

Open, Aware, and Active: Contextual Approaches as an Emerging Trend in the Behavioral and Cognitive Therapies

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Abstract

A wave of new developments has occurred in the behavioral and cognitive therapies that focuses on processes such as acceptance, mindfulness, attention, or values. In this review, we describe some of these developments and the data regarding them, focusing on information about components, moderators, mediators, and processes of change. These “third wave” methods all emphasize the context and function of psychological events more so than their validity, frequency, or form, and for these reasons we use the term “contextual cognitive behavioral therapy” to describe their characteristics. Both putative processes, and component and process evidence, indicate that they are focused on establishing a more open, aware, and active approach to living, and that their positive effects occur because of changes in these processes.

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INTRODUCTION

Behavior therapy is nearly 50 years old if the clock is started with the establishment of the first journal in the area in 1963, *Behavior Research and Therapy*. The history of the tradition is nearly as complex as that of psychology itself. In the early years, there was no doubt that behavior therapy was tightly linked to behavioral psychology—but what that meant varied. Some variants were based on stimulus-response (S-R) learning theory and others on behavior analytic conceptions. In the latter part of the past century, the tradition embraced an analysis of cognition, but it also weakened its link to any particular basic science or set of principles in favor of well-crafted tests of structured interventions for particular diagnostic categories. In the past decade, the behavioral and cognitive

therapies have become more interested in processes of change, unified models, and transdiagnostic processes and have explored methods that are based more on changing the function of psychological events such as cognition and emotion than on their particular form or frequency.

In the present review, we examine a set of these new behavioral and cognitive therapy methods and their putative key processes. For each, we consider the available evidence not just on outcomes but also on moderators, processes of change, and components. In the final section, we organize this evidence so as to identify certain key empirical and conceptual trends in these new approaches. We begin, however, with a brief history of behavior therapy up to these new developments, in order to put them into context.

BEHAVIORISM

The father of behavioral psychology, John B. Watson, defined behaviorism in opposition to mind as the subject matter of psychology and to introspection as the method of its investigation (Watson 1913; Watson 1924, pp. 2–5). In order to develop what he saw as an objective science, he defined “behavior” as muscle movements and glandular secretions (Watson 1924, e.g., p. 14). The apparent narrowness of focus was not due to a disinterest in broader matters. For example, Watson developed methods for studying thinking using “think aloud” methods (Watson 1920) that are popular in cognitive science to the present day (Ericsson 2006), but he fit this interest into his overall approach by viewing thinking as subvocal muscle movement. Watson also anticipated the eventual development of behavior therapy with studies demonstrating the applicability of behavioral principles to psychopathology and to intervention (e.g., Watson & Rayner 1920).

Based on his roots in American pragmatism, evolutionary biology, functionalism, and reflexivity, Watson sought a comprehensive monistic account of the situated actions of organisms. Despite the breadth of this vision, as is reflected in his interest in thinking and application, Watson’s biggest impact was based on the much narrower idea that psychology as a science could not study mind, even if mind existed, because there was no scientifically acceptable method to do so.

In the early to middle part of the past century, the call for “methodological behaviorism” largely held sway. Psychology was to become an objective science by eschewing methods (e.g., introspection) that did not rely on public agreement, on the grounds that only publicly available events could be studied scientifically.

There was strong disagreement within the behavioral tradition about the importance of public agreement or formal properties of behavior as the defining feature of an objective science. B. F. Skinner (1945) rejected these ideas outright, preferring instead to think of objectivity as a matter of the contingencies controlling

observations, whether what was observed was public or private. But such philosophical differences were largely unimportant when considering the events that regulated overt behavior, especially in the animal laboratory. Decades of basic research proceeded on a wide variety of behavioral principles, including those of classical and operant conditioning. It took nearly 50 years before these principles were well developed enough to become the core of a clinical intervention tradition: behavior therapy.

BEHAVIOR THERAPY

The behavioral and cognitive therapies can be readily organized into different perspectives (Hayes 2004) based on their dominant assumptions, methods, and goals that helped organize research, theory, and practice. The initial era of behavior therapy contained two strands. Perhaps the most dominant was based on the associationistic principles of S-R learning theory and was applied to traditional clinical topics, particularly with outpatient adults. *Behavior and Research Therapy* and other early journals such as *Behavior Therapy* and the *Journal of Behavior Therapy and Experimental Psychiatry* (both beginning in 1970) reflected this approach. The other was based in functional operant psychology, focused particularly on children and institutionalized clients rather than outpatient adults, and emphasized the direct manipulation of environmental contingencies. The *Journal of Applied Behavior Analysis* (1968) and *Behavior Modification* (1975) were particularly associated with this strand of thinking.

What united these two strands was the application of clearly specified and replicable techniques, tested by well-designed and systematic experimental research, based on learning principles derived from the laboratory (Eysenck 1972). Franks & Wilson (1974) defined behavior therapy in terms of its adherence to “operationally defined learning theory and conformity to well established experimental paradigms” (p. 7). Of the two traditions, the operant tradition had fewer adherents: “Methodological behaviorism is much more characteristic of

contemporary behavior modifiers than is radical behaviorism” (Mahoney et al. 1974, p. 15).

At the same time, there was a tendency to minimize some of the deeper issues faced by clinical psychology in favor of direct change efforts focused on simpler and more overt targets. Stated another way, it was the content of overt behavior that was typically emphasized above other issues.

When behavior therapy arose, psychoanalytic and humanistic perspectives held sway. The link between interpretation and data in these approaches was often very weak. Freud’s case of Little Hans (1928/1955) provides an example. Little Hans was afraid to leave home and feared horse-drawn carts ever since he had seen a cart fall over, injuring riders. Freud saw the horse as a father figure and fears of being bitten as castration anxiety linked to Oedipal feelings. He claimed that a horse going through a gate was similar to feces leaving the anus, a loaded cart was like a pregnant woman, and that “the falling horse was not only his dying father but also his mother in childbirth” (Freud 1955, p. 128). The early behavior therapists literally ridiculed this type of fanciful reasoning (Wolpe & Rachman 1960), preferring the far simpler idea that Little Hans had a learned fear of horses based on direct conditioning and should have been treated with a direct focus on encouraging school attendance.

In rejecting fanciful reasoning and vague concepts in favor of a direct focus on overt issues, behavior therapists tended also to leave to the side the fundamental human issues that were often addressed by less empirical traditions. It is difficult to find early behavior therapists researching topics such as what people want out of life or why human suffering is so pervasive.

COGNITIVE BEHAVIOR THERAPY

While the operant strand of behavior therapy continued, the S-R learning theory strand changed within a decade of the beginning of behavior therapy. Part of the reason was

that S-R learning theory itself collapsed, and simple associationism was replaced by the far more flexible computer metaphors of information processing. Cognitive psychology still used “behavioristic” methods rather than introspection, but did so in an attempt to assess the functioning of the mind. Social learning theory in particular (e.g., Bandura 1969) soon led to the infusion of cognitive mediational concepts into behavior therapy (e.g., Mahoney 1974, Meichenbaum 1977). Clinicians felt that a more direct approach to cognition was needed, and it was soon being emphasized that “One can study inferred events or processes and remain a behaviorist as long as these events or processes have measurable and operational referents” (Franks & Wilson 1974, p. 7).

Hard cognitive science was (and is) difficult to apply clinically, in part because these theories focus more on dependent variables consisting of relatively abstract cognitive processes than on clinically relevant thoughts and the independent variables that clinicians might directly manipulate (e.g., variables such as history and context) to modify them. This is particularly clear when the only independent variable of importance in the theory is the material causality of the brain, since brains are not direct targets of psychosocial manipulation except metaphorically. Thus, the cognitive models in cognitive behavior therapy (CBT) tended to be developed largely in the clinic. The goal of the behavioral and cognitive therapies shifted from the direct modification of the content of behavior to the direct modification of the content of cognition so as to influence emotion and behavior. Models tended to be focused on specific syndromal disorders. The leading voice in this shift was that of Aaron Beck: “Cognitive therapy is best viewed as the application of the cognitive model of a particular disorder with the use of a variety of techniques designed to modify the dysfunctional beliefs and faulty information processing characteristic of each disorder” (Beck 1993, p. 194). CBT is surprisingly difficult to define, but when it is defined, this core assumption is typically the key focus. For example, Hofmann & Asmundson say that “CBT is based on the

notion that behavioral and emotional responses are strongly moderated and influenced by cognitions and the perception of events” (2008, p. 3).

Helped by federal funding, CBT enjoyed an enormous expansion in data and influence. The vast majority of the Division 12 list of empirically supported treatments have emanated from CBT or behavior therapy. Although clinical models of cognition produced vast literatures on the presence of dysfunctional thoughts in specific disorders, evidence for the underlying change models in traditional CBT was much weaker, especially in areas such as mediational analysis and component analysis (Longmore & Worrell 2007). Work such as that of the late Neil Jacobson questioned the role of traditional cognitive methods (e.g., Dimidjian et al. 2006, Gortner et al. 1998, Jacobson et al. 1996) and led a major cognitive therapist to conclude, “there was no additive benefit to providing cognitive interventions in cognitive therapy” (Dobson & Khatri 2000, p. 913). In combination with concerns about the progressivity of syndromal models (Kupfer et al. 2002), and philosophical changes (Hayes 2004), work began to emerge from a variety of laboratories that eschewed direct cognitive change and focused instead on acceptance, mindfulness, metacognition, the therapeutic relationship, motivation to change, or similar topics.

In the following review, we examine a selection of these clinical approaches. We have selected treatment methods that are clearly part of the behavioral and cognitive therapies writ large and yet that seem to us to go beyond the content-focused core assumptions of traditional behavior therapy or of traditional CBT as we have described them. In order to go beyond mere terminological issues, however, it seems important to examine the empirical evidence regarding how these methods work, not just their putative characteristics. Thus, rather than first attempting to characterize this set of methods in the abstract, we briefly describe these methods and the outcome data supporting them, and follow in each case with what is known empirically about their compo-

nents, moderators, mediators, and processes of change. In order to save space, descriptions of outcome data rely on meta-analyses and a few examples rather than on comprehensive referencing of areas in which these methods have been shown to be useful. Somewhat more space is given to studies on processes and components because they speak most directly to the analytic issues at hand. We then return to the issue of whether these methods make sense as a set and whether they suggest that a new strand of thinking has emerged in the behavioral and cognitive therapies.

We organize this review in sections, beginning with methods based primarily on mindfulness practice, followed by methods focused on attentional control, motivation and behavioral activation, and relationships. Finally, we examine integrative methods that draw from each of these other areas.

MINDFULNESS-BASED THERAPIES

There is a growing interest in CBT in interventions that focus on teaching contemplative practices. The most popular methods are based broadly on Buddhist practices.

Methods

The template for this work is Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn 1990). MBSR was originally developed in a medical setting and has since been applied to a range of clinical and nonclinical populations. Related approaches such as Mindfulness-Based Cognitive Therapy (MBCT; Segal et al. 2002) and Mindfulness-Based Relapse Prevention (MBRP; Witkiewitz et al. 2005) have been based on MBSR but have included other methods for specific problem areas. Recently, a number of meditation practices that are designed to evoke and develop feelings of compassion toward oneself have also received some attention. Examples include loving-kindness meditation (e.g., Carson et al. 2005), Lojong

Acceptance:

intentionally allowing painful psychological events to be present and felt so as to be able to move in a valued direction

Mindfulness: the purposeful awareness of the present moment in a way that is nonjudgmental and accepting of one’s internal and external experiences

Attentional control:

differentially focusing on particular available internal and external stimulation in a fashion that is flexible, fluid, and voluntary

MBSR: Mindfulness-Based Stress Reduction

MBCT: Mindfulness-Based Cognitive Therapy

MBRP: Mindfulness-Based Relapse Prevention

meditation (Pace et al. 2009), and Compassionate Mind Therapy (Gilbert 2009).

Techniques and putative processes. The new skills that mindfulness-based therapies attempt to establish are fairly broad. They are not linked to any particular syndrome. MBSR consists of an eight-week group program involving practices such as sitting meditation, yoga, body scans, and mindfulness during everyday activities as well as group discussions, psychoeducation, and intensive out-of-session practice. Programs such as MBCT and MBRP integrate the more general MBSR approach with refined technologies such as dealing with depression or relapse prevention with substance use problems.

These mindfulness-based therapy approaches attempt to increase a focused, purposeful awareness of the present moment and relating to one's experiences in an open, nonjudgmental, and accepting manner (Baer et al. 2006, Kabat-Zinn 1994). These features of mindfulness are theorized to account for the impact of mindfulness-based therapies on clinical outcomes.

Awareness of the present moment is thought to increase one's sensitivity to important features of the environment and one's own reactions, and thus to enhance self-management and successful coping. Present-moment awareness can also serve as an alternative behavior to ruminating about the past or worrying about the future and can help to reduce engagement in these maladaptive cognitive processes. Individuals are taught to relate to one's thoughts as just passing events rather than identifying with them or seeing them as literally true—a process that is sometimes termed decentering. Decentering is particularly emphasized in MBCT, which focuses on targeting the negative thinking patterns that are reactivated with the occurrence of dysphoric moods. Decentering is thought to help clients to identify and disengage from maladaptive cognitive processes, such as self-criticism and rumination. The capacity to notice difficult thoughts, feelings, and sensations in a nonjudgmental and

open manner without avoiding, suppressing, or otherwise trying to change their occurrence is argued to reduce distress and reactivity as well as reduce problematic avoidance/escape behaviors and increase engagement in important actions.

Compassion-focused methods are thought to generate feelings of connectedness with others. This may enhance interpersonal functioning or produce an increase in positive emotions more generally, which may broaden attention and expand behavioral and cognitive repertoires in the moment, producing more options and greater flexibility (Frederickson 1998). This enhanced flexibility and sensitivity can lead to behaviors that alter people's growth over time and increase their personal resources.

Clinicians are generally asked to adopt a meditation practice in addition to using these methods with clients.

Outcome evidence. These evidence interventions have been tested across a broad range of problem areas including anxiety disorders, mood disorders, substance use disorders, eating disorders, chronic pain, ADHD, insomnia, and coping with a variety of medical conditions (Grossman et al. 2004, Zgierska et al. 2009), as well as with special populations including children and adolescents, parents, teachers, therapists, and physicians. A meta-analysis by Hofmann and colleagues (2010) summarized 39 studies that tested the impact of MBSR and similarly structured programs with adult clinical populations on symptoms of anxiety and depression. The meta-analysis found medium within-group effect sizes on pre to post changes in anxiety and depression and large effect sizes in the subset of studies targeting clinical anxiety/mood disorder populations specifically. These effects appear to persist over time, with significant medium within-group effect sizes observed on anxiety and depression at follow-up (mean follow-up time of 27 weeks post treatment). Significant small to medium between-group effect sizes were observed for depression and anxiety in relation to waitlist, treatment as usual (TAU), and active

treatment comparisons. Similar effect sizes were observed in a broader meta-analysis by Grossman and colleagues (2004) of 20 studies testing MBSR or similarly structured programs with clinical and nonclinical populations on physical/mental health outcomes. The research evidence for MBRP per se is more limited, but a randomized controlled trial (RCT) showed significantly lower substance use compared to TAU (Bowen et al. 2009).

Components. Several studies have tested the impact of brief mindfulness interventions in more controlled laboratory settings. These studies have found that single-session mindfulness meditation interventions reduce participants' psychological distress in reaction to mood inductions and difficult tasks relative to control conditions (e.g., Huffziger & Kuehner 2009). A recent study also found that a brief, single-session mindfulness meditation can impact cigarette smoking over the following week (Bowen & Marlatt 2009). These are not really component studies, though, since what is being manipulated is the length of the putative key features, not their elements.

Moderation. MBCT is effective with participants who have had three or more past episodes of depression, but not with those who have had only one or two (Ma & Teasdale 2004, Teasdale et al. 2000). Among those with three or more episodes, MBCT is more effective with individuals whose depressive episode was not due to life events (Ma & Teasdale 2004). A potential explanation for these results is that MBCT targets automatic depressogenic cognitive processes that are more likely to occur in chronically depressed patients, but the reason is not yet fully understood.

Process of change. There appears to be no relationship between time in mindfulness training and effect sizes (Carmody & Baer 2009). About half of the studies have failed to find a significant relationship between at-home meditation homework compliance and clinical outcomes (Vettese et al. 2009).

Self-reported mindfulness measures do correlate consistently with outcome. These measures capture a range of core features of mindfulness, including present-moment awareness, being nonjudgmental and nonreactive, decentering/distancing, and acceptance (Baer et al. 2006). Mindfulness meditation increases self-reported mindfulness, and these changes relate to (e.g., Carmody et al. 2009) or mediate changes in relevant outcomes (e.g., Shapiro et al. 2007, 2008). Studies have found that outcomes are mediated by reductions in maladaptive cognitive processes such as rumination (Jain et al. 2007) or thought suppression (Bowen et al. 2007).

Mindfulness-based therapies may also impact clinical outcomes by disrupting maladaptive links between what people think, feel, and do (i.e., a desynchrony effect). For example, MBCT reduces the tendency for depressive thoughts to be activated by depressed mood (Raes et al. 2009) and reduces the relationship between the frequency of repetitive thoughts and negative reactions to these thoughts (Feldman et al. 2010). These findings comport with studies showing that depressed affect relates to negative cognitions only in those low in trait mindfulness (Gilbert & Christopher 2009).

In a recent study (Witkiewitz & Bowen 2010), craving mediated the relationship between depression and substance use in a control group but not in one receiving MBRP. Mindfulness interventions have also been shown to reduce the relationship between negative affect and urges to smoke cigarettes (Bowen & Marlatt 2009).

Mindfulness can also affect the relationship between behavior and implicit processes. For example, Ostafin & Marlatt (2008) found that those higher in mindfulness demonstrated less of a relationship between implicit approach bias toward alcohol and hazardous drinking. Similarly, other studies have found that the impact of priming on behavior is reduced in individuals who received a mindfulness intervention (e.g., Djikic et al. 2008) or who had high trait mindfulness (e.g., Radel et al. 2009).

Compassion-focused methods seem to produce higher feelings of social connectedness (Hutcherson et al. 2008), and more positive emotions (Frederickson et al. 2008, Hutcherson et al. 2008). Outcomes appear to be mediated in part by positive mood changes leading to more personal resources (Frederickson et al. 2008) and positivity toward strangers (Hutcherson et al. 2008).

Overall, these studies lend preliminary support to many of the hypothesized processes of change described by mindfulness-based therapies.

ATTENTIONAL CONTROL

Mindfulness-based methods teach attentional control and detachment (for example, by learning to follow the breath) but new methods focus on these two processes directly.

Metacognitive Therapy

Metacognitive Therapy (MCT; Wells 2000) emphasizes changing attentional processes to alter the relation to thoughts instead of attempting to change thoughts themselves. This overlaps significantly with the mindfulness-based approaches but has certain distinct features.

Techniques and putative processes. At the theoretical level, MCT is grounded in the Self-Regulatory Executive Function model (S-REF; Wells & Matthews 1994). According to this model, a specific way of thinking, termed the cognitive attentional syndrome (CAS), is at the core of most psychological disorders and is responsible for the intensification and maintenance of distressing emotions. This thinking style is composed of three main tendencies: worrying and ruminating (i.e., repetitive and unsuccessful attempts to solve problems), threat monitoring (i.e., attention focus on internal and external potential threats resulting in an increase of anxiety and negative thoughts), and coping strategies that interfere with contacting corrective experiences (e.g., avoidant behaviors). Wells (2008) argues that

this thinking style is the product of metacognitions, particularly the belief that worrying, ruminating, and threat monitoring will avoid danger and/or solve past and future problems and the belief that it is necessary to behave according to thoughts.

The Attention Training Technique (ATT; Wells 1990) is used to reduce self-focused attention and to develop detachment from content of thoughts and flexible control over thinking. It consists of short daily auditory exercises requiring selective switching and dividing attention on sources of stimulation coming from various spatial locations. The point is not to distract from difficult thoughts but rather to increase flexibility by opening attention to sources of information other than threats.

The MCT package also comprises the use of a specific form of mindfulness called Detached Mindfulness (DM), presented by Wells (2005) as the antithesis of the CAS and corresponding to a state of mind in which thoughts are apprehended as objects separated from reality. The goal of developing such a state of awareness is to prevent automatic responses to psychological events. Clients trained in this type of mindfulness practice learn notably to stop worrying or ruminating in presence of mental triggers. DM exercises consist of different techniques such as free association tasks in which the therapist reads a series of words to a client, who is asked to let his mind go without trying to control his thoughts or emotions. Exercises are used to demonstrate that the problem comes from needless attempts to control thoughts. To promote the distinction between the self and psychological events, clients are also proposed to mentally observe their thoughts printed on clouds in the sky and to let them pass.

A third element of MCT, metacognitively delivered exposure, aims at changing the client's thinking style while conducting traditional exposure and challenging metacognitions. Thus, all of the new skills MCT targets are fairly broad, and none are syndrome specific.

Outcome evidence. Evaluated as a package, MCT was shown to be effective for the

treatment of generalized anxiety disorder (GAD) in an RCT comparing MCT to applied relaxation (Wells et al. 2010) with large effect sizes. Simons and colleagues (2006), in an RCT comparing MCT to Exposure with Response Prevention, observed improvements in participants' symptoms, but no difference was shown between the two interventions in the second study. A variety of other open trials and systematic case studies on MCT are available.

Processes and components. We are not aware of mediational studies of MCT, but components have received attention. ATT has been shown to be helpful in isolation in several single cases in areas of anxiety, depression, or psychosis (e.g., Siegle et al. 2007). Varieties of metacognitively delivered exposure, a component of MCT, have also been evaluated (e.g., Fisher & Wells 2005), and better effects have been found in comparison with traditional exposure.

MOTIVATION AND BEHAVIORAL ACTIVATION METHODS

Behavior therapy has always focused on behavior, but this emphasis has re-emerged in the context of motivation and acceptance methods.

Motivational Interviewing

Motivational interviewing (MI) is a broad, client-centered, directive clinical method that enhances readiness for change by reducing resistance and ambivalence within the context of a supportive and empathic therapeutic relationship (Miller 1983). In contrast to confrontational techniques commonly employed in substance abuse treatment, MI supports the clients' autonomy and assumes their ability to make sufficient and necessary behavior changes.

Techniques and putative processes. The six components of MI are summarized by the acronym FRAMES: Feedback, an emphasis on personal Responsibility, Advice, a Menu of options, an Empathic counseling style, and

support for Self-efficacy (Bien et al. 1993). The goal is for the interviewer to occasion client "change talk," the client's own verbalized motivations for change (Miller & Rose 2009). Counterchange arguments (or "sustain talk") represent the flip side of the client's ambivalence, to which the MI counselor responds empathically. Once sufficient motivation appears to be established, the counselor then aims to strengthen the client's verbal commitment to change by occasioning specific change goals and plans (Miller & Rollnick 2002).

Outcome evidence. Numerous clinical trials have shown MI to be an effective clinical method for promoting adaptive behavior changes (i.e., exercise and diet), reducing potentially harmful behaviors (i.e., problem drinking, gambling, and HIV risk behaviors), and increasing medical adherence (diabetes management and cardiovascular rehabilitation; see Hettema et al. 2005 for a review and meta-analysis). This recent meta-analysis of 72 clinical trials, spanning a range of target problems, suggests that MI has an average short-term between-group effect size of 0.77, decreasing to 0.30 at one-year follow-up (Hettema et al. 2005). MI has also been successfully added as a precursor to other active treatments, yielding unexpectedly larger (Burke et al. 2003) and more enduring (Hettema et al. 2005) treatment effects than when delivered alone. These findings may be attributable to the impact of MI upon treatment retention and adherence (Brown & Miller 1993).

Moderation. MI treatment developers have reported that the observed effect sizes of MI were larger with ethnic minority populations (Hettema et al. 2005). MI also appears to be more effective with clients who are less motivated for and/or more resistant to change (e.g., Heather et al. 1996). This finding is consistent with MI's theoretical rationale and development.

Processes of change. Client change talk, client commitment language, and counselor

MI: motivational interviewing

empathic understanding have been emphasized as key change processes (Miller & Rose 2009). Researchers have utilized a taxonomy coding system in order to define change talk (e.g., Amrhein 1992). Results of coded MI sessions indicate that clients' stated desire, ability, reasons, and need for change all contribute to subsequent strength of commitment language, but only commitment directly predicts behavior change (Amrhein et al. 2003). Studies employing behavioral coding for in-session verbal exchanges have concluded that MI-consistent therapist statements were significantly more likely to be followed by client change talk, whereas MI-inconsistent therapist statements were significantly more likely to be followed by client counterchange talk (Moyers et al. 2007). When compared with confrontational clinical methods, clients in the MI condition also voice about twice as much change talk and half as much resistance (Miller et al. 1993). This between-groups effect is also seen within session as the client's resistance to change varied as a step-wise function to the therapist's directive versus reflective statements (Patterson & Forgatch 1985). Furthermore, the strength of the client's commitment language predicts drinking outcomes (Amrhein 1992), whereas resistance predicts relapse at 6, 12, and 24 months (Miller et al. 1993).

Behavioral Activation

Behavioral activation (BA) is a structured treatment approach rooted in the behavioral tradition established by Ferster (1973) and Lewinsohn (1974), which primarily incorporated strategies aiming to alter the enviroing contingencies influencing the client's depressed mood and behavior (see Dimidjian et al. 2011 for a more complete description). In its original form it is part of the first wave of behavior therapy, but in its modern form it includes issues addressed by the other approaches discussed in this review.

Techniques and putative processes. Pleasant activity scheduling and mood-monitoring

techniques were originally employed in BA to aid clients in enriching their behavioral repertoires to include adaptive behaviors with sufficient frequency, intensity, and quality such that they may be reinforced by the environment (Lewinsohn et al. 1980). Other variants of BA promoted clients' learning self-control or management skills in order to accomplish personal goals (e.g., Kanfer 1970) and self-evaluate and self-administer rewards (e.g., Fuchs & Rehm 1977).

In the latter part of the twentieth century, BA was criticized for not including components that facilitated cognitive change. Thus, cognitive strategies, such as mental rehearsal and cognitive restructuring, were combined with the behavioral components of BA, producing different variants of cognitive-behavioral treatment packages (e.g., Beck et al. 1979). More recently, BA treatment researchers have questioned the wisdom of abandoning "pure" BA approaches and have begun to reconsider its contextual roots in evaluating processes of change (e.g., Hopko et al. 2003). Such efforts have led to recent adaptations in BA, which included idiographic functional assessments of depressed behavior, as well as the inclusion of acceptance and mindfulness components (e.g., Dimidjian et al. 2006). Similar to the earlier conceptualizations of BA, these newer approaches have conceptualized the important change processes as moving patients from an avoidance to an approach (or action)-based lifestyle, without directly targeting the content of the individual's private experience (i.e., catastrophic thinking or depressed mood), but they add techniques that attempt to undermine avoidance of private experience. BA interventions also commonly introduce patients to a functional analytic style of understanding behavior so that they may better identify harmful patterns of avoidance (or aversive control) and implement secondary strategies to foster desired changes in overt behavior. It is therefore assumed that the increases in overall activity (e.g., via pleasant events scheduling) will increase contact with response-contingent reinforcement, which will

then reduce depressive mood and behaviors (i.e., social withdrawal; Manos et al. 2010).

Outcome evidence. Several variants of BA have been tested and have demonstrated efficacy as compared with nontreatment and active treatment. The most recent comprehensive meta-analysis of BA concluded that the collective evidence for it satisfies the criteria for a “well-established empirically validated treatment” (Mazzucchelli et al. 2009). When compared with control treatment conditions, the reported pooled effect size for all variants of BA was large and significant at 0.78. BA interventions also significantly increased participants’ level of activity at posttest, yielding a moderately large and significant mean effect size of 0.54. Recent variants of BA have been found to be comparable to antidepressant medication in outcome, even after considering initial levels of depression severity, and superior to traditional CBT among severely depressed patients (Dimidjian et al. 2006). Furthermore, BA has demonstrated lower attrition than antidepressant medications (Dimidjian et al. 2006).

Components. So far it does not appear that the variants of BA are significantly different from each other (Mazzucchelli et al. 2009). There is no reliable difference between BA and CBT (pooled effect size = 0.01), which comports with studies showing that the behavioral component of CBT was equally effective alone or in combination with cognitive components (e.g., Gortner et al. 1998).

Moderation. Researchers (e.g., Sturme 2009) have argued that BA may be more appropriate for depressed individuals who are more difficult to treat or are less responsive to cognitive or cognitive-behavioral therapies, such as those with cognitive impairments (Teri et al. 1997) and comorbid substance abuse problems (Daughters et al. 2008), as well as psychiatric in-patients (Hopko et al. 2003). There is evidence that it is more helpful than alternatives with more severe patients (Dimidjian et al. 2006), which comports with this analysis.

Processes of change. Several measures have been developed to assess BA’s hypothesized processes of change (see Manos et al. 2010 for a review). Decreased depression is correlated with increased positive events and behavioral activation as assessed by the Environmental Reward Observation Scale (Armento & Hopko 2007) and the Behavioral Activation for Depression Scale (Kanter et al. 2007). Furthermore, the proposed relationship between aversive events, behavioral avoidance, and increased depression has been substantiated (Manos et al. 2010).

Difficulties with measurement continue to contribute to problems in assessing the processes of change for BA models, primarily due to the fact that important components often co-occur temporally. This commonly occurring phenomenon contributes to the entanglement of these components within putative process measures, especially with regard to positive reinforcement and mood (Manos et al. 2010). Technically, changes in mood are conceptualized as a reaction, or respondent by-product, to changes in contingencies (Kanter et al. 2008a). However, the measurement of contact with reinforcing events is confounded with the measurement of the behavior hypothesized to produce such contact. Researchers have previously circumvented this issue by measuring mood as a proxy for reinforcement (e.g., Lewinsohn et al. 1980). Although such measurement strategies aided in building evidence for BA efficacy in treatment outcome trials, this approach needs to be readdressed to better understand its mechanisms of change. New measurement strategies appear to be needed, especially those that assess key behaviors and depressed mood at multiple points over time (Sturme 2009).

RELATIONSHIP-ORIENTED THERAPIES

The focus on acceptance has entered into behavioral approaches to relationships, including the therapeutic relationship.

IBCT: Integrative Behavioral Couple Therapy

FAP: functional analytic psychotherapy

Integrative Behavioral Couple Therapy

Integrative Behavioral Couple Therapy (IBCT) grew out of Traditional Behavioral Couple Therapy (TBCT; Jacobson & Margolin 1979), which focused on helping couples make positive changes in their relationship, such that they have more reinforcing interactions. IBCT was later developed to address some of the limitations in TBCT, namely the strong focus on change, by including an emphasis on emotional acceptance (Christensen et al. 1995).

Techniques and putative processes. IBCT assumes that there are genuine incompatibilities in all couples that are not amenable to change and that the partners' ability to foster acceptance of emotional difficulties may enhance relationship satisfaction as well as reduce resistance to change. IBCT uses both didactic and experiential treatment procedures to help couples balance acceptance and change strategies, not merely in being more accepting of partners but also more accepting of their own psychological processes. In order to further build intimacy between couples, the IBCT therapist also attempts to move partners from an adversarial confrontation to collaborative engagement. Training in emotional acceptance was proposed to increase long-term maintenance of treatment gains by shifting the attention away from the "right way" to communicate (and other rule-governed behaviors) to the natural contingencies within the relationship (Jacobson & Christensen 1998).

Outcome evidence. In the largest clinical trial of couple therapy to date, Christensen et al. (2004) compared the effectiveness of TBCT and IBCT, concluding that both conditions led to clinically and statistically significant improvements at the end of treatment, with IBCT showing more consistency in gains throughout treatment. Prospective longitudinal follow-ups were conducted with the same sample and found that approximately two-thirds of couples demonstrated clinically significant im-

provements relative to pretreatment relationship satisfaction ratings at two years ($d = 0.90$ and $d = 0.71$ for IBCT and TBCT, respectively) and five years ($d = 1.03$ and $d = 0.92$ for IBCT and TBCT, respectively) for couples who stayed together (Christensen et al. 2006, 2010). There were few significant differences between treatments, but the differences that did emerge tended to favor IBCT. Additional studies of IBCT also indicate that it is effective when delivered in group formats as compared to wait-list controls and is comparable to CT in reducing depression in maritally distressed women.

Processes of change. There is evidence for the mediating role of both behavior change and acceptance in predicting relationship satisfaction in IBCT (Doss et al. 2005). Increasing couples' experiential acceptance of difficult emotions also appears to reduce the intensity of emotional arousal, which may improve partners' ability to engage in the more directive strategies, such as communication techniques delivered in TBCT (Christensen et al. 2010).

Functional Analytic Psychotherapy

Functional analytic psychotherapy (FAP) is a contextual behavioral approach that aims to shape the client's in-session behaviors by the therapist contingently responding to the client's behavioral excesses or deficits within moment-to-moment client-therapist interactions (Kohlenberg & Tsai 1991, Tsai et al. 2009). Its present-moment focus overlaps with the methods discussed above, and in recent variants, FAP (Tsai et al. 2009) has been clearer about the importance of acceptance and mindfulness.

Techniques and putative processes. FAP therapists conceptualize the client's clinically relevant behaviors (CRBs), according to the client's specified problems and goals for therapy, as behaviors that either need to be reduced (CRB1s) or strengthened (CRB2s) within the client's repertoire. The therapist then aims to (a) punish or extinguish CRB1s

and (b) occasion and reinforce CRB2s. For the therapist's responses to achieve their intended function, it is important that the therapist first establish him/herself as a salient source of social reinforcement (Follette & Bonow 2009). FAP treatment developers have provided behavioral accounts of interpersonal intimacy and how to produce a therapeutic relationship characterized as genuine, open, and curative. Throughout its development, FAP has also theoretically addressed issues regarding the development and experience of "self" as well as what constitutes adaptive emotional experiencing and expression (Tsai et al. 2009). Because most clients appropriate for a FAP intervention are dealing with difficulties that emerge socially, improvements that are made in the client's repertoire in session with the therapist are expected to be relevant and generalize to the natural environment.

Outcome evidence. Multiple case studies support FAP applications to a wide variety of problems, including depression, obsessive-compulsive disorder, anxiety with agoraphobia, chronic pain, and post-traumatic stress disorder (see Baruch et al. 2009 for a review), but FAP as a stand-alone treatment has yet to be evaluated in a randomized controlled trial. Single-subject and group designs suggest that when used in conjunction with other empirically evaluated treatments such as CBT (Kohlenberg et al. 2002), FAP may produce good outcomes.

Processes of change. The FAP tenet of utilizing the therapeutic relationship to impact changes in client outcomes has been investigated and supported in the literature (e.g., Wolfe & Goldfried 1988). Unlike the majority of research regarding the "nonspecific" common factors of the working therapy alliance, FAP aims to specify the therapeutic mechanism of change as contingent reinforcement of CRB2s (Follette et al. 1996). Successful FAP cases (e.g., Busch et al. 2010) support the hypothesis that CRB1s decrease and CRB2s increase in frequency over the course of FAP treatment, which is a key process hypothesis

(Kanter et al. 2008b). Micro-process analyses of moment-to-moment client-therapist interactions have concluded that client's in-session target behavior improved as a function of the therapist's contingent responses (Busch et al. 2009) and led to significant improvements in out-of-session target variables (Kanter et al. 2006).

INTEGRATIVE APPROACHES

More general models have also emerged that mix together the central themes of issues of acceptance, present-moment focus, mindfulness, the therapeutic relationship, and motivation to change.

Dialectical Behavior Therapy

An example of an integrated approach is dialectical behavior therapy (DBT; Linehan 1993). Originally developed for borderline personality disorder (BPD), it has been expanded as a treatment approach for emotion dysregulation disorders more broadly.

Techniques and putative processes. DBT is based on a dialectical philosophy, focusing on the inherent tensions and synthesis of opposing forces. One of the main dialectics in DBT is between acceptance and change, which is reflected in the combination of mindfulness, acceptance, and validation strategies with behavior change strategies. DBT embraces a biosocial or transactional model, which describes how individual characteristics and an invalidating environment affect each other and serve to evoke and strengthen emotional dysregulation (Linehan 1993).

Treatment is divided into stages, with the first stage focusing more on safety and stability and later stages working toward well-being and life satisfaction. DBT consists of four primary modes of delivery: group skills training, individual psychotherapy, phone coaching, and group consultation for the therapist. A core target is the acquisition, strengthening, and generalization of a broad set of DBT skills. In particular,

DBT seeks to strengthen effective use of four sets of skills: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. Skills are generally acquired in group therapy, with phone coaching and individual therapy further supporting their strengthening and generalization.

Outcome evidence. There is a significant evidence-base supporting the efficacy of DBT. A recent review by Lynch and colleagues (2007) identified seven well-controlled RCTs demonstrating the efficacy of DBT for BPD. These studies found significant effects on outcomes, including reduced suicidality, hospitalizations, depression, and anger, as well as higher social adjustment and retention in treatment. These outcomes were demonstrated in comparison to TAU, client-centered therapy, combined 12-step/comprehensive validation therapy, and treatment by community experts. Some RCTs have failed to find differences between DBT and other well-structured treatments, however (e.g., Clarkin et al. 2007). DBT has also been found to be effective for other mental health problems and in specific populations in RCTs and open trials, including substance use disorders, binge eating and bulimia, depression in older adults, bipolar disorder, clients in forensic settings, violence and aggression, oppositional defiant disorder, female victims of domestic violence, family members of individuals with BPD, and couples (see Lynch et al. 2007).

Components. As an integrative approach, some of the components of DBT have been adopted from empirically validated treatment technologies. For example, we have reviewed the efficacy of mindfulness technologies in the previous section (e.g., Grossman et al. 2004, Hofmann et al. 2010). Similarly, the commitment strategies used in DBT to improve treatment retention have been validated in studies across a range of approaches and disciplines in psychology (Bornalova & Daughters 2007).

Studies have found that the DBT skills training group alone, without the other treatment components, is psychologically active and im-

pacts relevant outcomes. For example, an RCT with BPD clients by Soler and colleagues (2009) found that a DBT skills training group had significantly lower dropout rates and greater symptom reduction at post and three-month follow up compared to a standard group therapy. Similar results have been found in RCTs comparing the efficacy of DBT skills training groups to wait list for binge eating (Telch et al. 2001) and medications for depression (Lynch et al. 2003) and in open trials with specific populations, including those with parasuicidal behaviors (Sambrook et al. 2006), depression (Harley et al. 2008), and oppositional defiant disorder (Nelson-Gray et al. 2006).

Moderation. Patients with high levels of experiential avoidance and anxiety tend to drop out of DBT (Rüsch et al. 2008), but little is known about patterns of moderation of DBT effects

Process of change. Processes of change have not been regularly studied in DBT outcome studies, though they are beginning to gain attention (Lynch et al. 2006), and DBT-specific measures are being developed (e.g., Neacsiu et al. 2010). A recent study found that DBT reduced experiential avoidance as assessed by the Acceptance and Action Questionnaire (Hayes et al. 2004) and that this change predicted later changes in depression, but not vice versa (Berking et al. 2009). Although the reduction in experiential avoidance does not rise to the level of mediation, it does suggest strongly that experiential avoidance is a functionally important process of change in DBT.

It has also been found that use of DBT skills increases over time and that these increases relate to improvements in BPD symptoms (e.g., Stepp et al. 2008). Other processes identified as possibly important are emotional processing (Feldman et al. 2009) and balancing acceptance and change (Shearin & Linehan 1992).

Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT; Hayes et al. 1999) uses acceptance and

mindfulness techniques, and commitment and behavioral activation techniques, to produce psychological flexibility. It is one of the more broadly focused of the methods in CBT that is not based on traditional CBT assumptions, in part because ACT emphasizes basic principles over specific syndromal issues.

Techniques and putative processes. Psychological flexibility is the applied model that underlies an ACT approach to psychopathology and psychological health. Psychological flexibility refers to the ability to contact consciously the present moment and the thoughts and feelings it contains more fully and without needless defense, and based on what the situation affords, to persist or change in behavior in the service of chosen values. It in turn is based on Relational Frame Theory (RFT; Hayes et al. 2001), which is a modern behavioral research program in language and cognition.

At the core of RFT lies the idea that language is based on the learned derivation of relations among events based on cues that can be arbitrary. For example, although a nickel is larger than a dime (according to the size), young children learn that “is larger than” can also be applied arbitrarily, and thus a dime can be larger than a nickel (according to the value). RFT studies have shown that any event can acquire an aversive function even without having been directly associated with another event and without sharing formal properties based on this process of arbitrarily applicable responding (Dymond & Roche 2009). In other terms, language can turn any event into a source of pain. For example, a successful career can be experienced as a failure just because it is “less than” a hoped-for ideal. As a consequence of this language process, any object of thought can become a source of pain (e.g., feeling sad when remembering the death of a parent).

In addition, any event can relate to any other event cognitively so that one is never able to durably isolate a source of pain from all other events (Hooper et al. 2010) (e.g., a happy memory is a reminder that the present is not the same as when the loved parent was still alive).

Unable fully to avoid the situations that can occasion distress, language-able humans begin to avoid the psychological experience of distress itself even when doing so causes behavioral difficulties—verbal relations lead readily to experiential avoidance (Hayes et al. 1996).

The evolutionary advantage of derived relational responding is verbal problem-solving, but there are times that this mode of mind increases entanglement with verbal rules and produces a decreased sensitivity to direct consequences of responding (see Hayes et al. 1989 for an experimental demonstration). This seems to operate in particular when an individual persists in counterproductive attempts to avoid painful thoughts and emotions. Together, experiential avoidance and cognitive fusion reduce flexible contact with the present moment and forestall individuals from contacting what they value (in part because knowing what they care about connects them with sources of pain).

ACT targets the language and cognitive processes maintaining cognitive entanglement, experiential avoidance, rigid attentional processes, lack of values clarity, and other sources of psychological inflexibility (Boulanger et al. 2010). Since these appear to be common processes for most psychological disorders (Hayes et al. 2006), at a functional level the clinical perspective of ACT is largely the same across the variety of syndromes included in the *Diagnostic and Statistical Manual of Mental Disorders*. The approach is organized around six main processes: acceptance, defusion, self, the now, values, and commitment. Most ACT principles are taught to clients by means of experiential exercises, mindfulness methods, and a specific use of language (e.g., metaphors and paradoxes). All of this is to bypass the deleterious effects of excessively literal language in contexts requiring more psychological flexibility. Thus, instead of apprehending their external and internal environment through what they think, clients learn to contact directly what is happening here and now.

To encourage acceptance, the therapist uses metaphors, such as “struggling in quicksand,” in which the client observes the similar

ACT: Acceptance and Commitment Therapy

Psychological flexibility:

consciously contacting the present moment without needless defense while persisting or changing behavior in the service of chosen values

Values: freely chosen, verbally constructed consequences of ongoing patterns of activity, which establish immediate rewards intrinsic to the behavioral pattern itself

Defusion: the process of relating to thoughts as just thoughts so as to reduce their automatic impact

counterproductive effects of attempting to escape sinking in the sand and of attempting to avoid thoughts and emotions (Hayes et al. 1999). The metaphor is presented in an experiential rather than a didactic way so as to lead clients to observe the concrete consequences of their actions.

Defusion techniques create a context in which the dominance of linear thought is diminished so that clients learn that thoughts can be apprehended as just thoughts instead of being literally followed or resisted, believed or disbelieved. Thus, instead of analyzing the veracity of their thoughts, clients are led to consider the utility of acting according to thoughts for moving in a valued direction. To train defusion, the therapist, for example, plays the role of the client's mind by formulating a series of statements, evaluations, and injunctions that the client notices without acting under their control.

Exercises to improve contact with the present moment are used to train flexible attention to what is present. For example, mindfulness exercises may be used (e.g., follow the breath, scan the body).

Perspective-taking exercises are used to encourage contact with a transcendent sense of self. For example, clients might look back at themselves from a wiser future and write themselves a letter of encouragement. Such exercise helps the client distinguish between the content of consciousness and the person as a perspective-taking context for that content, in the hopes that this will reduce attachment to the conceptualized self.

Values are apprehended in ACT as chosen life directions that establish reinforcers in the present that are intrinsic to patterns of action. The therapist helps clients elaborate what is held dear in domains such as family, work, or education and reinforces even the smallest actions if they are actually values oriented.

Committed action consists of behavioral activation techniques such as goal setting, homework, skills development, exposure, and shaping. These are technologically similar to

behavior therapy or traditional CBT, but the goals may differ. For example, exposure is not being done to reduce arousal but rather to increase behavioral flexibility in the presence of previously repertoire-narrowing stimuli (e.g., anxiety).

Outcome evidence. More than 50 trials and case series have been carried out with ACT. About 30 of these are RCTs. Reviews and meta-analyses have revealed medium to large group effect sizes (see Hayes et al. 2006, Powers et al. 2009, Ruiz 2010). What is perhaps most notable is the range of disorders and problems addressed with the same model and in many cases with highly similar technology. With a focus only on areas with published RCTs (see the meta-analyses above for citations), successful studies have been done on depression, coping with psychosis, substance use, chronic pain, epilepsy, obsessive-compulsive disorder, diabetes management, reduction of prejudice toward people with psychological problems, helping drug and alcohol counselors learn and apply evidence-based pharmacotherapy, worksite stress, smoking cessation, obesity, adjusting to college, eating pathology, and other problems. ACT has been successfully compared to other empirically supported treatments as well, including cognitive therapy (e.g., Zettle et al. 2011) and pharmacotherapy (e.g., Gifford et al. 2004).

Components. ACT components have been tested in more than 40 studies, most done with a single technique or a small set of techniques (Levin et al. 2011, Ruiz 2010). Significant effect sizes were found for defusion, values, contact with the present moment, mindfulness components (combinations of acceptance, present moment, defusion, or self as context), and values plus mindfulness in comparison with techniques such as thought suppression or distraction. Effects sizes in levels of anxiety, pain tolerance, or discomfort were significant not merely for rationales but also grew as metaphors and exercises were added to the mix.

Moderators. There is some evidence that ACT is relatively more effective for highly experientially avoidant participants (e.g., Masuda et al. 2007) or for those with more severe problems (e.g., Muto et al. 2011).

Processes of change. ACT alters psychological flexibility and its components, such as experiential avoidance, fusion, and values (Hayes et al. 2006). Most of the existing ACT RCTs have included process measures, and about two-thirds have published mediational analyses. Across all studies, about 50% of the between-group differences in follow-up outcomes can be accounted for by the mediating role of differential post levels in psychological flexibility and its components. A few examples show the pattern. Wisckell and colleagues (2011) showed that follow-up improvement in ACT for persons with chronic pain was mediated by differential post levels of psychological flexibility. Gaudiano et al. (2011) found that the follow-up impact of ACT on distress caused by hallucinations was mediated by differential post levels of the believability of these hallucinations (often used as a metric for defusion in ACT studies) but not by their frequency. Zettle et al. (2011) found that the differential follow-up impact of group ACT versus group CBT on depression was mediated by differential post levels of the believability but not the intensity of depressogenic thoughts. Gifford et al. (2004) found that the follow-up impact of ACT on smoking cessation was caused by differential post levels of psychological flexibility focused on smoking-related thoughts and feelings. Behavioral measures of psychological flexibility as early as session two have been successful in predicting positive outcomes in ACT (Hesser et al. 2009). In some cases, more traditional cognitive measures have also been tested for mediation (e.g., Wicksell et al. 2011, Zettle et al. 2011), and in all of these cases, psychological flexibility has proven more powerful as a mediator. As a result of greater flexibility, ACT often leads to desynchrony between emotion or thought and behavior. For example, admission of hallucinations is a predictor of staying out of the hospital in ACT

for psychosis (Bach & Hayes, 2002), and pain intensity no longer relates reliably to psychosocial disability or work absence (Dahl et al. 2004).

CONTEXTUAL COGNITIVE BEHAVIORAL THERAPY

Several years ago, five features were suggested as characteristics of the “third wave” of behavioral and cognitive therapy (Hayes 2004, p. 658). The methods discussed in the present review were called the third wave of CBT because they seemed to represent the emergence of a coherent set of new assumptions arising in many corners that differed both from traditional behavior therapy and from traditional CBT assumptions. The term “third wave” (or sometimes “third generation”) CBT has been used frequently since, with more than 1,000 Web site citations and 70 publications using it, according to Google. It has invited resistance, however (e.g., Hofmann & Asmundsun 2008), due in part to the unwanted connotation that behavior therapy or traditional CBT is old hat or is being left behind, when the point was more to orient readers to a strand of thinking that was emerging in the behavioral and cognitive therapies. The term is also too vague and time based for long-term use, especially as existing approaches begin to include these new methods or even their core assumptions. In this review, we propose the more descriptive term “contextual CBT” to denote methods such as those we have been discussing and any other method (including the evolution of more traditional methods) that has similar assumptions.

The list of features described in 2004 seems even more clearly true today, after several additional years of development. Below, we describe these features and briefly discuss the evidence for each.

Contextual Methods and Principles

The first attribute of this set of methods is perhaps the most important, and it is the one that justifies the use of the term “contextual CBT.” These new methods target the context

Contextual CBT: approaches focused on altering the person’s relationship to thought and emotion rather than the form of these experiences

and function of psychological events such as thoughts, sensations, or emotions, rather than primarily targeting the content, validity, intensity, or frequency of such events, and they do so in a way that is focused on principles of change and not merely on new techniques. The content-versus-context distinction has been explicitly stated as an important one by the developers of virtually all of the methods discussed in this review. For example, Segal, Teasdale, and Williams have stated, “Unlike CBT, there is little emphasis in MBCT on changing the content of thoughts; rather, the emphasis is on changing awareness of and relationship to thoughts” (2004, p. 54). In another example, the developers of BA stated, “Interventions address the function of negative or ruminative thinking, in contrast to CT’s emphasis on thought content. . . . BA specifies attention-to-experience interventions to counter ruminative thinking by attending to direct sensations. Similar to recent mindfulness-based treatments (e.g., Segal, Williams & Teasdale 2002), these interventions provide a method for addressing rumination that does not engage the content of thoughts” (Dimidjian et al. 2006, p. 668). In another, the developer of MCT emphasized, “MCT does not advocate challenging of negative automatic thoughts or traditional schemas” (Wells, 2008, p. 651), adding that although “CBT is concerned with testing the validity of thoughts (. . .) MCT is primarily concerned with modifying the way in which thoughts are experienced and regulated” (p. 652). In yet another example, the developers of ACT state, “The ACT model points to the context of verbal activity as the key element, rather than the verbal content. It is not that people are thinking the wrong thing—the problem is . . . how the verbal community supports its excessive use as a mode of behavioral regulation” (Hayes et al. 1999, p. 49). Similar statements have been made by most if not all of the developers of the other methods discussed in this review. These methods focus on changes in the psychological and social context of difficult psychological events, more so than changes in their content, and the focus

is more on changes in their function than on changes in their form and frequency. The contextual targets of these methods include awareness, mindfulness, decentering, acceptance, defusion, values, cognitive flexibility, motivation, metacognition, function, attention, curiosity, a supportive relationship, spirituality, detachment, psychological flexibility, ways of experiencing, readiness to change, and commitment, among many others.

The emphasis on function and context over form and content is not merely rhetorical, philosophical, or technological. It is revealed in the empirical review we have conducted in the current article on what is known about the components, moderators, mediators, and processes of change produced by these various therapies. For example, mindfulness-based therapies, ACT, and other methods are known to produce an unexpected desynchrony between thought or emotion and behavior. In other words, as a result of these methods, the same emotional or cognitive content now functions in a different way. That is empirical evidence of a contextual effect. For example, Varra and colleagues (2008) found that clinicians exposed to ACT and then trained in pharmacotherapy admitted to more barriers to using evidence-based pharmacotherapy but were also now more willing to use these methods and at follow-up had in fact done so. That is, worries about what colleagues would think and the like were more psychologically accessible but less behaviorally impactful. That kind of effect is precisely on point with the key content-versus-context distinction being made by these new methods, and it is not in line with the traditional assumptions of behavioral and cognitive therapies.

The present review shows (see references above) that acceptance, mindfulness, and decentering or defusion mediate or at least correlate with outcomes in mindfulness-based methods, DBT, ACT, and IBCT. Values and commitment (e.g., as assessed by values assessment, change talk, and similar means) are known to be important in ACT, BA, and MI. Component analyses have shown that flexible attention to the present is important

in mindfulness-based methods, MCT, and ACT. These are all contextual variables that can have an impact even without any change in cognitive or emotional content.

Broad and Flexible Repertoires Versus an Eliminative Approach to Syndromes

A second characteristic of contextual CBT methods is that they are all relatively broad and fit with a transdiagnostic approach to mental health. Indeed, in most approaches, very similar procedures have been applied with positive outcomes to a variety of pathologies and syndromes. The transdiagnostic qualities of these methods are demonstrated in their broad and growing range of application. The focus on broad and flexible repertoires is evident in the scope of their putative and empirical processes, as we have described. Good emotion-regulation abilities, or more functional attentional processes, and so on, are skills that can apply to virtually any life situation. As a result, contextual CBT methods already have vigorous empirical programs in areas that were rarely if ever addressed by more traditional clinical methods, including traditional CBT, such as prejudice (e.g., Masuda et al. 2007).

Applied to the Clinician, Not Just the Client

As a third characteristic, it is notable that many contextual CBT methods require or encourage therapists to explore these same processes such as by having their own mindfulness practice or by working on acceptance of their own emotions. For example, it has been said that “Perhaps the most important guiding principle of MBCT is the instructor’s own personal mindfulness practice” (Dimidjian et al. 2009, p. 316). FAP therapists are told, “In order to best attend to the client’s experience, therapists first need to be in touch with their own” (Kohlenberg et al. 2008, p. 16). DBT therapists are told to maintain consultation groups, and “The task of the consultation group members is to apply DBT to one another, in order to help each ther-

apist stay within the DBT protocol” (Linehan 1993, p. 118). In ACT, it is said, “To the extent that the model is correct there is no fundamental distinction between the therapist and the client at the level of the processes that need to be learned” (Pierson & Hayes 2007, p. 225). The assumption that therapists should themselves be mindful, accepting, defused, and connected to values is just beginning to be tested experimentally, but it appears that the idea has some merit, at least in some contexts. For example, applying ACT to therapists makes them more open and able to learn (Varra et al. 2008).

Builds on Other Strands of Behavioral and Cognitive Therapy

Another characteristic of contextual CBT is that it has emerged without an interest in tearing down previous CBT approaches so much as carrying them forward. As a body of methods, contextual CBT protocols include virtually all of the components of more content-focused forms of behavior therapy and CBT that are well-supported empirically, including exposure, skills training, and self-monitoring (e.g., thought recording). Two things are different. First, there are different purposes and assumptions about processes of change for these methods. For example, thought recording might be used to decenter or defuse from thoughts rather than to test or challenge them; exposure might be used to increase behavioral flexibility in the presence of difficult emotions or thoughts rather than to decrease emotional responding *per se*. Second, contextual CBT seems more willing to abandon elements and processes that have not received good empirical support in component and process studies, such as cognitive restructuring.

Deals with More Complex Issues Characteristic of Other Traditions

The final characteristic is admittedly more of a judgment call, but the density of writing and research on such topics as spirituality, meaning, sense of self, relationships, and values

suggests that contextual CBT methods are dealing more with the kinds of deep issues that have historically been more the purview of other traditions than was the case historically in CBT. One impact of this characteristic is that many practicing clinicians who are drawn to contextual CBT do not have an empirical or behavioral background. You can see this in the rapid growth of organizations that promote contextual CBT (e.g., the ACT-focused group, the Association for Contextual Behavioral Science, has grown by nearly 3,000 members in the past five years) and in the penetration of mindfulness and acceptance into more traditional clinical training or commercial workshops. On the one hand, the results seems to be that contextual CBT is expanding the interest in empirically supported treatments among clinicians from nonempirical backgrounds. On the other, it raises a challenge of how to socialize clinicians from less-empirical backgrounds into the scientific culture of CBT.

The five characteristics described above were listed several years ago when the trends were much harder to discern (Hayes 2004). They seem far more established today.

A CENSUS CONTEXTUAL COGNITIVE BEHAVIORAL THERAPY MODEL

It is still early, but it appears that an empirical if not yet intellectual consensus is emerging about the key processes in psychopathology and psychotherapeutic change from the point of view of contextual CBT approaches. We can organize these components, moderators, and processes of change into three basic categories. One cluster addresses issues of acceptance, detachment, metacognition, defusion, emotional regulation, and the like. Contextual CBT methods contain techniques designed to reduce the automatic behavioral regulatory power of thoughts, feelings, memories, and bodily sensations, but without necessarily first changing the form or frequency of these experiences. Said in another say, they are designed to produce greater psychological openness. In **Table 1** we

give a single example of a particular technique from each therapy approach that putatively targets psychological openness (although often it is addressed in several ways). In the columns, we indicate further whether there is any actual process or component evidence showing the importance of openness to the outcomes produced by the specific approach.

A second cluster deals with flexible attention, attention to the now, pure awareness, perspective taking, theory of mind, and the like. These methods all deal with awareness and mindfulness, from a conscious person and toward the present moment both externally and internally. Again, most of the approaches address this area, and we provide examples of the techniques used in **Table 1**.

A third cluster deals with motivation to change, values, commitment, and behavior activation. These all deal with meaningful action. Most of the contextual CBT methods we have summarized address this area as well, as is shown in **Table 1**.

As we have shown, the component and process evidence for these processes is growing very rapidly. This is important because as processes of change are identified, they provide a more proximal target for intervention and allow different perspectives to compete in changing processes of known importance.

Like the legs of a stool, when a person is open, aware, and active, a steady foundation is created for more flexible thinking, feeling, and behaving. Metaphorically, it is as if there is greater life space in which the person can experiment and grow and can be moved by experiences. Although not all of the approaches target all of the processes, it seems as though contextual forms of CBT are designed to increase the psychological flexibility of participants by fostering a more open, aware, and active approach to living. In some sense, this idea is an extension of evolutionary science thinking into the ontogenesis of behavior change since it depends on the key issues of variation, selection, and retention of behavior. It seems possible that this emerging consensus may have an extended life, in part because of

Table 1 Putative process examples and component and process evidence for contextual forms of cognitive behavioral therapy

Methods	Processes											
	Open				Aware				Active			
	Putative process example	Components	Processes	Putative process example	Components	Processes	Putative process example	Components	Processes	Putative process example	Components	Processes
Mindfulness based	Open, accepting focus	-	✓	Attentional training by following the breath	-	✓	-	-	-	-	-	-
MCT	Detached mindfulness	-	-	Attentional training technique	✓	-	Exposure	✓	-	-	-	✓
MI	Open questions	-	-	-	-	-	Exploration of motives	-	-	-	-	✓
BA	Undermining avoidance	-	-	-	-	-	Scheduling events	-	-	-	-	✓
IBCT	Acceptance methods	-	✓	-	-	-	Behavioral homework	-	-	-	-	✓
FAP	Acceptance modeled in the relationship	-	✓	Focus on present-moment awareness	-	✓	Behavioral homework	-	-	-	-	-
DBT	Radical acceptance	-	✓	Attentional flexibility and control	-	-	Skills training	✓	-	-	-	✓
ACT	Acceptance and defusion exercises	✓	✓	Observer self and perspective taking	✓	✓	Values work	✓	-	-	-	✓

ACT, Acceptance and Commitment Therapy; BA, behavioral activation; DBT, dialectical behavior therapy; FAP, functional analytic psychotherapy; IBCT, integrative behavioral couple therapy; MCT, metacognitive therapy; MI, motivational interviewing.

its simplicity and coherent link to evolutionary science.

CONCLUSION

Contextual CBT is a distinguishable and emerging strand of thinking within CBT that has produced an emerging consensus regarding the key variables in psychopathology and psychotherapeutic change. This provides a target

for treatment development that is both theory rich and clinically deep. A growing body of evidence suggests that it is possible to move clients toward a more open, aware, and active approach to dealing with the psychological barriers to effective living and that a broad set of positive life benefits results. This work seems likely to impact not just contextual CBT but also other therapy approaches both inside and outside of the behavioral and cognitive therapy tradition.

DISCLOSURE STATEMENT

With the possible exception of being authors of books in the area and involvement in scientific societies focused on the content of this work, the authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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