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STABILITY AND CHANGE IN COGNITIVE BEHAVIOR THERAPY: CONSIDERING THE IMPLICATIONS OF ACT AND RFT

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ABSTRACT: Acceptance and Commitment Therapy (ACT) and Relational Frame Theory (RFT) are part of the new wave of treatments and analyses that seem to be emerging in cognitive behavior therapy. In this article, data in support of these new approaches are provided, and evidence that ACT works through different processes than traditional CBT are presented. The integrative proposals of Ciarrochi and Robb, and Ciarrochi, Robb, and Godsell are then considered. In the long run, whether such integrations are useful is an empirical matter, but concerns are raised about the effects of focusing on the content of beliefs, and the role of logical–empirical challenges to belief.

KEY WORDS: acceptance and commitment therapy; relational frame theory; functional contextualism; third wave behavior therapy; rational-emotive behavior therapy.

Change is built into all scientific fields, and should be neither surprising nor threatening. Change should never be for change's sake, however. In empirical clinical psychology, change should be driven by advancements in theory, technology, and demonstrated impact on the behavioral health problems.

Over the past several years it is undeniable that change has arrived in the behavioral and cognitive therapies. A variety of techniques have arisen that do not fit easily into preexisting categories. These include such treatments as Dialectical Behavior Therapy (Linehan, 1993), Functional Analytic Psychotherapy (Kohlenberg & Tsai, 1991), Integrative Behavioral Couples Therapy (Jacobson & Christensen, 1996)

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Mindfulness Based Cognitive Therapy (Segal, Williams, & Teasdale, 2002), and several others (e.g., Borkovec & Roemer, 1994; McCullough, 2000; Marlatt, 2002; Martell, Addis, & Jacobson, 2001; Roemer & Orsillo, 2002). All have ventured into nontraditional areas with unexpected assumptions, methods, and (increasingly) outcomes. Acceptance and Commitment Therapy (ACT, said as a single word, not as initials; Hayes, Strosahl, & Wilson, 1999) is a good example of these new approaches.

In the context of rapid change, it is worthwhile to examine what is happening and to try to fit what is new into what is known to be working. That very process is part of what distinguishes science from fashion. It is important, however, to do this in a way that is truly open to what is new—otherwise the possible benefits of development will not be available regardless of their utility. There has been a tendency in some corners to treat the so-called third wave therapies as if they are a small elaboration on existing themes and approaches. ACT claims to be fundamentally different from much of what has gone before in the behavioral and cognitive therapies. There are both empirical and logical reasons to consider that claim seriously.

Over the last several years, I have been challenged regularly by cognitive behavior therapists to explain what is different about ACT and its basic theory (RFT) and philosophy (functional contextualism). Often the questions have arrived with an edge to them. I have learned that talk about what I see as differences is often met either with a lack of understanding, or with rapid "understanding," vigorous defense of existing approaches, and the statement that there is nothing new or different. Over time I have reverted to other approaches. One I will mention later in the paper, but my main response has been to say simply "well, come to a two or three day ACT training and then you tell me." All three of the authors of the articles we are addressing have done just that. Their openness to what may be new shows in the quality of the articles themselves.

In this issue Ciarrochi, Robb, and Godsell and Ciarrochi and Robb (referred to hereafter simply as "the target articles") have done a fine job in summarizing much of the core of our work on functional contextualism (Biglan & Hayes, 1996; Hayes, 1993), Relational Frame Theory (RFT; Hayes, Barnes-Homes, & Roche, 2001), and ACT. They have done so in a form that is accessible and relevant to cognitive behavior therapists. That is not an easy task. It would be very easy to get it wrong, to miss key points, to be uncritically supportive or unabashedly critical, or to distort the perspective in myriad ways. None of that

has happened. Instead we are presented with careful, cautious, and balanced presentations.

ACT and RFT come out of behavior analysis. That makes the stretch particularly difficult for many cognitive behavior therapists, who have long ago abandoned an interest in behavioral principles drawn from the experimental analysis of behavior. In the United States cognitive behavior therapy has always been considered part of behavior therapy, but in actuality it was born out of frustration both with the vagaries of psychoanalytic theory and the perceived narrowness of traditional behavior therapy. Behavior analysis was generally included under the umbrella of "traditional" behavior therapy and thus was supposedly not seriously interested in cognition. It is a bit sad that this was so, but behavior analysts have no one to blame but themselves. Skinner firmly rejected the Watsonian idea that it is not scientifically objective to study thoughts and feelings (Skinner, 1945), but until recently behavior analysts did not take advantage of this opening. Outside of behavior analysis itself few even realize that there *was* an opening because of two key errors: labeling that very overthrow of traditional behavioral thinking with the grossly inappropriate term "radical behaviorism" (Skinner, 1945) and mishandling the technical and empirical analysis of language and cognition (Skinner, 1957; for explanations about why this analysis failed, see Hayes et al., 2001).

Meanwhile clinicians had work to do, and it is only sensible that they began to do it. In the context of the failure of both associationism and behavior analysis to provide an adequate account of human language and cognition, CBT proceeded ahead as best it could with an *ad hoc* and largely clinical theory of cognition. Unfortunately, this meant that the original vision of behavior therapy—a scientific clinical approach firmly linked to basic behavioral principles—had to be put aside. To this day, CBT is left without an adequate basic account of cognition itself. It is one thing to try to quantify irrational or rational thoughts. It is quite another to be able to say what a thought is, what a word is, where they come from, and why they change our world the ways that they do.

In that sense, ACT/RFT is a throw back. It returns to the original vision of a comprehensive account that spans the range from basic behavioral principles, to processes of change, to applied technology, to empirical studies of clinical outcome. ACT/RFT researchers and practitioners think they have found a way to provide the behavioral tradition with the tools needed to analyze human language and

cognition. RFT makes the powerful claim that it is able to define what higher cognition is and where it comes from—if that is shown to be true, it will be potentially relevant to all cognitive and behavioral therapies, whether they see ACT as the best way to apply this perspective or not.

In this brief reply I plan to address three issues. I will provide some evidence that ACT and RFT add to existing approaches in CBT and the basic behavioral science of cognition. Second, I will cite evidence that what is added works through a different set of processes than those expected in CBT. Third, I will examine the proposed integration of ACT, RFT, and REBT/CBT described in the target articles.

DO ACT AND RFT ADD TO EXISTING APPROACHES?

Readers of the target articles who are not familiar with ACT or RFT may not have good reason to understand why this integration is even being attempted. The authors assume that there is an interest in third wave therapies, and ACT in particular, but readers may be in a quite different position. Eventually the ACT/RFT literature may be well-known enough that this assumption can be trusted, but at the moment it does not seem so.

ACT and RFT deserve attention because they constitute a comprehensive and coherent approach, with new assumptions and methods, that seems to be producing unusual outcomes, across an usually broad range of problems. Let's begin with those last two points and then move backward through the list. Here are a few examples of what might be unusual outcomes. A 3 hour ACT intervention with in patient psychotic individuals reduced rehospitalization by 50% over the next 4 months compared to treatment as usual (TAU, Bach & Hayes, 2002). A 4 hour intervention with chronic pain patients at risk for permanent disability reduced sick leave by 91% over the next 6 months compared to TAU (Dahl, Wilson, & Nilsson, 2004). A 6 hour intervention reduced negative attitudes toward patients and job burnout among substance abuse counselors measured 3 months later (Hayes, Bissett, et al., 2004). The range of problems treated is very large, with successful controlled trials on depression, anxiety, smoking, opiate addition, pain, prejudice, worksite stress, tics, behavioral medicine, and other problems (see Hayes, Masuda, Bissett, Luoma, & Guerrero, 2004, for a recent review of ACT outcomes). RFT explains why this breadth should be expected, and as we will note in the next

section, the theory underlying ACT seems to be holding up. This literature is moving very rapidly. Hayes et al. (2004) found 23 empirical studies on ACT as of 2003. Now just a year later, that number has almost doubled.

As far as justifying the idea that ACT and RFT are new, the target articles have essentially made that case. It may be that REBT can be integrated with ACT and RFT, but the fact that it involves fundamental changes in REBT's ABCDE formulation to do so indicates that something new is afoot.

The other main reason for cognitive behavior therapists to take ACT seriously is that it is the only behavior therapy with its own comprehensive basic research program into the nature of human language and cognition. RFT itself already encompasses more than 70 published empirical articles. Many of these studies test its basic precepts, and are of immediate interest primarily to basic experimental psychologists, but increasingly these studies take RFT into issues of obvious clinical relevance. Experiments have shown that this approach to human language and cognition helps explain the regulation of emotions (e.g., Roche & Barnes, 1997; Roche, Barnes-Holmes, Smeets, Barnes-Holmes, & McGeady, 2000); the generation of self descriptions and self-knowledge (e.g., Barnes, Lawlor, Smeets, & Roche, 1996; Dymond & Barnes, 1995); social categorization and stereotyping (e.g., Kohlenberg, Hayes, & Hayes, 1991; Watt, Keenan, Barnes, & Cairns, 1991); human perspective taking (e.g., McHugh, Barnes-Holmes, Barnes-Holmes, 2004); analogy and metaphor (e.g., Stewart, Barnes-Holmes, Roche, & Smeets, 2001, 2002); rule following (e.g., Hayes, Thompson, & Hayes, 1989; Luciano, Herruzo, & Barnes-Holmes, 2001; O'Hora, Barnes-Holmes, & Roche, 2001); the impact of rules on direct experience (e.g., Hayes, Brownstein, Haas, & Greenway, 1986; Hayes, Brownstein, Zettle, Rosenfarb, & Korn, 1986); and can explain findings previously addressed only by traditional information processing accounts (e.g., Hayes & Bissett, 1998). If clinical technology is aimed at human cognition, it makes sense to base that technology on a robust understanding of the basic processes that define human cognition. RFT may help make that possible—not just for ACT but for all of the cognitive and behavioral therapies. Of course there are other basic theories clinicians can turn to, such as information processing accounts. But that has proven to be difficult. In a recent talk, G. Terence Wilson, one of the more prominent and senior CBT researchers, was asked what in CBT has emerged from hard cognitive science over its 25 years of existence. His

answer: nothing (Wilson, 2003). But already RFT has lead to a number of applied innovations. ACT is foremost among them.

Together the kinds of applied and basic data just cited provide reason to believe that ACT and RFT are worthwhile new additions to empirical clinical psychology on the one hand and to clinically relevant basic psychology on the other. This background seems worth mentioning for the reader who may not have been aware of ACT or RFT—it helps explain why the authors of the target articles would be going to the trouble.

DOES ACT WORK THROUGH CBT PROCESSES?

The target articles states that CBT has substantial support for its outcomes, and that is correct. It does not yet have substantial support for its processes, however. Component analyses have not been kind to Beck's cognitive therapy (Gortner, Gollan, Dobson, & Jacobson, 1998; Jacobson et al., 1996), and well-known researchers from that wing looking at these data have concluded that with depression at least there is "no additive benefit to providing cognitive interventions in cognitive therapy" (Dobson & Khatri, 2000, p. 913; cf. Zettle & Hayes, 1987). The response to cognitive therapy often occurs before the presumptively key features have been adequately implemented (Ilardi & Craighead, 1994), and support for the hypothesized mediators of change is weak (e.g., Burns & Spangler, 2001; Morgenstern & Longabaugh, 2000), particularly in areas that are causal and explanatory rather than descriptive (Beck & Perkins, 2001; Bieling & Kuyken, 2003).

The target articles are sensitive to this issue and have included both arguments and data meant to show that ACT processes and CBT (or at least REBT) processes are similar, or at least compatible. Ciarrochi et al. (2005) states: "REBT holds that emotional and behavioral avoidance can stem from irrational beliefs. ... people who chronically believe certain thoughts which REBT calls 'irrational' are also likely to show higher levels of emotional and behavioral avoidance."

From the point of view of ACT and RFT that is true enough in the normal social/verbal contexts that supports the literal meaning of verbal events, emotional control, reason-giving, and the like. But ACT and RFT claim that unusual contexts can be arranged in which these beliefs and avoidance become significantly *less* synchronous,

and a variety of data (some cited below) are emerging that support this idea. These new contexts are precisely those in which concern for the *content* of private events no longer dominates. ACT theory claims that this desynchrony not only greatly reduces the functional importance of negative private events when they occur, it increases psychological flexibility, makes behavioral success more likely, and due to those effects will normally ultimately lead to a gradual change in the difficult private events themselves.

The correlational methods used in Ciarrochi et al. (2005) are not alone adequate to address this fairly detailed process claim. Psychological processes are sequences of events and a snap shot at any one moment cannot reveal a sequence. ACT theory predicts correlations between levels of acceptance and defusion and a wide variety of pathological processes and outcomes, and studies with hundreds or even thousands of participants confirm that claim (e.g., Bond & Bunce, 2003; Hayes, Strosahl, et al., 2004). But ACT and RFT also predict that it is possible to loosen thought–action, thought–emotion, and emotion–action correlations though specific contextual manipulations. Indeed, this is perhaps the most impactful insight on CBT because it fundamentally changes the proximal targets of CBT interventions.

The very first controlled study on ACT was a small randomized controlled trial comparing ACT to Beck's Cognitive Therapy for the treatment of depression (Zettle & Hayes, 1986). It was done at Beck's Center for Cognitive Therapy, and used a Beck trained therapist, but found significantly better outcomes for ACT. Importantly, it also found that the processes of change were different: ACT reduced the believability of depressive thoughts significantly more quickly that cognitive therapy, while CT tended to reduce the frequency of such thoughts just as quickly as ACT (no significant differences). These findings together constitute the kind of desynchrony that ACT/RFT predicts: even though the thoughts continued to occur at least initially, they very quickly did not have as much functional importance. ACT is also able to produce emotion–action desynchrony (this is the essence of "acceptance"). Since then, quite a number of clinical and analogue studies have been done that support these aspects of the ACT model of change.

These studies are of four types: mediational, comparative, component, and predictive. The mediational studies examine whether measures of processes that are hypothesized to underlie the impact of ACT account for its outcomes. Comparative studies compare the

processes of change found with ACT to processes of change produced by other interventions. Component studies look at whether components of ACT targeted at specific process actually move these processes—in some cases these studies have also compared their results to components drawn from other approaches, including traditional CBT. Predictive studies look at whether measures of ACT processes predict positive developments over time and do so better than alternative measures.

Mediation

Meta-analyses of mediational studies of CBT have generally found minimal support for the CBT model which is based on the core idea that it is the *content* of thinking that determines positive clinical change (e.g., Morgenstern & Longabaugh, 2000). Formal mediational studies in ACT (such as those based on the methods described by Baron & Kenny, 1986), conversely, have supported its underlying model in such diverse areas as smoking (Gifford et al., 2004), stigma and burnout (Hayes, Bissett, et al., 2004), diabetes management (Gregg, 2004), parental depression and stress (Blackledge, 2004), and worker anxiety and stress (Bond & Bunce, 2000), among several others.

Comparative Studies

Comparative studies have shown that these processes differ from cognitive therapy (Zettle & Hayes, 1986; Zettle & Raines, 1989), traditional behavior change focused therapies (Bond & Bunce, 2000), educational approaches (Hayes, Bissett, et al., 2004; Gregg, 2004), and biological models of change (Gifford et al., 2004).

Component Studies

When specific ACT components are pulled out of the overall package, they independently have an impact. Defusion methods are one such component. For example, in one recent study it was shown that the rapid repetition of a painful thought (Masuda, Hayes, Sackett, & Twohig, 2004), rapidly reduced both the distress caused by these them and their believability despite the fact that this method does not involve changing the form of the thought, nor of reducing its occurrence. In another study, learning to watch thoughts and

"carry them with you" (in this study literally by writing them on a card and carrying them) greatly increased pain tolerance (Gutiérrez, Luciano, Rodríguez, & Fink, 2004). Acceptance methods have been similarly examined. Acceptance rationales and exercises drawn from ACT have been shown to significantly increase pain tolerance (Hayes et al., 1999) and the willingness of panic disordered patients to be exposed to anxiety inducing CO_2 gas challenges (Levitt, Brown, Orsillo, & Barlow, 2004). Values components are also being included emphasized in recent studies (e.g., Gutiérrez et al., 2004; Heffner, Eifert, Parker, Hernandez, & Sperry, 2003). Several of these component studies have compared these component interventions to other methods such as CBT rationales drawn directly from well-known protocols (Hayes et al., 1999), popular CBT methods such a breathing training for the control of anxiety (Eifert & Heffner, 2003), positive distraction and training in thinking more pleasant thoughts (Gutiérrez et al., 2004; Masuda et al., 2004), and thought suppression and control instructions (e.g., Feldner, Zvolensky, Eifert, & Spira, 2003; Levitt et al., 2004). In every case so far, the processes and outcome produced by alternative interventions have comported with ACT theory.

Predictive Studies

Finally, predictive studies have shown that ACT related process measures predict long term behavioral outcomes particularly well. For example, ACT-related pain measures predict future disability better than traditional cognitive coping measures (McCracken & Eccleston, 2003), and the experiential avoidance measures predict future changes in quality of life better than common measures of psychopathology (Hayes, Strosahl, et al., 2004).

All of this does not mean that an ACT model and a CBT model are unrelated and a great deal more clinical research will need to be done to be certain that ACT works through different processes than does traditional CBT. So far, however, the indications are that it does. This puts the correlational results reported in the target article into a different light, and brings me to my other main response to the "prove it is different" queries than now seem to be coming ACT's way. If the processes of change in clinical studies are shown to be different, then it is different. ACT is a cognitive and behavioral therapy in the sense that it is targeted on both, and takes both seriously. Theoretically and philosophically it is a contextual behavioral

therapy, which seeks rapid changes in the *functions* of cognition and emotion, rather than what RFT suggests would be the more difficult and error prone task of changing their content. That is quite different from traditional CBT, and the data so far seems to bear this out.

INTEGRATING ACT AND REBT

The integrative model presented in the target articles is fascinating, and it is fun to see that the authors have managed to fit their model into a revised ABCDE formulation. Of all of the CBT approaches, REBT seems most compatible with the primary thrust of third wave interventions. Indeed, the first book length treatment of acceptance based behavioral and cognitive technologies (Hayes, Jacobson, Follette, & Dougher, 1994) included a REBT chapter for that reason (Ellis & Robb, 1994). REBT has vigorously embraced self-acceptance, challenged the relevance of self-evaluation, and promoted the acceptance of frustration. In some ways, as Ciarrochi et al. (2005) show, REBT has always targeted many of the thoughts that seem to be associated with unhealthy kinds of processes that ACT also targets. But there is also a difference that has to be acknowledged, and the integrative model presented in the target articles does indeed acknowledge that difference.

All of the second wave CBT methods, REBT included, targeted certain negative thoughts for disputation and challenge. And it is precisely that core process that both most directly conflicts with ACT and that is relatively poorly supported in the empirical literature on CBT. It is that process that seems to be unnecessary in producing positive CBT outcomes since these outcomes largely occur before this component (Ilardi & Craighead, 1994) and occur without this component being used at all (Jacobson et al., 1996).

Nevertheless, most students of CBT know how central this process has been argued to be by CBT originators. Irrational thoughts, pathological cognitive schemas, or faulty information processing styles need to be altered or eliminated through their detection, correction, testing, and disputation. Beck has been explicit about this: "Although there have been many definitions of cognitive therapy, I have been most satisfied with the notion that cognitive therapy is best viewed as the application of the cognitive model of a particular disorder with the use of a variety of techniques designed to *modify the dysfunctional beliefs and faulty information processing characteristic of each*

disorder" (Beck, 1993, p. 194, italics added). In the same way, is REBT without the "D" in the ABCDE formulation still REBT? If the answer is "yes" and the implications of this change are allowed to filter through the technology, REBT and third wave interventions move closer together. I'm not a REBT theorists or practitioner, but from the outside this would seem to be a profound change.

The target articles seem to recognize this in two primary ways in their proposed integration. First, the importance of belief types is emphasized. Second, the applicability of disputation is defended. I suspect that these defenses seen necessary precisely because letting go of this aspect of REBT seemingly means letting go of REBT itself.

Recognizing the apparent conflict between acceptance and defusion on the one hand and detection and disputation of irrational belief types on the other, Ciarrochi et al. state "Fortunately, we hold that there is a way out of the apparent conflict, which is, namely, that although the REBT belief types won't be dysfunctional in every context, they are *generally* dysfunctional across many contexts. More specifically, we argue that the dysfunctional beliefs are generally connected to fusion, avoidance, and evaluation, three central components of the ACT framework" (manuscript page 22).

There can be no doubt that certain belief types are dysfunctional in many contexts, just as there is no doubt that certain types and intensity of emotions are dysfunctional in many contexts. A person who regularly thinks things like "I'm slime" or "I am the Queen of Sheba" or "I am going to kill myself" is indeed probably more likely to behave in ways that gets that the person into trouble psychologically or socially. The same applies to people who regularly feel intense feelings of anger, anxiety, or derealization. Indeed, that common sense fact is why we tend to call psychological problems by such names as mental illness, emotional disorders, anxiety disorders, thought disorders and so on. But this does not mean that it is best to target the form, frequency, or situational sensitivity of these private events.

The authors agree that "REBT belief types are dysfunctional only in certain contexts" and I in turn readily agree with their statement that "they are *generally* dysfunctional across many contexts." But my concern is that (a) we not conflate the form of belief with the context of believing, and (b) we consider the context we are establishing by disputation.

Conflating form and context is common. The authors come close to this when they say that "dysfunctional beliefs are generally

connected to fusion, avoidance, and evaluation." A central claim of ACT and RFT is that processes such as fusion and avoidance are *not* determined by the form of belief: they are determined by the functional context of belief. In certain contexts, yes, certain forms of belief are problematic. But that *does not mean* that these forms are problematic in and of themselves. ACT proposes an interaction of form and context—it is important that this interaction not then open a back door for the re-entry of form per se as something of necessary importance.

Let me give an empirical example. Most psychologists would agree that hallucinations and delusions are problematic. One hardly needs the skills of a trained REBT therapist to realize that "I am the Queen of Sheba" is "irrational." But we recently conducted a randomized controlled trial of ACT with hospitalized and actively psychotic patients to see if even *these* thoughts and perceptions need not be inherently dysfunctional (Bach & Hayes, 2002). Four 45-minute sessions of ACT reduced rehospitalization in these patients by 50% as compared to TAU. More importantly for the present point, however, after treatment ACT patients (a) had *significantly higher rates* of psychotic thoughts or perceptions than TAU patients, and (b) rehospitalization was four times *lower* in the ACT group (but slightly higher in TAU patients) if the *patients admitted to psychotic thoughts or perceptions*.

As an aside that seems relevant in this context, we decided to do this study in part based on a comment about ACT that was attributed to Albert Ellis and passed to us by one of his colleagues, namely, that ACT was a fairly intellectual treatment that probably required high levels of cognitive functioning to be applicable. We wanted to see if that was true. Given the dramatic cognitive deficits suffered by actively psychotic patients, this study indicates that it was not. We are now taking this one step further and a student of mine, Julieann Pankey, has collected positive pilot data and is planning a randomized controlled trial with psychotic retarded patients, just to see how fall down the continuum of cognitive capability ACT can be pushed. I have little doubt that ACT can be helpful even with clients with such severe cognitive limitations.

It would be unfortunate if conflation of content and context opened the door to disputation as the logical or necessary next step. From an ACT perspective it must first be asked "what social/verbal context is established in therapy by disputation?"

Ciarrochi and Robb (2005) examine two ACT/RFT arguments against logical–empirical challenging of thought content: it may entangle people further in unhelpful language processes, and it leaves destructive aspects of the "language machine" in place. There are several other arguments, but in this paper I would like to focus on a third concern: logical–empirical challenging is itself a fused linguistic context, which will tend to support the negative functions of difficult thought content when it does occur, even if challenging reduces the rate of occurrence. To the extent that this is true, logical–empirical challenging can involve opponent processes.

This problem is very easy to describe. From the point of view of the client, during a course of REBT, or CBT more generally, is thought content *more* important or *less* important? I have asked that question of thousands of clinicians because it is a line I use regularly in workshops. Audiences always give the obvious answer: more important. In technical RFT terms this means that the Crel (relational context) interventions so common in CBT (including REBT) are *simultaneously Cfunc (functional context) manipulations* because they increase the importance of thinking itself. I believe this is why, when ACT is pitted directly against CBT, ACT gets far quicker decreases in measures of the functional importance of thoughts than does CBT. But as the psychosis study described above shows, functional importance is where the rubber meets the road, even with the most obviously irrational forms of thinking we can imagine. In that study we found a very large decrease in the literal truth of hallucinations and delusions in the ACT condition. Over 4 months not a single one of the 40 actively psychotic patients treated with ACT were rehospitalized if they admitted to the presence of hallucinations or delusions, and showed any decrease in the literal truth of those thoughts and perceptions.

I think REBT is sensitive to that Cfunc issue more so that most traditional CBT interventions. I have long secretly believed that this is why Dr. Ellis uses such powerful language in therapy (e.g., four letter words, "musterbation" and so on). These methods are Cfunc methods—they are not merely logical and empirical challenges of an undesirable relational network. They are, however, intensely socially based functions and thus prone to discriminations by the client between social and non-social contexts. The worry is that when the social context has been removed gains may wane. Conversely, ACT methods are self-consciously careful about pliance. When a client has learned acceptance and defusion methods, that client knows how to

alter the normal context of human language so as to promote valued ends. That may be one reason that several ACT studies have shown retention or even gains in outcomes from post treatment to follow up (e.g., Hayes, Wilson, et al., 2004).

Ciarrochi and Robb (2005) are very much aware of the danger of disputation inadvertently increasing the functional importance of negative thoughts: "The crucial thing is not to focus on changing the form or frequency of certain relata ... or relational terms (e.g., 'musts,' 'shoulds'). Rather, the focus should be on undermining the power of verbal (and nonverbal) formulations to act as barriers to effective action." But so far as I know there is no evidence that logical–empirical challenging serves that function, regardless of its focus. It could—and RFT actually does actually suggest how this might be done. I will return to that point shortly. But in the meantime, it is not clear to me why we *must* be attached to logical–empirical challenging.

Ciarrochi and Robb provide a logical reason to focus on dysfunctional beliefs: "The ACT practitioner may help modify the context in which private experiences occur. But the question is, what private experiences?" Their answer is to target the cognitions identified by REBT. But ACT has other answers. One is the acronym the authors note: fusion, evaluation, avoidance and reasons (FEAR). These are functional processes, not content *per se*, but they are all linked to content, and some quite obviously so (e.g., reasons, evaluation). More centrally, ACT advises (a) be prepared to apply defusion and acceptance to *all* private events, (b) let values set the direction, (c) let functionality decide where the barriers lie. It seems likely that these answers to Ciarrochi and Robb's question will lead to different ends than REBT's answer. ACT therapists would feel no compunction in targeting the thought "life is wonderful" along with the thought "life is awful," for example. Defusion from both could be helpful. I am not sure that REBT would have the same catholic approach. Even if it was shown that ACT and REBT lead to the same ends, however, the matter would not be closed. There is simplicity in the ACT solution that might make it easier to train. Already there are studies in the literature of remarkably short ACT interventions, spanning just minutes or a few hours. I am unaware of similar studies in REBT. Furthermore, the ACT solution avoids having to focus on thought content in order to focus on functionality, which simultaneously avoids the danger of increasing the functional context of cognition as an inadvertent side effect of trying to alter their relational context.

ELABORATING NETWORKS: RFT INSIGHTS AND CBT

From a RFT perspective, Crel interventions are most likely to be helpful in elaborating existing networks than in reducing them. Relational networks are historically produced and time goes forward, not backward. In Chapter 12 (Wilson, Hayes, Gregg, & Zettle, 2001) of the RFT book (Hayes et al., 2001) we note that "An implication of this is that positive thinking may be more readily produced by elaborating existing relational networks with minimal conflicts and disputation than by more direct challenges" (Wilson et al., 2001, p. 229). We go on to describe a case of a man who is feeling guilty because he has been unfaithful in his marriage, is becoming more secretive and withdrawn in the marriage as a result and is thinking thoughts like "I'm a scumbag" and "I don't care about anything and can't be trusted." We admit that these thoughts involve obvious cognitive errors, such as overgeneralization, or all-or-none thinking, and acknowledge that these errors could be pointed out, challenged, disputed, tested, or otherwise remediated. But we suggest another path. For example, the therapist might say:

> I can see how distressed you are about the scummy thing you did. You clearly care about the lack of caring you showed in that moment. Your very distress tells me that this relationship, and building trust and caring, is important to you. So your values seem to be very much intact. But what I am most concerned about is the possible lack of caring and trust you are building by *now* withdrawing from this relationship you care about so deeply. Life might be asking this question of you: Are you a person who can make mistakes and still move toward things you value, one step at a time? (Wilson et al., 2001, p. 230)

This suggestion is not ACT—it is a RFT method of elaborating the relational network to include a more rationale thought: "I can make mistakes and still behave and live effectively." In the book we present this analysis of how RFT augments traditional CBT:

> In this approach, the client's existing relational network is used to support a change in that network and in actions linked to it. The client has linked an evaluated action to a conceptualized self, and has concluded "I am scum." Rather than challenge this logical error directly, the therapist has related this strong evaluative word (scum) back to the action, and has linked the client's emotional reaction to the evaluated action, making a coherent

> relational network that helps explain the upset ("I can see how distressed you are about the scummy thing you did"). The client's distress over a lack of caring is then taken as evidence for caring, which subtly shifts the issue from "I am bad and can't be trusted," as if something needs to be fixed inside before more effective action can be taken, to the strengths that the client has and the action implications of these strengths. Framing the upset this way is not allowed to sit for long, however, as if to reassure the client ("there, there, you poor boy. Don't be so hard on yourself. After all, you obviously care about your wife"). Instead, the client is reoriented toward actual steps to be taken, linked to his caring, so that the upset can serve a motivative function in the service of difficult but needed behavior change. At that moment, the therapist models a verbal relation that emerges naturally from this reorientation ("I can make mistakes and still move toward valued ends, one step at a time"). The modeled statement is rational in a way that the client's original statement is not, but this statement is developed in a way that is never allowed to directly contradict the original statement. (Wilson et al., 2001, p. 230)

My point here is simply to agree with the authors of the target articles that changing the content of client thoughts is not anathema to ACT or RFT. Indeed, ACT itself includes such efforts (e.g., learning to replace "but" with "and"), and RFT says a few things about how best to elaborate existing cognitive networks, as is shown above. But it is an empirical question how much of that is needed and helpful. Until the arrival of the third wave therapies, the issue did not seem to be widely recognized in the behavioral and cognitive therapies. It was simply assumed that since we know there are dysfunctional beliefs (true) we therefore need to target them for changes in their form, frequency, or situational sensitivity (not necessarily true).

CONCLUSION

To some degree there is a natural affinity between REBT and the third wave therapies. If defusion and direct experiencing replaces disputation and if believing-in-context replaces belief, a hybrid is created that provides a good way for REBT clinicians to begin to experiment in ACT and perhaps other third wave methods. As they do so, it seems likely that some of the REBT methods will be retained. In the long run, however, it is not clear how many of these methods *need be* retained. That remains a question. Effectiveness, not just logic, will be the ultimate metric.

In the meantime, these articles do indeed open a door to an interesting integration of second and third wave sensibilities. Whatever else they may do, they provide clear evidence that change has arrived in the world of the cognitive and behavioral therapies.

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.

Barnes, D., Lawlor, H., Smeets, P. M., & Roche, B. (1996). Stimulus equivalence and academic self-concept in mildly mentally handicapped and non-mentally handicapped children. *The Psychological Record*, *46*, 87–107.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182.

Beck, R., & Perkins, T. S. (2001). Cognitive content-specificity for anxiety and depression: A meta-analysis. *Cognitive Therapy & Research*, *25*, 651–663.

Beck, A. T. (1993). Cognitive therapy: Past, present, and future. *Journal of Consulting and Clinical Psychology*, *61*, 194–198.

Bieling, P. J., & Kuyken, W. (2003). Is cognitive case formulation science or science fiction? *Clinical Psychology: Science & Practice*, *10*, 52–69.

Biglan, A., & Hayes, S. C. (1996). Should the behavioral sciences become more pragmatic? The case for functional contextualism in research on human behavior. *Applied and Preventive Psychology: Current Scientific Perspectives*, *5*, 47–57.

Blackledge, J. T. (2004). *Using Acceptance and Commitment Therapy in the treatment of parents of autistic children* Doctoral dissertation, University of Nevada Reno.

Bond, F. W., & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology*, *5*, 156–163.

Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology*, *88*, 1057–1067.

Borkovec, T. D., & Roemer, L. (1994). Generalized anxiety disorder. In R. T. Ammerman & M. Hersen (Eds.) *Handbook of prescriptive treatments for adults* (pp. 261–281). New York: Plenum.

Burns, D. D., & Spangler, D. L. (2001). Do changes in dysfunctional attitudes mediate changes in depression and anxiety in cognitive behavioral therapy? *Behavior Therapy*, *32*, 337–369.

Ciarrochi, J., & Robb, H. (2005). Letting a little nonverbal air into the room: Insights from Acceptance and Commitment Therapy. Part 2: Applications. *Journal of Rational-Emotive and Cognitive Behavior Therapy, 23*.

Ciarrochi, J., Robb, H., & Godsell, C. (2005). Letting a little nonverbal air into the room: Insights from Acceptance and Commitment Therapy. Part 1: Philosophical and theoretical underpinnings. *Journal of Rational-Emotive and Cognitive Behavior Therapy, 23*.

Dahl, J, Wilson, K. G., & Nilsson, A (2004). Acceptance and Commitment Therapy and the treatment of persons at risk for long-term disability resulting from stress and pain symptoms: A preliminary randomized trial. *Behavior Therapy*, *35*, 785–802.

Dobson, K. S., & Khatri, N. (2000). Cognitive therapy: Looking backward, looking forward. *Journal of Clinical Psychology*, *56*, 907–923.

Dymond, S., & Barnes, D. (1995). A transformation of self-discrimination response functions in accordance with the arbitrarily applicable relations of sameness, more-than, and less-than. *Journal of the Experimental Analysis of Behavior*, *64*, 163–184.

Eifert, G. H., & Heffner, M. (2003). The effects of acceptance versus control contexts on avoidance of panic-related symptoms. *Journal of Behavior Therapy and Experimental Psychiatry*, *34*, 293–312.

Ellis, A., & Robb, H. (1994). Acceptance and rational-emotive therapy. In S. C. Hayes, N. S. Jacobson, V. M. Follette & M. J. Dougher (Eds.) *Acceptance and change: Content and context in psychotherapy* (pp. 91–102). Reno NV: Context Press.

Feldner, M. T., Zvolensky, M. J., Eifert, G. H., & Spira, A. P. (2003). Emotional avoidance: An experimental test of individual differences and response suppression using biological challenge. *Behaviour Research and Therapy*, *41*, 403–411.

Gifford, E. V., Kohlenberg, B. S., Hayes, S. C., Antonuccio, D. O., Piasecki, M. M., Rasmussen-Hall, M. L., & Palm, K. M. (2004). Applying a functional acceptance based model to smoking cessation: An initial trial of Acceptance and Commitment Therapy. *Behavior Therapy*, *35*, 689–705.

Gortner, E. T., Gollan, J. K., Dobson, K. S., & Jacobson, N. S (1998). Cognitive-behavioral treatment for depression: Relapse prevention. *Journal of Consulting & Clinical Psychology*, *66*, 377–384.

Gregg, J. (2004). *Development of an acceptance-based treatment for the self-management of diabetes* Doctoral dissertation, University of Nevada Reno.

Gutiérrez, O., Luciano, C., Rodríguez, M., & Fink, B. C. (2004). Comparison between an acceptance-based and a cognitive-control-based protocol for coping with pain. *Behavior Therapy*, *35*, 767–784.

Hayes, S. C. (1993). Goals and varieties of scientific contextualism. In S. C. Hayes, L. J. Hayes, H. W. Reese & T. R. Sarbin (Eds.) *The varieties of scientific contextualism* (pp. 11–27). Reno, NV: Context Press.

Hayes, S. C., Barnes-Holmes, D., & Roche, B. (Eds) (2001). Relational Frame Theory: A Post-Skinnerian account of human language and cognition. New York: Plenum Press.

Hayes, S. C., & Bissett, R. (1998). Derived stimulus relations produce mediated and episodic priming. *The Psychological Record*, *48*, 617–630.

Hayes, S. C., Bissett, R., Korn, Z., Zettle, R. D., Rosenfarb, I., Cooper, L., & Grundt, A. (1999). The impact of acceptance versus control rationales on pain tolerance. *The Psychological Record*, *49*, 33–47.

Hayes, S. C., Bissett, R., Roget, N., Padilla, M., Kohlenberg, B. S., Fisher, G., Masuda, A., Pisterello, J., Rye, A. K., Berry, K., & Niccolls, R. (2004). The impact of acceptance and commitment training and multicultural training on the stigmatizing attitudes and professional burnout of substance abuse counselors. *Behavior Therapy*, *35*, 821–835.

Hayes, S. C., Brownstein, A. J., Haas, J. R., & Greenway, D. E. (1986). Instructions, multiple schedules, and extinction: Distinguishing rule-governed from schedule controlled behavior. *Journal of the Experimental Analysis of Behavior*, *46*, 137–147.

Hayes, S. C., Brownstein, A. J., Zettle, R. D., Rosenfarb, I., & Korn, Z. (1986). Rule-governed behavior and sensitivity to changing consequences of responding. *Journal of the Experimental Analysis of Behavior*, *45*, 237–256.

Hayes, S. C., Jacobson, N. S., Follette, V. M., & Dougher, M. J. (Eds) (1994). Acceptance and change: Content and context in psychotherapy. Reno NV: Context Press.

Hayes, S. C., Masuda, A., Bissett, R., Luoma, J., & Guerrero, L. F. (2004). DBT, FAP, and ACT: How empirically oriented are the new behavior therapy technologies? *Behavior Therapy*, *35*, 35–54.

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

Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., Polusny, M. A., Dykstra, T. A., Batten, S. V., Bergan, J., Stewart, S. H., Zvolensky, M., Eifert, G. H., Bond, F. W., Forsyth , J. P., Karekla, M., & McCurry, S. M. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record*, *54*, 553–578.

Hayes, L. J., Thompson, S., & Hayes, S. C. (1989). Stimulus equivalence and rule following. *Journal of the Experimental Analysis of Behavior*, *52*, 275–291.

Hayes, , Wilson, K. G., Gifford, E. V., Bissett, R., Piasecki, M., Batten, S. V., Byrd, M., & Gregg, J. (2004). A randomized controlled trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance abusing methadone maintained opiate addicts. *Behavior Therapy*, *35*, 667–688.

Heffner, M., Eifert, G. H., Parker, B. T., Hernandez, D. H., & Sperry, J. A. (2003). Valued directions: Acceptance and Commitment Therapy in the treatment of alcohol dependence. *Cognitive and Behavioral Practice*, *10*, 378–383.

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

Jacobson, N. S., & Christensen, A. (1996). *Integrative couple therapy: Promoting acceptance and change*. New York: Norton.

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

Kohlenberg, B. S., Hayes, S. C., & Hayes, L. J. (1991). The transfer of contextual control over equivalence classes through equivalence classes: A possible model of social stereotyping. *Journal of the Experimental Analysis of Behavior, 56*, 505–518.

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

Levitt, J. T., Brown, T. A., Orsillo, S. M., & Barlow, D. H (2004). The effects of acceptance versus suppression of emotion on subjective and psychophysiological response to carbon dioxide challenge in patients with panic disorder. *Behavior Therapy*, *35*, 747–766.

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

Luciano, M. C., Herruzo, J., & Barnes-Holmes, D. (2001). Generalization of say-do correspondence. *The Psychological Record*, *51*, 111–130.

Marlatt, G. A. (2002). Buddhist philosophy and the treatment of addictive behavior. *Cognitive & Behavioral Practice*, *9*, 44–49.

Martell, C. R., Addis, M. E., & Jacobson, N. S. (2001). *Depression in context: Strategies for guided action*. New York: W. W. Norton.

Masuda, A., Hayes, S. C., Sackett, C. F., & Twohig, M. P. (2004). Cognitive defusion and self-relevant negative thoughts: Examining the impact of a ninety year old technique. *Behaviour Research and Therapy*, *42*, 477–485.

McCracken, L. M., & Eccleston, C. (2003). Coping or acceptance: What to do about chronic pain. *Pain*, *105*, 197–204.

McCullough, J. P. Jr. (2000). *Treatment for chronic depression: Cognitive Behavioral Analysis System of Psychotherapy (CBASP)*. New York: Guilford Press.

McHugh, L., Barnes-Holmes, Y., & Barnes-Holmes, D. (2004). Perspective-taking as relational responding: A developmental profile. *The Psychological Record*, *54*, 115–144.

Morgenstern, J., & Longabaugh, R. (2000). Cognitive-behavioral treatment for alcohol dependence: A review of evidence for its hypothesized mechanisms of action. *Addiction*, *95*, 1475–1490.

O'Hora, D., Barnes-Holmes, D., & Roche, B. (2001). Developing a procedure to model the establishment of instructional control. *Experimental Analysis of Behavior Bulletin*, *19*, 13–15.

Roche, B., & Barnes, D. (1997). A transformation of respondently conditioned sexual arousal functions in accordance with arbitrary relations. *Journal of the Experimental Analysis of Behavior*, *67*, 275–301.

Roche, B., Barnes-Holmes, D., Smeets, P. M., Barnes-Holmes, Y., & McGeady, S. (2000). Contextual control over the derived transformation of discriminative and sexual arousal functions. *The Psychological Record*, *50*, 267–291.

Roemer, L., & Orsillo, S. M. (2002). Expanding our conceptualization of and treatment for generalized anxiety disorder: Integrating mindfulness/acceptance-based approaches with existing cognitive-behavioral models. *Clinical Psychology: Science & Practice*, *9*, 54–68.

Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press.

Skinner, B. F. (1945). The operational analysis of psychological terms. *Psychological Review*, *52*, 270–276.

Skinner, B. F. (1957). *Verbal behavior*. New York: Appelton-Century-Crofts.

Stewart, I., Barnes-Holmes, D., Roche, B., & Smeets, P. M. (2001). Generating derived relational networks via the abstraction of common physical properties: A possible model of analogical reasoning. *The Psychological Record*, *51*, 381–408.

Stewart, I., Barnes-Holmes, D., Roche, B., & Smeets, P. M. (2002). A functional-analytic model of analogy: A relational frame analysis. *Journal of the Experimental Analysis of Behavior*, *78*, 375–396.

Watt, A., Keenan, M., Barnes, D., & Cairns, E. (1991). Social categorization and stimulus equivalence. *The Psychological Record*, *41*, 33–50.

Wilson, G. T. (2003). "Should AABT Change its Name?" Panel discussion presented at the meeting of the Association for Advancement of Behavior Therapy, Boston.

Wilson, K. G., Hayes, S. C., Gregg, J., & Zettle, R. D. (2001). Psychopathology and psychotherapy. In S. C. Hayes, D. Barnes-Holmes & B. Roche (Eds.) *Relational Frame Theory: A post-Skinnerian account of human language and cognition* (pp. 211–237). Plenum Press.

Zettle, R. D., & Hayes, S. C. (1986). Dysfunctional control by client verbal behavior: The context of reason-giving. *The Analysis of Verbal Behavior*, *4*, 30–38.

Zettle, R. D., & Hayes, S. C. (1987). Component and process analysis of cognitive therapy. *Psychological Reports*, *64*, 939–953.

Zettle, R. D., & Raines, J. C. (1989). Group cognitive and contextual therapies in treatment of depression. *Journal of Clinical Psychology*, *45*, 438–445.