

## CHAPTER 11

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# Acceptance and Commitment Therapy

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Third-wave cognitive and behavior therapies (Hayes, Villatte, Levin, & Hildebrandt, 2011) involve a transdiagnostic approach concerned not with the elimination of syndromes but rather with building broad, flexible behavioral repertoires (Ruiz, 2010). Acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999, 2012) is a prominent example of a transdiagnostic therapeutic approach. Rather than focusing on symptom reduction, ACT encourages acceptance of aversive private experiences so that one can pursue meaningful and valued activities. ACT has received substantial empirical support across numerous disorder categories (Ruiz, 2010; Öst, 2008).

ACT is grounded in basic behavioral science, more specifically, behavior analysis (e.g., Cooper, Heron, & Heward, 2007) and relational frame theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001). This grounding not only ensures that ACT is coherent and evidence based but also allows for the continued refinement of therapy at the process level, thus facilitating its ongoing evolution and development. In this chapter, we describe ACT and its evidence base with adults and youth, its underlying philosophy and theoretical model, its conceptualization of experiential avoidance as a transdiagnostic process characterizing psychopathology, and its application as a transdiagnostic therapy.

### **ACT Efficacy across Disorders**

The ACT approach to psychological dysfunction has been shown to be effective across a wide range of clinical and subclinical presentations.

Effect sizes have been found to be medium to large and have further improved at follow-up (Ruiz, 2010). In fact, the Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. government has recently listed ACT as an empirically supported method as part of its National Registry of Evidence-Based Programs and Practices (U.S. Department of Health & Human Services, 2011). ACT is also considered an empirically validated treatment by the American Psychological Association and is recognized as having moderate to strong research support for chronic pain, obsessive-compulsive disorder (OCD), mixed anxiety-depression, and psychosis ([www.div12.org/PsychologicalTreatments/treatments.html](http://www.div12.org/PsychologicalTreatments/treatments.html)).

In addition to the areas cited, ACT trials with adult samples using single-case, open-trial, and randomized-trial methodology have demonstrated positive outcomes for individuals with the following presentations: personality disorders (e.g., borderline personality disorder), substance abuse, smoking cessation, diabetes management, epilepsy, cancer, and weight loss (for comprehensive reviews, see Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Ruiz, 2010). At present, more than 50 randomized clinical trials (RCTs) of ACT have been published, are in press, or are in preparation (see Table 11.1). Although promising results have surfaced thus far, replication and further research in new domains are needed—especially with youth.

Despite the breadth and depth of empirical investigation with adults, studies exploring ACT-based treatment adaptations for children, adolescents, and families have been limited in both quantity and scope (e.g., small sample size, single-case or uncontrolled studies, lack of interstudy consistency). Nonetheless, researchers are analyzing ACT-based protocols for children and adolescents suffering from various mental health disorders, chronic pain, eating disorders, and sickle cell disease. In addition, two published studies have evaluated ACT for parent populations, and several other trials are under way.

Though the field is only in its infancy, child- and adolescent-targeted ACT trials have demonstrated largely favorable outcomes for a range of mental health challenges. For example, Hayes, Boyd, and Sewell (2011) recently published results from an RCT with depressed adolescents, comparing ACT with a treatment-as-usual (TAU) condition. Participants in the ACT condition reported significantly lower depression levels than those in the TAU group and evidenced further improvement from post-treatment to 3-month follow-up. In addition, Morris and Greco (2002) implemented an ACT-based protocol with socially anxious youngsters and reported a reduction of social anxiety and increased school attendance. In nonclinical populations, ACT resulted in less experiential avoidance, more social confidence, parent-reported shorter “episodes of anxiety,” and return to school for an 18-year-old developmentally delayed female

**TABLE 11.1.**

Study	Problem/diagnosis	N	Main findings
Zettle & Hayes (1986)	Depression	18	ACT is more effective than CT.
Zettle & Rains (1989)	Depression	31	ACT is as effective as CT and CT + distancing.
Bond & Bunce (2000)	Worksite stress and anxiety	90	ACT is more effective than behavioral approach and both are better than wait-list control.
Bach & Hayes (2002)	Psychotic inpatients	80	ACT reduces rehospitalization over a 4-month follow-up as compared with TAU.
Zettle (2003)	Math anxiety	24	ACT is comparable to systematic desensitization in reducing math anxiety, but systematic desensitization reduces trait anxiety more than ACT.
Dahl, Wilson, & Nilsson (2004)	Stress and pain symptoms	19	ACT is more effective than TAU.
Gifford et al. (2004)	Smoking cessation	76	Quit rates are similar at posttreatment but 1-year follow-up shows that the ACT group maintains gains while the NRT quit rates fall.
Hayes, Bissett, et al. (2004)	Stigmatizing attitudes and burnout in substance abuse counselors	93	ACT is more effective than control.
Hayes, Wilson, et al. (2004)	Polysubstance abuse	114; methadone maintenance ( $n = 38$ ), addition of ACT ( $n = 42$ ), or intensive twelve-step facilitation (ITSF; $n = 44$ )	No differences at posttreatment, but ACT is more effective at 6-month follow-up.

(continued)

**TABLE 11.1.** (continued)

Study	Problem/diagnosis	N	Main findings
Gaudiano & Herbert (2006)	Inpatients with psychotic symptoms	40	ACT is more effective than TAU.
Gratz & Gunderson (2006)	Borderline personality disorder	22	ACT/DBT combo is more effective than TAU.
Lundgren, Dahl, Melin, & Kees (2006)	Drug refractory epilepsy	27	ACT reduces seizures significantly more than supportive therapy.
Woods, Wetterneck, & Flessner (2006)	Trichotillomania	25	ACT plus habit reversal is more effective than wait-list control.
Forman, Herbert, Moitra, Yeomans, & Geller (2007)	Anxiety and depression	101	Participants improve similarly with ACT and CT.
Gregg, Callaghan, Hayes, & Glenn-Lawson (2007)	Diabetes	81	ACT + patient education is more effective than patient education.
Lappalainen et al. (2007)	Outpatient	14	ACT is more effective than CBT at posttreatment and 6-month follow-up.
Masuda et al. (2007)	Psychological disorder stigma	96	ACT reduces mental health stigma significantly, but education reduces stigma among participants who are relatively flexible and nonavoidant to begin with.
Páez, Luciano, & Gutiérrez (2007)	Women diagnosed and treated for breast cancer	12	ACT is more effective than CBT at 1-year follow-up.
Vowles et al. (2007)	Chronic pain	74	Acceptance group improves more than pain control and practice conditions.
Lundgren, Dahl, Yardi, & Melin (2008)	Epilepsy patients with drug-refractory seizures	18	ACT reduces seizures more than yoga, but both improve QOL.

Luoma et al. (2008)	Drug counselors	30	ACT-based supervision group following training in group drug counseling increase adoption in drug and alcohol counselors.
Roemer, Orsillo, & Salters-Pedneault (2008)	Generalized anxiety disorder	31	ACT-based protocol (ABBT) produces positive outcomes
Varra, Hayes, Roget, & Fisher (2008)	Clinicians	59	ACT is more effective than psychoeducation alone ( $d = .85$ )
Wicksell, Ahlqvist, Bring, Melin, & Olsson (2008)	Chronic pain and whiplash associated disorders (WAD)	21	ACT is more effective than TAU.
Lillis, Hayes, Bunting, & Masuda (2009)	Obesity	84	ACT reduces stigma, increases QOL, and reduces weight.
Peterson & Zettle (2009)	Comorbid depression and alcohol	24	ACT and TAU produce similar outcomes, but ACT uses less time.
Tapper et al. (2009)	Obesity	62	ACT group has drop in BMI (compared with wait-list controls).
Wicksell, Melin, Lekander, & Olsson (2009)	Pediatric pain	32	ACT performs significantly better than multidisciplinary treatment plus amitriptyline (MDT).
Flaxman & Bond (2010)	Worksite stress	107	ACT and SIT (stress inoculation training) are equally effective; ACT is mediated by psychological flexibility; SIT is not successfully mediated by cognitive change.
Flaxman & Bond (2010)	Worksite stress	311	ACT is better than wait-list control.
Fledderus, Bohlmeijer, Smit, & Westerhof (2010)	Mild to moderate psychological distress	93	ACT shows good outcomes compared with wait-list control.

(continued)

**TABLE 11.1.** (continued)

Study	Problem/diagnosis	N	Main findings
Hinton & Gaynor (2010)	Psychological distress, dysphoria, and low self-esteem	22	Group receiving ACT component (cognitive defusion) demonstrates better outcomes than wait-list controls.
Johnston, Foster, Shennan, Starkey, & Johnson (2010)	Chronic pain	14	ACT is helpful for chronic pain.
Juarascio, Forman, & Herbert (2010)	Comorbid eating pathology	55	ACT produces greater reductions in eating pathology and greater increases in global functioning than CT
Smout et al. (2010)	Methamphetamine use disorders	104	ACT is no more effective than CBT in retaining or treating methamphetamine users.
Twohig et al. (2010)	Obsessive-compulsive disorder	79	ACT has good outcomes in comparison with progressive relaxation training
Bohlmeijer, Fledderus, Rokx, & Pieterse (2011)	Mild to moderate depressive symptomatology	93	Significant reduction in depressive symptomatology (Cohen's $d = .60$ ) for ACT group compared with wait-list control.
Brinkborg, Michanek, Hesser, & Berglund (2011)	Stress and burnout in social workers	106	ACT is more effective than wait-list control.
Brown et al. (2011)	Test anxiety	16	Similar outcomes are seen on self-reports (ACT vs. CT), but ACT participants do objectively better on test scores in school.
Butryn, Forman, Hoffman, Shaw, & Juarascio (2011)	Promoting physical activity	54	ACT participants increase their physical activity level more than psychoeducation participants.

Fledderus, Bohlmeijer, Pieterse, & Schreurs (2011)	Depression	376	ACT group has reductions in depression, anxiety, fatigue, and experiential avoidance and improvements in positive mental health and mindfulness; sustained at follow-up.
Hayes, Boyd, & Sewell (2011)	Adolescent depression	30	Good outcomes (~60% in ACT show clinically significant change; $d = .38$ at posttreatment and 1.45 at follow-up).
Muto, Hayes, & Jeffcoat (2011)	Japanese college students living abroad	70	Better general mental health at posttreatment and follow-up. Moderately and above depressed or stressed, and severely anxious students show improvement compared with those not receiving the book. Outcomes are mediated and moderated by psychological flexibility
Weineland, Arvidsson, Kakoulidis, & Dahl (2012)	Bariatric surgery patients	39	ACT is more effective than TAU.
Wetherell et al. (2011)	Chronic pain	114	ACT is comparable to CBT.
Pearson, Follette, & Hayes (2012)	Body dissatisfaction and disordered eating attitudes	73	ACT helps with body dissatisfaction and disordered eating attitudes.
Gifford et al. (2011)	Smoking cessation	303	ACT has good outcomes in comparison with FAP + Zyban and Zyban
Westin et al. (2011)	Tinnitus distress	64	ACT does better than tinnitus retraining therapy in reducing the interference and distress from tinnitus.
Luoma, Kohlenberg, Hayes, & Fletcher (2012)	Substance use disorder	133	ACT intervention results in smaller immediate gains in shame, but larger reductions at 4-month follow-up.

(Brown & Hooper, 2009). In two studies using a group intervention, ACT was also shown to reduce anxiety associated with chess performance in a nonclinical population of adolescents (Ruiz & Luciano, 2006), as well as objectively measured chess performance (Ruiz & Luciano, 2012), compared with a wait-list control. ACT also appears useful with parent distress (Blackledge & Hayes, 2006) and impaired parenting (Coyne & Wilson, 2004).

ACT has been successful with children and adolescents experiencing behavioral health conditions, including chronic pain (Wicksell, Dahl, Magnusson, & Olsson, 2005; Wicksell, Melin, Lekander, & Olsson, 2009; Wicksell, Melin, & Olsson, 2007), eating disorders (Heffner, Sperry, & Eifert, 2002; Merwin, Timko, Zucker, Martin, & Moskovich, 2010), and sickle cell disease (Masuda, Cohen, Wicksell, Kemani, & Johnson, 2011). In one well-designed small RCT with 32 adolescents described as severely disabled by chronic pain, Wicksell and colleagues (2009) compared the efficacy of ACT with that of a multidisciplinary treatment (MDT) based on a biobehavioral model of pain that consisted of treatment by a psychiatrist, a child psychologist, a physiotherapist, and a pain physician as needed by individual patients, as well as amitriptyline use. ACT participants reported significantly improved functional ability (i.e., global functioning despite the presence of pain), fear of reinjury, pain interference, and quality of life compared with the MDT group, and these gains were maintained over time. Although preliminary findings regarding ACT efficacy with youth must be interpreted cautiously, they represent a compelling rationale for further study. ACT has a strong theoretical basis, and research suggests that it may be used flexibly (and transdiagnostically) in diverse children, adolescents, and families.

### **ACT as a Transdiagnostic Approach to Psychopathology**

Ideally, transdiagnostic approaches to treatment may be flexibly used across a variety of client presentations, populations, and contexts. A truly advantageous transdiagnostic approach must be informed by weaknesses in our current diagnostic system (discussed elsewhere in this book) and must hold onto current models of diagnostic categories lightly. Additionally, it should identify a common psychological process that spans various types and levels of psychological dysfunction. Moreover, its goal would be to identify a mechanism (or mechanisms) of dysfunction that are amenable to change, rather than stable traits or individual-difference factors. Finally, that identified process should be shown to be the “active ingredient” in clinical change when measured and tracked in the context of treatment studies. Given its theoretical and empirical background, ACT clearly fits this description.

### Theoretical Background of ACT: Functional Contextual Behaviorism

ACT assumes that psychological events are ongoing and best viewed within a situational and historical context. To this end, ACT has been called a “functional contextual” approach to human behavior. ACT assumes that behaviors can have different functions for any one individual in different settings, that different behaviors can belong to similar functional domains, and that behavioral change is optimally achieved through manipulation of contextual factors. ACT also relies on the premise that contextual events regulate and organize behaviors (including cognitions) and link them with one another (Hayes et al., 2006).

Given its underlying philosophy of science, ACT seeks to influence behavior through the contextual variables that maintain it. In contrast, when speaking in diagnostic terms, we speak in terms of associated symptoms that exist outside of context. The process of “diagnosing” refers to detecting a constellation of linked symptoms that are part of some presumably meaningful category of illness. In ACT, what is more important than “diagnosis” is a functional analytical approach to behavior, couched in a thorough understanding of contemporary basic research on verbal behavior (Hayes et al., 2001) and inclusive of private events as well as the context in which they occur. The assessment procedure and goals thus differ markedly from traditional diagnostic methods. More specifically, an ACT therapist would be interested in behaviors that don’t “work” in the way the client wants them to, even though the client still engages in them in a rigid, narrow way.

### ACT and RFT and Basic Research

Whereas several transdiagnostic approaches described in this book draw on basic emotion science and its related fields (neurobiology, cognitive affective neuroscience, etc.), ACT draws from learning theory, specifically contemporary behavioral research that examines the development of language processes. Perhaps the most important feature of ACT is that it is founded on aspects of RFT (Hayes et al., 2001), a modern behavior analytical approach to language and cognition.

According to RFT, language and cognition can be understood in terms of the learned capacity to relate stimuli under arbitrary contextual control, referred to as relational framing (see Hayes et al., 2001). To understand the meaning of “arbitrary contextual control,” consider this example. A mother tells a child that “Shrek is taller than Donkey,” and when she asks who is shorter, he answers, “Donkey.” His reply is based not on physical relations but on the arbitrary (i.e., based on social convention) contextual cue “taller.” He has previously learned to “relationally frame” stimuli in accordance with the relation of comparison in the presence of

this cue, and thus, when he hears it, he frames Shrek and Donkey in this way and derives that Donkey is shorter.

RFT argues that humans learn to relationally frame based on exposure to contingencies of reinforcement in the socioverbal community. The earliest and arguably most fundamental example of relational framing that children learn (at around the age of 18 months) is the relation of coordination (sameness) between words and their referents (e.g., the spoken word “tree” is the same as an actual tree; see Lipkens, Hayes, & Hayes, 1993). With continued exposure to the socioverbal environment, they gradually learn a variety of alternative frames, such as bigger–smaller (comparison), different from (distinction), and “a type of” (hierarchical; e.g., a dachshund is a type of dog). These frames are often arbitrary; for example, children learn through social conventions that a dime is worth more than a nickel, even though it is physically smaller. Eventually children’s framing generalizes so that the contextual cues alone control the response pattern (see Barnes-Holmes, Barnes-Holmes, Smeets, Strand, & Friman, 2004 for an empirical example of training the relational frame of comparison; and see Hayes et al., 2001, for a more comprehensive list and description of characteristics of particular families of relational frames). RFT researchers have provided an increasing quantity of empirical evidence showing the diversity of patterns of framing as well as how they can be established and influenced (e.g., Dymond & Barnes, 1997; Roche & Barnes, 1996; Steele & Hayes, 1991).

According to RFT (Hayes et al., 2001), the way in which we verbally relate stimuli may be at the source of psychological suffering. RFT suggests that we learn to relate (relationally frame) things in our environment and that this relational activity can change the psychological functions of those things. This so-called transformation of function (TOF) effect can be highly useful in many contexts. For example, a child may learn to hit a baseball or softball by receiving step-by-step instructions from an adult on how to swing a bat. In this case, the child (via relational learning) may associate the notion of a bat as a wooden object used in baseball with the idea of a bat as a way in which to hit a home run (i.e., the bat comes to have positive psychological properties, such as positive emotion, fond memories, or eager anticipation and hope). Or perhaps the baseball bat can also come to remind the child of the loving relationship that he or she has with the parent (of that moment in time). In either case, the bat comes to have particular psychological functions for the child, derived through relational framing in this particular context.

TOF can also be problematic in some contexts. For example, the same child might be unsuccessful at hitting the ball, and consequently may define him- or herself as a physically awkward or nonathletic individual. Because the bat in this context may come to have unpleasant psychological properties, the child may avoid Little League altogether, thus

precluding many of the pleasant experiences this might have afforded him or her. It may be painful or embarrassing not to be able to hit a ball well, but those added self-evaluations of “I’m physically awkward” or “I’m not athletic” and their subsequent avoidance are what ACT would term *suffering*.

An ACT model of psychopathology assumes that humans encounter pain, stress, and loss and that these experiences are part of life. However, *suffering* arises through the interaction of language processes with direct contingencies that create an unhelpful persistence and singular focus on managing or minimizing pain that precludes engagement in behavior toward valued domains. This end result is called *psychological inflexibility* and is thought to arise from weak, ineffective contextual control over associative learning processes. This process illustrates two elements that ACT posits are central to the development and maintenance of psychological problems. The first is *cognitive fusion*, which in technical terms refers to “excessive or improper regulation of behavior by verbal processes”—specifically, derived relational networks (Hayes, Strosahl, & Wilson, 1999, p. 304; Hayes et al., 2006). In more general terms, this refers to the tendency to experience one’s own thoughts and beliefs as literal or true. An individual is unable to consider actual environmental contingencies when they are fused with his or her own cognitive content, and consequently he or she is less likely to respond in effective, adaptive ways. Because verbal or cognitive elements are treated as real, an individual may become engaged in a pervasive pattern of avoidance of such elements.

The attempt to change, minimize, or otherwise control unwanted psychological experiences is termed *experiential avoidance*, and it is the second element targeted by ACT (Hayes, Wilson, Strosahl, Gifford, & Follette, 1996). This avoidance, in limited doses or used in the short term without excessive personal costs, is not a problem per se. However, when individuals demonstrate excessive reliance on managing cognitive or verbal experiences, it is thought to contribute to the development of maladaptive behavioral repertoires. Exclusive reliance on experiential avoidance draws attention inward, toward the goals of managing unmanageable psychological events, and thus precluding attention to other, more meaningful pursuits.

### What is Experiential Avoidance?

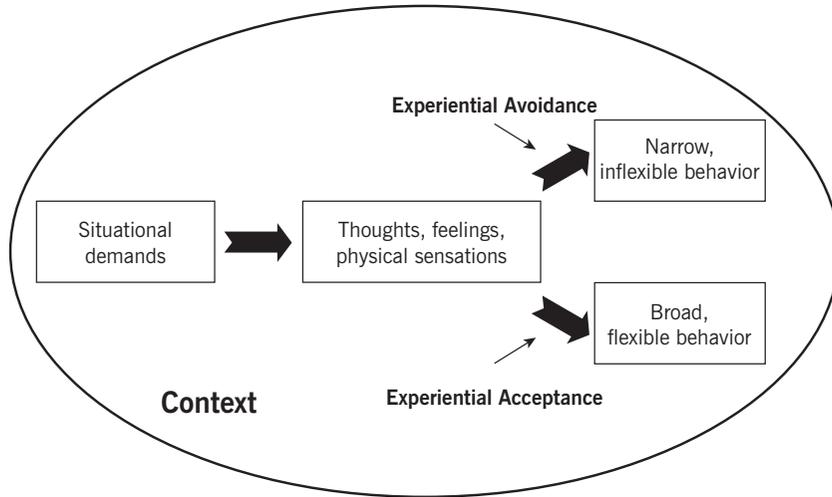
ACT would define experiential avoidance as a functional class of behavior that includes both antecedent and consequent emotion regulatory strategies that target suppression of unwanted or unpleasant private events. Experiential avoidance in and of itself is not a terrible thing and can actually be quite useful in the short term. For example, a child might look away

from the doctor and the needle when getting a shot and thus might feel less afraid (Coyne, McHugh, & Martinez, 2011). However, sole or excessive reliance on experiential avoidance is where the real problem lies. Emotions, whether positive or negative, intense or less so, are viewed as normal parts of human experience. Experiential avoidance, then, can be defined functionally as “an inability to persist in goal-directed behavior in the presence of difficult thoughts and emotions” (Boulanger, Hayes, & Pistorello, 2010). Simply put, it is not our emotions that are the problem; it’s what we do with them and about them when they occur—or, more specifically, what we do to prevent them from occurring and to escape them when they do occur.

If an individual is engaged in experiential avoidance (i.e., attempts to stop thinking about/feeling/experiencing unpleasant private events), his or her attention is narrowly focused on those events rather than on external contingencies. In this way, individuals are not in contact with the world, and, more important, they cannot access external reinforcers of adaptive behavior. In general, there is always an array of stimuli, internal and external, that influences individuals’ behavior. However, an individual engaged in experiential avoidance focuses narrowly on only a subset of available stimuli, and thus the psychological functions of other available stimuli go unnoticed and consequently cannot influence behavior. This may be problematic in several ways, including in a therapy setting.

Consider the example of a child with social phobia engaged in exposure exercises, such as speaking in the front of a classroom. If the child is unwilling to engage in exposure, despite the urging of her therapist, she may engage in cognitive strategies that she feels may protect her from her anxiety during that experience. She may try to distract herself, or tell herself to “hang on until it’s over,” or tell herself “you shouldn’t feel this anxious,” rather than flexibly letting her awareness contain the exposure. This process appears to explain why anxiety does not extinguish in some individuals, despite their exposure to feared activities (Clark, 2001). From an ACT perspective, these behaviors constitute rigid, difficult-to-extinguish functional avoidance strategies.

These cognitive avoidance strategies create a secondary problem: The youngster just described may begin to evaluate her own success (or lack thereof) in managing her emotions. Now, in addition to her anxiety, her cognitive avoidance strategies may have inadvertently created *new* content she wishes to avoid (i.e., suffering): such thoughts as “There’s something wrong with me because I can’t manage my anxiety” and “I’m a failure at speaking to my class.” In addition, although engagement in cognitive avoidance may reduce her anxiety in the short term, it may also preclude her from experiencing other aspects of the situation—for example, that perhaps her classmates are enjoying her talk, or that she has made a good joke, or that her teacher is smiling in approval. Thus, even though she



**FIGURE 11.1.** Conceptual model of experiential avoidance.

has engaged in exposure, her cognitive avoidance has prevented the possibility of her public speaking behavior coming under the control of other available discriminative stimuli. Consequently, she is likely to continue to engage in narrow and inflexible safety-seeking strategies, including more cognitive avoidance (see Figure 11.1 for an illustration).

### Experiential Avoidance as a Transdiagnostic Process in Psychopathology

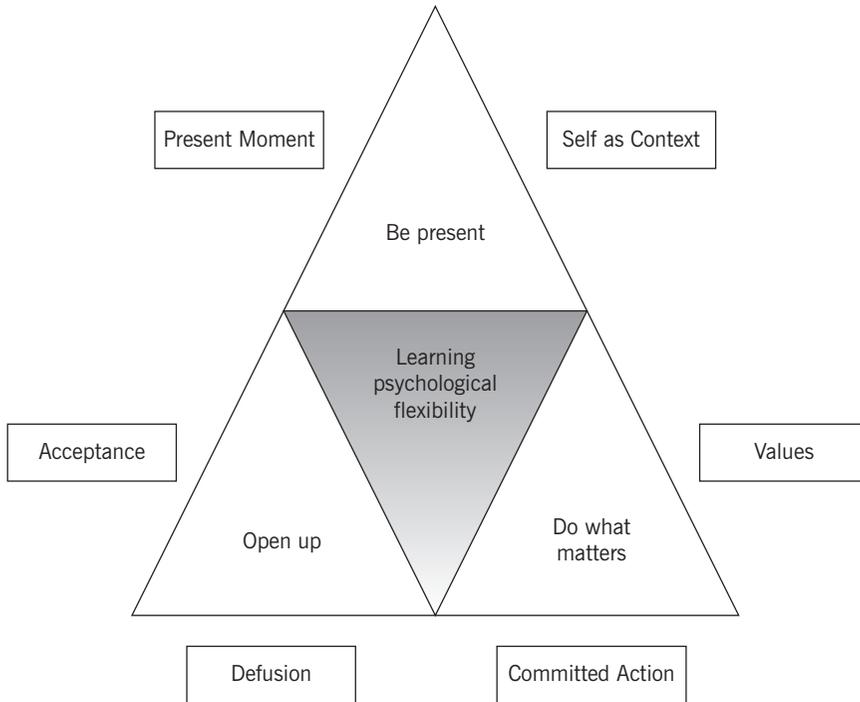
is growing evidence that in adult populations, experiential avoidance plays a role in the development and maintenance of psychopathology, as well as in treatment outcome (for reviews, see Boulanger, 2010; Chowla & Ostafin, 2007; Hayes et al., 2006). A recent meta-analysis demonstrated that experiential avoidance accounted for 16–28% of variance in psychological difficulties and had a moderately strong relationship (average  $r = .5$ ) with varying forms of psychopathology, including depression, anxiety, and psychological distress in clinical and nonclinical populations and across diagnostic categories (Hayes et al., 2006). There is also evidence that experiential avoidance moderates response to experimentally induced stressors, including panic (Karekla, Forsyth, & Kelly, 2004), anxiety, and stress (Feldner, Zvolensky, Eifert, & Spira, 2003), and that it mediates treatment outcome in interventions for diabetes (Gregg, Callaghan, Hayes, & Glenn-Lawson, 2007), epilepsy (Lundgren, Dahl, & Hayes, 2008), stress (Bond & Bunce, 2000), smoking (Gifford et al., 2004), and weight control (Lillis, Hayes, Bunting, & Masuda, 2009).

In youth populations, experiential avoidance has been implicated in adolescent well-being and prosocial tendencies (Ciarrochi, Kashdan, Leeson, Heaven, & Jordan, 2011), emotional and behavioral difficulties (Greco, Lambert, & Baer, 2008), and chronic pain (McCracken, Gauntlett-Gilbert, & Eccleston, 2010). Experiential avoidance also appears important in samples of youth who experience specific psychosocial stressors. In a sample of 85 gay, lesbian, and bisexual teens, experiential avoidance and self-critical thoughts together mediated the relationship between verbal bullying and depression, which suggests that avoidant coping used to deal with verbal abuse may confer greater risk of depression (Armeli, Delahanty, & Bloarts, 2010). Finally, experiential avoidance has been implicated in parenting stress and psychological functioning (Blackledge & Hayes, 2006; Cheron, Ehrenreich, & Pincus, 2009; Coyne & Silvia, 2007; Coyne & Thompson, 2011), parenting behaviors (Berlin, Sato, Jastrowski, Woods, & Davies, 2006; Coyne & Burke-Currie, 2011; Murrell, Wilson, LaBorde, Drake, & Rogers, 2009; Shea & Coyne, 2011), the quality of parent-child relationships (Shea & Coyne, 2011), and child emotional and behavioral functioning across developmental periods from birth (Greco et al., 2005) to early adulthood (Berlin et al., 2006; for a review, see Coyne, McHugh, & Martinez, 2011). Studies targeting experiential avoidance in parents have demonstrated decreases in parent distress in parents of autistic children (Blackledge & Hayes, 2006).

### **How Does ACT Target Cognitive Fusion and Experiential Avoidance?**

ACT targets experiential avoidance and cognitive fusion by attempting to undermine the negative effects of language while capitalizing on the positive effects. RFT and ACT suggest that clients' verbal structures are circulating the message that "undesirable thought content is a barrier to effective living." Two strategies are traditionally used to change this system: (1) changing the situation so as to change the content; (2) changing the content directly by avoiding it, disputing it, arguing with it, challenging it, justifying it, rationalizing it, denying it, ignoring it, tolerating it, and so forth. Despite implicit and explicit societal rules that specify otherwise, trying to successfully implement these functional avoidance strategies is futile and counterproductive.

Children and teens exposed to ACT treatment are brought through a series of experiential activities (exercises and metaphors) used to allow them to see this for themselves and to see that there is another option, which involves halting counterproductive avoidance strategies and instead focusing on pursuing their values. Put simply, clients stop trying to remove aversive experiences from their lives and start working for appetitives, or pleasant stimuli. Hence, after using experiential exercises



**FIGURE 11.2.** Core ACT processes expressed as a triflex. From Harris (2009, p. 13). Copyright 2009 by Russ Harris. Adapted with permission from New Harbinger Publications.

to undermine the negative influence of language, ACT also facilitates values-directed behavior in children's everyday lives, even in the face of discomfort and distress. This is often referred to as *psychological flexibility*, which is defined as engaging in effective, flexible behavior even in the presence of unwanted or unpleasant thoughts, emotions, and physiological responses, and it is the goal of ACT treatment. To describe it in its simplest terms, psychological flexibility is "the ability to open up, be present, and do what matters," illustrated in Figure 11.2 as a "triflex" (Harris, 2009, p. 12).

### ACT Therapy Components and Applications

ACT is made up of six components that can be divided into two broad groups: acceptance and mindfulness processes (acceptance, defusion)

and commitment and behavior change processes (values, committed action), with the components present-moment awareness and self as context overlapping in each group.

The first component of ACT is *cognitive defusion*, which targets cognitive fusion, and can be conceptualized as deliteralization of thoughts. In other words, it refers to the process through which an individual comes to understand that his or her thoughts are merely verbal events rather than actual events. For example, rather than a thought being perceived as a literal truth and serving as antecedents to avoidance, an individual might say, "I am having the thought that . . ." The second component is *acceptance*. Acceptance is an alternative to experiential avoidance and comprises awareness and compassionate acceptance of unpleasant material without any attempts to alter or avoid it. In the case of chronic physical pain, an ACT therapist might draw a client's attention to it or ask him or her to deliberately notice its quality, rather than distracting him- or herself from it. *Present-moment awareness*, the third ACT component, is defined as ongoing, nonevaluative awareness of psychological and environmental events as they occur on a moment-to-moment basis (this is also called *mindfulness*). The goal of present-moment awareness is to be in direct, continuous contact with the world.

*Self as context* is the fourth component of ACT and refers to the awareness that the self is experienced as a constant, unchanging perspective from which one can observe thoughts, emotions, and external experiences as they come and go. The fifth component, *values*, refers to the individual's domains of importance. They are not goals that can be attained but rather are guiding principles that are thought to motivate sustained and complex chains of behavior (Wilson & Murrell, 2004). Because behaviors are enacted in the service of values, these behaviors themselves may come to have some of the rewarding psychological properties of the valued domain. Sixth, ACT is also very explicit in its goal of fostering *committed action* in the service of one's valued goals. When individuals engage in committed action in the service of their values, they are typically brought into contact with previously avoided psychological experiences. To make a commitment to continued engagement in these behaviors implies willingness to have those experiences and to persist in one's behaviors, even in the face of psychological discomfort. This is a cornerstone of the ACT model of psychological flexibility—to continue to pursue valued ends in the face of discomfort or stress.

The following case example illustrates the adaptation of ACT for a middle-school-age child with significant comorbidity and functional impairment. For children and teens, ACT is often used with other traditional behavioral interventions, such as contingency management, parent management training, and skills building. Therefore, the intervention described next highlights how ACT may be integrated with these techniques.

## Case Example: ACT for School Refusal

### Identifying Features of Client

Joseph, a 12-year-old, typically developing, slightly obese Caucasian male, was initially referred by his mother, Ms. N., to a university psychological treatment center in the rural Southeast to address problems of chronic school refusal, anxiety, depression, noncompliance, and disruptive behavior both at home and in school. At the time of his assessment in April, Joseph had missed 69 days of school. He was failing, despite having gotten all A's and B's in the first 9 weeks of the school year, due to poor attendance and refusal to complete schoolwork at home. This followed a year in which he had been home-schooled due to his school avoidance. Joseph described numerous anxiety and somatic symptoms while in school, and he reported experiencing continued verbal and physical bullying, as well as unsympathetic teachers. While at home, Joseph mostly slept or watched TV, growing argumentative and violent when his mother encouraged him to go back to school. The school had informed Joseph's parents that they were to be fined and potentially jailed for educational neglect. Consequently, Mr. and Mrs. N. hoped that intervention would help Joseph return to school.

### Past Treatment History

Ms. N. reported that Joseph had an extensive history of psychiatric treatment beginning 3 years before, subsequent to the death of his grandfather, to whom he was very close. Joseph received both inpatient and outpatient services at various points. He stated that he was hospitalized for "anxiety" because he got "real bad sick" when away from his parents. A series of pharmacological treatments had been tried, and currently Joseph was taking 1000 mg of Depakote for "mood swings," in addition to 15 mg of Paxil for "agitation and worry."

### Assessment from an ACT Perspective

An ACT case conceptualization begins with a functional assessment to ascertain client behaviors that are unhelpful and reflective of experiential avoidance. With children, this includes assessment of the child's behavior, the family's response, and the nature of past treatment. In all three domains, Joseph's excessive anxiety and worry was seen as the cause of school refusal. Joseph avoided situations that elicited his anxiety—specifically school, but also any situations involving separation from his family. Therefore, Joseph's behavior constituted a functional avoidance strategy.

A variety of contingencies, both verbally mediated and immediately experienced, supported Joseph's experiential avoidance. Considered

from an ecological perspective, these contingencies existed in Joseph's immediate environment (his family), as well as at school, in the treatment community, and in the broader culture.

1. Joseph perceived his anxiety as "unbearable," and he engaged in situational avoidance to prevent its occurrence, as well as to escape (e.g., promising to attend school in response to his mother's demands to go and then failing to follow through; leaving school as soon as he was dropped off; engaging in fights at school that resulted in his being sent home; spending time in the nurse's office; "falling asleep" at his desk).

2. Joseph's mother accommodated his anxiety by making, and then failing to enforce, demands to attend school. She allowed him to stay home if he was "too upset."

3. Medical and mental health professionals supported Joseph's and his family's view that in order for him to return to school, his anxiety should be eliminated. They identified the anxiety-related cognition and emotion as "the problem" and, in an effort to eliminate anxiety, provided treatments aimed at altering the intensity and frequency of "the problem."

4. The culture teaches us that negative affect and cognition, unless relatively short in duration, are abnormal and problematic. For example, when Joseph showed anxiety in school, he was bullied by peers, who called him derogatory names.

5. To the extent that anxiety avoidance tactics and unilateral acts by the client (staying home from school) reduce anxiety, these "solutions" will be immediately reinforced by these reductions. Thus Joseph's multitude of anxiety avoidance strategies constitutes a narrow, inflexible behavioral repertoire that ultimately results in more sustained and intense anxiety over time. Moreover, the failure of these strategies to remove anxiety may have also contributed to Joseph's depression and externalizing behaviors.

### **ACT as a Solution**

From an ACT perspective, excessive attempts to control anxiety, rather than the anxiety itself, are seen as pathogenic. Therefore, we aim our efforts at disrupting the socioverbal context that establishes and maintains functional avoidance strategies. The first phase of the treatment of this young man involved a fairly straightforward reorganization of contingencies having to do with school attendance. The second phase of treatment is more specific to ACT and addressed the contingencies relevant to the establishment and maintenance of experiential avoidance. This latter set of contingencies are the focus of most of the following discussion.

During the course of treatment, the family met with therapist once per week for sessions lasting between 1 and 2 hours, for approximately 8

months (April to December). Both Joseph and his mother attended the majority of sessions, although each also attended separately, as needed.

### *Phase 1: Organization of Contingencies Regarding School Attendance*

At the outset of treatment, the therapist instructed Joseph's mother to stop trying to get him to attend school. It was clear that her attempts to argue, cajole, threaten, and beg Joseph to attend school were unproductive with respect to school attendance and also highly disruptive of the family's home life. If he refused to go to school, Joseph was to restrict his activity to resting or at most reading, but he ought not to engage in any activity that might be too stimulating, including watching television, going outside, or playing any games. Above all, Joseph's parents were admonished not to attempt in any way to argue, convince, or coerce Joseph into attending school. Joseph's therapist also put in place a reward system through which he could earn the privilege of participating in activities such as bowling or riding his go-cart, provided he attend a certain number of days of school during the week. This part of the intervention is a straightforward application of the principle of relativity of reinforcement (e.g., Timberlake & Allison, 1974): the therapist greatly decreased the availability of reinforcement at home and increased it contingent on school attendance.

In addition to this contingency-management component of treatment, Joseph, his mother, and the therapist began a conversation that focused on the following question: "In a world where you could take a strong direction in life, what direction might you take?" The balance of this discussion of intervention focuses on the ACT components of the treatment and about what got in the way of Joseph moving in that strong direction.

### *Phase 2: Targeting Experiential Avoidance*

Treatment of experiential avoidance begins by aggregating a functional class of avoidant behaviors and helping the client to make psychological contact with those behaviors and their results. The parents of this young man were quite sympathetic to the obvious distress that he was experiencing at school. The case conceptualization presented to them by other professionals was generally consistent with a lay view of anxiety problems. That is, Joseph behaved badly because he was feeling overwhelming anxiety and worry when he went to school. He felt that in order for him to attend school, anxiety and worry would need to be reduced. Thus the therapist began treatment by carefully going over all of the ways that the family and Joseph had tried to eliminate or at least reduce anxiety. This intervention, called *creative hopelessness*, strives to undermine the client's

desire to control private events. The intervention has a variety of functions. First, if attempts at control are truly pathogenic, we need to extinguish these responses. However, the client has actually been engaged in wholly sensible responses: in virtually every domain of life, attempts to remove oneself from pain are adaptive. Unfortunately, when such strategies are used to eliminate unwanted private events such as thoughts, emotions, or physical sensations, the result is their paradoxical amplification. In creative hopelessness interventions, ACT therapists pit entirely sensible avoidance strategies, again and again, against the client's experience of the unworkability of those strategies to manage private events. One aim of this intervention is to make a direct connection between a functional class of control strategies and their directly experienced, devastating consequences. Specifically, this includes the failure of these strategies to manage the anxiety in the long term.

### *Phase 3: Acceptance and Mindfulness Processes*

In ACT, individuals are taught mindfulness and acceptance in an experiential way, such that they may simply notice and detach from their thoughts and appreciate the present moment without evaluation or response. Here is an example, adapted from Coyne, Burke, and Freeman (2008), of how present-moment awareness was described to Joseph:

THERAPIST: I'd like to show you a way to be what we call "mindful," and to really notice what's going on around you. Would that be OK? (*Joseph nods.*) We're going to practice being explorers. Do you know what explorers do?

JOSEPH: They travel really far, even if they don't know the way. They discover stuff.

THERAPIST: How do you think they do that?

JOSEPH: I'm not sure. Maybe they start off on a journey?

THERAPIST: That's exactly right. Explorers get curious about stuff, and they set out to find out. They might be scared, or not know the right direction, but they do their best and start off anyway. But here's the trick—they are curious about what will happen, but they watch what happens without trying make stuff happen.

JOSEPH: I'm not sure I understand.

THERAPIST: Think of it this way. If you were at a restaurant and saw another kid eating a hot fudge sundae, what do you think about?

JOSEPH: How yummy it might be! And I want to eat it!

THERAPIST: Yup. And you probably imagine what the cold, vanilla ice cream will taste like, and wonder whether it's sweet, or maybe a

little melty because of the hot fudge, and if the brownie is chewy, and has chips in it. But you wouldn't go over to that kid and take his ice cream sundae, right? Well, that's like what an explorer does—noticing stuff, and being curious about it, without trying to change it. That's what we call being mindful. Can we try to practice that right now?

JOSEPH: All right.

THERAPIST: OK. Close your eyes . . . get comfy in your chair . . . notice how your body feels . . . where it touches the chair, where your feet touch the floor . . . notice all the sounds you hear . . . see how many different ones you can notice . . . see if you can notice how warm or cool the room is . . . see if you can feel the chair beneath you, holding you up . . . see if you can notice your breathing, gently, in and out . . . notice that the air is cool when you breathe it in, and warmer as you breathe it out. Now notice what you are thinking . . . if you are seeing pictures in your head, see if you can print them on the screen on your cellphone, like little texts or photos . . . imagine that each thought or picture in your head is on your phone . . . and just look at it until it passes and a new text or picture pops in . . .

*Defusion.* In order to target Joseph's cognitive fusion with the idea that going to school was impossible, the next phase of treatment involved *defusion*, which refers to exposure to unwanted private events such that they cease to be experienced as literal *truths*. The therapist introduced this concept to Joseph and his mother in the following way. To begin, he asked Joseph to imagine that he wanted very badly to leave the therapy room.

THERAPIST: If you wanted to leave this room, you could assume that the door was locked or assume that the door was unlocked. Right?

JOSEPH: Sure.

THERAPIST: What if you assumed that the door was unlocked . . . what would you do?

JOSEPH: I'd leave.

THERAPIST: Right. You'd get up, walk over to the door, and turn the knob. What if you assumed the door was locked?

JOSEPH: I don't know . . . wait until someone unlocked it I guess.

THERAPIST: OK. Could you assume that the door was unlocked, even if you believed that it was locked. That is, could you have the thought "the door is locked" while getting up and walking over to the door and turning the knob.

JOSEPH: Yes.

THERAPIST: OK. We are going to play a little game. In this game, I am going to ask you to assume that something is possible, even though your mind may say that it is not. Are you willing to play?

JOSEPH: I guess so.

*Acceptance.* Acceptance, like present-moment awareness, is a component of mindfulness. It involves giving oneself permission to experience the whole of one's experiences in a compassionate, nondefensive way. Acceptance can be particularly useful for parents who have difficulty tolerating their child's behavior or strong negative emotion. Here is an example, adapted from Coyne and Murrell (2009), of how an acceptance exercise was used with Joseph's mother:

THERAPIST: There's a Buddhist saying that, paraphrased, is something like, Don't speak unless you can improve on the silence. When Joseph is fearful and arguing with you about going to school, you have a choice about what you can do. You can engage him, and from what you tell me, the situation quickly escalates. But what if there's another way?

MRS. N: I'm not sure what that would be.

THERAPIST: We call it "acceptance," or nonjudgmental awareness of whatever you are feeling—all of your thoughts and feelings in response to Joseph, as well as all the thoughts and feelings that he expresses. Are you willing to try it here, right now, for a few minutes?

MRS. N.: Um, sure. I'm just not sure how to do it.

THERAPIST: That's OK. Let me try to show you, and let's see what happens. (*Client nods.*) Please close your eyes, and take a few moments to simply notice your breath. (*Client does so.*) I want you to imagine Joseph standing in front of you when he is anxious. Imagine the look on his face, his eyes, how he is breathing, if he is flushed, his posture, how quickly he moves, how he sounds when he speaks. Practice simply seeing him, how anxious he is. Don't try to change or solve anything, or help, or soothe him. There is no need. Simply be. Appreciate all the feelings he is showing you in this moment. Imagine that he sees you noticing him. Take a few moments to simply experience being with him.

*Self-as-Context.* A simple way to understand the "self-as-context" component of ACT is as perspective taking. It involves meta-awareness of one's experiences, or the ability to experience a stable, safe, and whole sense of self that holds thoughts, emotions, and physical sensations briefly

as they pass. Self-as-context awareness involves the ability to distinguish a few simple relational frames: I-you; here-there; and now-then (McHugh, Barnes-Holmes & Barnes-Holmes, 2004). Here is an example of how the therapist introduced self-as-context to Joseph through an experiential exercise called “the Treehouse” (Coyne & Murrell, 2009):

“When you are angry, close your eyes, and imagine you are in a treehouse. Outside the window of your treehouse is the sky, and it is stormy. Your feelings and thoughts about school and being away from home are the stormclouds—you can watch them safely from inside your treehouse. You are high up in the tree, so you are close to them, but you are far enough away to be safe in the treehouse. Watch what they do outside the window. What do they look like? Are they moving slowly or quickly? Is there lightning? Thunder? Rain? Let me know how they move, and when they come and go.”

#### *Phase 4: Behavior Change Processes*

*Valuing.* If symptom removal is not the work of therapy, what then? In order to identify treatment targets in ACT, one needs to establish the client’s sense of direction. As with any behavioral intervention, clinicians need to assess for reinforcers that are sufficiently potent to motivate therapeutic activity. Identifying reinforcers that are available in the individual’s day-to-day environment and that are the naturally occurring consequences of the desired behavior is optimal, as behavior brought under the control of such consequences has the greatest potential to be maintained posttreatment. In ACT, therapists conduct a values assessment because many of the strongest reinforcers available for people lie well outside the realm of primary reinforcers (e.g., going to heaven, being thought a good parent, being a pillar of the community, making a scientific contribution). Therapists thus assess for values in areas such as education, family, and social relations, among others. ACT therapists often ask children to generate lists of behaviors that are consistent with their values, as well as those that are inconsistent. Joseph had a great fondness for a certain university in the South, as do many young people from that area. When asked if he would like to attend that university when he finished school, he agreed that he would definitely like that. In order to attend a university, Joseph knew he had to do well in school. Therefore, he identified his value as “being an extraordinary student.”

*Committed Action.* What ensued was a conversation about what would need to happen in order for Joseph to attend that university. Joseph stated that he would have to go to school. The therapist asked Joseph: “If therapy could be about you being an extraordinary student, would that be

something you would be willing to work for?” The therapist then went on to ask him to imagine that this was possible and then instructed Joseph to ask himself a few questions: “If this could really work—you could become an extraordinary student—would it be worth feeling anxious, if that were the cost?” “What if you had to feel even more anxious than you ever felt, but in the end, you got to be an extraordinary student?”

To begin to more clearly delineate behaviors that would assist Joseph in becoming an extraordinary student, the clinician worked with him on discriminating those behaviors that “worked” and those that didn’t. For example, he identified going to school, paying attention in class, staying in his seat, raising his hand if he had a question, and staying out of fights when he was mad as behaviors that “worked.” Things that didn’t work included arguing with his mother, staying home and sleeping all day, and telling the nurse he was sick so that he could go home.

Thus Joseph agreed to a treatment contract that involved working on becoming an extraordinary student as a project. Joseph was told that being an extraordinary student is like a team sport. His therapist asked him to imagine what would happen if he played on a football team (he loved football) in which the other team had eleven players, but his team had fifty players. Joseph could see the advantage of having a large team, and it was clear that his family and teachers at school would be important members of the team. Joseph and his therapist developed a recruiting strategy that had the following elements.

1. Approaching the person he wanted to recruit.
2. Stating his intention for the school year (being an extraordinary student).
3. Acknowledging the person’s skepticism if he or she had known him the previous year. This usually took the form of: “I know this sounds kind of impossible, and I don’t expect you to believe me just yet, but I intend to be an extraordinary student this year.”
4. Repairing damaged relationships where necessary. This step typically involved saying something like: “I realize that I behaved very badly in your class last year. I know that my behavior was disrespectful. I know that I made it impossible for you to teach me anything.”
5. Finally, Joseph asked the teacher to be on his team. This usually took the following form: “I know that to do this, I will need a lot of help. I am building a team to help me be an extraordinary student. Would you please be on my team and help me to be an extraordinary student this year?”

It is worth noting that this commitment exercise involved massive exposure to avoided psychological and environmental content. In order

to do the exercises, Joseph had to go to school. He had to interact with teachers. Who likes to admit when they have been wrong?

To enhance the probability of this work being done, the therapist conducted defusion and exposure work on past academic failures, because any attempt on Joseph's part to do better in school would almost certainly occasion memories of past school failures. Consequently, Joseph needed to develop greater flexibility in his reactions to his thoughts about failure. In addition, the therapist told Joseph that if he did this task, his experience in school might be completely transformed. The therapist asked him to imagine a world in which enemies became friends, in which mistakes that he made could help him to move ahead, and in which things that once seemed impossible became possible. To his delight, Joseph's recruiting efforts were met with no less than astonishment by his teachers. He did not receive a single negative response to his recruiting efforts.

## Conclusions

The theories, mechanisms, and implementation of ACT have been shown to be efficacious across a wide range of adult populations. Though the child/adolescent ACT literature is only in its early stages, the overall effects are promising. In order to move forward, future work is needed, especially prospective studies of experiential avoidance and cognitive fusion as common or transdiagnostic risk factors in younger samples of children. Furthermore, the process of experiential avoidance should be more broadly measured, using observational tools, other report measures, and lab-based analogue indices. Finally, intervention studies should compare ACT or ACT-based interventions with traditional evidence-based strategies to determine whether ACT approaches parallel or improve on them. Perhaps most important, experiential avoidance should be assessed as a mediator or moderator of treatment outcome in clinical trials with children, adolescents, and parents. In sum, ACT may be a relatively ideal transdiagnostic model, given its clear linkage between treatment components, theory, and empirical data. Furthermore, the goals of ACT are not only malleable to various clinical presentations, but they are also accessible to youth at different developmental levels. Thus ACT demonstrates significant transdiagnostic potential for children, adolescents, and families.

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