather on the specific, measurable change processes that can solve individual problems and promote well-being.

## CREATING A NEW FRAMEWORK

The field has tried a biomedical approach, pursuing a latent disease model, for half a century. This approach has been unsuccessful. We believe that enough is enough. The individual who is suffering cannot be reduced to a gene system, brain disorder, or neurotransmitter imbalance. For decades the development of evidence-based therapy has been based on experimental tests of protocols designed to impact psychiatric syndromes. As this paradigm weakens, a more process-based therapy approach is rising in its place, focused on how to best target and change core biopsychosocial processes in specific situations for given clients with given goals. This is an inherently more idiographic question than has normally been at issue in evidence-based therapy. In this book, we will outline methods of assessment and analysis that can integrate idiographic data and lead to nomothetic generalizations in a process-based era.

Questioning assumptions in science is disruptive. Within a defined area of study, a priori analytic assumptions provide the scaffolding for which questions are asked, which methods are used, and which data are deemed relevant. Professionals often view questions, methods, and analytic units simply as the required tools of good science—not reflections of assumptions—and as a result can experience a sense of disorientation when times of upheaval arrive and assumptions are pointed out and critically examined.

Shifting to a PBT framework requires reframing our questions in the field of clinical psychology from "What treatments work?" to "How do treatments work?" The aim of PBT is to best understand which core biopsychological processes to target in an individual given their specific goals and stage of intervention, and how to best do so, using functional analysis, complex network approaches, and identification of core change processes developed from evidence-based treatments (Hayes & Hofmann, 2018). The PBT approach involves identifying and addressing core change processes with a focus on the client's concerns.

Intervention involves using testable hypotheses to build upon the client's individual strengths and target problem areas in accordance with their goals. Syndromal classification treats individuals as belonging to a homogenous group, with the rationale that these individuals share the same underlying latent disease, even though decades of research have shown that even individuals with similar problems often experience different life challenges and trajectories. The syndromal approach has been given billions of dollars and decades of time to succeed. And still, it has not. It's time to change, even without financial support from Big Pharma and mainstream funding agencies.

Focusing on processes of change raises fundamental practical, methodological, and statistical issues that become more obvious once a standard diagnostic approach is abandoned. The "homogeneous populations" promised by DSM/ICD diagnostic categories were never achieved, but they delayed acknowledgment that without homogeneity it is mathematically impossible to generalize from analyses of groups to the individual (Gates & Molenaar, 2012). The field of clinical and psychological research is poised to apply person-specific statistical and treatment approaches—although more challenging—to further our knowledge of psychopathology and cognitive behavioral interventions. A process-based approach allows for this emphasis on the individual and their context and symptoms.

## A FUNCTIONAL ANALYSIS TO TARGET PROCESSES OF CHANGE

PBT focuses on functionally important processes of change, ensuring treatment utility. Therefore, its goals, such as considering context and the utility of particular behaviors, are similar to those of classical functional analysis. However, PBT is broader in the range of processes considered and tailored toward clinician use. We stifle ourselves when we limit the application of evidence-based treatments to specific diagnoses, pigeon-holing ourselves into treating a specific group or applying a "name brand" method of intervention. Although diagnostically specific evidence-based treatments are typically based on well-established, effective methods, imagine how much more precise these treatments could be if they were tailored to the individual or their needs? Learning how to do that is the purpose of this book.

Functional analysis was originally used within behavioral therapy to describe the control of behavior by principles such as contingencies of reinforcement. It can be thought of as the identification and modification of relevant, impactful, and controllable processes that relate to an individual's specific behaviors. These relations can vary in strength depending on the amount of influence that variables have over one another.

Although many researchers have noted the importance of functional work, functional analysis has not been utilized to a high degree outside of traditional behavior analysis, where a focus on direct contingencies is still

dominant. PBT is reemphasizing functional analysis, and we have recently (Hayes et al., 2019) described how to link the model we will present in this book to a new kind of *process-based functional analysis*, which we will cover in chapter 3. That, in turn, will be the vehicle for tailoring evidence-based procedures to relevant evidence-based processes.

To apply process-based functional analysis, therapeutic procedures and processes must be differentiated from one another. *Therapeutic procedures* are techniques that a therapist uses to reach a client's treatment goals (Hayes & Hofmann, 2018). *Therapeutic processes*, on the other hand, can be described as the underlying sequences of biopsychosocial changes that lead to the client's attaining their treatment goals (Hayes & Hofmann, 2018). How to apply this distinction will be addressed in detail as the book unfolds.

As clinicians, we monitor the function and circumstances of our clients' thoughts, emotions, attentional changes, sense of self, motivation, and behaviors in addition to increasing awareness of the biophysiological and sociocultural domains relevant to our clients' goals. By examining these areas in terms of processes of change and relating data to intervention decisions, we can have concrete tools to apply an evidence-based functional analytic framework to identify and target processes of change that help clients achieve their goals.

## A META-MODEL OF TREATMENT TARGETS

Clinicians differ in their therapeutic orientations, their preconceptions, and even their favorite therapeutic strategies. As a result, the same client could encounter a variety of therapists with different approaches. PBT does not restrict variation in these clinical approaches. In fact, PBT encourages clinicians to consider evidence-based processes that arose outside their own therapeutic approach and to use those that work best for their client.

Therefore, PBT needs to be based on a view of intervention that accommodates any evidence-based change processes, regardless of the specific therapeutic orientation. For this, we need a comprehensive, internally coherent, and functional system to organize PBT processes. The theoretical foundations of this meta-model are grounded in evolutionary principles that help us understand the development of complex systems in the life sciences. Our *Extended Evolutionary Meta-Model* (EEMM) provides consilience and a common language for such a system (Hayes, Hofmann, & Wilson, in press). As we will discuss, the EEMM applies the evolutionary concepts of context-appropriate variation, selection, and retention to key biopsychosocial dimensions and levels related to human suffering, problems, and positive functioning. That is the essence of PBT and the applied purpose of this skills training manual. Let the journey begin.

## **Action Step 1.1** Identify a Problem

In each chapter we will periodically stop and ask you to apply what we are talking about in short "action step" exercises. These exercises are also available to download from the website for this book, http://www.newharbinger.com/47551. (See the very back of this book for more details.) In some of these we will ask you to explore these ideas by applying them to your own life. We do that for two reasons. One is because you know the details of your life and can bring that rich history to the task. The other is that you can get more of an intuitive or felt sense of how these perspectives actually land when you try to apply them to yourself. For many of these exercises, we will provide an example of a response. So please keep a notebook or digital device handy as you read the book, and let's dive in to our first action step.

Please pick one or two problem areas in your life that, if you were to seek psychological help, might be areas you would pick to work on. They may have a long or short history—the only requirement is that they are present today. Your task is simply to write a paragraph describing each problem area, much as you might in an initial consultation with a provider. Supply whatever details you consider meaningful.

We are suggesting you consider "one or two" problem areas because from the next chapter on we will refer back to whatever problem area you choose, and it may take some thought to narrow your focus to one that best fits the purposes of these action step exercises and that feels sufficiently important. If you know now that a particular one is best, just go with that.

Next, based only on what you know from previous training, try to label what you wrote using only DSM/ICD diagnoses. Feel free to use “not otherwise specified” or adjustment disorder. If you feel you must use multiple diagnoses, you may.

Finally, write a short paragraph about what feelings and thoughts you have when you think about the DSM/ICD label. Where does your mind go? How do you react when you look at the problem areas through the lens of the DSM/ICD?

Below is an example of how someone might complete this exercise. We will follow this same person throughout our action step examples.

### *Example*

**Problem Area:** I get anxious and insecure when talking to others, especially with people I do not know, people I consider attractive, or people in higher positions of power. I notice I get stuck in my head, worry about what they think of me, worry that they might not like me. As a result, I retreat more and more inside my head. I worry about saying something stupid and embarrassing myself. I deal with these fears by either overcompensating and trying to be the most fun and interesting person in the room or by retreating, excusing myself from the situation and going home. These fears have been with me as long as I can remember.

**DSM/ICD Diagnosis:** Social anxiety disorder/social phobia

**What Feelings and Thoughts Come Up for Me:** The DSM label feels overly simplistic and threatening at the same time. It feels like all the complexity of my situation is compressed into a single label. And it feels like confirmation that there is something wrong with who I am. Something is broken inside of me, and I’m less of a person because of it. It also sounds like I need medication to fix my problem.

# CHAPTER 2:

# The Network Approach

When we let go of the idea of trying to fit clients into DSM/ICD-shaped molds, we can move to a more useful and progressive approach. This new approach reflects the reality of the client much better because it is focused on what science can tell us about the client's struggles, and what needs to be done to meet their needs and accomplish their goals. We call it the process-based approach. In this chapter, we'll look at the first element of the process-based approach—the network model—which depicts the client's current situation, personal history, and every other process you might choose to target. This network model will form the basis of our work with the client. But before we can get there, let's first define the basic terms.

## WHAT IS A PROCESS?

The word "process" comes from a Latin root meaning "going forward," as in a parade or a procession, and its modern definition—*a series of actions meant to accomplish some result*—has existed for 400 years. A process in PBT is a sequence of events that is known to influence a person's well-being. It can be a direct influence (for instance, regular exercise directly influences your well-being), or it can be an indirect influence (for instance, knowing someone who regularly works out can inspire you to exercise more, which in turn influences your well-being). At any given moment, a multitude of processes happen simultaneously within every person, interacting with other processes and affecting a person's well-being.

Not all processes have a positive influence. In fact, many processes have a negative effect on a person's well-being, such as avoiding feelings of anxiety or suppressing a traumatic memory. What's more, the same event can lead to maladaptive processes in some people and adaptive ones in others despite their superficial similarity. For instance, the early death of a parent could throw one person who is unable to face the grief into a cycle of social withdrawal, misery, and despair, while causing another person when facing grief to grow connected to loved ones and resilient when confronted by the stressors of life. It depends on the individual person, their context, and the specific processes in play.

There is a virtually unlimited number of biopsychosocial processes active within every person, which is why we want to limit ourselves to the ones that are relevant to clinical interventions. The general term "processes of change" can apply to both maladaptive and adaptive processes. Maladaptive processes are especially therapeutically relevant in terms of diagnosis, functional analysis, and negative targets of intervention, while adaptive processes provide positive targets to be strengthened. When processes of change are relevant to reaching therapeutic goals, they are *therapeutic processes.* They come in many shapes and forms, yet all of the most useful therapeutic processes exhibit the same five qualities. As a reminder, therapeutic processes are theory-based, dynamic, progressive, contextually bound, and part of a multilevel system. We briefly defined these five qualities in the last chapter; here, let's unpack their meanings further.

**Theory-based:** A therapeutic process is associated with a clear statement of relations among events that lead to testable predictions. For example, suppose a particular theory emphasized how thoughts of possible humiliation lead to strong emotions in social situations that then make social functioning difficult. A process concept like that might lead you to perk up when a client who is socially avoidant says, "I am worried that people will laugh at me." It would cause you to look carefully for signs of increased anxiety that inhibit social behavior. A process is not a single event—it is a conceptually predicted relationship between one event (e.g., thinking, *People will laugh at me)* and other events (feeling anxiety and being less functional socially).

**Dynamic:** A therapeutic process involves feedback loops and nonlinear changes. For example, suppose a person has the thought *I'm worthless* and believes it. That combination might lead them to forego basic hygienic routines, such as bathing. The social response of others (e.g., a wrinkled-up nose or snide

comments) in turn can encourage them to believe the thought that they are worthless even more. Thus, believing the thought *I'm worthless*, lack of hygiene, and a social expression of disgust from others are now in a self-reinforcing feedback loop, where each event strengthens the others in a self-amplifying process.

**Progressive:** A therapeutic process may need to be arranged in particular sequence to reach the treatment goal. For instance, it may not be enough to merely identify that a client's craving for cocaine leads to drug consumption. If we want treatment to be successful, we also need to uncover the values violations that have occurred as a result of the addiction in order for the client to have enough motivation to do anything different with the craving. The right sequence of processes helps you reach the treatment goal.

**Contextual:** A therapeutic process needs to be contextually bound and modifiable so that it is within your reach to directly suggest practical changes or treatment kernels. For instance, no amount of therapy will be able to undo the sexual abuse a client has experienced in their life. However, the history of sexual abuse may affect many aspects of the client's life in the here and now, which is where you can intervene, such as the conditions under which distrust of others leads to excessive testing of intimate partners in an effort to feel safer. A "history of sexual abuse" is itself not contextually bound or modifiable, but because it does its damage in part due to processes of change that occur in particular situations (trying to modify a feeling produced by that history in the context of intimate relationships), the key therapeutic processes are within reach of your interventions.

**Multilevel:** A therapeutic process may supersede other processes or may be nested within another process. For instance, a lack of concentration may lead to a client's outbursts of crying because of a sense of shame…but that process may be nested within unhealthy entanglement with thoughts of blame over the death of a partner. By focusing on the process of grief linked to self-blame, other processes may become obsolete or be put in a new, larger perspective.

These are the five qualities of therapeutic processes, and it's worth keeping these qualities in mind when we want to make sense of a client's situation. By focusing on therapeutic change processes that are in line with these five qualities, we can bring together clinical practitioners from many different theoretical backgrounds. Oftentimes, there are parallel concepts in different schools of clinical psychology. But while it's often difficult to come to an agreement on overall models, common interest in processes of change is far easier to establish. And if we see processes that exemplify the qualities mentioned above, we can consider them as building blocks for an alternative approach to the DSM/ICD.

In process-based therapy, we use change processes to go beyond the traditional DSM/ICD model and create an approach that has known treatment utility—because it focuses on processes that are already known to be functionally important in leading to long-term positive or negative outcomes. And in order to take this step, we need to ensure that the concepts we use to describe and explain therapeutic processes have the following three qualities:

**Precision:** A therapeutic process needs precision so that it is clear when a particular change process can be said to apply and when it cannot. For instance, a concept like "avoiding" is less precise than a concept such as "avoiding intense feelings." By requiring change processes to be precise, we eliminate general heuristics and loose metaphors as processes of change.

**Scope:** A therapeutic process needs scope so that it applies to a range of phenomena. For instance, a process that focuses on "verbal quarrels with intimate friends" has less scope than a process such as "fostering emotional distance through quarrels, refusals, and withdrawal." By requiring change processes to have scope, we eliminate those that are merely restated versions of specific psychological episodes, and we encourage those that broadly apply to a client's psychosocial world. It is simply not useful—neither scientifically nor practically—to focus on processes that apply only to narrow areas.

**Depth:** Clinical psychology is embedded in a broad pool of scientific knowledge drawn from neuroscience, physiology, genetics, social processes, and many other disciplines. As such, a therapeutic process needs depth so that evidence is consistent with well-established scientific findings at different levels of analysis. For instance, if an emotional process concept contradicts data from the neurobiology of emotion, something is deeply wrong. If there is such a contradiction in the fabric of science, the description of the change process is not yet adequate.

At any given moment, there are a multitude of different processes of change interacting simultaneously

within a client. These processes are linked to the person's feelings, thoughts, behaviors, sense of self, and even their biological, social, and cultural experiences. If we want to do justice to the client and depict their situation with all its complexity in a structured, practical way, we need a reliable, simple approach to organize client information and features into a process-based account. We believe that challenge can be met by taking a network approach.

# NETWORK THINKING

Network models are often used to make sense of dynamic and interconnected systems. For example, climate scientists rely on network models to make sense of changes in temperature and weather across the globe. Stock market experts apply network models to track and predict the rise and fall of individual shares. And we too will use network models to bring clarity to a client's history, current situation, and likely treatment response.

A network is made up of single parts that link together and influence one another. In PBT, we create network models using squares and arrows, whereby two squares link to each other by an arrow. The squares represent the events of a person's life that are related to functioning. And the arrows between these squares represent the relation between these events and their direction of influence.

## Simple Relation

To get a basic idea of how the network model works, take a look at figure 2.1.

In this case a historical fact ("History of being bullied") reinforces the event "Low self-esteem," as depicted by an arrow. By drawing multiple squares, each representing a different event, that are connected with multiple arrows, we can create a model of a client's situation.

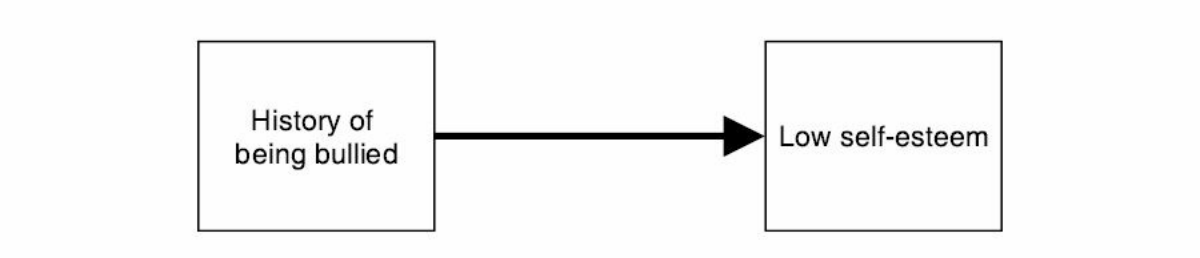


**Figure 2.1** Simple relation

Processes are sequences, and in the example above the arrow is clearly a process; the history of bullying led to an internalization—low self-esteem. In general terms, being treated badly led to believing *I'm bad.* But the low self-esteem can also be a process if it then changes how other events are handled—for example, how criticism from others is perceived.

The network approach is not only useful to capture relevant processes in a client's life. We can also use this model to make meaningful statements about how these individual processes interact and reinforce one another. As we draw different relations between the individual squares, we are explicating possible process relations. In time, you'll find a client's network expand from a simple relation to multiple squares with complex relations.

## Complex Relations

Events can be linked to each other in many different ways. You have already seen the first example, where one event influences a second event. It does not get easier than this. Now suppose two events are in a feedback loop, where they influence and reinforce each other. For example, a person with a fear of dogs might avoid dogs at all costs, but that very act of avoidance may also maintain and reinforce their fear. The first event reinforces a second event, which in turn reinforces the first, repeating the cycle. Take a look at figure 2.2 to see what this

relation would look like in the network approach.

Whenever two squares make a feedback loop, we have a process that can maintain itself or build on itself, either positively or negatively. For example, when a person has experienced a panic attack, they may start to avoid situations in which the panic attack has been triggered, hoping to avert possible future panic attacks. As a result, they become more vigilant, cautious, and agitated about their anxiety, which increases the odds of triggering yet another panic attack, making them retreat even more. And while their area of comfort is getting smaller and smaller, their panic attacks increase in size and frequency. In such a case, a "Panic attack" and "Avoidance of anxiety-provoking situations" are in a constant feedback loop, reinforcing and building on each other. And once they are in a feedback loop, they tend to select and maintain their elements, becoming less sensitive to context and more resistant to change. The process term "experiential avoidance" describes such a network.

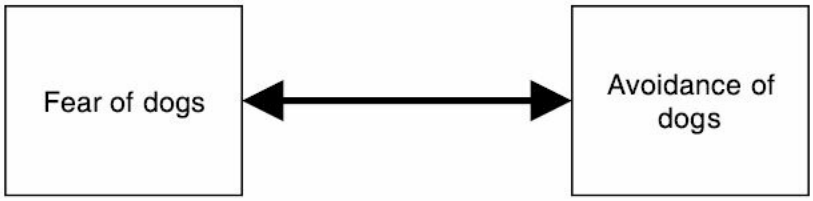


**Figure 2.2** Feedback loop

In most cases, more than just two events interact with each other. So let's add one more square to our model, making room for an additional event, and see how it influences the network. Take a look at figure 2.3.

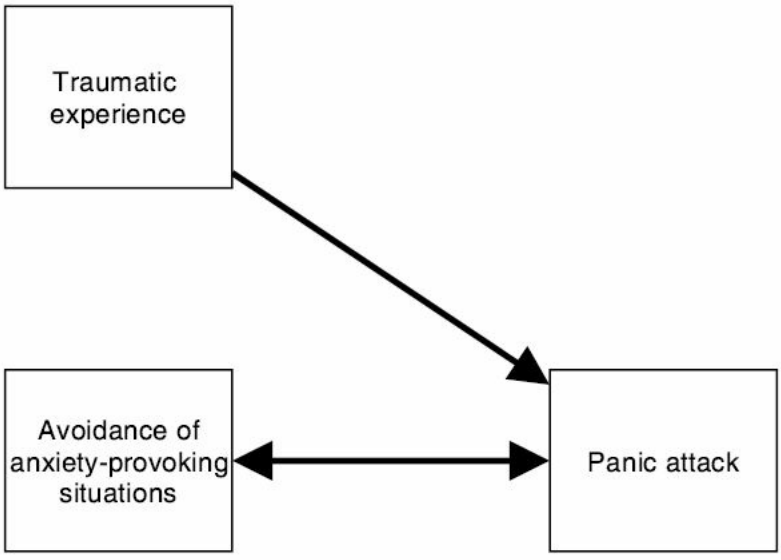


**Figure 2.3** Three-way relation

In this case, the process "Panic attack" is in a direct feedback loop with "Avoidance of anxiety-provoking situations." Note that "Avoidance of anxiety-provoking situations" is itself a process relation—and we could have drawn it as a series of smaller pieces, such as "situation," "anxiety," and "avoidance"—but networks rapidly become unreadable if we break them down into tiny pieces, so there is no rule against putting processes in boxes. Additionally, we included in the model the role of a "Traumatic experience" that provoked the initial panic attack in the first place.

Now we have three interlinked squares in our model, but we are not done yet. Suppose the process "Traumatic experience" has a much stronger influence on the process "Panic attack" than the process "Avoidance of anxiety-provoking situations" does. We can depict the strength of a relation by adjusting the size of the arrowhead accordingly.

In figure 2.4, the arrow leading from "Traumatic experience" now has a much bigger arrowhead, indicating that "Traumatic experience" has a much stronger influence on the event "Panic attack" than "Avoidance of anxiety-provoking situations" does.

We already talked about feedback loops occurring between two events, leading to a self-reinforcing loop (as in figure 2.2). In reality, it's just as common to find feedback loops between three or more events.

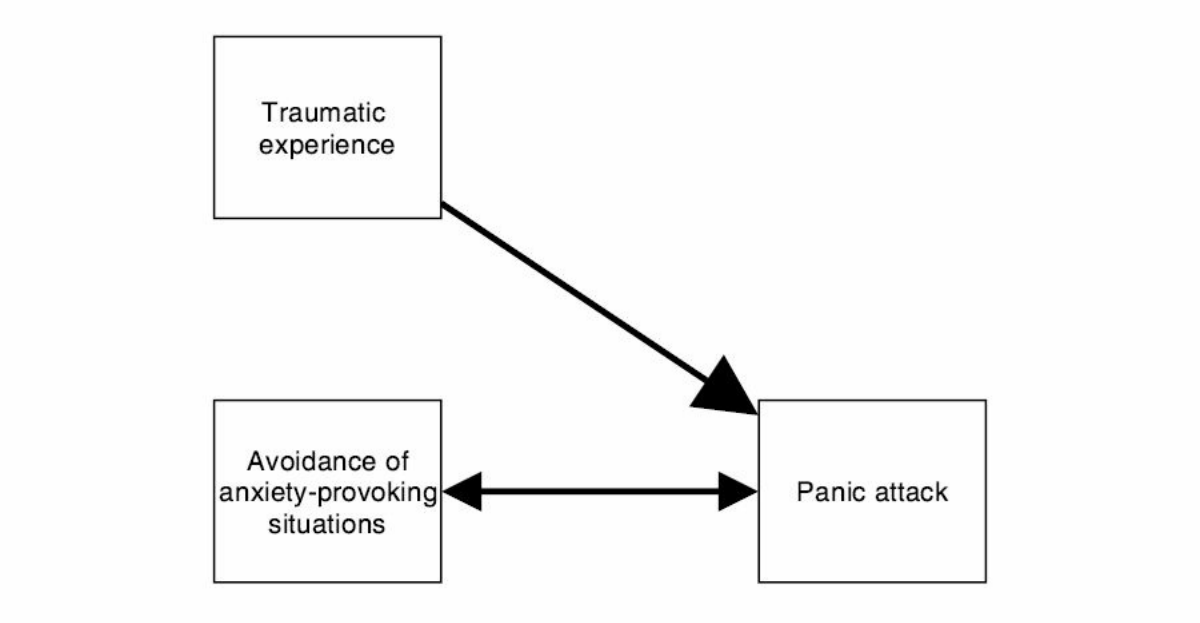


**Figure 2.4** Stronger influence

We already talked about feedback loops occurring between two events, leading to a self-reinforcing loop (as in figure 2.2). In reality, it's just as common to find feedback loops between three or more events. Let's take a look at figure 2.5.