Journal of Rational-Emotive & Cognitive-Behavior Therapy, Vol. 23, No. 2, Summer 2005 (© 2005)
DOI: 10.1007/s10942-005-0005-y
Published Online: September 16, 2005

LETTING A LITTLE NONVERBAL AIR INTO THE ROOM: INSIGHTS FROM ACCEPTANCE AND COMMITMENT THERAPY PART 1: PHILOSOPHICAL AND THEORETICAL UNDERPINNINGS

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ABSTRACT: In recent years, a new "wave" of mindfulness based Cognitive Behavior Therapies (CBT) has become popular. Such approaches include Acceptance and Commitment Therapy (ACT; *Acceptance and commitment therapy: An experiential approach to behaviour change*. New York: Guilford Press, 1999), Mindfulness-based Cognitive Therapy for Depression (*Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press, 2002), and Mindfulness-based Stress Management (*Full catastrophe living: using the wisdom of your body and mind to face stress, pain, and illness.* New York: Dell Publishing, 1990). In contrast to traditional CBT, these approaches often minimize attempts to change the form and frequency of dysfunctional thoughts. Is there any way to integrate traditional CBT with mindfulness based CBT? To answer this question, we discuss the philosophical and theoretical underpinnings of one form of traditional CBT (Rational-Emotive and Cognitive Behavioral Therapy) and one form of mindfulness based CBT (ACT). We argue that some aspects of each therapy can be integrated. However, in order to prevent techniques from being used haphazardly or inconsistently, we suggest that the different forms of CBT need to be driven by a common philosophical orientation (e.g., functional contextualism) and theoretical orientation (e.g., Relational Frame Theory).

KEY WORDS: acceptance and commitment therapy (ACT); acceptance; mindfulness; relational frame theory; rational-emotive behavior therapy (REBT); cognitive behavior therapy (CBT).

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Something strange is happening in clinics across the world. Peek inside and you might see clients sitting in silence for most of the hour. Or maybe they are eating a raisin very very slowly, or chanting "milk milk milk milk. . . ." You might hear a client say, "I am confused" and the therapist replies "Excellent! Now we are on the right track."

Mindfulness, yoga, meditation, chanting, paradox, confusion—all these techniques are showing up in what some (e.g., Hayes, 2004) have termed the third wave of cognitive behavioral therapy (CBT-3). Examples of such therapies include Acceptance and Commitment Therapy (Hayes, Wilson, Gifford, & Follette, 1999), Mindfulness-based Cognitive Therapy for Depression (Segal, Williams, & Teasdale, 2002), Mindfulness-based Stress Management (Kabat-Zinn, 1990), and Dialectic Behaviour Therapy (Linehan, 1993). These therapies have been finding a substantial amount of empirical support recently (Hayes, Masuda, Bissett, Luoma, & Guerrero, 2004).

In contrast to 2nd wave CBTs (CBT-2; Beck, 1995; Ellis, 2001; Meichenbaum, 1985), third wave CBTs avoid challenging the form and frequency of dysfunctional thoughts. For example, with depressed clients, there is often no direct attempt to reduce the number of self-downing thoughts, or restructure those thoughts so that they are more functional or rational.

Since CBT-2 has substantial empirical support for its efficacy (Dobson, 1989; Haaga & Davison, 1993; Hajzler & Bernard, 1991), why adopt a new approach that *seems* to throw out everything learned in CBT-2? Why not simply pick a couple of techniques from CBT-3 that seem useful, and integrate them into one's normal CBT-2 practice?

We will argue that CBT-2 practitioners may indeed improve their therapeutic outcomes by learning to use third wave technologies, and vice versa. However, we argue that in order to use these technologies most effectively, it is essential to understand the deep philosophical and theoretical structure that underpins them. Without such understanding, CBT-2 and CBT-3 technologies may be used in a way that are inconsistent and counter-therapeutic.

We will focus on one form of CBT-2, namely Rational-Emotive and Cognitive Behavioral Therapy (REBT), and one CBT-3, namely Acceptance and Commitment Therapy (ACT). Many of the arguments we will make will apply to other forms of CBT. The purpose of focusing on ACT and REBT is that despite their differences, they share some striking similarities, and this makes it easier to compare them. They both acknowledge the importance of philosophical stance in the

therapy room. Importantly, they both share one core goal, namely to help people to unconditionally accept themselves, others, and life.

WHAT KIND OF PHILOSOPHER ARE YOU IN THE THERAPY ROOM?

All humans act with philosophical assumptions, and these assumptions dictate our moment-to-moment behaviour when interacting with a client. Assumptions or "world views" are like the place one stands. What one sees and does is greatly determined by the place from which one views. In this way, assumptions are neither true nor false, but rather provide different views of different landscapes (Laudan, 1981).

CBT practitioners often see things through a mechanistic world-view. The world is seen as a giant machine made up of parts, relations, and forces (Hayes, Hayes, & Reese, 1988; Hayes & Wilson, 1995). We come to understand this world by understanding how the parts interrelate. From a mechanistic-REBT perspective, the cause of human suffering is located in a combination of the activating event and the irrational belief. For example, it can be hypothesized that a client's depression is due to rejection by a lover (activating event) and the belief "this proves I am worthless."

Mechanists assume that there is a real world with "real parts." When acting as scientists, they make theories about the world and its parts and test them to see if they work. If they do, then they might assume that the theory corresponds to the true world. We are, as it is often said, "cutting the world at its joints." Science progresses because, through increasing refinement, our theories become more and more "accurate representations" of the true world.

There are two crucial points we should make before proceeding. First, we note that we are not equating mechanistic views and REBT. REBT is often practiced from the mechanistic viewpoint, but there is no reason why it must be practiced this way. Indeed, Ellis has recently endorsed a more constructivist world view, which does not assume that we create accurate representations of the true world (Ellis, 1990). Second, we need to keep in mind that world views, while incompatible, cannot be proven to be right or wrong. They are a matter of assumption. They are not the result of evidence or reasoning (Laudan, 1981).

What alternative philosophical stance one can take in the therapy room? ACT works from within a functional contextualism (FC) view-

point. FC refuses to view causes as things in the world. Rather, "causes" are ways of speaking tied to a specific goal. The nature of an event is determined by its situated-ness in a context. Consider the example offered by Hayes (1995).

> The statement "the spark caused the explosion" assumes that there was combustible material, oxygen, sufficient ambient temperature, and so on. When all of these are included one can only say that there *was* an explosion, and that it was *made up* of sparks, combustible material, oxygen, temperature, and so on. None of these *caused* the whole event; rather the working together of all these participants is the event. If other events were assumed—just as when we assume sparks when we are welding combustible metal in a vacuum—then we speak of the explosion differently. Under these conditions, we might say, "the loss of the vacuum caused the explosion."

Functional contextualists set as their primary purpose the prediction-and-control of behaviour. Prediction, in itself, is not the goal, as it can be within mechanistic viewpoints. Functional contextualists view cognitions, emotions, behavioral dispositions, beliefs, and overt behaviors as dependent variables of psychology, or the things that need to be explained. These variables are not viewed as causes of each other. This is because by definition dependent variables cannot be manipulated *directly*, and therefore cannot be *directly* used as a source of psychological influence (Hayes, 1995). The only variables that can meet the goals of prediction and influence are the contextual events in the "manipulable in principle" environment.

From a contextualist perspective, it is the context in which unhelpful thoughts occur that determines their consequences. For example, consider the thought "If I fail, then that proves I am a loser." In a context in which thoughts are experienced as rules that order the world (called the context of "literality"), then this thought may be connected with avoidant type behaviour (e.g., avoiding taking chances). However, this thought may also occur in a "deliteralizing context," in which the client looks at this thought as sounds, a habit, or dispassionately observes it as a verbal relation (Hayes et al., 1999). In this context, the thought may not co-occur with avoidance.

Functional contextualists do not focus on the content of the thought, or what it refers to in the "real" world. They don't ask about the logic or the evidence of a particular thought. Nor do they *assume* that any particular thought is irrational. They focus almost

exclusively on the function of the thought in a particular context. Consider the thought "I must never fail." The functional contextualists would ask, "Where does believing this particular thought take you?" "What function does it have in your life?" They would not assume that the thought is necessarily harmful.

A metaphor suggested by Wilson (pers. com., 2003) will help make this argument clear. Suppose a person standing on one side of a room walks to the other side and then asks, "to what do my footsteps refer." Obviously, they do not refer to anything. Even so, they were an effective means of getting from one place to another. Functional contextualists see our internal dialogues as similar to walking. The main question they ask is, "when you believe your dialogues ('I'm no good'), where does it take you? Is that where you want to be?"

RFT: THE LANGUAGE THEORY UNDERLYING ACT

Language is a crucial aspect of human existence. By means of language, our environment has been radically altered from that of our ten-thousand-years-ago forbearers. It is not only by means of language that average human beings live their lives. It is also the means by which we conduct two, not so average, activities: science and psychotherapy.

Behavioral psychologists operating as functional contextualists set as their primary purpose the prediction-and-influence of behaviour, including languaging behavior. From a FC perspective, humans are not "processing information," they are behaving linguistically.

The Dictatorship of Language

RFT began with the discovery of what are now called "derived stimulus relations." Consider the following experiment. An apple is placed slightly to the left in a person's field of vision. Additionally, three other fruits, including a banana, but not a cantaloupe, are placed on the table directly in front of the person. The individual is rewarded for choosing the banana instead of any of the other fruits as long as the apple is present. Figure 1 illustrates this learned relation with a solid line between apple and banana. Then the conditions are changed slightly. The apple remains but no banana shows up as one of the three fruit choices. Instead, one of the three fruits is a cantaloupe and the individual is rewarded for choosing the cantaloupe

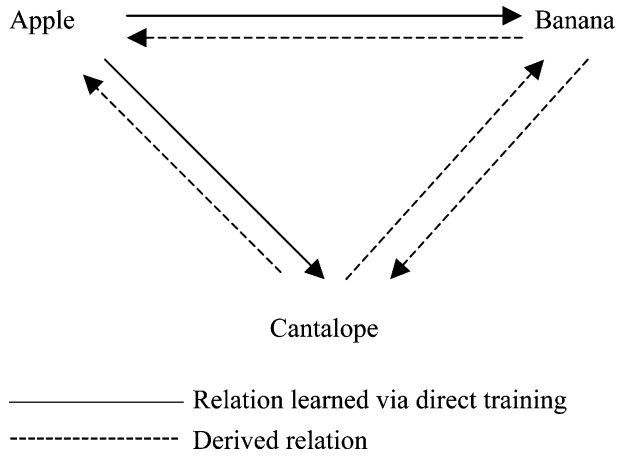

Figure 1. Trained and derived stimulus relations.

from the three fruits as long as the apple is present. This is illustrated by the solid line between apple and cantaloupe in Figure 1.

With these procedures, the following outcomes can be predicted with no additional training. If a banana is placed to the side of the individual and three fruits are placed in front of the individual with one of them being an apple, and none of which is a cantaloupe, the individual will choose apple (dotted line from banana to apple, Figure 1). If a cantaloupe is placed to the side of the individual and three fruits are placed in front of the individual with one of them being an apple, and none of which is a banana, the individual will choose apple. In a similar fashion, it can be shown that the person will derive relations between banana and cantaloupe (Figure 1).

In other words, if two relations are taught, then four other relations, which are said to be "derived," will also be obtained without direct training. These derived stimulus relations begin appearing in humans as young as eighteen months and are at the heart of RFT (Hayes, Barnes-Holmes, & Roche, 2001).

Because of derived relational responding (i.e., train A $\rightarrow$ B, but also get B $\rightarrow$ A), language tends to be bi-directionally related to experience. For example, to some of us on some occasions, the word "shock" will carry with it some of the aversive functions of shock itself and the actual experience will carry with it linguistic functions such as the word, "shock." This bi-directionality, common in relational framing, appears to be unique in humans (Hayes et al., 2001). A pigeon can be taught to peck a key if it has been shocked (by

giving it food) and peck another key if it has not been shocked. Essentially, the pigeon is reporting whether it has been shocked. This report will never become aversive for the bird, because it has never predicted shock. Indeed, it predicts reinforcement (food). In contrast, humans verbal reports of past trauma can bring forth much of the pain experienced in the trauma. This occurs even when the reports do not predict the trauma, and indeed even when the report has never been made before.

Bi-directionality means that language has the power not only to describe monsters, but to make them present. We are not only fearful in the presence spiders, death, and cancer, we are fearful in the presence of talk about these things. Language allows us to re-experience a painful event even as we are having a picnic in a peaceful setting. With language in the hands of a good storyteller, we may experience sensations and have images of events that never happened to us, or anyone else.

This fact is recognized in RFT, and labeled the *transformation of stimulus functions.* When two stimuli are related, some of the functions of each stimulus change according to what stimulus it is related to, and how it is related to that stimulus. In the above example, the word "shock" started out as a neutral sound, but became transformed into something aversive because it became related to actual experience. Here is another example. Assume that you have a lot of aversive affect connected to the word "cancer." A co-worker tells you, "That new guy, David, is a cancer in our organization." As a result of relating David with cancer, you may develop an aversion to David, and avoid him, just as you would avoid cancer-causing agents. Importantly, your avoidance is not based on any experience you have had with the David. Thus, the word "cancer" can be used to dramatically transform how you think and feel about David, and how you act towards him.

Humans have the ability to derive relations between just about any two things, e.g., between an elephant and an orange. Each derivation may lead to a further transformation of stimulus functions (Blackledge, 2003). Research confirms that if people are taught just a few links via experience, they can derive a substantial number of links without further experience. For example, one study demonstrated that for each link between two stimuli that was learned via direct experience, 15 new links could be derived, and this number increases exponentially with the size of the relational network (Wulfert & Hayes, 1988). Thus, the percentage of our thoughts, images, and

sensations that are based on direct experience can be quite small compared to the percentage that are derived.

This finding may relate to Ellis' idea that the major cause of "irrational thinking" is overgeneralization (Ellis, 2001), as described by Korzybski (1933). From an RFT perspective, overgeneralization may occur because of the natural tendency for people to respond based on relations that are derived, rather than relations that are from direct experience. For example, if people are told A is bad, B is like A, and C is like B, then they can derive (or make a generalization) that C is bad. They may rely on this derivation, even if they have never had a bad experience with C. Their reliance may work out well. However, it also may work out badly because though B may be like A, it may not be like A in the "bad" way.

RFT-related research suggests that when our verbal constructions are inconsistent with our experience, the verbal constructions can dominate. For example, experimental studies have compared the performance of people who learned a task either by directly following a verbal rule or by direct experience (Hayes, Brownstein, Haas, & Greenway, 1986). When the task requirements were later changed, all of the participants who learned the task by experience where sensitive to the change. In contrast, only half of the participants who learned the task by rules where sensitive to the change. People learn to rely on their verbal constructions, and such reliance can lead to rigid, inflexible behaviour.

RFT holds that because the verbal community reinforces so many instances of relating, relating itself becomes a generalized operant (or habitual way or responding) by a rather early age. Eventually, we automatically relationally frame all kinds of experiences. Anything that "shows up," whether inside or outside our skin, is something for us to relate to something else because that is what our history has taught us to do. We soon develop huge numbers of relational networks which are further developed and refined throughout our lives.

The Power of Context

RFT has developed terms to talk more precisely about context (Hayes et al., 2001). In the basic RFT formula, humans can relate any two "things" they can discriminate. The more generalized term for "things" is "relata." Relata are "relationally framed" which underscores that an active behavioral process is occurring. Relational

framing is something that is occurring in the present moment. It is not considered to be a static thing like a belief or a schema.

There are two types of contextual control. The first is called the context of relation (abbreviated Crel). For example, in the sentence "I am worthless," the two relata are "I" and "worthless." The "am" is a contextual cue that specifies how the two relata are related. "Am" creates what is termed a co-ordinate relationship. Other kinds of Crel include distinction (A is not B), comparison (A is better then B), causality (A is caused by B), and many others.

The second type of contextual control specifies the transformation of stimulus functions and is abbreviated Cfunc. For example, if one person says, "You are worthless" and the hearer feels bad, we might conclude that certain functions of worthless (e.g., feeling bad) have transformed "you" such that "you" now includes feeling bad. However, in some contexts, the functions of "you" and "worthless" may not be transformed. For example, someone might repeat "You are worthless" hundreds of times, until it loses all meaning and reduces to a series of sounds. (We encourage the reader to repeat this phrase 20 times to get the idea.) In the context of hearing "You are worthless" one hundred times, the hundred and first presentation of this phrase may not lead "worthless" to transform "you."

In the above case, the relating context (Crel) has occasioned two relata, "you" and "worthless" to be related in a frame of coordination. If the functions of relata are transformed, they are done so in a way that is consistent with the Crel. Therefore, the functions of the same two relata in a frame of coordination would not have their functions transformed in the same way as would be the case if they were in a frame of opposition (e.g., You are not worthless).

Consider another example. Assume that John has been told, "You are bad." In RFT speak, "You" has been placed in a coordinate, or roughly equivalent, relation with "bad." Suppose an abusive father has paired "bad" with severe punishment. In the father context, Cfunc, the word "bad" elicits aversive affect, self-doubt, and avoidance (the assumed functions of severe punishment). Suppose in another context, "bad" is paired with reward, as when peers socially reward John for being rebellious. In this context, bad is linked to positive affect, self-confidence and increases in certain rebellious behaviour (the assumed functions of reward). Thus, the stimulus functions that transform "bad" and "you" depend on what context (Cfunc) is operating. If the context is the angry father, then "you" becomes aversive, and not just father, but "you" becomes something to be

avoided. If the context is a friend, then "you" becomes confident and rebellious. In yet other contexts, few functions may be transformed.

DYSFUNCTIONAL BELIEFS VIEWED WITHIN A FUNCTIONAL CONTEXTUALIST/RFT FRAMEWORK

From an RFT perspective, a verbal formulation can be considered "believed" when contextual features support action with regard to it (Hayes et al., 2001). A verbal formulation can be considered "merely" a verbal formulation when contextual features do not support action. For example, "I am worthless" in some contexts may lead to someone avoiding a valued activity. In this instance, we would say that this person "believes" the verbal formulation. In another context, a person might mindfully watch thoughts as they come and go and may view "I am worthless" as just a fleeting evaluative thought. The verbal formulation may then have no effect on behaviour, which is to say, it is "not believed." In this instance, we might say "the person is having the thought, but not believing it."

Some CBT-2 theorists make a further assertion, namely, that action occurs because, somewhere, one has a particular "cognitive structure" often labeled "a belief." This is essentially saying something like: I don't believe a statement or thought such as "I am a banana" because I don't have the belief that I am a banana. Or, if I do have the belief, it is not currently activated. However, if I did think or say the words, "I am a Banana," and did believe them, it would be because I have the belief that I am a banana and because this belief was "activated." Mechanistically, we might be drawn into the notion that if we believe, it is because somewhere we possess "a belief."

The mechanistic view may lead to the conclusion that, if we are to influence behaviour, we must change not only the verbal formulation itself but also the "underlying cognitive structure" or "belief" which is "causing it" to be believed. To use an information processing metaphor, it is "garbage cognitive structures in, garbage behaviour out." One must change these beliefs so that you get "rational beliefs in, functional behaviour out." In contrast, RFT implies that believability has nothing to do with so called cognitive structures and can be altered, sometimes quickly, by changing the context in which troublesome thoughts occur. In other words, it may be possible to change a believed verbal formulation into "merely talk or a thought" very

quickly and without any attempt to change its form (Hayes et al., 2001).

If REBT surrenders the notion that there are "beliefs" that are the cause of believing, it could adopt an FC/RFT approach to its practice. Within this new frame of reference, the search of "irrational beliefs" becomes the search for the contexts that promote or do not promote the believing of any verbal formulations and especially unhelpful ones. (For example, formulations that, if believed, would take one in a value-incongruent direction. More on values later.)

THE ACT MODEL OF HUMAN SUFFERING

Humans can have every form of external comfort imaginable—wealth, shelter, loving parents, a caring spouse, health—and still suffer intensely (Csikszentmihalyi, 1999; Hayes et al., 1999; Myers, 1992). We are only animals who kill ourselves (Hayes et al., 1999). Indeed, 50% of us will face moderate to severe levels of suicidality in our lives. Up to 1 in 4 of us have a diagnosable mental disorder (Hayes et al., 1999). Surprisingly high numbers of us suffer from moderate levels of anxiety and depression (Ciarrochi, Scott, Deane, & Heaven, 2003), and large numbers are lonely, alienated, afraid of commitment, hostile, burnt out, and etc. Can we escape the accuracy of the Buddhist first noble truth? "Suffering is the human condition" (Kapleau, 1989).

ACT takes the view that language processes are at the heart of suffering. The problem of language can be captured in the acronym F.E.A.R. Fusion, Evaluation, Avoidance, and Reason Giving (Hayes et al., 1999). These four are described below with commentary from the REBT perspective.

Fusion

Cognitive fusion involves symbols becoming functionally equivalent, to some extent, with "actual events," or more technically speaking, "Nonarbitrary aspects" of existence. Sometimes we experience fear sensations when we are in situations we believe are dangerous. However, when we experience fear sensations we also often conclude that danger must be somewhere in only in the fear sensations themselves. In other words, no distinction is made between fear sensations and danger, and to have one is to have the other.

Consider another example. The thought of an insult can be as powerful and aversive as the actual insult. Actual moments of insult are relatively short lived. Thoughts of insult can go one and on. We can spend a lot of time battling with our own aversive thoughts. We can seek to convince ourselves that the person who insulted us is a "worthless piece of trash." We can disparage and disparage in order to defeat the thought, just as we would defeat a real enemy. All this angry rumination often only serves to increase our suffering (Nolen-Hoeksema, Parker, & Larson, 1994; Sukhodolsky, Golub, & Cromwell, 2001), while it has no effect on the person who insulted us.

Treating one's symbols about self as if they were actually self (i.e., fusing with them) is particularly problematic. A client might think, "I am worthless," and then treat the statement as "true," rather than as a bunch of words. Interestingly, the problem of "essence thinking" is one point upon which both ACT and REBT might agree. REBT discourages the global evaluation of one's essence, and has developed a substantial technology to undermine the practice. The main difference, as we will see in the next section, is the way that ACT and REBT go about undermining evaluations of one's essence.

ACT theorists distinguish between merely having a thought, and believing it (or in ACT speak, buying it or fusing with it). The ACT therapist does not attempt to reduce the frequency or form of the thought, though their interventions may often have that effect. They target the believability of the thought, but not by challenging certain thoughts and attempting to show they are "wrong." Rather, they seek to change the context in which the thought occurs. (We will focus on these applied differences later.)

Fusion is proposed to be one of the core causes of unnecessary suffering. It allows us to create symbolic worlds and do battle with them in order to vanquish the "bad" thoughts and feelings. As we shall see soon, such attempts to control our private worlds often fail, and indeed often makes things worse.

Evaluation

As our ancestors avoided getting eaten, and other ways of dying, they also evolved a critical mind. Rather than living in a unitary moment, language allows us to symbolically carve from it an "I" and "other," either of which we may like or dislike. Then, rather than sticking with "I do or don't like this," we further transform the world

into a place containing "things" which are either "good" or "bad," a world that includes ourselves.

Language allows us to create names for our private experiences and to transform these experiences from things we like or don't like, to things that are "good" and "bad." We also create abstract labels like "our life." We evaluate our life as "worthless" and "unbearable," and thereby provide the impetus for suicide. Finally, language allows us to create ideals about ourselves, other people, and the world around us. We than can compare the ideal to the actual, and find nothing in the "actual" world to be good enough. We soon become "bad" people doing "bad" things in a "bad" world desperately trying to become "good" people doing "good" things and a good world.

Like ACT, REBT is exquisitely sensitive to evaluation. Specifically, it seeks to undermine behaviour that involves evaluations that are exaggerated (awfulizing) and that involves one's essence (I am worthless).

Avoidance

It may be adaptive to avoid or attack threats in the world outside our skin. If we are to live, we must flee from an attacking carnivore or return the attack. However, humans create a world of symbols, and learn to avoid or attack aspects of it.

Avoidance of private experiences makes us feel better in the short run, but can harm our goals in the long run (Hayes et al., 1999). For example, we may think "I might get cancer" and also experience thoughts, images and bodily sensations that we label as being "terrified." We may then not only try to avoid thoughts of cancer so as not to be terrified, but we may also avoid activities that evoke thoughts which "make us terrified" but which might be self-protective, e.g., cancer screenings. By avoiding certain private experiences, we may feel better in the short term, but make things worse in the long run by increasing our risk of cancer. This problem is well-known in REBT with its focus on long term and short term gain (Dryden, 2001; Ellis, 2001).

Other downsides of attempting experiential avoidance are now well documented. Research has shown that when subjects are asked to suppress a thought, they later show an increase in this suppressed thought as compared with those not given suppression instructions (Wenzlaff & Wegner, 2000). Indeed, the suppression strategy may actually stimulate the suppressed mood in a kind of self-amplifying

loop (Feldner, Zvolensky, Eifert, & Spira, 2003). Similar results have been found in the coping literature. Avoidant coping strategies predict negative outcomes for substance abuse, depression, and effects of child sexual abuse (for review, Hayes, Wilson, Gifford, Follette, & Strosahl, 1996).

In a large-scale review of process and outcome variables, Orlinksy and Howard (1986) found that self-relatedness was the most consistent positive correlate of therapeutic outcome. Clients high in self-relatedness appear to be high in acceptance in that they are "in touch with themselves and open to their feelings" as contrasted with being "out of touch with themselves" (Orlinksy & Howard, 1986, p. 359).

Bond and Bunce recently conducted a longitudinal study examining the role of individual differences in acceptance in mental health, job satisfaction, and performance in a work domain (Bond & Bunce, 2003). Acceptance was measured using the Acceptance and Action Questionnaire (AAQ), a commonly used measure of experiential avoidance (Hayes et al., 2004). At a one-year follow-up, the AAQ predicted mental health and an objective measure of performance, even after controlling for other common workplace variables (e.g., job control, negative affectivity).

In yet another study, participants high in emotional avoidance (high on the AAQ) showed more anxiety in response to CO_2 (biological challenge), particularly when instructed to suppress their emotions (Feldner et al., 2003). Taken together, the findings suggest that the major process that ACT targets—experiential avoidance—is a source of suffering and ineffectiveness.

REBT also focuses on experiential avoidance/acceptance. It divides acceptance into two levels (Ellis, 2001; Walen, DiGiuseppe, & Dryden, 1992). It focuses on acceptance of the self (including one's private experiences such as thoughts, images, and sensations), and acceptance of others and life conditions. ACT focuses on avoidance of private experience because, from its perspective, we mainly try to avoid others and life circumstances as a means by which to avoid certain private sensations that often show up along with them. ACT's view is that if we willingly had such experiences, rather than avoiding them, we would not avoid the people or life experiences connected to the private experiences. We would be in a better position to choose to accept the people and life experiences, if doing so served our values. REBT and ACT may have much in common in terms of their focus on acceptance.

Reason Giving/Rule Creation

People learn to give reasons to explain events including their own behaviour (Hayes et al., 1999). Ask, "Why is dinner late?" and a person may answer, "because there was an auto wreck on the way home." This seems informative. If, In contrast, they respond with, "because I started cooking it late," we would probably find this answer uninformative. We want to know why meal preparation started late, not simply that it did. Similarly, ask "Why didn't you leave the house?" and a person might answer, "I was anxious." This also seems informative. If, in contrast, they responded with, "Because I failed to move my feet and other body parts so as to end up outside my house," we would be likely to find this answer uninformative and insist that they give us a "reason."

The difference in these two examples is that auto wrecks might actually stop progress on a roadway, but having the "wrong sensations" inside one's skin does not stop one from leaving the house. Hayes et al. (1999) argue that the culture reinforces that notion that such things as negative thoughts, feelings, memories, and physical sensations actually cause or prevent behaviour.

Unfortunately, people begin to believe their own reasons and stories (Hayes et al., 1999), even when they are harmful if followed. People tell themselves, "I can not act effectively because I am useless" and believe they have to somehow "become useful" in order to "act effectively." If such an explanation of behaviour is believed, changes become almost impossible because "acting effectively" is exactly what a person who is "useless" cannot do. Another individual might think, "I must have other people's approval to be good enough," and waste a great deal of energy trying to get approval from every significant other. Or they might think, "I can't take a risk, because I am too anxious" and then refuse to take any risks until the "right level" of anxiety, including none at all, is achieved (Addis & Jacobson, 1996).

REBT does much to undermine dysfunctional reasons for behaviour like those described above. However, REBT focuses much less on undermining reason giving itself. Indeed, one might speculate that REBT's emphasis on evidence, logic, and "reasoning more sanely" actually encourages people to reason more. Research could evaluate this possibility.

ARE ACT AND REBT BOTH TARGETING THE PROCESSES OF FUSION, AVOIDANCE AND EVALUATION?

Both ACT and REBT see as one of their core goals unconditional acceptance of self, others, and life (Dryden, 2001; Ellis, 2001; Hayes et al., 1999; Walen et al., 1992). Acceptance can be defined as an active taking in of experiences (thoughts, feelings, sensations, etc.). It is closely aligned to the notion of willingness which refers to how open people are to experiencing their own experience when they experience it—without trying to manipulate it, avoid it, escape it, change it, and so on (Hayes et al., 1999).

REBT seeks to challenge specific dysfunctional belief types, which include demandingness (things absolutely should/must be a certain way), low distress tolerance (e.g., " I can't stand feeling anxiety"), awfulizing ("disobedient kids are awful"), and global self/other evaluations ("I am a loser") (Dryden, 2001; Ellis, 2001). For an RFT perspective, REBT challenges certain relational frames ("I am worthless").

It appears that REBT disputing can be directed at the way relata ("I" and "worthless") are related (Crel) or the way the relata functions are transformed (Cfunc). For example, assume someone thinks "I am worthless" and avoids looking for a job (the assumed function of "worthless"). The REBT practitioner may seek to show the person, via evidence and logic (i.e., providing new Crel's), that it does not make sense to ever relate "I" with a single global evaluation of the self. This appears to be an intervention that emphasizes changing the relation from equivalence ("am") to distinction ("am not"). Alternatively, the REBT practitioner can engage in a functional dispute. For example, a therapist might ask, "Does it help you to believe that you can't go looking for a job even when you have the thought in your head I am worthless." This form of dispute attempts to provide a Cfunc aimed at undermining the transfer of functions from "worthless" to "I." That is, the functional dispute may undermine the power of "I am worthless" to act as a barrier to the individual searching for a job.

REBT takes certain words or thoughts as indications of likely problematic relational framing (e.g., phrases like, "I must do well, it is awful. You are no good"). It tries to encourage more rational relational framing, which it believes will function more effectively (e.g., I don't *have to* do well. It is only bad not awful). In contrast, ACT

frequently targets language processes themselves. Rather than throwing light on specific types of relational framing, it tries to throw light on the problems that come from relational framing itself.

An ACT theorist would argue that no verbal strings are inherently dysfunctional. One cannot say anything about them, without observing how they function in a particular context. This functional relativity of thoughts can seem to conflict with an REBT approach that assumes that certain thoughts are inherently dysfunctional. 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. We will present evidence that examines this hypothesis, but first let us consider each of the REBT dysfunctional belief categories, and how they might be expected to relate to fusion, evaluation, and avoidance.

Demandingness. Demandingness tends to be in the form of verbal rules about how things "must" or "should" be. "People must treat me fairly." "I should be successful." "You should respect me." "People should be reasonable."

There appears to be three functionally distinct categories of rules (Hayes, Zettle, & Rosenfarb, 1989), and the demandingness rules can fall into any category. *Pliance based rules* are followed because of direct reinforcement from a social agent.

For example, a mom might tell a child: "You must stop being so critical of your friends, or they won't want to hang around with you." Pliance occurs if the child stops criticizing friends around Mom in order to please her and avoid her correction. *Tracking* is rule governed behaviour under the control of a history of correspondence between the rule and natural social and nonsocial contingencies (Hayes et al., 1989). In the above example, tracking occurs if the child follows the rule in order to avoid losing the friends. *Augmenting* is rule governed behaviour that alters the extent to which some event will function as a consequence (Hayes et al., 1999). Consider the belief, "I must not feel anxious, or I will lose control." The part about "losing control" increases or augments the apparent punishing nature of anxiety.

The above three beliefs were all in the service of avoidance (avoiding mom's disapproval, avoiding losing friends, avoiding anxiety). In general, demandingness might be in the service of at least two types of avoidance. First, it could be in the service of avoiding a perceived

"catastrophe." For example, "You must meet the deadline or you will be fired, and that would be awful." Second, the demanding belief can be in the service of avoiding perceived reductions in self-worth. ("I must have approval, or I am unacceptable as a person.")

We do not wish to suggest that demanding beliefs (or believing) will always be connected to avoidance. For example, the thought "I must win" might be functional if it helps one to win a trophy or prize money. However, the demanding beliefs that are typically focused on in CBT research tend to be on the dysfunctional end of the spectrum. Example items from common CBT belief measures (discussed below) include: "One must be perfectly competent, adequate, and achieving to consider oneself worthwhile," and "If I do not do as well as other people, it means I am a weak person." The latter statement does not have an explicit "must," but seems to be functionally similar to, "I must do well to avoid being a weak person."

The above examples illustrate the close link between evaluation, avoidance, and fusion. People may believe they "must" avoid disapproval because they think it will "lower" their acceptability as a person. They may think they "must" avoid failure because it "makes them weak." Both of these examples involve fusion with self-concepts ("I = unacceptable"; "I = weak").

"I can't stand it. It is unbearable." This belief type is hypothesized to often be in the service of avoidance. For example, Person A says, "I can't stand the way my boss treats me so I had to leave work." Person B replies, "Ah, that certainly seems justified." In this example, "I can't stand it" was in the service of gaining social approval (reinforcement) for an avoidance move.

"It's awful, horrible, terrible, a catastrophe." Evaluations like "It's awful" can also function as a social justification for avoiding something. If you tell someone that studying for the exam is "awful," then that person might be more likely to find it acceptable when you don't study for the exam.

"It's awful" may also indicate fusion. If someone says, "failing is awful," then it might be that they are fusing with certain negative contents such as "If I fail, then I will be weak person." According to REBT parlance, "awful" means as bad as it possibly can be (Dryden, 2001; Neenan & Dryden, 2002). However, bad events could almost always be worse, and sometimes good things come of bad events. When we fuse with or believe our "awful" evaluations, it is likely to create emotional disturbance and self-paralysis (Neenan & Dryden, 2002). How else can one react to something that is a "complete and utter

catastrophe"? If something is awful, and one can't do anything about it, then it may seem like the only thing one can do is avoid thinking about it.

We acknowledge that the arguments in this section are speculative. We will provide some evidence shortly for the link between dysfunctional believing and avoidance. However, we recognize that these arguments raise many questions that can only be addressed by future research.

Global evaluations of self and others. Global evaluations are made possible by a language system that creates a symbol of "I" and "me" that can be evaluated. Parents often use this language trap as a means of controlling their children. They tie being a good or bad person to certain behaviors. "If you don't do what you are suppose to, then you are a bad boy." It is as if the parents have at their disposal the ultimate punishment, that is, the ability to transform the child's personhood to something that is all good or bad. "Bad" in this instance can be about being powerless (being bad means you get no privileges) or unlovable (being bad means you get no love). Even if parents don't engage in the "your bad" relational framing, RFT suggests people will still naturally globally evaluate themselves. That is, in many contexts they will go from "I did a bad thing" to "I am a bad person."

One might engage in extraordinary efforts to avoid aversive self-evaluations. A person might try to be perfect or be loved by everyone. Any sign of imperfection may result in negative self-evaluations, which in turn lead to greater attempts to avoid the evaluations by being more perfect. If people get to the point where they have unconditional low self-acceptance ("I am useless"), they might find that the thought of almost any activity cues aversive self-evaluations and they may seek to avoid almost all activities.

EVIDENCE THAT ACT AND REBT MAY SHARE SIMILAR PROCESS GOALS

REBT holds that emotional and behavioral avoidance can stem from irrational beliefs. We have shown how this can be viewed from the perspective of ACT and RFT. If these hypotheses are correct, people who chronically believe certain thoughts which REBT calls "irrational" are also likely to show higher levels of emotional and behavioral avoidance.

To assess this hypothesis, we administered a number of belief measures related to REBT and two experiential avoidance measures related to ACT. These measures have been proposed to be the mediators between the therapeutic intervention and improvements in emotional well-being and behavior (i.e., the measures can be seen as indexing the processes by which ACT and REBT are expected to reduce suffering). REBT seeks to challenge specific dysfunctional beliefs as a means of reducing avoidance, whereas ACT seeks to reduce unhelpful experiential avoidance by teaching individuals to relate to these things as "what they are," namely, nothing other than thoughts, images, and sensations.

A second purpose of the study was to examine the extent that the measures correlate to positive and negative indices of well-being. This allows us to directly compare the ACT- and REBT-related measures in terms of their potential value for predicting well-being. In order to overcome some of the problems with self-report bias, we gathered reports of well-being not only from each participant, but also from the participant's peers and partner. We also measured social desirability to rule out this as a potential confound.

Participants, Study Design, and Measures

Four-hundred and nine (327 female; 82 male; mean age 20.9) university students participated in the anonymous survey for course credit. After completing the survey, students took a self-addressed envelope home to their partner (if applicable) and to a peer who knew them well. The envelope contained a measure of positive and negative affectivity (see below). Instructions in the envelope encouraged the peer or partner to complete the questionnaire without letting the participant see the responses. Peer's returned two hundred and eleven questionnaires, and partners returned ninety-seven. The measures in the survey were as follows.

Positive and negative affect. Watson, Clark & Tellegen's (Watson & Clark, 1994) 20-item Positive and Negative Affect Schedule (PANAS) was used to assess emotional well-being. Participants rate themselves on a 5-point scale (1 = very slightly or not at all to 5 = extremely) on the extent to which they have experienced certain feelings and emotions during the past month (e.g., "irritable"). The PANAS consists of a scale for measuring negative affect (α = .89), and positive affect (α = .91; all alphas are based on the present sample). Acquaintance

and partner ratings of the positive and negative affect of the participants were also obtained.

Social desirability was measured using the 20-item Impression Management subscale of the BIDR-40 (α = .73, Paulhus & Reid, 1991).

Experiential avoidance of private sensations was measured using the Acceptance and Action Questionnaire (AAQ), which was developed by (Hayes et al., 2004). The AAQ is a 9-item inventory which includes items such as "If I could magically remove all the painful experiences I've had in my life, I would do so" which are answered on a 7 point scale (1 = never true, 7 = always true). The AAQ has modest reliability (α = .64.), and has been shown to have substantial incremental and criterion related validity (Hayes et al., 2004).

Thought suppression. The White Bear Suppression Inventory (α = .91; WBSI) was used to measure thought suppression (Wegner & Zanakos, 1994). The 15-item questionnaire contains items such as "There are things that I try not to think about."

Distress Intolerance. The Distress Intolerance scale is currently in the developmental stage, but was included in the present analysis because it appears to capture a central REBT dysfunctional belief, namely, low distress tolerance. The scale consists of a sample of 16 emotion words that cover the emotion categories "anger," "guilt," "sadness," and "fear." People are asked the extent they "can't stand" or "find unbearable each of the emotions." Reversed items ask the extent they can "tolerate" the emotions. Factor analysis revealed that the scale could be reduced to a single dimension (α = .82).

Dysfunctional beliefs. The Common Beliefs Survey-III is a 54-item inventory of dysfunctional beliefs (Tosi, Forman, Rudy, & Murphy, 1986). We administered three subscales from this measure that have been shown to predict well-being (Ciarrochi & West, 2004). These include Demanding perfection (α = .78; "people and things should turn out better than they do"), self-downing (α = .81; "If people don't meet their own standards, they are bound to think less of themselves"), and dire need for approval (α = .77; "People don't need to be loved by others in order to accept themselves (reversed)"). The CBS-III has been shown to relate to other measures of unhelpful thoughts and to discriminate respondents from clinical vs. nonclinical settings (Thorpe, Parker, & Barnes, 1992; Thorpe, Walter, Kingery, & Nay, 2001).

We also assessed dysfunctional beliefs with the commonly used Dysfunctional Attitude Scale (Weissman, 2000). This scale consists of 40

beliefs that participants rate from 1 (totally agree) to 7 (totally disagree). Research has shown that the scale can be broken down into at least two major subscales. The first subscale involves beliefs that one must be highly successful, admirable, and effective (α = .92; "If I fail at my work, then I am a failure as a person"). The second scale involves beliefs that one must have love and approval (α = .78. "I can find happiness without being loved by another person (reversed)").

RESULTS AND DISCUSSION

The correlations between the ACT and REBT measures are presented in Table 1. All the variables were positively correlated, suggesting that less functional scores on one measure were associated with less functional scores on the others. As hypothesized, the ACT process measures correlated with the REBT process measures. In particular, the DAS need for success and need for approval measures each explained approximately 25% of the variance in experiential avoidance, as measured by the AAQ. Regression analysis revealed that these two variables together explained 37% of the variance in experiential avoidance, $F(2, 406) = 117$. None of these correlations were substantially changed after controlling for social desirability.

We next examined the link between the process measures and the self, peer, and partner reports of well-being. As can be seen in Table 2, all the scales correlate with self-reports of negative affect. They were all also correlated with self-reports of positive affect, with one exception (demanding perfection). Concerning partner and peer ratings, the DAS measures and the ACT measures both appear to relate to partner ratings of negative affect. However, only the ACT measures relate to partner ratings of positive affect. The ACT measures and the DAS need for success measure also relate to peer ratings of positive affect.

Finally, we conducted stepwise regression analysis to determine the subset of ACT and/or REBT variables that predicted unique variance in self-reported positive and negative affectivity. We utilized a conservative criteria for entry (.005) and removal (.01), in order to reduce the problem of type-1 error. The three unique predictors of negative affect where the AAQ (β = .25, $p < .001$), the WBSI (β = .27, $p < .001$), and the DAS Dire Need for Success/Admiration (β = .20, $p < .001$), R^2_{model} = .35. As expected, lower acceptance and higher endorsement of dysfunctional beliefs was associated with negative affect.

Table 1

The Correlations between Process Measures Generally Associated with REBT and ACT (n = 409)

	REBT Process Measures						*ACT Measures*	
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1. Distress int.	–	.25	.32	.23	.33	.28	.32	.30
2. Dem. Perfect		–	.45	.26	.51	.25	.29	.23
3. Self Down			–	.30	.50	.36	.41	.36
4. N Approv-C				–	.40	.62	.37	.12
5. N. success					–	.57	.57	.43
6. N Approv-D						–	.49	.32
7. AAQ							–	.53
8. WBSI								–

Note: All p values <.01 (except for correlation between variable 4 and 8). Correlations were not substantially changed when controlling for impression management.
Key: Distress Int. = belief that negative emotions are intolerable; Dem perfect = belief that there must be a right and perfect solution to life's problems (Common Beliefs Survey; CBS); Self down = belief that failures must lead people to put themselves down (CBS); N Approval-c = belief that one must have love approval (CBS); N. Success = belief that one must be highly successful, admirable, and effective (Dysfunctional Attitude Scale; DAS); Need App-d = belief that one must have love and approval (DAS); AAQ—Acceptance and Action Questionnaire: Willingness to experience thoughts, feelings, and physiological sensations without having to control them, or let them determine one's actions; WBSI—White Bear Suppression Inventory—extent that one chronically avoids or suppresses thoughts.

The three significant predictors of positive affect were the AAQ ($\beta = -.31$, $p < .001$), the Dire Need for Success/Admiration ($\beta = -.31$, $p < .001$), and demanding perfection ($\beta = .25$, $p < .001$), $R^2_{\text{model}} = .24$. Lower acceptance and higher endorsement of dysfunctional, success related beliefs was linked to the experience of fewer positive emotions. Unexpectedly, when AAQ and Need for success variables were controlled for, demanding perfection was associated with the experience of more positive emotions. Any explanation of this later effect is admittedly *post hoc*, but we would suggest that perhaps after controlling for the negative aspects of perfectionism (avoidance, demanding success), what was left over was more positive aspects (e.g., goal striving). Future research needs to examine this possibility.

The regression analysis highlights that although the REBT and ACT variables do explain some unique variance, they also overlap to a substantial extent. Once the acceptance variables and the DAS

Table 2

The Relationship between REBT/ACT Process Measures and Self, Partner, and Peer Ratings of An Individual's Positive and Negative Affectivity

	Self Positive[a]	*Partner Positive*[b]	*Peer Positive*[c]	*Self Negative*[a]	*Partner Negative*[b]	*Peer Negative*[c]
REBT measures						
1. Distress int.	−.14**	.05	−.07	.24**	.14	.07
2. Dem. Perfect	.00	.03	−.15*	.15**	.22*	.07
3. Self Down	−.19**	−.15	−.09	.27**	.19	.13
4. N Approv-C	−.23**	−.05	−.09	.19**	.04	.12
5. N. success	−.36**	−.13	−.21**	.46**	.35**	.14*
6. N Approv-D	−.29**	−.09	−.10	.34**	.26**	.05
ACT measures						
7. AAQ	−.41**	−.26**	−.25**	.51**	.40**	.12
8. WBSI	−.23**	−.23*	−.26**	.48**	.26*	.09

*$p < .05$, **$p < .01$.
[a]$n = 409$.
[b]$n = 97$.
[c]$n = 211$.
Key: Distress Int. = belief that negative emotions are intolerable; Dem perfect = belief that there must be a right and perfect solution to life's problems (Common Beliefs Survey; CBS); Self down = belief that failures must lead people to put themselves down (CBS); N Approval-c = belief that one must have love approval (CBS); N. Success = belief that one must be highly successful, admirable, and effective (Dysfunctional Attitude Scale; DAS); Need App-d = belief that one must have love and approval (DAS); AAQ—Acceptance and Action Questionnaire: Willingness to experience thoughts, feelings, and physiological sensations without having to control them, or let them determine one's actions; WBSI—White Bear Suppression Inventory—extent that one chronically avoids or suppresses thoughts.

demanding success and perfection variables were entered into the model, none of the other variables explained unique variance.

SUMMARY

We have argued that ACT and REBT have much in common. We believe that a practical integration between ACT and REBT is possible if one accepts certain core assumptions and hypothesis. First, one needs to abandon the notion that "beliefs" cause believing. Second, one needs to focus on changing the contexts that influence relating and transformation of stimulus functions. The next paper in this special issue will provide an illustration of how REBT and ACT might be integrated in practice.

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