Empiricism, mechanism, and the practice of cognitive-behavior therapy

Article *in* Behavior Therapy · March 2005

DOI: 10.1016/S0005-7894(05)80059-0

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101 PUBLICATIONS **5,260** CITATIONS

Running head: PRACTICE OF COGNITIVE-BEHAVIOR THERAPY

Persons, J. B. (2005). Empiricism, mechanism, and the practice of cognitive-behavior therapy. *Behavior Therapy, 36,* 107-118.

Empiricism, mechanism, and the practice of cognitive-behavior therapy

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Abstract

The thesis of this article is that a case formulation-driven approach to clinical work that relies on a case formulation and a hypothesis-testing approach to each case facilitates the use, in clinical settings, of empirically-supported treatments (ESTs) that were developed in research settings. The two touchstones of a case formulation-driven approach to cognitive-behavior therapy (CBT) are, as the title of the article indicates, *mechanism* and *empiricism*. In a formulation-driven approach, the therapist relies on hypotheses about the *mechanisms* causing, maintaining, and promoting change in problem behaviors. The therapist also adopts an *empirical* approach to each case that includes hypothesis-testing and repeated data collection to evaluate the process and progress of treatment. This article describes the main features of a case formulation-driven approach to CBT, shows how it addresses many of the obstacles that impede practitioners from using empirically-supported protocols in their daily clinical work, examines its intellectual origins and some data supporting its effectiveness, and concludes with a discussion of implications of the method for future developments in the field.

In press, Behavior Therapy

Empiricism, mechanism, and the practice of cognitive-behavior therapy

A look inside the offices of cognitive-behavior therapists reveals a dirty little secret: Although we aspire to function as scientist-practitioners and we take pride in the empirically-supported treatment protocols our field has produced, the fact is that in the trenches of real-world clinical practice we rarely use the protocols as they were written. If our work were evaluated, we'd get lousy adherence scores. When practitioners use the empirically-supported protocols in routine clinical practice, we rarely proceed through a single protocol from beginning to end. Instead, we use what might be called a *mix and match* strategy, in which we select interventions or modules from one or even two or more protocols that we believe will be helpful to the patient who is in our office at that moment. At times, truth be told, we even abandon the protocols altogether.

This description of clinical practice is troubling. The literature tells us that the interventions in the empirically-supported protocols are not, themselves, empirically-supported. The *protocols* are empirically-supported, but the *interventions* we are plucking out of the protocols, for the most part, have not been shown to be effective in controlled studies. In fact, attempts to dismantle the protocols to isolate their constituent components have often produced disappointing results (e.g., Jacobson et al., 1996; Zeiss, Lewinsohn, & Munoz, 1979).

So that's the bad news: Cognitive-behavior therapists are not using the empirically-supported protocols as written, and the way we are using them (selecting interventions from protocols based on our assessment of the patient's needs) is not empirically-supported.

Here's the good news: The thesis of this article is that the *mix and match* methods clinicians have adopted, if they are used within a framework that includes a formulation and a hypothesis-testing approach to each case, is a good thing. It's a good thing because it allows clinicians to use empirically-supported treatments in a way that is simultaneously evidence-based and clinically-flexible, and also because it contributes to the solution of what I call the dissemination problem: the reluctance of many clinicians to adopt the empirically-supported treatment (ESTs).

I begin this article with a description of several obstacles that impede dissemination of the empirically-supported CB therapies to practitioners. Next I describe the main features of a case formulation-driven approach to cognitive-behavior therapy and show how it addresses these obstacles. Much of what I say here comes out of the context of my own clinical work with depressed anxious outpatients. Next I review the intellectual origins of the case formulation-driven approach and present some data supporting its efficacy and utility. I conclude with a brief discussion of implications of the ideas presented here for future developments in the field.

The Dissemination Problem: Obstacles to Using ESTs in Routine Clinical Practice

Although cognitive-behavioral therapies have been developed and shown to be effective in randomized controlled trials (RCTs) for the treatment of many disorders and problems, most patients who need these therapies are not offered them. For example, Taylor et al.(1989) and Goisman et al.(1993) reported that fewer than 20% of patients participating in their research studies of panic disorder had ever been treated with in vivo exposure. Our failure to disseminate our many effective treatments to the suffering individuals who need them is truly a tragedy.

A major cause of the dissemination problem is that many treatment protocols that were developed in research settings are not written in a format that addresses many of the issues that clinicians encounter when they import the protocols into a clinical setting (Addis & Krasnow, 2000; Goldfried & Wolfe, 1998; see also Silberschatz in Persons & Silberschatz, 1998). Most currently-available empirically-supported protocols (with some exceptions I'll describe later) are of a sort I will call "by-the-book." A "by-the-book" protocol specifies, in order, the interventions that are to be carried out to treat a particular disorder. The published protocol describing Beck's cognitive therapy for depression (A. T. Beck, Rush, Shaw, & Emery, 1979) is an example. The protocol calls for the therapist to carry out, in order, interventions targeting dysfunctional behaviors, automatic thoughts, and schemas; in fact, an appendix at the back of the book specifies which interventions are to be carried out in each session of the 18 to 20-session treatment.

The "by-the-book" protocol has several advantages, including that it definitively specifies the treatment. However, this type of protocol does not meet the clinician's needs in several ways. Most protocols target single disorders. In contrast, most patients have multiple disorders and many are receiving multiple therapies; the single-disorder protocols do not address many of the issues clinicians encounter when they treat these multiple-disorder and multiple-therapy cases. In addition, the protocols provide insufficient guidance to the therapist when efforts to implement them fail, when the treatment itself fails, or when individuals seek treatment for disorders and problems for which no empirically-supported protocols are available.

The Multiple-disorder Patient

Most empirically-supported protocols target a single disorder (cf. A. T. Beck et al., 1979; Craske, Antony, & Barlow, 1997; Foa & Rothbaum, 1998; Heimberg & Becker, 2001; Steketee, 1993). In contrast, many--if not most--patients have multiple disorders. Particularly in the area of the mood and anxiety disorders, comorbidity is the rule rather than the exception (Sanderson, DiNardo, Rapee, & Barlow, 1990). Clinicians can certainly treat the multiple-disorder patient by implementing a sequence of protocols for single disorders (G.T. Wilson, 1997), and at times this strategy may be a good one.

However, the strategy of using a sequence of single-disorder protocols to treat the multiple-disorder patient has several drawbacks. The clinician who uses single-disorder protocols to treat the multiple-disorder patient confronts many questions that are not answered by the protocols, including: "In what order is it best to treat this patient's disorders?" "Is it possible to effectively treat disorder X while ignoring disorders Y and Z?" "What effect will treating disorder X have on disorders Y and Z?"

The sequential protocol approach to treatment also fails to capitalize on the fact that—at least in the area of the anxiety and mood disorders—many disorders appear to share common mechanisms (Alloy, Kelly, Mineka, & Clements, 1990; Harvey, Watkins, Mansell, & Shafran, 2004). Accordingly, protocols to treat anxiety and mood disorders share many common interventions (e.g., exposure, cognitive restructuring). The proposal that treatment of the multiple-disorder patient calls for the therapist to carry out, in sequence, a series of protocols that share many common interventions is cumbersome and inefficient, and risks alienating both the patient and the therapist. Thus, the mismatch between the multiple-disorder patient and the single-disorder protocol poses a significant impediment to the use of the protocols in clinical practice.

The Multiple-therapy Patient

Many patients who seek cognitive-behavior therapy are already receiving treatment from other providers or taking other actions to address their difficulties. Common examples include the panicker who seeks CBT and who is also receiving benzodiazepines from a physician, the worrier who wishes to add CBT to a treatment regimen that already includes long-term psychodynamic psychotherapy, and the social phobic who has taken a leave of absence from work in order to escape the anxiety evoked by social interactions there.

This fact can lead disconcertingly easily to a situation in which the therapist is providing an EST to a patient who is receiving other therapies or taking other actions that undermine the EST. Even worse, the therapist *may not be aware* of this state of affairs. The format of the single-disorder protocol seems to encourage the therapist to obtain a psychiatric diagnosis, select an empirically-supported protocol to treat that diagnosis, and move forward to implement it. Even if the therapist *is* aware of the other pieces of the puzzle, the EST protocol does not usually provide an algorithm for thinking through and tackling the issues they present. Most protocols do not help the therapist decide whether a leave of absence or a concurrent psychodynamic psychotherapy is in the patient's best interest.

This state of affairs is a natural consequence of the present developmental stage of our field. Randomized controlled trials (RCTs) that are conducted to evaluate the efficacy of new therapies typically strive to maximize internal validity (Borkovec & Castonguay, 1998), and as part of that effort, they screen out patients who have extensive comorbidity and who are engaged in adjunct therapies. This research strategy makes good sense when a therapy is being developed. However, the protocols developed in this way do not answer the questions that arise when clinicians attempt to use them to treat multiple-disorder multiple-therapy patients who do not meet the selection criteria used in the trials.

Implementation Obstacles

It is not unusual for a person who seeks treatment for procrastination to have difficulty completing homework for therapy sessions. Similarly, therapists often encounter difficulty establishing trusting, collaborative relationships with individuals who seek help for significant interpersonal problems. These patients present the Catch-22 dilemma that the very problem for which the patient seeks treatment interferes with the treatment for that problem! The assistance offered by the protocol sometimes pales next to the challenges of implementing it.

Treatment Failure

The EST protocols generally consist of a series of interventions or modules to be carried out in order over the course of 6 to 20 or more sessions. When an intervention or module or treatment fails, the protocol does not provide the therapist with any guidance about what to do except to go on to the next intervention or module or treatment to see if it is more helpful than the last one was. This strategy is not completely without merit. Certainly patients who failed to respond to one intervention, module, or treatment might respond to another. In fact, some protocols appear to embody a scattershot approach to treatment; they including a variety of types of interventions, with the notion that if the patient doesn't respond to one intervention, he or she might respond to another.

However, the *just-keep-moving-through-the-protocol-to-see-if-something-later-will-help* strategy to managing failure has three weaknesses. First, it is unsystematic. The therapist has no way of *thinking* about which intervention might be more helpful than the

one that just failed. Instead, managing failure becomes simply a mechanical process of moving through one intervention after another to see which might be helpful. Second, this strategy can be demoralizing to the patient and can contribute to dropout; the patient who has tried three or four unhelpful interventions may not stay around long enough to find out that the fifth one is helpful. Finally, this strategy can delay the identification of treatment failure. It can lead to a situation in which a therapist providing cognitive therapy for depression pushes through the full protocol before identifying the patient's failure to respond to it. In view of the fact that there is good evidence indicating that depressed patients who do not show significant benefit by the third or fourth session of cognitive therapy are unlikely to benefit at all (Ilardi & Craighead, 1994), this strategy is not a very good one.

When No EST Protocol is Available

Many common disorders and problems which cause quite a bit of suffering and significant impairments in functioning and for which individuals often seek treatment, are not targeted in any treatment protocol, including, to give just a few examples, most personality disorders, somatization disorder, compulsive hoarding, and anxiety disorder Not Otherwise Specified, as well as many painful concerns that are not DSM disorders, including, for example, the distress of a wife who has just learned her husband is having an affair or a parent whose child has died. One option, of course, is for the clinician to refuse to treat individuals who seek help with disorders and problems for which no empirically-supported protocol is available. When the patient has multiple problems and disorders, the therapist can agree to treat only those for which empirically-supported protocols are available. This solution may at times be the correct one. However, it also fails to address quite a lot of pain and suffering.

Clinicians' Need for Principle-driven Protocols

Some of the issues described above do not, strictly speaking, reflect deficiencies of the protocols themselves. For example, the fact that protocols are not available for all of the disorders and problems a clinician is likely to encounter is not clearly a critique of the protocols that currently exist—and can even be viewed as pointing to the need for more protocols! It is also true that some protocols do address some of the issues described above; the (A. T. Beck et al., 1979) protocol has more than one chapter addressing implementation obstacles.

Nevertheless, writing more protocols, or more detailed protocols, that address common complications, is only part of the answer to the difficulties described above. That is because there will never be a protocol—at least not a by-the-book protocol—that addresses every clinical phenomenon the practitioner is likely to encounter. There will never be a protocol that specifies, step by step, an intervention plan for the African-American veteran who has PTSD, social phobia, alcohol abuse, depression, and who is afraid to acknowledge his homosexuality, and there will never be a protocol that tells the therapist what to say to the depressed student who consistently fails to do therapy homework, answers all Socratic questions with "I don't know," and whose father calls the therapist daily to give input into his son's treatment plan.

In fact, the practitioner is not waiting for protocols that will provide strategies for handling every symptom, disorder, problem, and situation that arises. Even if these protocols could be produced, they will not fit on the clinician's bookshelves and the clinician will not have time to read them! Instead, the therapist wants protocols that

provide general principles (mechanisms) that can be used to resolve the questions and dilemmas that arise daily in the process of clinical work.

Another way of making this point is via an analogy: a by-the-book protocol is like a table that provides answers to a finite set of problems. This sort of table is useful, but only in a limited way. The clinician doesn't just want the answers to some of the problems. The clinician wants to know *the formula that was used to generate the answers*, so that when he or she encounters the multiple-problem or multiple-therapy patient, the patient who balks at the protocol, fails the protocol treatment, or has a problem not described by any available protocol, the therapist can do the calculation to find the answer—or at least to find an answer that is worth trying.

A Proposed Solution: Case formulation-driven Cognitive-behavior Therapy

The thesis of this article is that a case formulation-driven mode of clinical work is a principle-driven approach that addresses many of the obstacles to using empirically-supported protocols described above. A case formulation-driven approach to cognitive-behavior therapy relies, as the title of this article indicates, on *mechanism* and *empiricism*. The therapist uses the theories (*mechanisms*) of pathology and change that underpin the empirically-supported CBT protocols as templates for an individualized formulation and treatment plan for each case. In addition, the therapist uses *empirical* methods and findings to guide his or her work.

Mechanism: Translating Nomothetic Theories and Therapies to Idiographic Formulations and Treatment Plans

In a case formulation-driven approach to treatment, the therapist relies on hypotheses about mechanisms underpinning the patient's psychopathology and the change process. First-line hypotheses are based on the theories (mechanisms) of psychopathology and treatment that underpin the EST protocols. So, for example, the therapist who wishes to provide empirically-supported treatment to Jim, a depressed and anxious mechanical engineer, might begin by studying Beck's cognitive theory and therapy of psychopathology (A. T. Beck, 1976), which is illustrated in Figure 1. Beck's theory proposes that symptoms (conceptualized as made up of automatic thoughts, behaviors, and mood states) arise when life events activate problematic schemas (beliefs about self, others, world and future). The automatic thoughts, behaviors, mood, and schemas are interdependent, so that if one changes, the others change in tandem. Beck's cognitive therapy, which flows directly out of his theory of psychopathology, calls for using behavioral activation, cognitive restructuring, and other interventions to target the behaviors, automatic thoughts, and schemas that are causing the symptoms.

Figure 2 illustrates the way a nomothetic (general) theory of a *disorder* (in this case, Beck's cognitive theory of depression) serves as a template for an idiographic (individualized) formulation of the *case* (in this case, Jim). As the figure illustrates, the case formulation accounts not just for a single disorder, but for *all* of a patient's disorders and problems, and it offers hypotheses about the relationships among them. As Figure 2 illustrates, the formulation for Jim's case actually relies on more than one cognitive-behavioral theory; it relies both on Beck's cognitive theory and on reinforcement theory. So, for example, Jim's therapist hypothesized that Jim's alcohol use was primarily maintained via negative reinforcement, via its immediate anxiety-reduction effects.

The therapist uses the formulation of the case and many other types of information (including diagnosis, empirically-supported protocols and findings,

information from the patient's treatment history), to devise an initial treatment plan. It is often a multi-component treatment plan, and can include components like taking a leave of absence from work—or resuming work. Instead of carrying out the interventions in any of the empirically-supported protocols in the order specified by the protocols, the therapist, guided by the case formulation and other information, selects interventions from many sources, including the empirically-supported protocols, general texts (J. S. Beck, 1995), trade books (Burns, 1999), and other clinical (Padesky, 1994; Young, 1999) and theoretical (Foa & Kozak, 1986) writings.

Empiricism

In a case formulation-driven approach to treatment, the therapist relies on both empirical *findings* and empirical *methods* of working. Empirical *findings* include the results of many types of studies: randomized controlled trials (RCTs) of therapy protocols, tests of the theories that underpin the ESTs, tests of the proposed mechanisms of action of the ESTs, and tests of hypotheses about the case at hand (e.g., tests of the hypothesis that Jim's drinking is maintained via negative reinforcement; Turkat & Maisto, 1985).

Empirical *methods* include a hypothesis-testing approach to treatment, where the formulation serves as the central hypothesis about the mechanisms causing and maintaining the psychopathology. The intervention plan flows out of the formulation. Before treatment begins, patient and therapist set clear, measurable treatment goals, and as the treatment proceeds, they carefully monitor the process and progress of the treatment at each step (Kazdin, 1993). The effectiveness of the intervention plan provides some evidence about the accuracy (or at least the utility; see Hayes, Nelson, & Jarrett, 1987) of the formulation. If the treatment is failing, the therapist can follow a systematic strategy to make changes in the treatment plan: evaluate the formulation and consider whether a revised formulation might generate some new and more helpful intervention ideas.

Intellectual Foundations of Case-formulation-driven CBT

The brief account of case formulation-driven CBT provided here focuses on my own approach, which is described in more detail in Persons (1989) and Persons and Tompkins (1997). However, my approach to case formulation and treatment planning is not particularly original or unique. Other cognitive-behavior therapists (J. S. Beck, 1995; Koerner & Linehan, 1997; Nezu, Nezu, & Lombardo, 2004; Turkat, 1985), especially the behavior analysts (Haynes & O'Brien, 2000), have developed methodologies for formulating the case and provided useful clinical writings about the formulation (Freeman, 1992; Padesky, 1996). In addition, the thoughtful article by Kendall, Chu, Gifford, Hayes, and Nauta (1998) on creative use of treatment manuals, although not relying on a case formulation, addresses many of the issues described here and emphasizes, like the model described here, reliance on the principles underpinning a protocol to guide its adaptation to diverse clinical situations. The formulation-driven approach to treatment described here also rests heavily on the longstanding tradition in behavior therapy of the value of observation of the single organism, as well as on the ideal of the scientist-practitioner in clinical psychology (Barlow, Hayes, & Nelson, 1984), single-case research methodologies (Kazdin, 1982), the field of program evaluation (cf. Bloom, Fischer, & Orme, 1995), writings about paradigmatic behavior

therapy (Eifert, Evans, & McKendrick, 1990) and even the scientific method itself (Cone, 2001).

How a Case Formulation-driven Approach to Cognitive-behavior Therapy Addresses the Dissemination Problem

A case formulation-driven approach to treatment addresses all of the obstacles to using EST protocols in clinical practice that were described earlier: the fact that by-the-book protocols provide little guidance when patients have multiple disorders and multiple therapies, when impediments to implementation arise, when treatment fails, and when people seek help for problems for which no protocol is available.

The Multiple-disorder Patient

The therapist using a case formulation-driven approach to treatment is guided by a formulation of the *case* (see Figure 2), not a formulation of a single *disorder*. The case formulation proposes hypotheses about the relationships among the patients' problems and disorders that can serve as a guide to answering frequently-asked questions about multiple-disorder patients, particularly questions about the order in which to treat disorders and about how the presence or treatment of one disorder might affect comorbid disorders (see also Haynes, 1992).

For example, "Jane" sought help for what she described as "compulsive spending." A comprehensive assessment revealed that Jane also had panic and some agoraphobic symptoms. Careful monitoring of all these symptoms revealed that urges to shop were triggered by anxiety, and were negatively reinforced by their anxiety-reducing effects—and that most of these effects occurred outside of Jane's awareness. Based on this formulation of the relationships among Jane's symptoms and problems, her therapist developed an elegant treatment plan that simultaneously treated all of the problems by teaching Jane to note and use cognitive, behavioral, and mindfulness-based strategies to identify and manage anxiety, panic, and urges to go shopping.

A metaphor that captures the importance of thinking about treatment of *all* of a patient's problems and disorders simultaneously appears in an observation by Douglas Wilson of the significance of the recent discovery that a poem about suicide published anonymously in 1838 was probably authored by Abraham Lincoln. Wilson states, ". . . the poem recalls Eliot's idea that every new work affects the whole order. This poem is like a new chair in the room. Once you get the poem in the room, you have to rearrange all the other furniture." (p. 63)

The Multiple-therapy Patient

The therapist using a case formulation-driven approach to treatment develops a formulation and treatment plan for the entire *case*, not just a single *disorder*, and uses an understanding of the *mechanisms* underpinning the pathology and the various therapies to guide clinical decision-making. This method of working gives the therapist a way to think about how the multiple therapies and other interventions that are being simultaneously implemented might relate. An examination of mechanisms indicates, for example, that benzodiazepine therapy conflicts with interoceptive exposure to treat panic and anxiety symptoms (benzodiazepine therapy treats by abolishing uncomfortable somatic sensations, whereas interoceptive exposure treats by exposing the patient to and extinguishing fear responses to uncomfortable somatic sensations). Similarly, an examination of mechanisms suggests that an unstructured insight-oriented therapy

conflicts with an exposure and response prevention treatment of a young woman's recurrent obsessions that she may be a lesbian.

Of course, reference to the (hypothesized) mechanisms underpinning the patient's psychopathology and the treatments and actions undertaken to address it doesn't always yield definitive answers about whether therapies conflict. But it does provide a methodology the therapist can use to address this common problem: use the mechanism-based understanding of the various therapies to generate hypotheses about how they are related. In addition, if this methodology doesn't give the answer, the therapist can use it to develop a hypothesis and can move forward to collect data to test the hypothesis. That is, *empiricism* is an essential part of clinical decision-making about the components of a multiple-component treatment plan. If a consideration of mechanisms doesn't give a clear answer to the question of whether the psychodynamic psychotherapy conflicts with the CB treatment plan, we can collect data to test the hypothesis that it does not. If the patient pursuing both therapies makes good progress, our hypothesis is supported; if not, it is time to revisit the formulation and treatment plan.

Implementation Obstacles

If the patient refuses, balks at, or has difficulty implementing the therapy, as in the case of the procrastinator who fails to complete homework assignments or the patient seeking help with interpersonal problems who erupts in an angry attack at the therapist, the therapist using a case formulation-driven approach to treatment knows what to do. The therapist handles the procrastination or argumentative behavior like any other problem behavior, collecting data to assess it, using the case formulation to understand it and generate intervention ideas, and collecting data to evaluate the adequacy of the formulation and the intervention. From the vantage point of a formulation-driven approach to treatment, it can even be seen as an advantage that the problem behavior is appearing, in vivo, in the therapy session! This view is similar to Linehan's (1993) notion of therapy-interfering behaviors and Kohlenberg and Tsai's (1991) notion of clinically-relevant behaviors.

To give another example, it is the idiographic formulation that helps the therapist decide whether the patient's announcement that he has decided to end his treatment is a problem behavior to target and treat, or a cue to schedule a final session and write a termination note.

Treatment Failure

When the patient fails to respond to the interventions of a therapist who is guided by an EST protocol, the protocol offers little guidance about how to proceed. In fact, it might take the protocol-driven therapist a long time to notice that the patient is not benefitting! In contrast, the therapist using a formulation-guided approach to treatment is collecting weekly symptom data, notes the failure to respond promptly, and has a systematic, hypothesis-guided method to figure out what to do next: consider whether a reformulation of the problem behavior at hand or the case might generate some new intervention strategies that might be more helpful (see also Persons & Mikami, 2002).

When No EST Protocol is Available

A case formulation-driven approach allows the therapist to offer a treatment plan to many individuals who seek treatment for problems for which no empirically-supported protocol is available. The therapist does this by conducting a thorough assessment, developing an idiographic case formulation and treatment plan, obtaining the patient's

informed consent to proceed, and then evaluating the effectiveness of the intervention plan at every step of the treatment. One strategy for developing an initial formulation and treatment plan is to use an evidence-based formulation and treatment plan that has shown to be effective for one symptom, disorder, or problem as a template for a formulation and treatment plan for the symptom, disorder, or problem at hand. Thus, for example, Opdyke and Rothbaum (1998) used the empirically-supported formulations and interventions for one impulse-control disorder (trichotillomania) as the template for a formulation and intervention plan for other impulse-control disorders for which no empirically-supported protocol is available (e.g., kleptomania and pyromania). Another strategy is to use the theories that underpin many of the EST protocols (e.g., Beck's cognitive model, and conditioning theories) to conceptualize and develop a treatment plan for a symptom or problem behavior. When using these methods, it is important to obtain full informed consent from the patient for what is best viewed as an experimental treatment.

Thus, a case formulation-driven approach to CBT, relying on mechanism and empiricism, addresses many of the obstacles that impede the use of empirically-supported protocols in routine clinical practice, and helps therapists who use protocols to do so in a way that is simultaneously clinically-flexible and evidence-based. A principle-driven (rather than a by-the-book approach) to treatment provides the clinician with a methodology for solving clinical problems, not simply the answers to some of the most frequently-asked questions.

Empirical Support for Case Formulation-driven CBT

Has a case formulation-driven approach to CBT been shown in controlled studies to be effective? In one sense, this is not a sensible question, because the method described here is not a new treatment. It is a simply a systematic method for adapting empirically-supported treatment protocols to meet the needs of the case at hand (Sackett, Richardson, Rosenberg, & Haynes, 1997). In addition, to the degree that the question about effectiveness is an idiographic one, the method itself provides a way to answer it, because it calls for the therapist and patient to collect data to evaluate the effectiveness of the therapy for each case (Howard, Kopta, Krause, & Orlinsky, 1986).

However, from a nomothetic (general), as contrasted to an idiographic (individual) point of view, it *is* sensible to ask the question: "Is a case formulation-driven approach to CBT an efficacious treatment?" To address this question, I briefly review data from RCTs comparing case formulation-driven and standardized protocol-driven cognitive-behavioral therapies, and data from controlled studies examining the efficacy of several varieties of formulation-driven CBT.

Another way of asking about the nomothetic efficacy of a case formulation-driven approach to CBT is to ask: "Does the use of the case formulation (paired with symptom monitoring) have treatment utility?" *Treatment utility* is defined as "the degree to which assessment is shown to contribute to beneficial treatment outcome" (Hayes et al., 1987, p. 963). To address the question posed in this way, I briefly review studies of the treatment utility of idiographic case formulation and weekly symptom monitoring.

Comparisons of Formulation-driven and Standardized Treatment

A handful of randomized trials compare outcomes of patients who received formulation-driven individualized treatment to outcomes of patients who received standardized protocol treatment (Jacobson et al., 1989; Schneider & Byrne, 1987; Schulte, Kunzel, Pepping, & Schulte-Bahrenberg, 1992).

Schneider and Byrne (1987) compared standardized and individualized social skills training for 35 behaviorally disordered children. Children were randomly assigned to individualized or standardized social skills training; the children in the standardized condition received a standard set of training modules, and those in the individualized condition received only the modules that individualized assessment indicated they needed. Post-treatment observations of recess play showed that children who received individualized treatment showed more gains on cooperation than did those who received standardized treatment; neither treatment produced any change in aggressive behaviors.

Jacobson et al.(1989) compared the efficacy of standardized versus individualized behavioral marital therapy. In the standardized condition, each couple received the same modules of behavioral marital therapy (e.g., behavior exchange, communications training) in the same order. In the individualized condition, interventions were chosen from the same modules used in the standardized condition; however, a case formulation determined which modules the couple received, the order in which they were provided, and the duration of each module. The two treatment conditions did not show outcome differences at post-treatment, but at six-month follow-up there was a tendency ($p < .10$) for couples in the individualized condition to maintain their gains better than those in the standardized condition.

Schulte et al.(1992) conducted a cleverly-designed comparison of individualized and standardized therapies that is widely cited as showing that standardized treatment is superior to individualized treatment. However, I read this study as showing that the two types of treatment do not differ. Schulte et al. randomly assigned 120 phobics (78% were agoraphobic) to one of three conditions: standardized exposure treatment, individualized treatment, or yoked control treatment. Each patient in the standardized condition received 25 sessions of exposure plus "retraining of self-verbalizations." Each patient in the individualized condition received up to 36 sessions in which therapists were permitted to use all therapeutic methods commonly used in behavior therapy and CBT. Each patient in the yoked condition received a treatment that had previously been individualized for a patient in the individualized group.

At post-treatment, a MANOVA shows that the three treatment conditions differed significantly at the $p < .05$ level for 3 of 9 outcome measures. An eyeball test shows that outcomes for the patients in the standardized condition were superior to those of patients in each of the other two conditions; however, no statistical tests comparing the standardized to each of the other two conditions are presented. A 10^{th} outcome measure was calculated using a complex decision rule that assigned patients to success categories (unchanged, improved, cured) based on the other nine outcome measures. On this measure, a chi square analysis shows that the three conditions were assigned with statistically significantly different frequencies to the success categories ($p < .01$); however, statistical tests comparing the standardized treatment to each of the other treatments are not presented. MANOVA shows statistically significant differences among the treatment conditions for two of nine outcome measures at the six-month follow-up assessment, and for none of the nine outcome measures at the two-year follow-up assessment.

Efficacy Studies of Various Case Formulation-driven Cognitive- behavioral Therapies

Randomized controlled trials have demonstrated the efficacy of several CB treatment protocols that are written in a principle-driven format rather than a by-the-book

format; that is, the protocols present a set of principles and encourage therapists to select interventions based on the principles and on the results of idiographic assessment rather than carrying out a list of interventions in a particular order. Evidence-based protocols of this sort include the protocols for Multisystemic Therapy (MST; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998), Dialectical Behavior Therapy (DBT; Linehan, 1993), and Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999). All draw on cognitive-behavioral principles and also on other principles (e.g., in the case of DBT and ACT, principles from Eastern meditation traditions, and in the case of MST, systems theories). Another example is Blanchard's protocol for cognitive-behavior therapy for irritable bowel syndrome, which calls for therapists to develop and rely on an individualized case formulation to guide interventions (Greene & Blanchard, 1994).

In an uncontrolled trial, Persons, Bostrom, and Bertagnolli (1999) reported that depressed patients treated in private practice with a formulation-driven approach to CBT or CBT plus pharmacotherapy showed results similar to those of depressed patients treated in research settings with standardized protocol-driven therapies.

Studies of the Treatment Utility of the Case Formulation and Weekly Symptom Monitoring

Reviews of the literature by Nelson-Gray (2003) and Haynes, Leisen, and Blaine (1997) concluded that good evidence supported the treatment utility of functional analysis in the treatment of severely handicapped persons and those with pervasive developmental disorders. Both reviews concluded that the treatment utility of other types of CB case formulation and of the utility of the formulation in the treatment of clinical problems commonly seen in outpatient clinical practice has rarely been studied. One exception is a recent uncontrolled trial that I and my colleagues conducted showing that an idiographic CB case formulation paired with weekly monitoring of symptoms of depression and anxiety had good utility in the treatment of a sample of 58 anxious depressed patients treated in a private practice setting (Persons, Roberts, Zalecki, & Brechwald, 2004). Patients were treated with individual CBT and other evidence-based therapies (mostly pharmacotherapy) as indicated by the formulation and weekly symptom monitoring, and they had outcomes that were generally comparable to outcomes of patients treated for mood or anxiety disorders in standardized protocol therapies.

In an investigation of the treatment utility of weekly symptom monitoring, Lambert, Hansen, & Finch (2001) conducted a very interesting study in which practitioners were randomly assigned to receive weekly feedback about the progress of their patients or not to receive such feedback. Patients treated by therapists who received feedback had better outcomes than patients treated by therapists who did not receive feedback; in particular, patients who had poor outcomes improved after the therapist was alerted to the patient's poor progress.

Overview of Empirical Support for Case Formulation-driven CBT

The studies reviewed here provide some support for the assertion that a case formulation-driven mode of CBT, which entails use of a case formulation, hypothesis-testing, and frequent monitoring of progress, provides effective treatment. The handful of RCTs reviewed here show that formulation-driven treatment produces outcomes comparable to standardized protocol treatment. Several principle-driven protocols have been shown in RCTs to provide effective treatment. A bit of evidence supports the

treatment utility of idiographic case formulation, especially functional analysis for severely disordered individuals, and the use of weekly symptom monitoring. And there is no compelling evidence that formulation-driven treatment produces *worse* outcomes than standardized treatment. Other nomothetic evidence underpinning the case formulation-driven treatment method described here includes the empirical support underpinning the theories and therapies (e.g., Beck's theory and therapy, operant conditioning theories and therapies) that serve as templates for idiographic CB formulations and treatment plans.

Despite the evidence reviewed here, it is probably fair to say that the strongest empirical support for a case formulation-driven approach to treatment right now is the idiographic data that is collected as part of the method itself. The fact that idiographic hypothesis-testing is built into case formulation-driven treatment addresses the concern described earlier that although the EST *protocols* are evidence-based, the *interventions* the formulation-guided therapist is plucking out of the protocols are not. The clinician using those interventions in a case formulation-driven approach to treatment collects idiographic data to evaluate how helpful they are to the case at hand.

Implications for the Future of CBT

The thrust of my argument in this article is that a case formulation-driven mode of work provides a systematic, evidence-based way to use empirically-supported treatments to address many of the complexities of clinical work that arise in routine practice. The method addresses several obstacles to using ESTs that are encountered by practicing clinicians and that impede wide dissemination of the ESTs. A case formulation-driven mode of work permits clinicians to use ESTs to treat complex, multiple-problem, multiple-therapy patients, patients who are not always eager to implement the EST, those who do not benefit from the ESTs, and those who seek treatment for problems and disorders for which no EST is available.

To facilitate the transport of new treatments to routine clinical practice, I encourage treatment developers to include idiographic assessment and monitoring procedures in their protocols (Persons, 1991). Protocols of this sort can include instructions for developing an idiographic formulation of the case and using that formulation to select modules from the protocol, where modules are selected on the basis of the case formulation and the results of outcome and process monitoring. Movement in this direction has already begun. Many investigators have begun discussing the need for modularized (G. T. Wilson, 2000) and principle-driven protocols (Beutler & Castonguay, in press; Rosen & Davison, 2003). Several have begun writing and evaluating protocols that call for the development of an individualized case formulation (Curry & Reinecke, 2003) and which include modules to be used in a flexible, idiographic way (Albano, 2003).

Related, clinicians need protocols that treat multiple disorders and problems, particularly when these are frequently comorbid disorders and disorders that share common mechanisms. Recent developments along these lines include the unified treatment of mood and anxiety disorders developed by David Barlow (Barlow, Allen, & Choate, 2002), Norton and Hope's (in press) group protocol for treating anxiety disorders, Fairburn's transdiagnostic treatment for the eating disorders (Fairburn, Cooper, & Shafran, 2003), Pike's cognitive-behavioral treatment for the eating disorders (Pike, in preparation), Chorpita's protocol for treatment of childhood anxiety disorders (Chorpita,

in preparation), and McCrady's protocol for individualized treatment of alcohol and drug problems (McCrady & Epstein, 2003).

Another important direction for the future is research on the treatment utility of the case formulation-driven mode of clinical work described here. I predict that formulation-driven treatment is particularly useful with complex cases (Haynes et al., 1997) and in reducing dropout, improving treatment compliance, strengthening the therapeutic relationship, and, as I argued earlier, increasing therapists' willingness to adopt ESTs.

Finally, but probably most important: we must continue to push ahead to learn more about mechanism (Borkovec & Castonguay, 1998; G. T. Wilson, 2000). Formulation-driven treatment—indeed, all treatment—depends on and is limited by the degree to which we understand the mechanisms underpinning psychopathology and its change processes.

References

Addis, M. E., & Krasnow, A. D. (2000). A national survey of practicing psychologists' attitudes toward psychotherapy treatment manuals. *Journal of Consulting and Clinical Psychology, 68*, 331-339.

Albano, A. M. (2003). *Modularized cognitive behavioral treatment of depression and its comorbidities in adolescents.* Paper presented at the Association for Advancement of Behavior Therapy, Boston.

Alloy, L. B., Kelly, K. A., Mineka, S., & Clements, C. M. (1990). Comorbidity of anxiety and depressive disorders: A helplessness-hopelessness perspective. In J. D. Maser & C. R. Cloninger (Eds.), *Comorbidity of mood and anxiety disorders* (pp. 499-543). Washington, DC: American Psychiatric Press.

Barlow, D. H., Allen, L. B., & Choate, M. L. (2002, November 14-17). *All for one and one for all: Treating anxiety and related disorders with a single, unified protocol.* Paper presented at the Association for Advancement of Behavior Therapy, Reno, NV.

Barlow, D. H., Hayes, S. C., & Nelson, R. O. (1984). *The scientist-practitioner: Research and accountability in clinical and educational settings.* New York, NY: Pergamon Press.

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders.* New York, NY: International Universities Press.

Beck, A. T., Rush, J. A., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy for depression.* New York, NY: Guilford Press.

Beck, J. S. (1995). *Cognitive therapy: Basics and beyond.* New York, NY: Guilford Press.

Beutler, L. E., & Castonguay, L. G. (Eds.). (in press). *Principles of treatments that work.* New York: Oxford University Press.

Bloom, M., Fischer, J., & Orme, J. G. (1995). *Evaluating practice: Guidelines for the accountable professional.* Boston, MA: Allyn and Bacon.

Borkovec, T. D., & Castonguay, L. G. (1998). What is the scientific meaning of empirically supported therapy? *Journal of Consulting and Clinical Psychology, 66*, 136-142.

Burns, D. D. (1999). *Feeling good: The new mood therapy.* New York, NY: William Morrow and Company.

Chorpita, B. F. (in preparation). *Modular Cognitive Behavior Therapy for Childhood Anxiety Disorders*. New York: Guilford.

Cone, J. D. (2001). *Evaluating Outcomes: Empirical tools for effective practice*. Washington D.C.: American Psychological Association.

Craske, M. G., Antony, M. M., & Barlow, D. H. (1997). *Mastery of your specific phobia, Therapist guide*. San Antonio: Harcourt Brace.

Curry, J., & Reinecke, M. (2003). Modular therapy for adolescents with major depression. In M. Reinecke, F. Dattilio & A. Freeman (Eds.), *Cognitive therapy with children and adolescents* (pp. 95-128). New York: Guilford.

Eifert, G. H., Evans, I. M., & McKendrick, V. G. (1990). Matching treatments to client problems not diagnostic labels: A case for paradigmatic behavior therapy. *Journal of Behavior Therapy and Experimental Psychiatry, 21*, 163-172.

Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: A "transdiagnostic" theory and treatment. *Behaviour Research and Therapy, 41*, 509-528.

Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin, 99*, 20-35.

Foa, E. B., & Rothbaum, B. O. (1998). *Treating the trauma of rape*. New York: Guilford Press.

Freeman, A. (1992). Developing treatment conceptualizations in cognitive therapy. In A. Freeman & F. Dattilio (Eds.), *Casebook of cognitive-behavior therapy.* (pp. 13-23). New York, NY: Plenum Press.

Goisman, R. M., Rogers, M. P., Steketee, G. S., Warshaw, M. G., Cuneo, P., & Keller, M. B. (1993). Utilization of behavioral methods in a multi-center anxiety disorders study. *Journal of Clinical Psychiatry, 54*, 213-218.

Goldfried, M. R., & Wolfe, B. E. (1998). Toward a more clinically valid approach to therapy research. *Journal of Consulting and Clinical Psychology, 66*, 143-150.

Greene, B., & Blanchard, E. B. (1994). Cognitive therapy for irritable bowel syndrome. *Journal of Consulting and Clinical Psychology, 62*, 576-582.

Harvey, A. G., Watkins, E., Mansell, W., & Shafran, R. (2004). *Cognitive behavioural processes across psychological disorders: A transdiagnostic approach to research and treatment*. Oxford: Oxford University Press.

Hayes, S. C., Nelson, R. O., & Jarrett, R. B. (1987). The treatment utility of assessment: A functional approach to evaluating assessment quality. *American Psychologist, 42*, 963-974.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and Commitment Therapy: An experiential approach to behavior change*. New York: Guilford.

Haynes, S. N. (1992). *Models of causality in psychopathology: Toward dynamic, synthetic, and nonlinear models of behavior disorders.* New York, NY: Macmillan Publishing Company.

Haynes, S. N., Leisen, M. B., & Blaine, D. D. (1997). Design of individualized behavioral treatment programs using functional analytic clinical case models. *Psychological Assessment, 9*, 334-348.

Haynes, S. N., & O'Brien, W. H. (2000). *Principles and practice of behavioral assessment*. New York: Kluwer Academic/Plenum Publishers.

Heimberg, R. G., & Becker, R. E. (2001). *The nature and treatment of social fears and phobias*. New York: Guilford.

Henggeler, S. W., Schoenwald, S. K., Borduin, C. M., Rowland, M. D., & Cunningham, P. B. (1998). *Multisystemic treatment of antisocial behavior in children and adolescents*. New York: Guilford.

Howard, K. I., Kopta, S. M., Krause, M. S., & Orlinsky, D. E. (1986). The dose-effect relationship in psychotherapy. *American Psychologist, 41*, 159-164.

Ilardi, S. S., & Craighead, W. E. (1994). The role of nonspecific factors in cognitive-behavior therapy for depression. *Clinical Psychology Science and Practice, 1*, 138-156.

Jacobson, N. S., Dobson, K. S., Truax, P. A., Addis, M. E., Koerner, K., Gollan, J. K., et al. (1996). A component analysis of cognitive-behavioral treatment for depression. *Journal of Consulting and Clinical Psychology, 64*, 295-304.

Jacobson, N. S., Schmaling, K. B., Holtzworth-Munroe, A., Katt, J. L., Wood, L. F., & Follette, V. M. (1989). Research-structured vs. clinically flexible versions of social learning-based marital therapy. *Behaviour Research and Therapy, 27*, 173-180.

Kazdin, A. E. (1982). *Single-case research designs: Methods for clinical and applied settings.* New York, NY: Oxford University Press.

Kazdin, A. E. (1993). Evaluation in clinical practice: Clinically sensitive and systematic methods of treatment delivery. *Behavior Therapy, 24*, 11-45.

Kendall, P. C., Chu, B., Gifford, A., Hayes, C., & Nauta, M. (1998). Breathing life into a manual: Flexibility and creativity with manual-based treatments. *Cognitive and Behavioral Practice, 5*, 177-198.

Koerner, K., & Linehan, M. M. (1997). Case formulation in dialectical behavior therapy for borderline personality disorder. In T. D. Eells (Ed.), *Handbook of psychotherapy case formulation.* (pp. 340-367). New York, NY: Guilford Press.

Kohlenberg, R. J., & Tsai, M. (1991). *Functional analytic psychotherapy: Creating intense and curative therapeutic relationships.* New York, NY: Plenum Press.

Lambert, M. J., Hansen, N. B., & Finch, A. E. (2001). Patient-focused research: Using patient outcome data to enhance treatment effects. *Journal of Consulting and Clinical Psychology*(69), 159-172.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder.* New York, NY: Guilford Press.

McCrady, B. S., & Epstein, E. E. (2003). *Treating alcohol and drug problems: Individualized treatment planning and intervention.* Paper presented at the Association for Advancement of Behavior Therapy, Boston, MA.

Nathan, P. E., & Gorman, J. M. (Eds.). (2002). *A guide to treatments that work.* (2nd ed.). New York: Oxford University Press.

Nelson-Gray, R. O. (2003). Treatment utility of psychological assessment. *Psychological Assessment, 15*, 521-531.

Nezu, A. M., Nezu, C. M., & Lombardo, E. (2004). *Cognitive-behavioral case formulation and treatment design: A problem-solving approach*. New York: Springer.

Norton, P. J., & Hope, D. A. (in press). Preliminary evaluation of a broad-specturm cognitive-behavioral group therapy for anxiety. *Journal of Behavior Therapy and Experimental Psychiatry*.

Opdyke, D., & Rothbaum, B. O. (1998). Cognitive-behavioral treatment of impulse control disorders. In V. E. Caballo (Ed.), *International handbook of cognitive and behavioural treatments for psychological disorders* (pp. 417-439). Oxford: Pergamon/Elsevier Science Ltd.

Padesky, C. A. (1994). Schema change processes in cognitive therapy. *Clinical Psychology and Psychotherapy, 1*, 267-278.

Padesky, C. A. (1996). Collaborative case conceptualization: A client session. [videotape]. Oakland, CA: New Harbinger Press.

Persons, J. B. (1989). *Cognitive therapy in practice: A case formulation approach.* New York, NY: Norton & Company.

Persons, J. B. (1991). Psychotherapy outcome studies do not accurately represent current models of psychotherapy: A proposed remedy. *American Psychologist, 46*, 99-106.

Persons, J. B., Bostrom, A., & Bertagnolli, A. (1999). Results of randomized controlled trials of cognitive therapy for depression generalize to private practice. *Cognitive Therapy and Research, 23*, 535-548.

Persons, J. B., & Mikami, A. Y. (2002). Strategies for handling treatment failure successfully. *Psychotherapy: Theory/Research/Practice/Training, 39*, 139-151.

Persons, J. B., Roberts, N. A., Zalecki, C. A., & Brechwald, W. A. G. (2004). *Treatment utility of cognitive-behavioral case formulation and weekly symptom monitoring for depressed anxious patients*.Unpublished manuscript.

Persons, J. B., & Silberschatz, G. (1998). Are results of randomized controlled trials useful to psychotherapists? *Journal of Consulting and Clinical Psychology, 66*, 126-135.

Persons, J. B., & Tompkins, M. A. (1997). Cognitive-behavioral case formulation. In T. D. Eells (Ed.), *Handbook of psychotherapy case formulation.* (pp. 314-339). New York, NY: Guilford Press.

Pike, K. M. (in preparation). *Cognitive behavioral therapy for eating disorders: Translating clinical trials into clinical practice*.Unpublished manuscript.

Rosen, G. M., & Davison, G. C. (2003). Psychology should list empirically supported principles of change (ESPs) and not credential trademarked therapies or other treatment packages. *Behavior Modification, 27*, 300-312.

Sackett, D. L., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (1997). *Evidence-based medicine: How to practice and teach EBM.* New York, NY: Churchill Livingstone.

Sanderson, W. C., DiNardo, P. A., Rapee, R. M., & Barlow, D. H. (1990). Syndrome comorbidity in patients diagnosed with a DSM-III-R anxiety disorder. *Journal of Abnormal Psychology, 99*, 308-312.

Schneider, B. H., & Byrne, B. M. (1987). Individualizing social skills training for behavior-disordered children. *Journal of Consulting and Clinical Psychology, 55*, 444-445.

Schulte, D., Kunzel, R., Pepping, G., & Schulte-Bahrenberg, T. (1992). Tailor-made versus standardized therapy of phobic patients. *Advances in Behaviour Research and Therapy, 14*, 67-92.

Steketee, G. (1993). *Treatment of obsessive compulsive disorder*. New York: Guilford Press.

Taylor, C. B., King, R., Margraf, J., Ehlers, A., Telch, M. J., & Roth, W. T. (1989). Use of medication and in vivo exposure in volunteers for panic disorder research. *American Journal of Psychiatry, 146*, 1423-1426.

Turkat, I. D. (Ed.). (1985). *Behavioral case formulation.* New York, NY: Plenum Press.

Turkat, I. D., & Maisto, S. A. (1985). Personality disorders: Application of the experimental method to the formulation and modification of personality disorders. In D. H. Barlow (Ed.), *Clinical handbook of psychological disorders: A step-by-step treatment manual.* (pp. 502-570). New York, NY: Guilford Press.

Wilson, G. T. (1997). Treatment manuals in clinical practice. *Behaviour Research and Therapy, 35*(3), 205-210.

Wilson, G. T. (2000). *Manual-based treatment in clinical practice: Future directions.* Paper presented at the AABT annual convention, New Orleans.

Young, J. E. (1999). *Cognitive therapy for personality disorders: A schema-focused approach.* Sarasota, FL: Professional Resource Exchange.

Zeiss, A. M., Lewinsohn, P. M., & Munoz, R. F. (1979). Nonspecific improvement effects in depression using interpersonal skills training, pleasant activity schedules, or cognitive training. *Journal of Consulting and Clinical Psychology, 47*, 427-439.

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Jacqueline B. Persons, San Francisco Bay Area Center for Cognitive Therapy and Psychology Department, University of California, Berkeley. This article is based on the author's Presidential Address, given on November 22, 2003 at the annual convention of the Association for Advancement of Behavior Therapy, Boston, MA. I thank Michael A. Tompkins for assistance with the title of this article, I thank Whitney A. G. Brechwald for Powerpoint assistance, and I thank my patients and colleagues at the San Francisco Bay Area Center for Cognitive Therapy and the CB therapists in my local professional community in the San Francisco Bay Area for their contributions to my thinking.

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Figure 1. Beck's cognitive theory of psychopathology

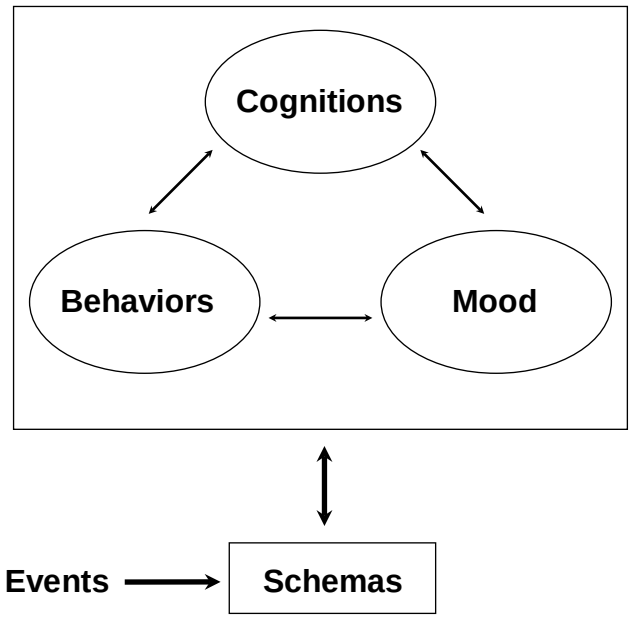

Figure 2. Cognitive theory of Jim's case