General Principles and Empirically Supported Techniques of Cognitive Behavior Therapy

Edited by

William T. O'Donohue
Jane E. Fisher

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PREFACE

This book includes introductory material (the first five chapters) so that the reader can gain both a general overview of CBT as well as gain a general understanding of some of the basics of cognitive behavior therapy. The first chapter provides a brief history of cognitive behavior therapy and presents some of its current and future challenges. A key problem is that cognitive behavior therapy was based on learning research and other research in experimental psychology, but now the ties to this research are much looser and indirect. This might have certain costs that are not properly realized. The second chapter covers assessment issues in cognitive behavior therapy, focusing on functional analysis. This chapter introduces and explains much of the basic terminology that the student needs to understand to properly understand CBT, such as contingency, schedule of reinforcement, functional relationship, and so forth. The third chapter provides an overview of some of the evidence base for CBT. CBT is different than many other forms of psychotherapy in that its appeal is not based solely on its conceptual attractiveness but upon scientific studies of its outcomes. This puts CBT in the camp of ''evidenced based practice,'' an important quality improvement development in healthcare. This is not to say CBT is a ''done deal''; there is always more evidence to collect regarding outcomes and processes involved in CBT. We are at the beginnings of our research agenda, not at the end. The next chapter covers cultural issues in the implementation of CBT. CBT attempts to develop regularities but countenances the fact that each client has a unique history and present circumstance and thus it is part of the clinician's job to understand the relevance of this and make appropriate adaptations to assessment and treatment plans. Finally, the last chapter in this section covers some of the new developments in CBT. Dialectical Behavior Therapy, Mindfulness, and Acceptance and Commitment Therapy have been gaining a lot of attention in the last few decades and the promise and problems of these are discussed.

Over the last three decades there has been a significant increase in interest in cognitive behavior therapy. This has occurred for several reasons: 1) Mounting experimental evidence supports the effectiveness of cognitive behavioral therapy for certain psychological problems induding high incidence problems such as depression and the anxiety disorders. The well-known Chambless report, for example, identifies many cognitive behavioral therapies as being empirically supported. In fact, cognitive behavioral techniques comprise most of the list. 2) Cognitive behavior therapy tends to be relatively brief and often can be delivered in groups. Therefore it can be more cost-effective than some alternatives and be seen to offer good value. These qualities have become particularly important in the era of managed care with its emphasis upon cost containment. 3) Cognitive behavior therapy has been applied with varying success to a wide variety of problems (see Fisher and O'Donohue, 2006 for over 70 behavioral health problems in which CBT can be considered an evidence based treatment. Thus, it has considerable scope and utility for the practitioner in general practice or the professional involved in the training of therapists. 4) Cognitive behavior therapy is a relatively straight forward and clearly operationalized approach to psychotherapy. This does not mean that case formulation or implementing these techniques is easy. However, CBT is more learnable that techniques such as psychoanalysis or Gestalt therapy. 5) Cognitive behavioral therapy is a therapy system comprised of many individual techniques, with researchers and practitioners constantly adding to this inventory. A given behavior therapist, because of his or her specialty, may know or use only a small subset of these. A clinician or clinical researcher may want to creatively combine individual techniques to treat some intransigent problem or an unfamiliar or complicated clinical presentation.

This volume attempts to bring together all of the specific techniques of cognitive behavior therapy. It does this in an ecumenical fashion. Historically, and currently, there are divisions inside behavior therapy that this book attempts to ignore. For example, cognitive and more traditionally behavioral techniques are included. This offended some prospective authors who were clearly warriors in the cognitive-behavioral battle. We wanted to be inclusive, particularly because pragmatically the outcome research favors both sides of this particular battle.

Our major interest in compiling this book was twofold: First we noted the lack of a volume that provides detailed descriptions of the techniques of cognitive behavioral therapy. Many books mentioned these but few described the techniques in detail. The absence of a comprehensive collection of the methods of cognitive-behavior therapy creates a gap in the training of students and in the faithful practice of cognitive behavior therapy. Second, with the increased interest in cognitive behavior therapy, particularly by the payers in managed care, there has been an increasing bastardization of behavior therapy. Some therapists are claiming they are administering some technique (e.g., relapse prevention or contingency management) when they clearly are not. This phenomenon, in our experience, rarely involves intentional deception but instead reflects an ignorance of the complexities of faith-fully implementing these techniques. This book is aimed at reducing this problem.

There is an important question regarding the extent to which a clinician can faithfully implement these techniques without a deeper understanding of behavior therapy. The evidence is not clear and of course the question is actually more complicated. Perhaps a generically skilled therapist with certain kinds of clients and certain kinds of techniques can implement the techniques well. On the other hand, a less skilled therapist dealing with a complicated clinical presentation utilizing a more subtle technique might not do so well. There is certainly a Gordon Paul type ultimate question lurking here. Something like: ''What kind of therapist, with what type of problem, using what kind of cognitive behavior therapy technique, with what kind of training, can have what kinds of effects. . .'' With the risk of being seen as self-promoting, the reader can learn about the learning and conditioning underpinnings of many of thes techniques in O'Donohue (1998); and more of the theories associated with these techniques in O'Donohue and Krasner (1995). Fisher and O'Donohue (2006) provide a description of particular problems that these techniques can be used with.

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1 A BRIEF HISTORY OF COGNITIVE BEHAVIOR THERAPY: ARE THERE TROUBLES AHEAD?

William O'Donohue

In its beginnings, behavior therapy was linked to learning research in an inextricable and unique manner. I will refer to this period in the history of behavior therapy as ''first-generation behavior therapy.'' First-generation behavior therapy was a scientific paradigm that resulted in important solutions to a number of clinical problems (Task Force on Promotion and Dissemination of Psychological Procedures, 1995). For various reasons, however, many behavior therapists and researchers lost touch with developments in conditioning research and theory. Over the last three decades, behavior therapists turned their attention to topics such as therapies based on ''clinical experience'' (e.g., Goldfried & Davison, 1976), techniques seen independently from underlying behavioral principles (Hayes, Rincover, & Solnick, 1980), cognitive experimental psychology, cognitive accounts not based on experimental cognitive psychology (e.g., Ellis & Harper, 1975), and integrating or borrowing from other therapeutic approaches (Lazarus, 1969; but see O'Donohue & McKelvie, 1993). I will collectively refer to these developments as ''second-generation behavior therapy.''

Often, the argument in second-generation behavior therapy for this widening of influences was that ''some clinical problem has not yielded to a conditioning analysis; therefore, other domains need to be explored for solutions.'' This is a reasonable argument, as it is imprudent to restrict behavior therapy to conditioning if there are important resources in other domains. However, there are grounds for concern because second-generation behavior therapists may have relied too heavily on these other domains to the extent that contemporary learning research extends older research, contradicts older research, or has discovered completely new relationships and principles. Clinical problems may be refractory to behavioral treatment simply because the behavior therapist is not using the more powerful regularities uncovered by recent learning research. It is possible that one of the core ideas—extrapolating results from learning research—of first-generation behavior therapy still remains a useful animating principle for contemporary therapy.

However, many contemporary behavior therapists still look to conditioning principles and theory developed in the 1950s and 1960s for solutions to clinical problems. In this chapter, *third-generation behavior therapy* is called for. Third-generation behavior therapists should extrapolate contemporary learning research to understand and treat clinical problems. Third-generation behavior therapy should rely on regularities found in modern accounts of classical conditioning, latent inhibition, two-factor theory, response-deprivation analysis of reinforcement, behavioral regulation, matching law, other models of choice behavior, behavioral momentum, behavioral economics, optimization, adjunctive behavior, rule-governed behavior, stimulus equivalence, and modern accounts of concept learning and causal attribution.

FIRST-GENERATION BEHAVIOR THERAPY

Prior to the 1960s, the founders of behavior therapy extrapolated laboratory learning results to clinical problems. For example, John Watson and Rosalie Rayner (1920) attempted to demonstrate that a child's phobia could be produced by classical conditioning. Mary Cover Jones (1924a, b) showed that a child's fear of an animal could be counterconditioned by the pairing of the feared stimulus with a positive stimulus. O. Hobart Mowrer and Willie Mowrer (1938) developed a bell and pad treatment for enuresis that conditioned stimulus for sphincter control and the inhibition of urination.

Despite the initial promise of these early extrapolations, these efforts were generally ignored in clinical practice. Psychotherapists of the period were largely interested in psychoanalysis, a paradigm with a much different focus. Behavior therapists had to compete with the many offshoots of psychoanalysis. Andrew Salter (1949) shows some of the antipathy that many behavior therapists had toward psychoanalysis:

> It is high time that psychoanalysis, like the elephant of fable, dragged itself off to some distant jungle graveyard and died. Psychoanalysis has outlived its usefulness. Its methods are vague, its treatment is long drawn out, and more often than not, its results are insipid and unimpressive. Every literate non-Freudian in our day knows these accusations to be true. But we may ask ourselves, might it not be that psychotherapy, by its very nature, must always be difficult, time-consuming, and inefficient? I do not think so. I say flatly that psychotherapy can be quite rapid and extremely efficacious. I know so because I have done so. And if the reader will bear with me, I will show him how by building our therapeutic methods on the firm scientific bed rock of Pavlov, we can keep out of the Freudian metaphysical quicksands and help ten persons in the time that the Freudians are getting ready to ''help'' one. (p. 1)

In the 1950s, Joseph Wolpe (1958) attempted to countercondition anxiety responses by pairing relaxation with the stimuli that usually elicited anxiety. Wolpe's work represents the real beginnings of modern behavior therapy, as his work comprised a sustained research program that affected subsequent clinical practice. The earlier work of Watson, Jones, and others was not as programmatic and for whatever reasons did not disseminate well. Wolpe's desensitization techniques and his learning account of fears generated dozens of research studies and clinical applications over the following decade. The reader is referred to Kazdin's (1978) excellent history of behavior therapy for additional examples of early learning-based therapies.

First-generation behavior therapists not only utilized learning principles to formulate interventions, but also used learning principles to develop accounts of the origins and maintenance of problems in living. Abnormal behavior was judged to develop and be maintained by the same learning principles as normal behavior (e.g., Ullmann & Krasner, 1969). Problems in learning or problems in maintaining conditions resulted in a variety of behavior problems. Ullmann and Krasner's (1969) textbook on abnormal behavior is a useful compendium of first-generation learning-based accounts of the development and maintenance of changeworthy behavior.

Most of the initial behavioral studies were influenced by Pavlovian principles, particularly simultaneous and forward classical conditioning. This is not surprising, as some of these predated Skinner's work on operant conditioning. However, in the 1950s, another stream of behavior therapy emerged: applied behavior analysis or behavior modification. These interventions relied on operant principles. In one of the first studies to explicitly use operant principles, Lindsley, Skinner, and Solomon (1953) initiated this stream when they operantly conditioned responses in schizophrenics, demonstrating that psychotic disorders did not obviate basic conditioning processes. Another important early operant researcher, Sidney Bijou (e.g., Bijou, 1959) investigated the behavior of both normal and developmentally delayed children through the use of functional analyses and schedules of reinforcement. Baer, Wolf, and Risley (1968) in the first issue of the *Journal of Applied Behavior Analysis* highlighted the importance of the systematic and direct

application of learning principles for the future of applied behavior analysis:

> The field of applied behavior analysis will probably advance best if the published descriptions of its procedures are not only precise technologically but also strive for relevance to principle. . . . This can have the effect of making a body of technology into a discipline rather than a collection of tricks. Collections of tricks historically have been difficult to expand systematically, and when they were extensive, difficult to learn and teach. (p. 96)

These cases of first-generation behavior therapy exhibit several important commonalities:

- The clinical scientists had extensive backgrounds in basic learning research. They could reasonably be described as learning researchers seeking to understand the generalizability of laboratory research as well as examining the practical value of this research by helping to solve problems involving human suffering.
- They were applying *what was then current learning research* to clinical problems.
- The results of their clinical research were by and large positive, although the methodological adequacy is problematic by today's standards.
- They saw their particular research as illustrating a much wider program of research and therapy. That is, their research did not exhaust the potential for the applicability of learning principles to clinical problems, but merely illustrated a small part of a much wider program.

During this period, behavior therapy was often defined by a direct and explicit reference to learning principles. For example, Ullmann and Krasner (1965) defined behavior modification as ''includ[ing] many different techniques, all broadly related to the field of learning, *but learning with a particular intent, namely clinical treatment and change*'' (p. 1; italics in the original). Wolpe (1969) stated, ''Behavior therapy, or conditioning therapy, is the use of experimentally established principles of learning for the purpose of changing maladaptive behavior'' (p. vii). Eysenck (1964) defined behavior therapy as ''the attempt to alter human behavior and emotion in a beneficial manner according to the laws of modern learning theory'' (p. 1). Franks (1964) stated, ''Behavior therapy may be defined as the systematic application of principles derived from behavior or learning theory and the experimental work in these areas to the rational modification of abnormal or undesirable behavior'' (p. 12). Furthermore, Franks (1964) wrote that essential to behavior therapy is a ''profound awareness of learning theory'' (p. 12).

Although by and large these early behavior therapists agreed that learning principles should serve as the foundation of behavior therapy, the behavior therapy they advocated was not homogeneous. There was a significant heterogeneity in this early research. These researchers did not draw upon the same learning principles, nor did they subscribe to the same theory of learning. Skinner and his students emphasized operant conditioning principles; Watson, Rayner, and Jones, Pavlovian principles; and Wolpe and others, Hullian and Pavlovian. Moreover, within these broad traditions, different regularities were used: Some used extinction procedures, others excitatory classical conditioning; some differential reinforcement of successive approximations, others counterconditioning. However, each of these is a canonical illustration of behavior therapy of this period because each shares a critical family resemblance: an extrapolation of learning principles to clinical problems.

A related but separate movement occurred during this period. This movement did not gather much momentum and has largely died out. It is best represented by the work of Dollard and Miller (1950). In their classic book, *Personality and Psychotherapy*, these authors attempted to provide an explanation of psychoanalytic therapy techniques and principles based on learning principles. Dollard and Miller attempted to explain psychoanalytic techniques by an appeal to Milian learning principles. This movement should be regarded as separate from the first movement described earlier because the connection between conditioning and a therapy technique in this movement is post hoc. That is, first, therapeutic principles are

described with no direct connection to learning principles, and this is followed by an attempt to understand these by learning principles. In the first movement, initially learning principles are discovered, and this is followed by the development of treatment procedures.

Today, there is little work that follows the second paradigm. Few are attempting to uncover the learning mechanisms underlying Rogerian and Gestalt techniques, object-relations therapy, and the like. This is probably because today, unlike the 1950s, there is more doubt regarding whether there is anything to explain. This movement attempted to explain, for example, how psychoanalysis worked (the conditioning processes involved). However, if there is little reason to believe that these other therapies are effective, then there is little reason to explain how they work. Moreover, this movement failed to produce any novel treatment techniques. In its emphasis on attempting to understand existing therapy techniques, it produced no useful innovations.

However, the model of moving from the learning laboratory to the clinic proved to be an extraordinarily rich paradigm. In the 1960s, numerous learning principles were shown to be relevant to clinical problems. Learning research quickly proved to be a productive source of ideas for developing treatments or etiological accounts of many problems in living. The development of psychotherapy had been a quasi-mysterious process before this point. Psychotherapies were usually developed by the unique clinical observations of the person who would become the leader of the school. Psychotherapists were no longer dependent on the ''revelations'' of insightful and creative seers who founded their schools. For the first time, psychotherapists could do Kuhnian (Kuhn, 1970) normal science because it is considerably more straightforward to extrapolate extant learning principles to clinical phenomena than it is to understand how, say, Freud formed and revised his assertions. ''Extrapolate learning principles'' is a clear and useful heuristic for the context of discovery.

Six books were critically important in extending the learning-based therapy paradigm. Wolpe's (1958) *Psychotherapy by Reciprocal Inhibition;* Eysenck's (1960) *Behavior Therapy and the Neuroses;* Franks's (1964) *Conditioning Techniques in Clinical Practice and Research;* Eysenck's Experiments in Behavior Therapy (1964); and Krasner and Ullmann's two volumes, *Case Studies in Behavior Modification* (1965) and *Research in Behavior Modification* (1965). All contained an extensive set of case studies, research, and conceptual analyses that greatly extended the paradigm. Conditioned reinforcement, modeling, generalization and discrimination, satiation techniques, punishment, the effects of schedules of reinforcement, and token economies were investigated. Moreover, these principles were applied to a greater number and variety of clinical problems. Eating, compulsive behavior, elective mutism, cooperative responses, disruptive behavior, anorexia, hysterical blindness, posttraumatic anxiety, fetishism, sexual dysfunction, stuttering, tics, school phobia, tantrums, toilet training, social isolation, teaching skills to people with mental retardation, and hyperactive behavior were all addressed by learning-based treatments in these books. The matrix involving the crossing of learning principles by kinds of problematic behavior resulted in a rich research and therapy program.

Due to the initial successes in applying learning principles to clinical problems, another trend emerged. First-generation behavior therapists started working in the other direction: they began with a clinical problem and then attempted see to what extent it yielded to an analysis based on learning principles. Thus, a reciprocal relationship between the clinic and the learning lab emerged. This movement was important because behavior therapists can also be interested in uncovering basic learning processes in humans and can have a useful vantage point for generating and testing hypotheses concerning basic processes.

However, there is some danger with this approach. Unfortunately, it could be quite attractive to the behavior therapist who knew much more about clinical presentation than about learning research. This may have been the beginnings of the reliance of behavior therapists on something other than a thorough and faithful knowledge of current learning theory and research. With the success of behavior therapy came a new kind of professional: one who was