

SPECIAL SERIES Acceptance and Commitment Therapy

Series Editor: Michael P. Twohig

Introduction: The Basics of Acceptance and Commitment Therapy

Michael P. Twohig, *Utah State University*

This is the introductory article to a special series in Cognitive and Behavioral Practice on Acceptance and Commitment Therapy (ACT). Instead of each article herein reviewing the basics of ACT, this article contains that review. This article provides a description of where ACT fits within the larger category of cognitive behavior therapy (CBT): CBT is an overarching term for a whole cluster of therapies, and ACT is one of many forms of CBT. Functional contextualism and how it informs ACT is briefly reviewed. The behavior analytic account of cognition that informs ACT, relational frame theory (RFT), and rule-governed behavior are covered. Psychological flexibility and the 6 resulting psychological processes of change (acceptance, defusion, being present, self as context, values, and committed action) are described. The empirical support for ACT and its related model are presented. Finally, characteristics of the ACT model, including its therapeutic approach, desired outcomes, and processes of change, are reviewed.

THIS special series on Acceptance and Commitment Therapy (ACT) contains eight empirical papers on the efficacy of ACT, its target processes, or how to administer it. Rather than having each author review the basic concepts and terms used in ACT, this article will serve that purpose. This article describes where ACT fits in the larger field of CBT; the philosophical model on which ACT is based, functional contextualism; the behavior analytic account of cognition that informs ACT, relational frame theory (RFT) and rule-governed behavior; the psychological construct that this model addresses, psychological flexibility; the empirical support for ACT and its related model; and characteristics of the ACT model, including its therapeutic approach, desired outcomes, and processes of change.

ACT as a Type of CBT

There are many types of CBT, including traditional cognitive therapy presented by Dr. Aaron Beck, exposure with response prevention, dialectical behavior therapy, schema therapy, and motivational interviewing—to name only a few. Because a large enough group of cognitive

behavioral therapies existed (by the early 2000s) that focused more heavily on processes such as acceptance, mindfulness, and second-order change, Hayes (2004) suggested that a “third wave” of behavior therapy might be occurring (with the first wave being behavior therapy and the second wave being traditional cognitive therapy). This concept was presented as the emergence of a new “set or formulation of dominant assumptions, methods, and goals, some implicit, that help organize research, theory, and practice” (p. 640). The third wave was said to be “not a rejection of the first and second waves of behavioral and cognitive therapy” (p. 660) but rather a “healing old wounds and divisions between behavioral and cognitive perspectives” (p. 660) that encouraged the “transformation of these earlier phases into a new, broader, more interconnected form” (p. 660). The language of “waves,” however, led to a concern that previous forms of CBT were being *replaced* and thus led to written and verbal debates over whether there really is a third wave and if it is anything new (Hofmann & Asmundson, 2008). This phase of concern seems to have passed, and ACT and other new methods are now well positioned within larger CBT as forms of “contextual cognitive behavior therapy.” ACT is thus a form of CBT, with CBT being an umbrella term for the larger number of therapies that fall under the cognitive behavioral model.

Functional Contextualism

ACT comes from a philosophical framework called functional contextualism (Hayes, Hayes, & Reese, 1988;

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Hayes, Hayes, Reese, & Sarbin, 1993). This philosophical approach shares many similarities with radical behaviorism, and in part for that reason ACT is considered a form of clinical behavior analysis (Dougher & Hayes, 2000). While philosophical assumptions are not usually at the forefront of a therapeutic approach, in the case of ACT, its philosophy of science guides most aspects of its research and administration. Functional contextualism is not argued to be chosen as ACT's philosophical stance because it is inherently the "best" or "right": it is simply stated, from the beginning, as the chosen philosophic model and its outcomes are judged against its goals. Its explication is necessary because these assumptions emphasize the central pragmatic concerns in developing and utilizing this therapy.

There are many elements of functional contextualism that are worth familiarizing oneself with if interested in ACT, but for the sake of brevity, two main concepts will be reviewed: the chosen unit of analysis and its truth criterion. The *whole event* is studied from the functional contextual model. Elements of the larger event are generally not studied in isolation because doing so may disregard important contextual features to any action. This issue is that formally similar actions may have very different functions depending on context. Knowing the function of an action is important to successfully intervene on that behavior. This is similar to the way reinforcers and punishers are defined—functionally, not topographically. The same thing applies to all inner experiences (thoughts, feelings, bodily sensations): none are inherently problematic or positive; it all has to do with how they function for the person.

The truth criterion of contextualism is *effective action*; functional contextualism refines that general criterion to a more specific goal—prediction and influence with precision, scope, and depth (Hayes et al., 1993). All truth criteria provide a metric against which success can be measured, and merely allows principles, theories, and methods to be judged against predefined goals. This applies to therapy outcomes as well as the larger scientific endeavor. If functional contextual science does not result in effective clinical interventions and progressive ways of doing scientific work, then it fails. If meaningful clinical outcomes are seen and its related science is progressing in a useful manner, then it is succeeding. This differs from other models, such as mechanistic or developmental models, that might be more interested in constructing models of the parts, relations, and forces that make up the world, or predicting and observing the pattern of growth. Functional contextualism also highlights the need for the science to be progressive by demanding that the work cohere with other scientific levels and domains (that is what is meant by "depth"), while maintaining a suitable level of precision and utility within the field of psychology.

Clinically, functional contextualism leads to certain theoretical viewpoints that are central to ACT. First, because of the emphasis on *influence*, ACT takes on a behavioral viewpoint of inner experiences. Inner experiences are seen as responses to environmental events rather than independent causes of action. From a behavioral perspective, an event may evoke or elicit a particular inner experience, and that inner experience may influence one's actions, but the cause is back in the environment. This is partially why inner experiences are addressed with acceptance and mindfulness strategies rather than more direct strategies such as cognitive challenging. ACT attempts to take the cognitions out of the way so that the individual can better interact with the actual contingencies. Additionally, the goal of successful working is not restricted to diagnosable disorders; this ties into the great number of ACT studies that address issues of social importance that are not diagnosable disorders—for example, increasing the use of evidence-based practices (Varra, Hayes, Roget, & Fisher, 2008), infertility stress (Peterson & Eifert, 2011), and marital distress (Peterson, Eifert, Feingold, & Davidson, 2009), to name a few.

Behavior Analytic Account of Cognition: RFT

Consistent with the functional contextual philosophy of science, an account of cognition that is clinically useful is needed to guide the larger base of work that informs ACT. Two lines of research from behavior analysis inform ACT: RFT (Hayes, Barnes-Holmes, & Roche, 2001) and rule-governed behavior (Hayes, 1989), both of which have a considerable research base; therefore, only a cursory review can occur here.

RFT

Cognitive humans do not simply respond to the formal properties of the stimuli that we interact with like other nonverbal animals do. A dog trained to respond to a stimulus will respond similarly to ones that share formal properties with it (stimulus generalization). Humans with cognitive abilities have a way of effectively responding to stimuli (external and internal) based on properties that go beyond direct experience or stimulus generalization; we can respond to stimuli based on a learned ability to relate stimuli mutually and in combination and to alter their functional properties on that basis (Hayes et al., 2001). Relational framing of this kind is argued to be learned, operant behavior, meaning we learn through multiple exemplars and shaping when and how to relationally respond to stimuli. There are many tested forms of relational responding including, same, different, better, time, and cause.

The type of relational framing that will occur is guided by contextual cues, one set guiding relations themselves and another guiding the functions of the stimuli that are

altered by a relational network. Laboratory research has shown that the type of relation and the derived function are governed by these different contextual features. Written more colloquially, what a stimuli *is* and its *suggested response* are under the control of different features of the environment. This has meaningful clinical implications in that therapy can either address the relational or functional context that external stimuli or inner experiences occur in. ACT by and large focuses on the functional context because research has shown that once relational contexts are trained they cannot be untrained (Wilson & Hayes, 1996), but that the functional context under which stimuli occur can be altered while leaving what a stimuli is in place (Hooper, Saunders, & McHugh, 2010). Thus, if a client is having the thought, “I am a terrible person,” instead of addressing the accuracy of that thought, ACT would work with the person to experience that thought in a way that does not negatively affect his actions while possibly allowing the content of the thought to stay the same.

Rule-Governed Behavior

One of the implications of relational framing is that we can create cognitive networks that represent the way environmental contingencies function. Unfortunately, these cognitively specified contingencies may not reflect the environment contingencies actually in place and thus can lead to dysfunctional behavior patterns. In general, the ability to develop cognitive contingencies is useful because it allows us to create effective behavior plans without direct experience, but can also be at the root of many forms of psychopathology. A simple example is someone with obsessive-compulsive disorder developing a rule that a ritualized shower is necessary to rid oneself of germs and that any interruption of the ritual results in recontamination. The core of this rule, “showering is good,” is useful: but the verbally constructed rule (that the ritual must be followed) does not accurately represent the way the world works. The result of this verbal rule is that the person follows *it* rather than following the actual contingency that would indicate something other than the verbal rule.

The most notable finding from rule governance research is that cognitive rules make us less sensitive to environmental contingencies (Hayes, 1989). Again, cognitive rules may be useful in some contexts and problematic in others; the client needs to be aware of learned or derived rules, and show the flexibility to follow them in some situations and not follow them in others. Oftentimes, it is problematic to either follow inaccurate rules or follow useful rules too rigidly. Therefore, in ACT, many direct and subtle steps are taken to help the client contact actual environmental contingencies so that they may shape behavior to what the environmental contin-

gencies suggest is most effective. New rules will be created, but additional methods are used so that the client stays open to the likelihood that these contingencies too may change. This illustrates the focus in ACT on behavior change as well as flexibility with cognitions.

This is an overarching theme in a functional contextual account of language and cognition—our verbal and cognitive abilities are very useful, but they can also have a dangerous side. Thus, the corresponding therapeutic approaches will focus on finding ways to utilize our verbal abilities, while at the same time learning when to step back from them and not follow them when they are not useful. Events outside us and our thoughts, feelings, and emotions will push us into actions that are not in our best interest, and basic research suggests there are instances when these events can be altered and instances when they cannot be changed. The key is to determine this difference and make useful choices in these situations.

The Resulting Clinical Model: Development of Psychological Flexibility

Because language is viewed as a pragmatic tool, ACT theorists have attempted to construct a functional contextual model of psychopathology and psychotherapy that uses a series of psychological constructs that are more easily disseminated and understood than the basic terms of behavioral principles and RFT. The mid-level terms in these clinical models are themselves analyzed using basic terms and experimentation, thus there is a conscious effort to keep traffic flowing on the bridge between applied and basic sciences. Basic work in behavior analysis on learning and on cognition, applied research on these psychological constructs and their utility, and efficacy and effectiveness studies on the resulting clinical intervention all work together to inform this line of work. The treatment model is designed to be clinically accessible, however, so that practitioners need not understand RFT and similar concepts to begin to use ACT.

Psychological Flexibility

The core functional concept from this model is *psychological flexibility*, which is the ability to fully contact the present moment and the inner experiences that are occurring, without needless defense, and, depending upon the context, persisting or changing in the pursuit of goals or personal values (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). It is the opposite of *psychological inflexibility* (see Figure 1), which is argued to be a core process in psychopathology (Hayes et al., 2006). In order to address psychological flexibility, this model targets six easily understood psychological processes of change.

ACT

ACT directly aims to increase psychological flexibility, and it does this through the following six psychological

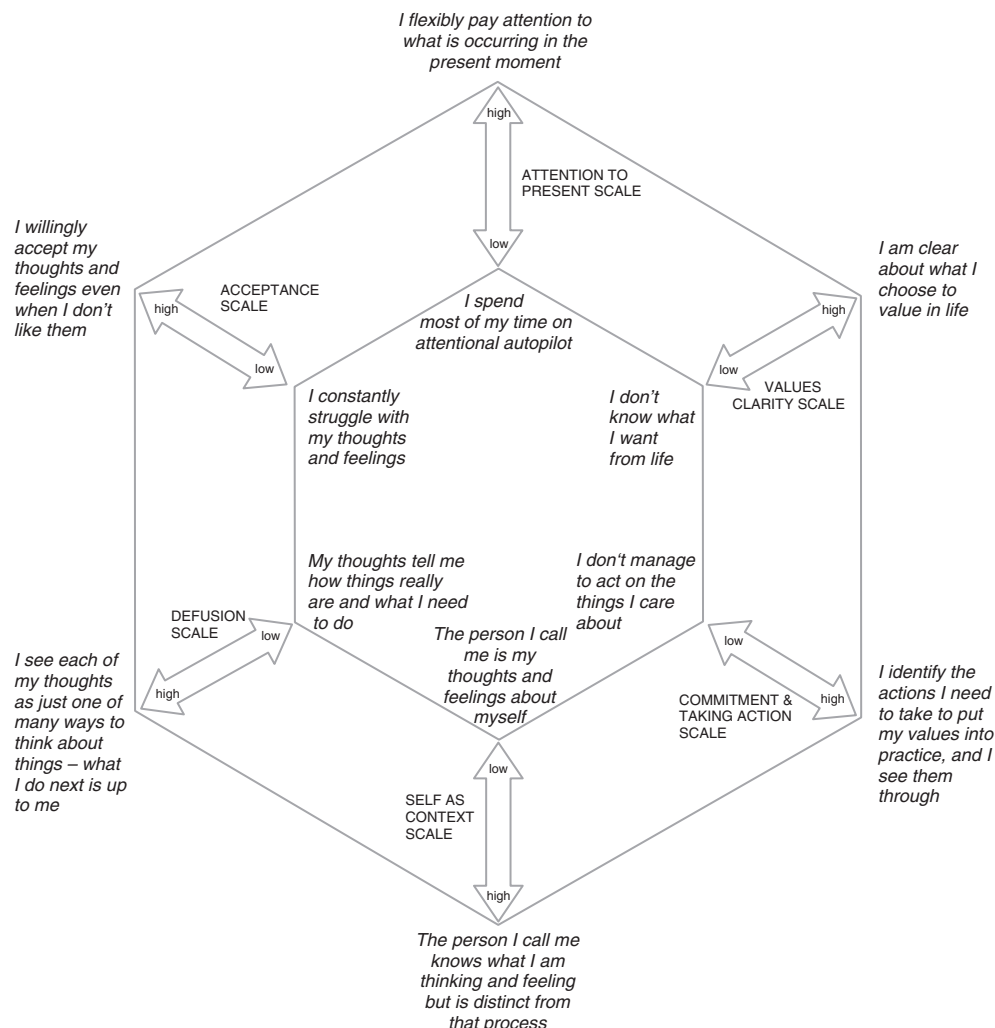


Figure 1. Clinical descriptions of low and high presence of the six ACT processes of change. *Note.* Based on the ACT ADVISOR by David Chantry and used with permission.

processes of change: acceptance, defusion, being present, self as context, values, and behavioral commitments, all of which have considerable support outside of larger treatment packages (Hayes et al., 2006; Ruiz, 2010). As can be seen in Figure 1, each of these processes of change is at one end of a continuum and its opposite process of change is at the other. Consistent with the functional philosophy that ACT is based on, the more functional end of this spectrum is context dependent. For example, being defused from anxious thoughts can be useful when giving an important lecture, but some fusion with thoughts might be useful when one is about to engage in a dangerous activity. Part of what is taught in ACT is developing the discrimination between these ends of each process of change and knowing how to effectively engage each behavior.

Acceptance. Acceptance involves actively embracing inner experiences, while they are presently occurring, as ongoing inner experiences. This is an action; it is not an attitude or an opinion. We can choose to behave acceptingly or we can work to regulate our inner experiences. Acceptance is different than tolerance because acceptance is viewed as a choice and involves a more welcoming stance towards the inner experience. Acceptance targets the context that an inner experience occurs in and decreases the effort that one exerts to control or regulate certain inner experiences. Acceptance is applied to inner experiences that foster experiential avoidance, which is attempting to reduce or avoid unwanted inner experiences when doing so results in negative effects on one's functioning (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). An example of experiential avoidance could be where an individual with an

anxiety disorder either avoids or escapes situations that bring on anxiety, or while in an anxiety-producing situation engages in inner dialogue aimed at lessening that anxiety. Conversely, acceptance not only involves actively being in situations that bring on anxiety, but treating one's anxiety in a welcoming way while it is there. Thus, while doing exposure exercises, the therapist might ask, "How open are you to your anxiety?" rather than "How much anxiety are you feeling?"

Cognitive defusion. Cognitive defusion involves altering the context in which inner experiences occur in an attempt to decrease their automatic impact and importance, allowing them to be seen as an ongoing process. Written another way, cognitive defusion can be thought of as reducing the literal meaning of inner experiences so that thoughts are experienced as just thoughts, feelings are just feelings, and bodily sensations are just bodily sensations. Cognitive defusion is the opposite of cognitive fusion, which is where the inner experiences are taken literally and have a large amount of power over one's actions. Cognitive defusion and cognitive fusion are both useful; it is just that they need to be flexibly applied to different situations. For example, when one is doing taxes or grocery shopping, being fused might be useful as the work is completed with greater speed and accuracy. Whereas, if one is having the thought, "I am worthless," it might be more useful for the person to experience that thought as just words and sounds and choose to not let it influence one's actions.

Being present. Being present is when we experience our inner experiences and events in our environments as occurring now as opposed to focusing on events in the past or in the future. *Being present* is generally defined as flexible, fluid, and voluntary attention to internal and external events as they are occurring, without attachment to evaluation or judgment. Being present with one's internal and external environment helps in experiencing the world as it really is occurring and decreases the impact of the cognitively constructed world. Being present entails at least three skills: the ability to regulate attention to the now; openly and fully experiencing what is occurring; and labeling and describing these events in a nonjudgmental manner. The flip side of being present is being attached to a cognitive representation of the past or the future. Common examples of not being present occur while ruminating or worrying. In both these situations, the individual is not in contact with the events that are occurring currently, but engaged with events that have already occurred or might occur. A client with rumination or worry might be taught to recognize when they are not aware of the present moment, notice its occurrence, and refocus their attention to their current inner experiences

and events in their current environment. In ACT, it is less about being present, but being able to notice when one is not, and flexibly shifting attention to the present if it is in the person's best interest.

Self as context. The *conceptualized self* is the "you" that is constructed that is based upon self-evaluations and categorizations. It is what we believe ourselves to be. The clinical issue is that people will attempt to protect, retain, or shield that conceptualization of the self even when it leads to ineffective action. For example, if a person has labeled himself as "depressed," he may very well engage in behaviors that continue to maintain that self-description of depressed, out of a basic belief that a self must be protected. In ACT, we work to develop a sense of *self as context*, where the self is the place of awareness or perspective taking that allows internal and external events to be experienced from "I/here/now" without being defined by those events. From this sense of self as the context where inner experiences occur, but is not defined by them, we can choose to follow and adhere to our senses of who we are in some situations and not in others. Similar to other ACT processes, flexibility in this area is desired. Self as context is thought to be facilitated by cognitive defusion applied to the conceptualization of self, and by mindfulness or other awareness exercises, showing the interplay among the six ACT processes.

Values. In ACT, values are elements of life that we care about that motivate us to engage in certain activities. While there are some common values that most people share, values are individually chosen. Values are often contrasted with goals. Goals are obtainable, such as a marriage. Values can only be instantiated as an aspect of ongoing action, such as being a loving and kind husband, and thus are more like adverbs than nouns. They can be pursued across one's life, but they cannot be possessed like objects. They can provide guidance, meaning, and purpose for our actions. Functionally, clarifying values affects the reinforcing and punishing functions of events involved in pursuing those values. Thus, helping clarify a client's values should help make it more likely that he will approach stimuli that originally fostered avoidance; in addition, reinforcers that were having little effect may become more powerful. For example, telling a client diagnosed with an anxiety disorder that approaching an anxiety-provoking stimuli (and allowing the anxiety to be there without defense) brings him a step closer to being able to attend an event at his child's school (if parenting is a value) would increase the reinforcing value of experiencing anxiety.

Behavioral commitments. This is the area of ACT where traditional behavior change procedures are

incorporated into therapy. All other processes in ACT serve to either alter the context in which inner experiences occur, or alter the reinforcing or punishing effects of stimuli. Committed action is more skill based and generally involves enacting one's values while practicing acceptance, defusion, being present, and treating oneself as the context where inner experiences occur. *Committed action* is the continuous redirection of behavior so as to construct larger and larger patterns of flexible and effective behavior linked to a value. It involves defining personal goals along a path and acting on those goals, while practicing the other ACT strategies, thus building larger patterns of values-oriented action. Any behavioral intervention method can be incorporated as part of ACT as long as it is consistent with the other ACT processes. This can include exposure exercises, fading procedures, or skills training activities.

Basic Therapeutic Stance

Probably one of the most notable aspects of ACT is that it is experientially oriented. At times this means it is difficult to move from its written description to its implementation. In describing ACT we are using language and cognition to teach skills that are designed in part to undermine typical language and cognitive processes. In a sense we are fighting fire with fire. For example, we are trying to help clients take language less literally through conversation; we are trying to loosen the grip of rules but in the process teaching the rule that rules cannot be trusted; and, finally, to clarify one's values but also hold those values lightly as they are likely to shift over time. Thus, often the least direct or rule-forming ways of teaching ACT processes are utilized. ACT relies heavily on metaphors or stories, exercises and role-plays are common in session, and examples from the client's or the therapist's lives are also used to help develop psychological flexibility. ACT is usually not implemented didactically; rather, a therapeutic context where these processes can be taught and practiced is common. The therapist might attempt to bring up target inner experiences during therapy and help the client to practice using the six processes while that inner experience is present.

One final part of ACT that may be different from some other therapies is that in ACT, the therapist deliberately tries to model these six ACT processes within the session. This occurs moment to moment in session in the way that the therapist responds to his or her inner experiences during therapy, but also the manner in which the therapist responds to the client's inner experiences. For example, when a client shows emotion, the therapist would not attempt to "save" the client from that emotion, but rather, show acceptance of that emotion by openly talking about it and showing openness to its emotional impact on the therapist. By showing acceptance of the

client's emotions and modeling the six ACT processes with regard to the emotions that the therapist is feeling, ACT processes are being facilitated without formal exercises. One useful way to think about ACT is that it seeks to establish a new context in which inner experiences are not causal and one's behavior is guided by what he or she chooses to hold as important in life. For example, the feeling of depression, when viewed from an accepting and defused standpoint, may have little influence on one's actions; instead, client actions can be influenced by personal values. As this context becomes powerful enough that it is carried outside of session, it is hoped that the client then contacts actual contingencies in the world and learns how to function better within them.

Empirical Support for ACT

There is growing support for ACT across a broad group of social concerns, but before these outcomes are reviewed, the manner in which this approach and model are evaluated should be addressed. Based on the functional model from which ACT was developed, there are no inherently problematic behaviors. Some types of behaviors are very likely to be problematic, but a functional assessment should occur before that is determined. Thus, there is no particular thought or style of thinking that is problematic from this model; the issue is really what response the thought leads to. Again, using OCD as an example, obsessive thoughts are only problematic when they are taken literally and lead to behaviors that get in the way of the person's functioning. If someone can learn to "just notice" the obsession and continue in a meaningful direction in life, the form or frequency of that thought would have a small impact on behavior and not need to be addressed clinically. This highlights ACT's greater focus on functioning rather than symptom reduction per se. This can be contrary to how change is defined for some disorders. This issue was highlighted in a recent metaanalysis of ACT conducted by Powers, Zum Vörde Sive Vörding, and Emmelkamp (2009) that showed that ACT for chronic pain had near zero effect sizes for pain intensity, but those same effect sizes were large if using behavioral functioning as the dependent variable (Levin & Hayes, 2009).

ACT has been tested for a surprisingly large set of social issues, many of which are not diagnosable, although many are (Hayes et al., 2006; Ruiz, 2010). Specifically, ACT has been shown to be effective for a variety of anxiety disorders (e.g., Codd, Twohig, Crosby & Enno, 2011), mood disorders (e.g., Zettle & Rains, 1989), substance use disorders (e.g., Hayes et al., 2004), psychotic disorders (e.g., Gaudiano & Herbert, 2006), eating disorders and weight issues (e.g., Juarascio, Forman, & Herbert, 2010), impulse control disorders (e.g., Woods, Wetterneck, & Flessner, 2006), personality disorders (Gratz & Gunderson,

2006), as well as issues confronted in behavioral medicine (Gundy, Woidneck, Pratt, Christian, & Twohig, 2011). ACT has also been successfully used with children (Coyne, McHugh & Martinez, 2012) and is being applied to individuals with developmental disabilities or brain injury (e.g., Soo, Tate, & Lane-Brown, 2011), although in the latter case data are not out yet. In addition, ACT has been shown to be useful with a variety of issues that are not diagnosable, such as parental distress associated with raising children with developmental disorders (Blackledge & Hayes, 2006), stigma issues (Masuda et al., 2007), helping professionals adopt empirically supported interventions (Varra, Hayes, Roget, & Fisher, 2008), infertility stress (Peterson & Eifert, 2011), and marital distress (Peterson et al., 2009), to name a few. Recent reviews and meta-analyses have suggested that ACT is more effective than control conditions but has not been shown to be more effective than other empirically established psychosocial treatments such as more traditional CBT packages (Öst, 2008; Powers et al., 2009), although the empirical arguments are complex and in flux (e.g., Gaudiano, 2009; Levin & Hayes, 2009; Powers & Emmelkamp, 2009).

Support for the Model

As hopefully is evident from the overarching strategy presented here, outcomes and comparisons between treatments is only a part of this research agenda (Hayes, Villatte, Levin, & Hildebrandt, 2011). The issue is really in the effectiveness of this larger line of research. If this agenda helps to move the field forward in a meaningful way, then it succeeded; if it does not help science progress and help more people who are suffering, then it failed. There appears to be evidence that this is a successful line of research and the original goals of *prediction and influence with precision, scope, and depth* seem to be supported. Prediction exists in that those with greater levels of psychological inflexibility in general suffer more and have greater pathology (Hayes et al., 2006). Influence appears to be supported based on the evidence that this work is helpful clinically (Powers et al., 2009). The precision of the model is supported in that the applied model is supported by the basic research on language and cognition. Additionally, precision exists in that, thus far, the evidence has generally supported psychological flexibility as the process of change in ACT versus alternative models such as how often or what types of thoughts occur (e.g., Bach & Hayes, 2002; see review by Hayes et al., 2006). Finally, scope exists in that research within ACT seems consistent with other lines of research both within RFT (e.g., McHugh & Stewart, 2012) and within lines of research that are not part of this general research program. For example, the work on thought suppression is consistent with an ACT model of dealing with problematic cognitions (Wenzlaff & Wegner, 2000). The way inner

experiences are addressed in ACT is also consistent with modern accounts of behavioral processes like extinction, which no longer suggest that behaviors are unlearned but rather become contextually controlled (Bouton, 2000).

Contents of Special Series on ACT and Summary of Introduction

This special series contains eight empirical papers that are consistent with the ACT model. There are three randomized controlled trials of ACT versus treatment as usual: psychosocial coping with late-stage ovarian cancer (Rost, Wilson, Buchanan, Hildebrandt, & Mutch, this issue), borderline personality disorder (Morton, Snowden, Gopold, & Guymier, this issue), and depression (Folke, Parling, & Melin, this issue). Clarke and colleagues (Clarke, Kingston, Wilson, Bolderston, & Remington, this issue) also provide data on ACT for treatment-resistant clients but do so within an open trial. The multiple baseline across participants design was used to test the effects of ACT for self-stigma around sexual orientation (Yadavaia & Hayes, this issue) or ACT plus behavior therapy for trichotillomania (Crosby, Dehlin, Mitchell, & Twohig, this issue). Psychometric data on a new assessment device for values that has both research and clinical utility is presented (Lundgren, Luoma, Dahl, Strosahl, & Melin, this issue). In a more basic experiment, Hussey and Barnes-Holmes (this issue) use RFT to guide an experiment on implicit attitudes and levels of depression and psychological flexibility.

Clearly there is a lot more work to do, but based on the new data that are presented in this special series and the evidence reviewed herein, this appears to be a line of work that is worth continuing. Hopefully, it is clear that this line of research is much more than just “does ACT work for this or that,” but that the work includes theoretical and philosophical writings; laboratory work on language and cognition and other behavioral principles that are applied to humans; development and refinement of the psychological constructs addressed in ACT; measure development; clinical technique development; intervention testing; and the testing of the purported processes of change in the treatment once it is delivered. Some of this work occurs in basic laboratories and other work occurs in more applied contexts; regardless, a focus on linking and translating this work across levels of analysis is needed. Basic and applied researchers need to continue to communicate and ask for answers from each other. This approach appears to be an endeavor that many of us who fall under the CBT label are interested in and goes well beyond the brand “ACT,” and is really about helping those who need it.

References

- Bach, P., & Hayes, S. C. (2002). The use of acceptance and commitment therapy to prevent the rehospitalization of psychotic patients: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 70, 1129–1139. <http://dx.doi.org/10.1037/0022-006X.70.5.1129>

- Blackledge, J. T., & Hayes, S. C. (2006). Using acceptance and commitment training in the support of parents of children diagnosed with autism. *Child & Family Behavior Therapy*, 28, 1–18. http://dx.doi.org/10.1300/J019v28n01_01.
- Bouton, M. E. (2000). A learning theory perspective on lapse, relapse, and the maintenance of behavior change. *Health Psychology*, 19, 57–63. <http://dx.doi.org/10.1037/0278-6133.19.Supp.11.57>.
- Clarke, S., Kingston, J., Wilson, K. G., Bolderston, H., & Remington, B. (this issue). Acceptance and commitment therapy for a heterogeneous group of treatment resistant clients: A treatment development study. *Cognitive and Behavioral Practice*.
- Codd, R. T., III, Twohig, M. P., Crosby, J. M., & Enno, A. (2011). Treatment of three anxiety disorder cases with acceptance and commitment therapy in a private practice. *Journal of Cognitive Psychotherapy*, 25, 203–217. <http://dx.doi.org/10.1891/0889-8391.25.3.203>.
- Coyne, L. W., McHugh, L., & Martine, E. R. (2012). Acceptance and commitment therapy (ACT): Advances and applications with children, adolescents, and families. *Child and Adolescent Psychiatric Clinics of North America*, 20, 379–399. <http://dx.doi.org/10.1016/j.chc.2011.01.010>.
- Crosby, J. M., Dehlin, J. P., Mitchell, P. R., & Twohig, M. P. (this issue). Acceptance and commitment therapy and habit reversal training for the treatment of trichotillomania. *Cognitive and Behavioral Practice*.
- Dougher, M. J., & Hayes, S. C. (2000). Clinical behavior analysis. In M. J. Dougher (Ed.), *Clinical behavior analysis* (pp. 11–25). Reno, NV: Context Press.
- Folke, F., Parling, T., & Melin, L. (this issue). Acceptance and commitment therapy for depression: A preliminary randomized clinical trial for unemployed on long-term sick leave. *Cognitive and Behavioral Practice*.
- Gaudiano, B. A. (2009). Öst's (2008) methodological comparison of clinical trials of acceptance and commitment therapy versus cognitive behavior therapy: Matching apples with oranges? *Behaviour Research and Therapy*, 47, 1066–1070. <http://dx.doi.org/10.1016/j.brat.2009.07.020>.
- Gaudiano, B. A., & Herbert, J. D. (2006). Acute treatment of inpatients with psychotic symptoms using Acceptance and Commitment Therapy: Pilot results. *Behaviour Research and Therapy*, 44, 415–437. <http://dx.doi.org/10.1016/j.brat.2005.02.007>.
- Gratz, K. L., & Gunderson, J. G. (2006). Preliminary data on acceptance-based emotion regulation group intervention for deliberate self-harm among women with borderline personality disorder. *Behavior Therapy*, 37, 25–35. <http://dx.doi.org/10.1016/j.beth.2005.03.002>.
- Gundy, J. M., Woidneck, M. R., Pratt, K. M., Christian, A. W., & Twohig, M. P. (2011). Acceptance and commitment therapy: The state of the evidence in the field of health psychology. *Scientific Review of Mental Health Practice*, 8, 23–35.
- Hayes, S. C. (1989). *Rule-governed behavior: Cognition, contingencies, and instructional control*. New York, NY: Plenum Press.
- Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, 35, 639–665. [http://dx.doi.org/10.1016/S0005-7894\(04\)80013-3](http://dx.doi.org/10.1016/S0005-7894(04)80013-3).
- Hayes, S. C., Barnes-Holmes, D., & Roche, B. (2001). *Relational frame theory: A post-Skinnerian account of human language and cognition*. New York, NY: Kluwer Academic/Plenum.
- Hayes, S. C., Hayes, L. J., & Reese, H. W. (1988). Finding the philosophical core: A review of Stephen C. Popper's World Hypotheses. *Journal of Experimental Analysis of Behavior*, 50, 97–111. <http://dx.doi.org/10.1901/jeab.1988.50-97>.
- Hayes, S. C., Hayes, L. J., Reese, H. W., & Sarbin, T. R. (1993). Analytic goals and the varieties of scientific contextualism. In S. C. Hayes, L. J. Reese, & T. R. Sarbin (Eds.), *Varieties of scientific contextualism* (pp. 11–27). Reno, NV: Context Press.
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, 44, 1–25. <http://dx.doi.org/10.1016/j.brat.2005.06.006>.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Bissett, R., Piasecki, M., Batten, S. V., . . . Gregg, J. (2004). A preliminary trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance-abusing methadone-maintained opiate addicts. *Behavior Therapy*, 35, 667–688. [http://dx.doi.org/10.1016/S0005-7894\(04\)80014-5](http://dx.doi.org/10.1016/S0005-7894(04)80014-5).
- Hayes, S. C., Villatte, M., Levin, M., & Hildebrandt, M. (2011). Open, aware, and active: Contextual approaches as an emerging trend in the behavioral and cognitive therapies. *Annual Review of Clinical Psychology*, 7, 141–168. <http://dx.doi.org/10.1146/annurev-clinpsy-032210-104449>.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64, 1152–1168. <http://dx.doi.org/10.1037/0022-006X.64.6.1152>.
- Hofmann, S. G., & Asmundson, G. J. G. (2008). Acceptance and mindfulness-based therapy: New wave or old hat? *Clinical Psychology Review*, 28, 1–16. <http://dx.doi.org/10.1016/j.cpr.2007.09.003>.
- Hooper, N., Saunders, J., & McHugh, L. (2010). The derived generalization of thought suppression. *Learning & Behavior*, 38, 160–168. <http://dx.doi.org/10.3758/LB.38.2.160>.
- Hussey I., & Barnes-Holmes, D. (this issue). The Implicit Relational Assessment Procedure as a measure of implicit depression and the role of psychological inflexibility. *Cognitive and Behavioral Practice*.
- Juarascio, A. S., Forman, E. M., & Herbert, J. D. (2010). Acceptance and commitment therapy versus cognitive therapy for the treatment of comorbid eating pathology. *Behavior Modification*, 34, 175–190. <http://dx.doi.org/10.1177/0145445510363472>.
- Levin, M., & Hayes, S. C. (2009). Is Acceptance and Commitment Therapy superior to established treatment comparisons? *Psychotherapy and Psychosomatics*, 78. <http://dx.doi.org/10.1159/000235979>.
- Lundgren, T., Luoma, J. B., Dahl, J., Strosahl, K., & Melin, L. (this issue). The Bull's-Eye Values Survey: A psychometric evaluation. *Cognitive and Behavioral Practice*.
- Masuda, A., Hayes, S. C., Fletcher, L. B., Seignourel, P. J., Bunting, K., Herbst, S. A., . . . Lillis, J. (2007). Impact of acceptance and commitment therapy versus education on stigma toward people with psychological disorders. *Behaviour Research and Therapy*, 45, 2764–2772. <http://dx.doi.org/10.1016/j.brat.2007.05.008>.
- McHugh, L., & Stewart, I. (2012). *The self and perspective taking: Contributions and applications from modern behavioral science*. Reno, NV: Context Press.
- Morton, J., Snowden, S., Gopold, M., & Guymer, E. (this issue). Acceptance and commitment therapy group treatment for symptoms of borderline personality disorder: A public sector pilot study. *Cognitive and Behavioral Practice*.
- Öst, L. G. (2008). Efficacy of the third wave of behavioral therapies: A systematic review and meta-analysis. *Behaviour Research and Therapy*, 46, 296–321. <http://dx.doi.org/10.1016/j.brat.2007.12.005>.
- Peterson, B. D., & Eifert, G. H. (2011). Using Acceptance and Commitment Therapy to treat infertility stress. *Cognitive and Behavioral Practice*, 18, 577–587. <http://dx.doi.org/10.1016/j.cbpra.2010.03.004>.
- Peterson, B. D., Eifert, G. H., Feingold, T., & Davidson, S. (2009). Using acceptance and commitment therapy to treat distressed couples: A case study with two couples. *Cognitive and Behavioral Practice*, 16, 430–442. <http://dx.doi.org/10.1016/j.cbpra.2008.12.009>.
- Powers, M. B., & Emmelkamp, P. M. G. (2009). Response to “Is Acceptance and Commitment Therapy superior to established treatment comparisons?” *Psychotherapy and Psychosomatics*, 78, 380–381. <http://dx.doi.org/10.1159/000235979>.
- Powers, M. B., Zum Vörde Sive Vörding, M. B., & Emmelkamp, P. M. G. (2009). Acceptance and commitment therapy: A meta-analytic review. *Psychotherapy and Psychosomatics*, 78, 73–80. <http://dx.doi.org/10.1159/000190790>.
- Rost, A. D., Wilson, K. G., Buchanan, E., Hildebrandt, M. J., & Mutch D. (this issue). Improving psychological adjustment among late-stage ovarian cancer patients: Examining the role of avoidance in treatment. *Cognitive and Behavioral Practice*.
- Ruiz, F. J. (2010). A review of Acceptance and Commitment Therapy (ACT) empirical evidence: Correlational, experimental psychopathology, component and outcome studies. *International Journal of Psychology & Psychological Therapy*, 10, 125–162. <http://dx.doi.org/10.1080/028457199439937>.
- Soo, C., Tate, R. L., & Lane-Brown, A. (2011). A systematic review of Acceptance and Commitment Therapy (ACT) for managing anxiety: Applicability for people with acquired brain injury? *Brain Impairment*, 12, 54–70.

- Varra, A. A., Hayes, S. C., Roget, N., & Fisher, G. (2008). A randomized control trial examining the effect of acceptance and commitment training on clinician willingness to use evidence-based pharmacotherapy. *Journal of Consulting and Clinical Psychology, 76*, 449–458. <http://dx.doi.org/10.1037/0022-006X.76.3.449>.
- Wenzlaff, R. M., & Wegner, D. M. (2000). Thought suppression. *Annual Review of Psychology, 51*, 59–91. <http://dx.doi.org/10.1146/annurev.psych.51.1.59>.
- Wilson, K. G., & Hayes, S. C. (1996). Resurgence of derived stimulus relations. *Journal of the Experimental Analysis of Behavior, 66*, 267–281. <http://dx.doi.org/10.1901/jeab.1996.66-267>.
- Woods, D. W., Wetterneck, C. T., & Flessner, C. A. (2006). A controlled evaluation of acceptance and commitment therapy plus habit reversal for trichotillomania. *Behaviour Research and Therapy, 44*, 639–656. <http://dx.doi.org/10.1016/j.brat.2005.05.006>.
- Yadavaia, J. E., & Hayes, S. C. (this issue). Acceptance and Commitment Therapy for self-stigma around sexual orientation: A multiple baseline evaluation. *Cognitive and Behavioral Practice*.
- Zettle, R. D., & Rains, J. C. (1989). Group cognitive and contextual therapies in treatment of depression. *Journal of Clinical Psychology, 45*(3), 436–445. [http://dx.doi.org/10.1002/1097-4679\(198905\)45:3<436::AID-JCLP2270450314>3.0.CO;2-L](http://dx.doi.org/10.1002/1097-4679(198905)45:3<436::AID-JCLP2270450314>3.0.CO;2-L).

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Address correspondence to Michael P. Twohig, Ph.D., Utah State University, 2810 Old Main HI, Logan, UT 84322; e-mail: michael.twohig@usu.edu.

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