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BUDDHIST PRACTICES AND EMOTIONAL INTELLIGENCE

Finding the convergence

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It is hard to question the first major tenet of Buddhism: suffering is the human condition (Santina 1984). Research indicates that feelings of anxiety and depression are at high levels in world populations (Hayes *et al.* 1999; Ciarrochi *et al.* 2003). Up to one-third of people have a diagnosable mental disorder. In addition, about half of the population will face moderate to severe levels of suicidality sometime in their lives (Hayes *et al.* 1999).

Buddhist teachings maintain that much of this suffering is unnecessary, and suggest practices for reducing it (Kabat-Zinn 1994; Kapleau 1989). There is now substantial support for the value of some of these practices (Alexander *et al.* 1993; Baer 2003; Bogart 1991; Hayes *et al.* 1999; Teasdale *et al.* 1995), yet many people are often unaware of them or dismiss them off hand as "religion" or superstition.

This chapter will describe some potential barriers to accepting Buddhist practices and suggest ways that the barriers can be overcome. Specifically, I argue that major Buddhist practices can be clearly tied to a psychotherapeutic position, offering the potential for scientific evaluation (Hayes *et al.* 1999). I further suggest that people become more receptive to Buddhist practices when such practices are placed into an emotional intelligence framework.

Buddhism and acceptance and commitment therapy (ACT)

There are millions of practicing Buddhists worldwide (Baumann 1997; Biema 1997). Many major cities have Buddhist temples and organizations, and bookstores have entire sections devoted to Buddhism. There is little doubt that interest in Buddhism is strong.

Even so, it is hypothesized that many people disregard potential benefits of Buddhist practices because of a number of inaccurate assumptions. First, many believe that Buddhist practices involve religious assumptions that are inconsistent

with their own religion. Second, some may connect Buddhism with the "irrational" and with "superstition." Third, it may be thought that Buddhism requires a lifetime of meditation and asceticism, which may not be seen as possible in a modern world of family and work commitments. Fourth, people may see Buddhism as too abstract and profound to be fully understood. Finally, Buddhism may be viewed as passive, withdrawn, and largely useless in a world driven by "achievement" and acquisition. A framework is now presented that challenges these prejudices.

Acceptance and commitment therapy (ACT) is a therapeutic approach that has many similarities to Buddhism (Hayes *et al.* 1999). Both ACT and Buddhism are pragmatic and seek to reduce human suffering. Both utilize exercises that increase mindfulness, undermine the illusion of a separate self (or self-esteem), utilize paradox and confusion, and break down experience into various elements. Finally, both ACT and Buddhism appear to discourage unhelpful reliance on verbal rules and concepts. Instead, the individual is encouraged to turn to direct experience for direction.

There are several reasons why it may be easier to overcome biases towards Buddhism if Buddhist-related practices are placed into an ACT framework. First, ACT is grounded in a testable theory of language (see Chapter 21 by Hayes in this volume; see also Hayes *et al.* (2001) for a book length treatment of the theory). Second, scientific research has evaluated and supported ACT's ability to reduce human suffering (Bach and Hayes 2002; Bond and Bunce 2000; Dahl *et al.* 2004; Zettle and Hayes 1987).

ACT may also be useful in overcoming the undeserved view that Buddhist practices promote passivity. ACT puts all its practices in the service of pursuing a valued direction and achieving goals. This goal focus should be appealing to those who want to succeed in the practical world.

Finally, ACT clearly places Buddhist practices in a context where people are free to believe whatever they want to believe. It illustrates that these practices are not inconsistent with particular religious belief systems. For example, ACT, like Buddhism, helps people to become aware of their moment to moment experience (e.g. thoughts and bodily sensations). People learn to see these private experiences for what they are, streams of thought, fleeting sensations, rather than what they often seem to be: fixed, dangers that must be avoided. Thus, they learn to look at their experience from a different perspective. They are not taught to take on faith any particular interpretations of their experience. Indeed, ACT practitioners often tell their clients to "not believe anything they say."

ACT and emotional intelligence: broadening perspectives

It has been shown that once people experience an ACT intervention, they usually recognize the benefits of related Buddhist practices. The challenge is getting them into the intervention in the first place. I have sought to bring ACT into organizations (workplace and schools), but have encountered several obstacles. First, many people do not initially want to learn acceptance. They do not want to accept

obstacles. Again they incorrectly suspect that "acceptance" involves being passive or giving up. Second, organizations generally want interventions to teach a measurable set of skills. In Buddhist practice, the skills that are being taught are often not explicitly measured.

ACT/Buddhist practices have, therefore, been placed in a skills framework. Specifically, it is hypothesized that ACT promotes skills relevant to emotional intelligence (EI), which is defined as the ability to act effectively in the context of emotions and emotionally charged thoughts, and the ability to use emotions as information (Ciarrochi and Godsell 2006). The specific dimensions of EI are presented in Table 22.1, and these factors will be discussed in the next section.

Table 22.1 The dimensions of emotional intelligence

EI component	*Description*
Effective action orientation	Ability to take action that is consistent with goals and values, even in the context of: Impulses, fears, lack of confidence Uncertainty, doubt Feelings of exhaustion or fatigue Physical pain Intense emotion Ability to sustain committed action in the face of inconsistent feedback, frustration, and failure
Defusing from unhelpful thoughts and emotions (i.e. undermining the power of unhelpful thoughts and emotions to act as barriers to effective action)	Looking *at* emotions and emotionally charged thoughts, rather than *through* them. Seeing them for what they are: fleeting sounds and images, streams of sensations Seeing that emotionally charged thoughts about life are not equivalent to life Being able to be mindful of moment to moment experience (either internal or external)
Using emotion as information	Identifying emotions Understanding the appraisals that are often connected to different emotions Understanding the consequences of emotions on cognition, health, etc. Understanding how emotions progress over time. Distinguishing between helpful and unhelpful emotions and emotionally charged thoughts

Organizations find the EI framework appealing, perhaps because they can see that they will be learning a concrete set of skills that will make them more effective. People also seem to have the intuition that much of the conflict and suffering in their life is unnecessary and that perhaps EI can help them reduce the conflict. In general, utilizing an EI framework has been one of the most powerful methods we have found for getting people to open their doors to ACT interventions.

Before continuing, it might be useful to define the concept of "emotions" and "mindfulness." Emotions consist of sensations (valenced reaction) and appraisals (the event was "bad" or "good"). They may also be associated with particular images and memories. Emotions are defined as valenced reactions to events, agents, or objects, with their particular nature being determined by the way in which the eliciting situation is appraised (Ortony *et al.* 1988). For example, sadness is defined as a negatively valenced reaction to undesirable events. Anxiety is defined as a negatively valanced reaction to the prospect of a future negative event. In the present paper, "emotions" and "feelings" will be used synonymously.

Concerning mindfulness, we will use Kabat-Zinn's definition. "Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentaly" (Kabat-Zinn 1994: 4). Mindfulness can be divided into a number of components, including "what" skills (i.e. observing things as they come and go, describing them, and participating fully in life), and "how" skills (i.e. taking a non-judgmental stance, one-mindfully focuses on what one is doing, doing what works; Linehan 1993).

Putting ACT into an EI framework

We now turn our attention to the different dimensions of EI that are proposed to undermine the causes of suffering, and to improve one's ability to use emotions as information. The theory underlying this framework is presented in the Hayes chapter (Chapter 21, this volume) and will not be covered in detail here. After describing each EI dimension, we will review a number of EI-relevant measures that appear to tap into the dimensions, and discuss their relationship to well-being/suffering.

One reason to discuss EI-relevant measures is that they allow us the opportunity to evaluate just why Buddhist/ACT type interventions work. That is, they allow us to assess the processes by which the interventions reduce suffering. The measures also allow one to provide feedback to clients. They help to identify client strengths and weaknesses, and provide clients with information about how they are improving in the intervention. The instruments can also guide the development of customized homework assignments for each client (e.g. assignments focused on improving EI-relevant deficits).

Effective emotional orientation (EEO)

Defining EEO

EEO involves willingness to have private experiences (e.g. anxiety), when doing so fosters effective action (Table 22.1). It also involves accepting the inevitability of unpleasant affect and negative self-evaluation, and recognizing that these private experiences do not have to stop us from pursuing a valued direction (Hayes *et al.* 1999). People low in EEO chronically attempt to escape or get rid of their unpleasant private experiences.

The notion of willingness or acceptance appears to be key to many, if not all, forms of Buddhism (Hanh 1987; Kabat-Zinn 1990; Patel 1993; Santina 1984). For example, meditators are encouraged to develop a passive and relaxed attitude (Patel 1993), to not worry about results, and to focus on seeing and accepting things as they are, moment by moment, in the present moment (Kabat-Zinn 1990).

The link between suffering and individual differences in EEO

EEO is more of a family of constructs, rather than a single idea. While the "family" members are interrelated, they also have statistical uniqueness. In general, all of the EI-relevant measures described in this chapter have these properties. This chapter will focus on measures that have found empirical support from multiple, independent laboratories. Our purpose is not simply to re-label these old measures as EI. I refer to them by their original labels. My main purpose is to place the measures into the ACT/EI framework, and to discuss the relationship of these measures to suffering (poor mental health, low vitality, etc.).

The first individual difference discussed – effective problem orientation – reflects the tendency to see emotional problems as a challenge rather than a threat, and the tendency to face problems, rather than avoid them. There is considerable evidence supporting the link between problem orientation and negative indices of well-being. It has been associated with low depression, anxiety, hopelessness, suicidal ideation, health complaints, and neuroticism (Ciarrochi *et al.* in press; D'Zurilla *et al.* 1998; Elliott *et al.* 1994; Elliott and Marmarosh 1994).

Other research provides some evidence that problem orientation is causally related to well-being. Davey and his colleagues have shown that experimentally induced reductions in effective orientation lead to increases in subsequent catastrophic worrying (Davey *et al.* 1996). In addition, a longitudinal study found that ineffective problem orientation predicted increases in anxiety and stress, and decreases in positive affect (Ciarrochi and Scott 2004).

The White Bear Suppression Inventory is another measure of poor orientation, in that people who score high on it seek to avoid or suppress their private experiences. It has been found to correlate with measures of obsessional thinking and depressive and anxious affect (Wegner and Zanakos 1994).

Finally, the acceptance and action questionnaire (AAQ) measures the willingness to experience thoughts, sensations, and physiological sensations without having to control them, or let them determine one's actions (Bond and Bunce in press; Hayes *et al.* 2003). This measurement has been associated with a range of negative emotional states (Hayes *et al.* 2003). A longitudinal study found that the AAQ predicts mental health and an objective measure of performance, over and above job control, negative affectivity, and locus of control (Bond and Bunce 2003).

In another study utilizing the AAQ, Feldner and his colleagues investigated the role of avoidance strategies in dealing with emotions (Feldner *et al.* 2003).

Participants who scored high and low on the AAQ were administered CO_2, which induces an aversive emotional state (racing heart, sweaty palms). Half of the participants were instructed to inhibit their emotional responses, whilst the other half was instructed to simply observe their emotions. Participants high in emotional avoidance showed more anxiety in response to CO_2, particularly when instructed to suppress their emotions (Feldner *et al.* 2003).

Using emotion as information (UEI)

The second dimension of EI involves the ability to use emotions as information to inform effective action (see Table 22.1). There are a number of aspects to this dimension, but we will focus on one, namely, the ability to identify emotions. The ability to know what we are feeling is crucial to UEI because emotions often provide us with important information about our desires and the world around us. For example, anxiety results from the appraisal that something undesirable might happen. Anger results from the appraisal that someone has acted unfairly and this has resulted in something undesirable (Ortony *et al.* 1988).

If we do not know what emotion we are experiencing, we will find it difficult to act effectively. For example, if we do not know that we are anxious, then we may mistakenly think our anxious sensations are due to a physical sickness (Taylor 2000). Or we may mistakenly blame our anxiety on some irrelevant event (our colleague's behavior), and seek to change this irrelevant event, rather than focusing effectively on the real problem. Essentially, we need to be able to utilize emotions as information if we are to act effectively.

The UEI dimension links fairly straightforwardly to ACT theory. ACT suggests that we tend to evaluate our unpleasant private experiences as bad and subsequently try to avoid them. Attempting to push emotions away may lead us to become less aware of what those emotions are. Consistent with this view, experiential avoidance has been shown to correlate substantially with difficulty in identifying feelings (Godsell and Ciarrochi 2004).

It is likely that Buddhist mindfulness practices increased UEI. Specifically, mindfulness practice that focuses on private experiences (Linehan 1993) would be likely to increase our ability to notice emotions. For example, we may be in a better position to notice when we are anxious and to discover the situations that we find threatening. As a result, we may be better able to act effectively to deal with the situation. Future research should directly evaluate if mindfulness practice increases the ability to identify emotions.

The link between well-being and individual differences in using emotional information

The measures discussed here focus on people's ability to identify their emotions. There are ability-based measures of emotion identification, with right and wrong answers (Mayer *et al.* 1999), and there are self-report measures. We focus on the

self-report measures here, because, at present, there is more evidence linking self-reports to well-being. The ability-based measures are relatively new and may, in the future, also show clear links to well-being.

Alexithymia refers to people who have trouble identifying and describing emotions and who tend to minimize emotional experience and focus attention externally. This construct appears to be a mix of UEI and EEO. The Toronto Alexithymia Scale (TAS-20) is one of the most commonly used measures of alexithymia. It has been shown to be highly related to Bar-On's self-report EI measure (Taylor *et al.* 2000), and to be related to a number of important life outcomes. For example, people high in alexithymia are more prone to drug addiction, eating disorders, and to report medically unexplained symptoms ("somatization"; Taylor 2001). The alexithymia subscales – difficulty identifying and describing emotions – are related to a variety of negative indices of well-being (e.g. depression), even after controlling for other measures of emotional intelligence (Ciarrochi *et al.* 2003). A longitudinal study found that people high in alexithymia tend to misinterpret their bodily sensations as indicative of a physical ailment (Bach and Bach 1995). In a more recent study, Ciarrochi and Scott found that alexithymia predicted anxiety and low positive affect one year later, even after controlling for time 1 measures of affect (Ciarrochi and Scott 2004).

Defusing from unhelpful thoughts and emotions

The third dimension of EI involves the ability to undermine fusion with unhelpful emotions and thoughts. Table 22.1 lists the key components of this skill. Defusion involves a fundamental shift in perspective. It involves looking *at* the sensations, thoughts, and memories ("private events") that show up from moment-to-moment. It helps people to experience these events as an unfolding, changing process of living, rather than as a fixed part of the self (Hayes 2002). For example, people can view their moods as equivalent to their "self" ("I am depressed"), or they can experience the mood, and the evaluation of the mood, as it is (e.g. I am labeling these unpleasant sensations as "depression," I am having the evaluation that "I am depressed"). Such context shifts help people to see their private experience for what it is – streams of thought, fleeting sensations – rather than what it says it is: fixed, facts, dangers that must be avoided (Hayes *et al.* 1999; Kabat-Zinn 1990).

Mindfulness of private experience is on the opposite side of "fusion." Essentially, mindfulness is hypothesized to help people to look at their private experience, rather than through it, and to see their moment to moment experience as it is (not as it seems to be when seen through language or intense emotion). Looking *at* experience can involve something like the following: "I notice that I am feeling angry and that I want to hit the person. But I won't do it, because I will get into all kinds of trouble." In contrast, looking *through* anger involves seeing the world through anger colored glasses. For example, when angry, one might

think: "This person is an enemy, a danger to me, and I have to destroy him." This fused viewpoint tends to make it less likely that the person will respond flexibly to the situation.

The last two decades have found substantial support for interventions, such as ACT, that are designed to increase mindfulness. There are now nearly two decades of work specifically supporting the efficacy of ACT. Published randomised control trials provide evidence that ACT does as well or better than traditional cognitive behavioural therapy in reducing depression and anxiety, and that it is effective in the treatment of substance abuse, pain, and psychosis (Hayes *et al.* 2002; Zettle 2003). ACT has also been shown to be effective at reducing stress and sick leave utilization in nonclinical populations (Bond and Bunce 2000; Dahl *et al.* 2004).

There is also substantial support for other mindfulness based interventions, including Dialectic Behavior Therapy (DBT) (Linehan 1993), Mindfulness Based Cognitive Therapy for Depression (Segal *et al.* 2002), mindfulness based meditation (Cormier and Cormier 1998), and Mindfulness Based Stress Reduction (Kabat-Zinn 1990). Many other approaches have benefited by adding mindfulness and acceptance components to their inventions (for a review see Hayes *et al.* 1998).

In addition to mindfulness, there are other Buddhist practices that might promote defusion. For example, in the Pāli Buddhist teachings, one is encouraged to analyze personal experience in terms of five aggregates. This involves looking at experience in terms of body, sensation, perception, mental formation or volition, and consciousness.

ACT also contains exercises that examine experience in terms of different elements (sensations, images, thoughts) (Hayes *et al.* 1999). The goal of analyzing experience into the five aggregates is "to create the wisdom of not self, to arrive at a way of experiencing the world which is not constructed upon and around the idea of a self, and to see personal experience in terms of processes and in terms of impersonal functions" (Santina 1984: 129). This act of analyzing experience in terms of different elements is a defusion move, in that it helps people to look *at* experience as an object, rather than to look *through their experience*. It hopefully helps them to experience thoughts and sensations as they are, namely, as constantly unfolding and changing processes, rather than as apparently discrete and unchanging "things," or as an essential part of the "self."

Defusing and direct experiencing: two sides of the same coin

From an ACT perspective, language is a two-edged sword. It can be very useful, as when communicating dangers. However, it can also be problematic. Language allows us to transform stimuli, independent of experience. For example, if someone tells you, "John is a cancer in the organization," you may start to feel negative emotion towards John, even though you have had no experience with him.

Research has now documented how language, in particular verbal rules, can lead people to become insensitive to experience and, consequently, to become

inflexible (Hayes *et al.* 2001). The ACT solution to this problem involves helping people to distinguish between direct experience and verbal formulations produced by the "mind." For example, your verbal rules might tell you, "Avoid thinking about death, and you won't feel anxiety." ACT helps people to notice this verbal formulation (thereby initiating the process of defusion). Then it helps them to contact relevant experience. For example, the client might be asked, "Does avoidance reduce your anxiety?"

Using language to help people contact the "non-language" world (direct experience) can be tricky. How can one accomplish this? Both ACT and the koan practice of Zen Buddhism seem to deal with this problem in similar ways. That is, they communicate not through logic and reason, but rather through stories and metaphors. For example, Zen Koans are "stories and verses that present fundamental perspectives on life and no-life, the nature of the self, the relationship of the self to the earth and how these interweave" (Aitken 1990). Koans do not represent the private opinions of a single person, cannot be understood by logic, and cannot be measured by reason (Miura and Sasski 1966).

Metaphors are not simply logical arguments and are therefore not likely to provoke excessive verbalizing. Rather, metaphors are more like pictures. They can also be thought of as brief experiential exercises (Hayes *et al.* 1999). For example, consider the metaphor "Struggling in anxiety is the same as struggling in quicksand." This metaphor helps people to contact their experience of trying to get rid of anxiety and yet sinking deeper and deeper into it. Zen Koans can have a similar effect. For example, consider the famous Koan, "The Taste of Banzo's sword" (Reps and Senzaki 1998). Matajuro wanted to become a master swordsman. He asked the famous swordsman, Banzo, how long it will take to become a master swordsman if he works hard. Banzo replied, "Oh, maybe 10 years." Matajuro then asks, "If I work far more intensively, how long would it take me?" Banzo replies, "30 years." This story might help people contact the experience of how trying "harder" to achieve an outcome can make the outcome even more unattainable. For example, trying harder to get rid of anxiety can make anxiety worse.

The second part of this story/koan can be used to illustrate the importance of direct experience over verbal instruction. Banzo agreed to instruct Matajuro, but requested that Matajuro never speak of fencing and never touch a sword. Matajuro cooked for his master, washed dishes, made his bed, cleaned his yard, cared for the garden, all without a word of swordsmanship. After three years, Matajuro still labored on, but began to grow sad. He had learned nothing of swordsmanship. But one day Banzo crept up behind him and gave him a terrific blow with a wooden sword. The following day, when Matajuro was cooking rice, Banzo again sprang upon him unexpectedly. After that, day and night, Matajuro had to defend himself from unexpected thrusts. He learned so rapidly that he brought smiles to the face of his master (Reps and Senzaki 1998).

This story illustrates how the wise master avoids giving verbal instruction and encourages the student to learn via experience. Similarly, ACT theory suggests

that verbal instruction, and particularly verbal rules, often leads one to become insensitive to experience and inflexible. The story can illustrate to an ACT client that to get better at something, he/she might have to rely on painful experience for instruction.

In summary, ACT and certain aspects of Buddhist doctrine promote defusion and direct experiencing. The techniques include mindfulness training, analyzing experience in terms of different aggregates, and the use of metaphor and stories.

Individual differences in mindfulness and fusion with particular types of unhelpful thoughts

There are several scales related to this EI dimension. The Mindfulness Attention Awareness Scale (MAAS) measures people's tendency to be mindful of moment to moment experience. This scale has been shown to relate to various aspects of well-being and to how effectively people deal with stressful life events (Brown and Ryan 2003).

The Demanding Perfection subscale of the Common Belief Survey (CBS-III; Thorpe *et al.* 2001) measures the extent that people tend to believe or fuse with unhelpful, demanding thoughts (e.g. People and things should turn out better than they do). This scale has been linked to poor mental health (Ciarrochi and West, in press).

Another group of measures reflects tendency to fuse with unhelpful beliefs about uncertainty (e.g. "that uncertainty is awful or intolerable"). These include measures of intolerance of uncertainty (Dugas *et al.* 1998), rigidity (Neuberg and Newson 1993), and intolerance of ambiguity (Frenkel-Brunswik 1949). These measures have been shown to relate to depression and anxiety in both clinical and normal populations (Dugas *et al.* 1998; Freeston *et al.* 1994).

Finally, individual differences in rumination seem to reflect the tendency to be fused with certain thoughts. Rumination can be assessed using self-reports measures such as the Emotion Control Questionnaire (Roger and Najarian 1989). Ruminators seem to be stuck in their thoughts, engaging in repetitive and passive thinking about a problem (Nolen-Hoeksema 1987). Rumination involves mindlessly bouncing from one negative thought to another, perhaps in an attempt to escape unpleasant affect by attempting to control the uncontrollable (e.g. uncertainty; Dugas *et al.* (1998). It has been associated with a range of emotional difficulties, including anger and depression (Nolen-Hoeksema *et al.* 1999; Rusting and Nolen-Hoeksema 1998). Longitudinal studies have established that people who engage in more rumination have higher levels of depressive symptoms over time and perceive themselves to be receiving less social support, even when controlling their baseline levels of depressive symptoms (Nolen-Hoeksema *et al.* 1994, 1999; Nolen-Hoeksema and Davis 1999). High rumination has also been associated with delayed recovery from stress, as indicated by delayed heart-rate and physiological (cortisol) recovery (Roger and Jamieson 1988; Roger and Najarian 1998).

Defusing from self-concepts

The next aspect of EI involves the ability to defuse, at least briefly, from unhelpful self-concepts (see Table 22.1). The mind develops a concept of self and proceeds to evaluate it. It evaluates this "self" with terms such as "good," "bad," "kind," "flawed," "incomplete," "special," and/or "unethical." Cognitive fusion means we tend to treat these evaluations as literal properties of our self. For example, we can evaluate a cup as "bad," but this badness is not a property of the cup. Ceramic is a property of the cup. Similarly, badness or goodness cannot be a property of the self. It is merely a transient reaction. Everybody in the world can suddenly believe you are flawed, and you would still be exactly the same person. Everybody could believe you were perfect, and you would be the same person. Yet humans tend to confuse evaluations (I'm bad) with primary properties (I'm made up of about 70% water). If you believe badness was a primary property of your self, then it would be very difficult, if not impossible, to change (Ellis 2001; Hayes *et al.* 1999).

Problems arise when people come to identify with unhelpful self-concepts. The concept of "me" becomes equal to me. People are then drawn into protecting the concept of self as if it is part of the self (Hayes *et al.* 1999). They seek to feed it, or defend it against attack. People talk about "building self-esteem" or repairing "damage" done to it. They become "hurt" when someone "attacks" their self-esteem.

Low self-esteem seems to involve at least two parts: negative evaluations of the entire self ("I am worthless") and fusion with this evaluation. Thus, one could have the negative self-evaluation and not believe (fuse with) it. Undermining fusion with self-concepts is very different from "building self-esteem." Self-esteem is usually considered a "good thing" in many cultures, but it does have a major downside, namely, it requires one to believe that there is a single, unchanging, ratable self. This concept of self leads to many problems, as we will review later.

The goal of defusing is not to get rid of the negative evaluations and replace them with positive evaluations. Rather, it is to accept the negative self-evaluations as they inevitably show up, and to look *at* them, rather than *through* them. It is about doing what we value, despite these negative self-evaluations (see Wilson's chapter, this volume, for more discussion on fusion and values).

Buddhist teachings also recognize the illusion that there is a separate, permanent self, and see this illusion as a fundamental source of suffering. (Kapleau 1989; Ponlop 2004; Santina 1984). Many Buddhist mindfulness practices are designed to help discriminate between what we "actually are" from what our self-concepts "say" we are. For example, the concept of "my body" can be distinguished from the aggregate of body itself (Ponlop 2004). Meditation can help us to contact the actual body as a physical thing composed of various elements that are constantly in flux. Once we experience the actual body, we also contact the fleeting nature of our self-evaluations and the illusion of a permanent self. We may come to view the body in the same way as someone who wishes to

cross a river views a boat. It is immediately useful and beneficial, if properly used (Ponlop 2004).

> Upon finding the boat of human birth
> Now, cross the great river of suffering.
> O fool, there is not time for sleep, for
> This boat is hard to catch again
> (Śāntideva 1998)

Individual differences in fusing with unhelpful self-concepts and well-being

Low self-esteem, as it is traditionally measured, appears to involve fusing with or believing unhelpful negative self-statements such as "All in all, I am inclined to feel like a failure" (Rosenberg 1965). It is well established that low self-esteem is associated with higher levels of negative affect (Blascovich and Tomaka 1991). Self-esteem is often measured using a self-report scale by Rosenberg (Rosenberg 1965). It also appears to be measured by the Bar-On emotional quotient inventory (Bar-On 1997).

From an ACT perspective, fusing with some positive self-concepts can also be unhelpful. Consistent with this view, some aspects of "defensive" high self-esteem have been associated with poor well-being, at least in some circumstances (Kernis *et al.* 1989; Rhodewalt 2001). For example, the Narcissist Personality Inventory (NPI) assesses a person's sense of grandiosity, self-importance, and specialness (Raskin and Terry 1988). Narcissists scan the social context for evidence that supports their elevated sense of self and tend to construct high self-esteem in the absence of objective evidence. Their self-esteem is fragile, and they are prone to respond to threatening feedback with shame, humiliation, anger, and interpersonal aggression (Rhodewalt and Eddings 2002).

A related line of research has examined individual differences in the stability of self-esteem. An unstable sense of self suggests that people are fusing with different self-concepts at different times. Stability can be measured by administering a standard self-esteem inventory at multiple times, and then using the variance between different measurements to predict outcomes (Kernis *et al.* 1989). People who have unstable high self-esteem have been shown to experience more anger and hostility, perhaps because they feel the "need" to defend their self-worth (Kernis *et al.* 1989). Other research shows that unstable self-esteem is associated with goal-related affect characterized by greater tenseness and less interest (Kernis *et al.* 2000).

Effective action orientation (EAO)

EAO involves the ability to take value congruent action in the context of strong emotions and self-doubts and inconsistent feedback. It also involves the ability

to sustain this action even in the face of inconsistent feedback, frustration, and failure (see Table 22.1).

Measuring EAO

There are a number of well-researched measures of people's self-control, or the ability of people to manage their lives, hold their tempers, keep their diets, fulfill their promises, stop after a couple of drinks, save money, persevere at work, and keep secrets (Tangney *et al.* 2004).

The *action-state orientation scale* measures people's ability to move from a desired goal state to some future goal state (action orientation) versus their tendency to engage in persistent, ruminative thoughts, which reduces the resources available for goal striving (Diefendorff *et al.* 2000). Strong action orientation is associated with lower levels of anxiety, depression, and rigidity, higher levels of positive attitudes, positive job-related positive behavior, and better performance in cognitive and athletic tasks (Diefendorff *et al.* 2000; Heckhausen and Strang 1988; Kuhl and Beckmann 1994).

The *self-control scale* is another measure of action orientation. Self-control purportedly involves the ability to "override or change one's inner responses, as well as to interrupt undesired behavioral tendencies and refrain from acting on them" (Tangney *et al.* 2004: 274). This conceptualization of self-control runs contrary to ACT/Mindfulness Based EI training, which suggests that one does not have to change one's inner responses to act effectively (Hayes *et al.* 1999). However, an examination of the self-control scale reveals that every single item focuses on behavior, rather than inner responses (e.g. "I do certain things that are bad for me, even if they are fun."). Thus, whilst the conceptualization is inconsistent with ACT, the scale is in fact consistent. Research has demonstrated the validity of this scale and shown that high self-control is related to higher grade point average, lower levels of anxiety and depression, less alcohol abuse, and better relationships (Tangney *et al.* 2004).

Self-control can be measured using behavioral tasks, as well as the self-report measures described earlier. Specifically, a substantial amount of developmental research has looked at children's ability to delay gratification in particular situations (Mischel *et al.* 1988; Shoda *et al.* 1990; Wulfert *et al.* 2002). For example, one study offered adolescents $7 immediate payment or $10 one week later (Wulfert *et al.* 2002). Compared to students who delayed gratification, those who chose the immediate fee showed more self-regulatory failures, such as greater use of drugs and greater academic underperformance. In another study, preschool children were offered the choice of one marshmallow immediately versus two at a later time. This task predicted performance ten years later. Specifically, it was found that the children who delayed gratification were more academically and socially competent and more able to deal well with frustration and stress (Mischel *et al.* 1988).

Connecting Buddhist practices to EAO

One criticism that is sometimes leveled at Buddhism is that it promotes passivity and inaction. This could not be further from the truth. All of the EI dimensions discussed thus far are connected with Buddhist ideas and Buddhist practices. All of the dimensions underpin the ability to take effective action. We now consider each of the dimensions in turn and its relation to action.

People low in EEO (EI dimension 1) are constantly trying to escape themselves, in that they try to run away from their unpleasant feelings and thoughts. Such attempts to escape often fail, and make things worse. Importantly when people are busy "running" from themselves, they are often not moving in their valued direction. For example, a socially anxious person often wants to meet new people. However, if they have an ineffective emotional orientation, they may seek to control their anxiety by avoiding new people (the value incongruent direction). Many of the acceptance related practices in Buddhism may help people to stop running from themselves and, in doing so, create a space for valued action.

People with a poor emotional orientation often believe their emotions stop them from doing what they value. Consequently, they refuse to take valued action until they can get rid of the emotions. Some Buddhist practices might improve emotional orientation by demonstrating the interconnectedness of all things and encouraging a distrust of false oppositions (e.g. "this emotion is separate from and opposed to that action") (Hanh 1987). For example, socially anxious people may come to believe that "anxiety" and "meeting new people" are separate "parts," and that the bad parts (anxiety) block the good parts (meeting people) (Hayes *et al.* 1999). Buddhist practices can help people to see that in a particular moment, valued action and anxiety may co-occur and are part of the whole experience. Once people see that anxiety is not necessarily opposed to action, they realize that they do not have to avoid the anxiety (effective orientation). They can take action *and* feel anxious (EAO). Importantly, once they give up attempts to get rid of anxiety, they are ironically less likely to experience such anxiety.

The ability to use emotions as information (EI dimension 2) is also likely to be connected to values and effective action. For example, when we are anxious, we are often concerned that something undesirable (value inconsistent) will happen. Helping people to identify their emotions thus, indirectly, helps them to understand what they value. As we argued earlier, many of the Buddhist-related mindfulness practices are likely to improve people's ability to identify different aspects of emotions (e.g. sensations and thoughts). Once people become more mindful of their moment to moment experience, they may be in a better position to take effective action. They will not have to be "mindlessly" pushed around by their anxiety and anger. Rather, they can notice when these emotions show up, recognize the value connected to the emotions, and choose to move in a valued direction.

Finally, fusion with unhelpful thoughts, emotions, and self-concepts (EI dimensions 3 and 4) can act as a barrier to effective action. For example, one may fuse with (fully believe) the verbal sequence "I am useless." This self-evaluation can be

seen as a demon standing in the way of what we want. We may believe that we cannot do anything until we can make this self-evaluation go away. However, such self-evaluations can only be seen as barriers if they are treated as "real" or "facts." Buddhist mindfulness based practices help people to experience these evaluations for what they are, namely, fleeting sounds that come and go. Other Buddhist-related practices, such as koans and analyzing experience in terms of aggregates, might also help people to get perspective and see the evaluations for what they are (see defusion section). Once a self-evaluation is experienced as no more than a sound or fleeting sensation, it will not tend to act as a barrier to effective action.

One popular Buddhist metaphor is to liken the mind to a "tree full of chattering monkeys." To expand on this metaphor, any valued activity is likely to involve risk and thereby provoke the monkeys into chattering loudly. The monkeys say "you can't do that," "you'll never succeed," "you have to get rid of your anxiety before you can do anything," and "what if you fail?" All this chattering can drown out our ability to "hear" our values. We might find ourselves one day running around the tree trying to quite the monkeys. In the meantime, life is passing us by. Many Buddhist practices help us to hear the chattering as just chattering. Importantly, they help us to "hear" the values through all this noise, and in doing so, to choose the best course of action.

Conclusions and future directions

It has taken science awhile, but it is finally starting to take the centuries old insights of Buddhism seriously. ACT provides a theoretical framework that explains how and when certain Buddhist practices are likely to be effective in reducing suffering and promote effectiveness. ACT thus helps bring certain aspects of Buddhist doctrine into the scientific realm, thereby undermining the notion that Buddhism is mere superstition or ritual. ACT also helps tie Buddhist practices to goal-directed behavior, which is likely to be appealing to achievement-minded people.

I have placed ACT into an EI/skills framework. The reason for this is that theoretically, I believe ACT in fact promotes EI (as defined earlier), and pragmatically, I have found that such a framework opens doors to organizations. People seem to unanimously prefer to attend something called "Emotional Intelligence Training" than "Acceptance and Commitment Training," though these may in fact be the same thing. The EI framework lets people know right from the beginning that we are teaching something quite different than normal intelligence, and that what we are focusing on is improving effectiveness (or intelligence).

This framework also helps to organize a substantial amount of individual difference research on emotional intelligence, and structure it in such a way that it can be linked to a coherent theory and to Buddhist practices. Previously, many of the measures reviewed here were treated in isolation. Research involving one measure rarely made reference to other, seemingly related measures. Researchers thus risked "rediscovering" what had already been found with the other measures. This

review will hopefully prompt researchers to look across research areas and to gain a better understanding of how their research fits in with the other research. The review also highlights the relevance of Buddhist practices to each of the research areas.

There is much left for future research. Academic psychology is just beginning to appreciate Buddhist insights. For example, Buddhists have developed a number of ways to help people see the fundamental interdependence of all things. Hanh (1987) has described several exercises under the title, "Contemplations of Interdependence," ACT theory suggests that such contemplations should undermine the believability of evaluations involving a separate "self" (e.g. "I am not good enough."). Research is needed to directly evaluate this hypothesis.

In closing, ACT practitioners, Emotional Intelligence Trainers, and Buddhists all attempt to relieve human suffering. My hope is that all these people will continue to work together to achieve this noble goal.

References

Aitken, R. (1990) *The Gateless Barrier – The Wu-Men Kuan (Mumonkan)*, San Francisco, CA: North Point Press.

Alexander, C. N., Swanson, G. C., Rainforth, M. V., and Carlisle, T. W. (1993) "Effects of the transcendental meditation program on stress reduction, health, and employee development: a prospective study in two occupational settings," *Stress and Coping: An International Journal*, 6, 245–262.

Bach, M. and Bach, D. (1995) "Predictive value of alexithymia: a prospective study in somatizing patients," *Psychotherapy and Psychosomatics*, 64, 43–48.

Bach, P. and 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(5), 1129–1139.

Baer, R. A. (2003) "Mindfulness training as a clinical intervention: a conceptual and empirical review," *Clinical Psychology: Science and Practice*, 10, 125–143.

Bar-On, R. (1997) *Bar On Emotional Quotient Inventory (EQ-i): Technical Manual*, Toronto: Multi-Health Systems.

Baumann, M. (1997) "The Dharma has come west: a survey of recent studies and sources," *Journal of Buddhist Ethics*, 4, http://jbe.gold.ac.uk/4/baum2.html

Bhikkhu Bodhi (trans.) (2000) *The Connected Discourses of the Buddha*, Summerville: Wisdom.

Blascovich, J. and Tomaka, J. (1991) "Measures of self-esteem," in J. P. Robinson, P. R. Shaver, and L. S. Wrightsman (eds), *Measures of Personality and Social Psychological Attitudes* (Vol. 1, pp. 115–160), New York: Academic Press.

Bogart, G. (1991) "The use of meditation in psychotherapy: a review of the literature," *American Journal of Psychotherapy*, 45(3), 383–412.

Bond, F. W. and Bunce, D. (2000) "Mediators of change in emotion-focused and problem-focused worksite stress management interventions," *Journal of Occupational Health Psychology*, 5(1), 156–163.

——(2003) "The role of acceptance and job control in mental health, job satisfaction, and work performance," *Journal of Applied Psychology*, 88(6), 1057–1067.

Brown, K. W. and Ryan, R. M. (2003) "The benefits of being present: mindfulness and its role in psychological well-being," *Journal of Personality and Social Psychology*, 84(4), 822–848.

Ciarrochi, J. and Godsell, C. (2006) "Mindfullness-based emotional intelligence training for the workplace," in V. Druskat, F. Sala, and G. Mount (eds), *Linking Emotional Intelligence and Performance at Work*, Mahwah, NJ: Lawrence, Elrbaum Associates.

Ciarrochi, J. and Scott, G., (2004) *Social and Emotional Competence and Well-being: A Longitudinal Study*, Wollongong, unpublished manuscript.

Ciarrochi, J. and West, M. (2004) "Relationships between dysfunctional beliefs and positive and negative indices of well-being: a critical evaluation of the Common Beliefs Survey – III," *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 22(3), 171–188.

Ciarrochi, J., Scott, G., Deane, F. P., and Heaven, P. C. L. (2003) "Relations between social and emotional competence and mental health: a construct validation study," *Personality and Individual Differences*, 35, 1947–1963.

Cormier, L. S. and Cormier, W. H. (1998) *Interviewing Strategies for Helpers: Fundamental Skills and Cognitive Behavioral Interventions* (4th edn), Pacific Grove: Brooks/Cole.

Dahl, J., Wilson, K. G., and Nilsson, A. (2004) "Acceptance and commitment therapy and the treatment of persons at risk of long-term disability resulting from stress and pain symptoms: a randomized clinical trial," *Behavior Therapy*, 35(4), 785–801.

Davey, G. C., Jubb, M., and Cameron, C. (1996) "Catastrophic worrying as a function of changes in problem-solving confidence," *Cognitive Therapy and Research*, 20(4), 333–344.

Diefendorff, J. M., Hall, R. J., Lord, R. G., and Strean, M. L. (2000) "Action-state orientation: construct validity of a revised measure and its relationship to work-related variables," *Journal of Applied Psychology*, 85(2), 250–263.

Dugas, M. J., Gagnon, F., Ladouceur, R., and Freeston, M. H. (1998) "Generalized anxiety disorder: a preliminary test of a conceptual model," *Behaviour Research and Therapy*, 36(2), 215–226.

D'Zurilla, T. J., Chang, E. C., Nottingham, E. J., and Faccini, L. (1998) "Social problem-solving deficits and hopelessness, depression, and suicidal risk in college students and psychiatric inpatients," *Journal of Clinical Psychology*, 54(8), 1091–1107.

Elliott, T. R., and Marmarosh, C. L. (1994) "Problem-solving appraisal, health complaints, and health-related expectancies," *Journal of Counseling and Development*, 72(5), 531–537.

Elliott, T. R., Herrick, S. M., MacNair, R. R., and Harkins, S. W. (1994) "Personality correlates of self-appraised problem solving ability: problem orientation and trait affectivity," *Journal of Personality Assessment*, 63(3), 489–505.

Ellis, A. (2001) *Overcoming Destructive Beliefs, Feelings, and Behaviors: New Directions for Rational Emotive Behavior Therapy*, Amherst: Prometheus Books.

Feldner, M., Zvolensky, M., Eifert, G., and Spira, A. (2003) "Emotional avoidance: an experimental test of individual differences and response suppression using biological challenge," *Behaviour Research and Therapy*, 41(4), 403–411.

Freeston, M. H., Rheaume, J., Letarte, H., Dugas, M. J., and Ladouceur, R. (1994) "Why do people worry?" *Personality and Individual Differences*, 17(6), 791–802.

Frenkel-Brunswik, E. (1949) "Intolerance of ambiguity as an emotional and perceptual personality variable," *Journal of Personality*, 18, 108–143.

Godsell, C. and Ciarrochi, J., (2004) *The Link between Experiential Avoidance and Emotion Identification*, Wollongong, unpublished manuscript.

Hanh, T. N. (1987) *The Miracle of Mindfulness*, Boston, MA: Beacon Press.

Hayes, S. C. (2002) "Buddhism and acceptance and commitment therapy," *Cognitive and Behavioral Practice*, 9(1), 58–66.

Hayes, S. C., Barnes-Holmes, D., and Roche, B. (eds) (2001) *Relational Frame Theory: A Post-Skinnerian Account of Human Language and Cognition*, New York: Kluwer Academic/Plenum Publishers.

Hayes, S. C., Strosahl, K. D., and Wilson, K. G. (1999) *Acceptance and Commitment Therapy: An Experiential Approach to Behavior Change*, New York: Guilford Press.

—— (2002) "Acceptance and commitment therapy: an experimental approach to behavior change," *Child and Family Behavior Therapy*, 24(4), 51–57.

Heckhausen, H. and Strang, H. (1988) "Efficiency under record performance demands: exertion control – an individual difference variable?" *Journal of Personality and Social Psychology*, 55(3), 489–498.

Kabat-Zinn, J. (1990) *Full Catastrophe Living: Using the Wisdom of your Body and Mind to Face Stress, Pain, and Illness*, New York: Dell Publishing.

—— (1994) *Wherever You Go There You Are: Mindfulness Meditation in Everyday Life*, New York: Hyperion.

Kapleau, P. (1989) *The Three Pillars of Zen: Teaching, Practice, and Enlightenment*, New York: Anchor.

Kernis, M. H., Grannemann, B. D., and Barclay, L. C. (1989) "Stability and level of self-esteem as predictors of anger arousal and hostility," *Journal of Personality and Social Psychology*, 56(6), 1013–1022.

Kernis, M. H., Paradise, A. W., Whitaker, D. J., Wheatman, S. R., and Goldman, B. N. (2000) "Master of one's psychological domain? Not likely if one's self-esteem is unstable," *Personality and Social Psychology Bulletin*, 26(10), 1297–1305.

Kuhl, J. and Beckmann, J. (1994) *Volition and Personality: Action Versus State Orientation*, Gottingen: Hogrefe and Huber Publishers.

Linehan, M. M. (1993) *Cognitive-Behavioral Treatment of Borderline Personality Disorder*, New York: Guilford Press.

Mayer, J. D., Caruso, D. R., and Salovey, P. (1999) "Emotional intelligence meets traditional standards for an intelligence," *Intelligence*, 27(4), 267–298.

Mischel, W., Shoda, Y., and Peake, P. K. (1988) "The nature of adolescent competencies predicted by preschool delay of gratification," *Journal of Personality and Social Psychology*, 54(4), 687–696.

Miura, I. and Sasski, R. F. (1966) *Zen Dust – the History of the Koan and Koan Study in Rinzai (Lin-chi) Zen*, New York: Harcourt, Brace, and World, Inc.

Neuberg, S. L. and Newson, J. T. (1993) "Personal need for structure: individual differences in the desire for simpler structure," *Journal of Personality and Social Psychology*, 65(1), 113–131.

Nolen-Hoeksema, S. (1987) "Sex differences in unipolar depression: evidence and theory," *Psychological Bulletin*, 101(2), 259–282.

Nolen-Hoeksema, S. and Davis, C. G. (1999) " 'Thanks for sharing that': ruminators and their social support networks," *Journal of Personality and Social Psychology*, 77(4), 801–814.

Nolen-Hoeksema, S., Parker, L. E., and Larson, J. (1994) "Ruminative coping with depressed mood following loss," *Journal of Personality and Social Psychology*, 67(1), 92–104.

Nolen-Hoeksema, S., Larson, J., and Grayson, C. (1999) "Explaining the gender difference in depressive symptoms," *Journal of Personality and Social Psychology*, 77(5), 1061–1072.

Ortony, A., Clore, G., and Collins, A. (1988) *The Cognitive Structure of Emotion*, New York: Cambridge University Press.

Patel, C. (1993) "Yoga-based therapy," in P. M. Lehrer and R. L. Woolfolk (eds), *Principles and Practices of Stress Management*, New York: Guilford Press, pp. 89–137.

Ponlop, D. (2004) "The wisdom of the body and the search for the self," *Shambhala Sun Magazine*. Retrieved, 2004, from the World Wide Web: http://www.shambhalasun.com/Archives/Features/ 2004/September/The%20Wisdom%20of%20the%20Body.htm

Raskin, R. and Terry, H. (1988) "A principal-components analysis of the narcissistic personality inventory and further evidence of its construct validity," *Journal of Personality and Social Psychology*, 54(5), 890–902.

Reps, P. and Senzaki, N. (1998) *Zen Flesh Zen Bones: A Collection of Zen and Pre-Zen Writings*, Boston, MA: Tuttle.

Rhodewalt, F. (2001) "The social mind of the narcissist: cognitive and motivational aspects of interpersonal self-construction," in J. P. Forgas and K. D. Williams (eds), *The Social Mind: Cognitive and Motivational Aspects of Interpersonal Behavior* (pp. 117–198), Cambridge: Cambridge University Press.

Rhodewalt, F. and Eddings, S. K. (2002) "Narcissus reflects: memory distortion in response to ego-relevant feedback among high-and low-narcissistic men," *Journal of Research in Personality*, 36(2), 97–116.

Roger, D. and Jamieson, J. (1988) "Individual differences in delayed heart-rate recovery following stress: the role of extraversion, neuroticism and emotional control," *Personality and Individual Differences*, 9(4), 721–726.

Roger, D. and Najarian, B. (1989) "The construction and validation of a new scale for measuring emotion control," *Personality and Individual Differences*, 10(8), 845–853.

—— (1998) "The relationship between emotional rumination and cortisol secretion under stress," *Personality and Individual Differences*, 24(4), 531–538.

Rosenberg, M. (1965) *Society and the Adolescent Self-image*, Princeton, NJ: Princeton University Press.

Rusting, C. L. and Nolen-Hoeksema, S. (1998) "Regulating responses to anger: effects of rumination and distraction on angry mood," *Journal of Personality and Social Psychology*, 74(3), 790–803.

Śāntideva (1998) *The Bodhicaryāvatāra: A Guide to the Buddhist Path to Awakening* (K. Crosby and A. Skilton, trans.), UK: Oxford University Press.

Santina, P. D. (1984) *Fundamentals of Buddhism*, Singapore: Srilankaramaya Buddhist Temple.

Segal, Z. V., Williams, J. M. G., and Teasdale, J. D. (2002) *Mindfulness-Based Cognitive Therapy for Depression: A New Approach to Preventing Relapse*, New York: Guilford Press.

Shoda, Y., Mischel, W., and Peake, P. K. (1990) "Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: identifying diagnostic conditions," *Developmental Psychology*, 26(6), 978–986.

Tangney, J. P., Baumeister, R. F., and Boone, A. L. (2004) "High self-control predicts good adjustment, less pathology, better grades, and interpersonal success," *Journal of Personality*, 72(2), 271–322.

Taylor, G. J. (2000) "Recent developments in alexithymia theory and research," *Canadian Journal of Psychiatry*, 45(2), 134–142.

—— (2001) "Low emotional intelligence and mental illness," in J. Ciarrochi and J. P. Forgas (eds), *Emotional Intelligence in Everyday Life: A Scientific Inquiry* (pp. 67–81), Philadelphia, PA: Psychology Press/Taylor and Francis.

Taylor, G. J., Bagby, R., and Luminet, O. (2000) "Assessment of alexithymia: self-report and observer-rated measures," in R. Bar-On and J. D. A. Parker (eds), *The Handbook of Emotional Intelligence: Theory, Development, Assessment, and Application at Home, School, and in the Workplace* (pp. 301–319), San Francisco, CA: Jossey-Bass.

Teasdale, J. D., Segal, Z., and Williams, J. M. G. (1995) "How does cognitive therapy prevent depressive relapse and why should attentional control (mindfulness) training help?" *Behaviour Research and Therapy*, 33(1), 25–39.

Thorpe, G. L., Walter, M. I., Kingery, L. R., and Nay, W. T. (2001) "The Common Beliefs Survey-III and the Situational Self-Statement and Affective State Inventory: test-rest reliability, internal consistency, and further psychometric considerations," *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 19(2), 89–103.

Wegner, D. M. and Zanakos, S. (1994) "Chronic thought suppression," *Journal of Personality*, 62(4), 615–640.

Wulfert, E., Block, J. A., Ana, E. S., Rodriguez, M. L., and Colsman, M. (2002) "Delay of gratification: impulsive choices and problem behaviors in early and late adolescence," *Journal of Personality*, 70(4), 533–552.

Zettle, R. D. (2003) "Acceptance and commitment therapy (ACT) vs. systematic desensitization in treatment of mathematics anxiety," *Psychological Record*, 53(2), 197–215.

Zettle, R. D. and Hayes, S. C. (1987) "Component and process analysis of cognitive therapy," *Psychological Reports*, 61(3), 939–953.