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Mindfulness-Based Emotional Intelligence: A Theory and Review of the Literature

Joseph Ciarrochi
Claire Godsell
University of Wollongong, Australia

Summary

We present a theory of the source of human suffering, and then describe an emotional intelligence (EI) framework that is based on this theory. We illustrate how a wide variety of EI-relevant measures can be understood in terms of this framework. Finally, we describe an intervention approach that is specifically designed to undermine the theorized causes of suffering. EI-relevant measures can be used to evaluate the efficacy of this intervention and to provide feedback about how to improve it.

4.1 INTRODUCTION

“The single most remarkable fact of human existence is how hard it is for human beings to be happy” (Hayes, Strosahl, & Wilson, 1999, p. 1). At any given time, a substantial number of people report feeling moderately to severely anxious or depressed (Ciarrochi, Deane, & Anderson, 2002; Ciarrochi, Scott, Deane, & Heaven, 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). Add

up all the people who are hostile, depressed, alcoholic, fearing intimacy, suicidal, self-destructive, addicted, workaholic, and desperate. One can not help but acknowledge the first of the Buddhist noble truths: Suffering is the human condition (Kapleau, 1989).

What is the cause of human suffering and what can be done to reduce it? Is emotional intelligence (EI) the answer?

4.2 A DIFFERENT STARTING POINT FOR EI

A substantial amount of research focuses on developing new EI measures and evaluating whether these measures are distinctive from personality and IQ. One goal of this research is prediction. For example, we know that IQ and personality can predict workplace outcomes (Schmidt & Hunter, 1998; Tokar, Fischer, & Subich, 1998). An important question is whether EI measures can predict variance over and above these well-established measures. If not, then why would we need the EI measure (if our goal is incremental prediction)?

Our primary purpose in this chapter is not to argue for new and unique EI measures. Rather, it is to understand the causes of human suffering and how it can be alleviated. Our chapter has three goals: 1) to present a theory of human suffering (Hayes et al., 1999), 2) to utilize this theory to provide a framework for the vast number of EI-relevant measures, and 3) to suggest ways that suffering can be alleviated. Our goal is prediction-and-control as a single thing (Hayes, Hayes, & Reese, 1988), rather than just prediction. This goal dictates what measures we review. For example, if someone's primary goal was solely to predict future negative affectivity, then the best predictor of this would be likely to be past negative affectivity (Clark, Watson, & Mineka, 1994). However, knowing that past negativity predicts future negativity would not necessarily serve our goals, since it would not help us to reduce future negativity (the goal of control).

Similarly, EI measures that assess "stress tolerance" or "impulse control" (Bar-On, 1997) do not necessarily aid us in the goal of control and therefore are not discussed here. Saying that someone gets stressed because they have low stress tolerance does not seem to tell us anything about what one does to increase stress tolerance. As a final example, saying that personality traits such as extraversion (or positive affectivity) and neuroticism (or negative affectivity) are related to depression (Clark et al., 1994) again suggests nothing about what one does about depression. Do we seek to increase extraversion? Do we seek to reduce neuroticism? How?

We are not arguing that the goal of prediction-and-control is better than a primary goal of prediction. Both goals are clearly important. What we are arguing is that what one focuses on depends upon one's goals (Laudan, 1981).

The EI-relevant measures we review here have two important features. First, they can be clearly connected to and understood via the proposed theory of human suffering. Second, they can at least in principle be used as process measures in an EI intervention. That is, they can be used to help evaluate why

an EI intervention works, and to provide feedback so that such interventions can be improved.

4.3 DEFINITIONS

Emotional well-being refers to a broad category of phenomena that includes peoples affective responses (e.g., state levels of guilt, depression, anger, joy, and self assurance) and global judgments of life satisfaction (Diener, Suh, Lucas, & Smith, 1999). There are negative indices (e.g., anger, stress, anxiety) and positive indices (joy, vigor). Each of the specific aspects of well-being warrant study in their own right, yet they all tend to correlate, suggesting the need for a higher order well-being construct (Diener et al., 1999).

We find it useful to utilize the words “pain” and “suffering” in a specific way (Hayes et al., 1999). Pain is what occurs during the course of just living one’s life. Painful emotions are often labelled as sadness, annoyance, and remorse (Ellis, 2001). In contrast, suffering is emotional discomfort that is created from our ineffective reactions to pain. For example, the label “depression” can describe a state of suffering, if it is the result of feeling bad about a loss (sadness) and believing a negative evaluation about the entire future (e.g., “the future is hopeless”).

Emotional intelligence is defined here in terms of four dimensions (see Table 4.1) that involve the ability to act effectively in the context of emotions and emotionally charged thoughts, and use emotions as information. We will talk much more about these dimensions throughout the chapter, but one example might be clarifying. The first dimension of EI is effective emotional orientation. People who have an ineffective orientation tend to repress or avoid their emotions. For example, they may attempt to repress feelings of anger towards a colleague. They may even pretend that they do not have angry feelings. Unfortunately, anger might be providing them with valuable information about the colleague (e.g., that the person is behaving unfairly). Thus, killing the messenger (e.g., the anger) also kills the message (the colleague is behaving unfairly). Without this valuable information, the person may also lose the ability to act effectively (e.g., respond with assertion to the injustice).

4.4 A THEORY OF UNIVERSAL HUMAN SUFFERING F.E.A.R.: FUSION AND RELATIONAL FRAME THEORY

We now describe a theory that seeks to explain why suffering is so universal. We then use this theory to generate a framework for EI-relevant measures. Finally, we will review evidence suggesting that being high in each dimension is associated with lower suffering and increased vitality.

Language is essential to our survival. However, it also appears to have a dark side (Hayes, Barnes-Holmes, & Roche, 2001). The problems of language and how we use it can be captured in the acronym F.E.A.R.: Fusion, Evalu-

Table 4.1 The Components of Internally Focused Emotional Intelligence

EI component	Description
Defusing Unhelpful Self-Concepts (i.e., undermining the power of unhelpful self-concepts to act as barriers to effective action)	<ul style="list-style-type: none"> – Looking <i>at</i> self-evaluations, rather than <i>through</i> them – Escaping the perceived need to defend self-esteem – Recognizing that emotionally charged evaluations of the self do not have to stop us from pursuing our goals – Making contact with the “observer self”; finding the safe place from which to accept all negative emotions, self-doubts, and other unpleasant inner experiences
Defusing Unhelpful Thoughts and Emotions (i.e., undermining the power of unhelpful thoughts and emotions to act as barriers to effective action)	<ul style="list-style-type: none"> – Looking <i>at</i> emotionally charged verbal content, rather than <i>through</i> it – 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	<ul style="list-style-type: none"> – Identifying emotions – Understanding the appraisals that activate different emotions – Understanding the consequences of emotions on cognition, health, and so forth – Understanding how emotions progress over time – Distinguishing between helpful and unhelpful emotions and emotionally charged thoughts
Effective Emotional Orientation	<ul style="list-style-type: none"> – Willingness to have emotionally charged private experiences (thoughts, images, emotions) when doing so fosters effective action – Accepting the inevitability of a certain amount of unpleasant affect and negative self-evaluation – Understand that private experiences do not have to stop one from pursuing a valued direction (and therefore one does not have to get rid of them)

ation, Avoidance, and Reason giving. The F.E.A.R. framework is presented in more detail by its creators, namely, Hayes and his colleagues (Hayes et al., 1999, 2001).

Relational Frame Theory (RFT) has been used to account for the pervasiveness of human suffering and to suggest how it can be reduced. It has been tested in the lab under highly controlled conditions, and has found substantial experimental support during the last two decades (Hayes et al., 1999). We have only a small space here to discuss RFT, but please see Hayes et al. (1999) for a book length treatment of it.

4.4.1 Implication 1: Language Makes Monsters Present

Research has shown that language tends to be bi-directionally related to experience (Hayes et al., 2001). For example, the word “shock” will carry with it some of the aversive functions of shock itself. This bi-directionality 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, human verbal reports of past painful experience 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 (Hayes et al., 1999).

This discussion leads us to one of the defining characteristics of RFT. The act of relating stimuli leads to 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 shock.

4.4.2 Implication 2: Language Processes Are Dominant

A substantial number of verbal relations can be derived outside of experience. For example, if we know that A is good and B is like A, then we can derive that B is good. If C is like B, we can further derive that B is good and B is like A, and so forth. As a further example, consider the following question: “How is a mouse like a bag or oranges?” Although you may never have been asked this question, you are probably now able to derive relations between mice and oranges. Indeed, humans have the ability to derive relations between just about any two things. And each derivation may lead to further transformation of stimulus functions (Blackledge, 2003).

RFT research confirms that if people are taught just a few links via experience, they can derive a substantial number of links without experience. For example, one study demonstrated that for each link between two stimuli that was learned via experience, 15 new links could be derived (Wulfert & Hayes,

1988). Thus, the percentage of our understanding that is based on experience can be quite small compared to the percentage that is derived. RFT-related research also 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 experience (Hayes, Brownstein, Haas, & Greenway, 1986). The task requirements were later changed. All of the participants who learned the task by experience were sensitive to the change. In contrast, only half of the participants who learned the task by rules were sensitive to the change. In general, overreliance on verbal rules can lead to rigid, inflexible behavior (Hayes et al., 1999).

4.4.3 Implication 3: Language Processes Are Controlled by Context and Reinforcement

RFT premises that the reason we constantly derive relations, or engage in relational framing, is because the verbal community reinforces such relating. For example, a child may be trained to connect the letters “C” “A” “T” with an actual cat and with the sound “CAT”. When a cat actually walks by, a parent might say to the child, “what is that?”. Without ever being taught the link between the sound and the actual cat, the child will correctly respond “CAT”. The parent might reinforce the child by saying “good!”. There is now strong evidence that relating is under the influence of reinforcement and context, as suggested by RFT (see Hayes et al., 1999).

There are numerous contexts in which relational framing is reinforced. For example, in the context of “reason giving”, the social community reinforces people for providing reasons for their behavior (Hayes et al., 1999). If you ask a person with social anxiety, “why didn’t you give the speech?”, they might respond, “I don’t know”. Many people would actively discourage this response. If the person said, “I couldn’t give the speech because I was anxious”, the community would be more likely to find this acceptable. Thus, the person was reinforced for creating a causal “frame” between anxiety and not engaging in a particular behavior (Hayes et al., 2001). As discussed above, people tend to believe these rules, even when it is destructive to do so.

4.4.4 Fusion

This discussion brings us to the notion of cognitive fusion. Fusion involves symbols becoming functionally equivalent, to some extent, with the event it symbolizes (Hayes et al., 1999). In the above example, the word “shock” can have similar effects to an actual shock. Fusion means that our verbal world can become even more psychologically powerful than reality at times. Verbal reports of painful experience can be as painful as the actual experience.

Fusion is hypothesized to be the beginning of suffering (Hayes et al., 1999). 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 can make things worse. Fusion also allows us to live almost entirely in our interpreted world and to become insensitive to experience that is inconsistent with this world (Hayes et al., 1999).

4.4.5 Evaluation

One of the goals of a primitive human was to avoid getting eaten. We evolved a "critical mind", which refers to our natural tendency to evaluate the external environment for threats (Bless, 2001; Forgas, 1995). Evaluation is certainly essential for surviving, but it can also be turned against us. Language allows us to create an abstracted concept of "I". Our critical mind can then be turned on this "I", just as it would be turned on the external world. It evaluates "I", compares "I" to others, and sometimes finds "I" to be bad or inadequate.

Language also allows us to create names for our internal states. We create labels like "anxiety" and "stress". The critical mind can then evaluate these states and declare them to be bad. We may then try to avoid the internal states just as we avoid genuinely threatening external events. We also create abstract labels like "our life." Critical mind can 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. Critical mind can then compare the ideal to present reality, and find the present to be unacceptable.

Consistent with this view, evidence suggests that social comparison and negative self-evaluation are pervasive and linked to suffering (Blascovich & Tomaka, 1991; Lyubomirsky, 2001). We shall have more to say about this later.

4.4.6 Avoidance

It is often adaptive to avoid threats in the outside world. Humans create an internal, private world of symbols, and learn to avoid aspects of it. Such avoidance can be attempted by directly suppressing unpleasant experiences or by seeking to modify such experiences. Experiential avoidance may work in the short run, but often not in the long run. Indeed, it can have a paradoxical rebound effect. The more one tries to avoid the experience, the more it can dominate one's life (Hayes et al., 1999; Wegner, 1994).

The downsides to experiential avoidance are now well documented. Research has shown that when participants 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, see Hayes et al., 1999).

4.4.7 Reason Giving/Rule Creation

People learn to put forth reasons as valid and sensible causes of behavior (Hayes et al., 1999). You might ask somebody, “Why didn’t you leave the house?”. They might respond with something like “I was too anxious”. This seems perfectly reasonable to us. If, in contrast, they respond with, “I have no idea”, we are likely to find this explanation unacceptable and insist that they give us a reason. This is an example of how the social community tends to reinforce reason giving.

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 am worthless” and behave accordingly. They might tell themselves “I must have other people’s approval”, 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”. They act as if they really can not take a risk, although experience will quickly show them that they can take risks and be anxious (Bourne, 2000).

4.5 EI COMPONENTS DERIVED FROM THE THEORY

We now turn our attention to the different dimensions of EI that we believe undermine the harmful influence of F.E.A.R.. For a book length treatment of how to undermine F.E.A.R., please see Hayes et al. (1999) and other work under the heading of “Acceptance and Commitment Therapy”. After describing each EI dimension, we will review a number of individual difference measures that appear to tap into the dimensions, and discuss their relationship to well-being.

4.5.1 Effective Emotional Orientation (EEO)

Defining EEO. Effective emotional orientation involves willingness to have private experiences (e.g., anxiety), when doing so fosters effective action (Table 4.1). 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 quite reasonably avoid things in the world that are aversive. Cognitive fusion means that the thoughts about things are also aversive. People naturally evaluate their aversive thoughts as bad and seek to avoid them. As discussed above, avoidance often does not work and indeed can make matters worse. The rule of private experience is: If you are not willing to have it, you have it (Hayes et al., 1999). This is completely different from the rule of public experience. If you are not willing to have something unpleasant in the public world (say an ugly sofa), you usually can get rid of it.

The link between well-being and individual differences in EEO. EEO is more of a family of constructs, rather than a single construct. The “family” mem-

bers are interrelated, yet sometimes statistically separable. In general, all of the measures of EI described in this chapter have this family property. 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. We refer to them by their original labels. Our main purpose is to look at what the last four decades of individual difference research tells us about effective emotional orientation.

The first individual difference we discuss—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., 2003; D’Zurilla, Chang, Nottingham, & Faccini, 1998; Elliott, Herrick, MacNair, & Harkins, 1994; Elliott & Marmarosh, 1994). It has been shown to be associated with low psychological distress and positive coping strategies, even when controlling for optimism, pessimism, positive affectivity, negative affectivity, and stressful life events (Chang & D’Zurilla, 1996; Ciarrochi et al., 2003). 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, Jubb, & Cameron, 1996).

The White Bear Suppression Inventory measures 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 & Zanakos, 1994).

The Acceptance and Action Questionnaire (AAQ) measures the willingness to experience thoughts, feelings, and physiological sensations without having to control them, or let them determine one’s actions (Bond & Bunce, 2003; Hayes et al., 2003). It 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 & Bunce, 2003). In another study utilizing the AAQ, participants high in emotional avoidance showed more anxiety in response to CO₂ poisoning (biological challenge), particularly when instructed to suppress their emotions (Feldner et al., 2003).

4.5.2 Using Emotion as Information (UEI)

The second dimension of EI involves the ability to use emotions as information to inform effective action (see Table 4.1). Emotions are messengers. They usually tell us something about the world and about our own desires. 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, Clore, & Collins, 1988).

The F.E.A.R. framework suggests that we tend to evaluate our unpleasant private experiences as bad and subsequently try to avoid them. Unfortunately, avoiding the messenger (the emotion) does not change the message. Importantly, if we do not know what the message is, we will find it difficult to act effectively. 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 effectively solve our emotional problems.

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, which is essential to being able to use emotional information.

Alexithymia refers to people who have trouble identifying and describing emotions and who tend to minimize emotional experience and focus attention externally (see also Chapter 13 by Parker). This construct appears to be a mix of Using Emotional Information and Effective Emotional Orientation. The Toronto Alexithymia Scale (TAS-20) is one of the most commonly used measures of alexithymia. It has been shown to be related to Bar-On's self-report EI measure (Taylor, Bagby, & Luminet, 2000), and 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 (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 alexithymia predicts persistent somatization at two year follow-up (Bach & Bach, 1995).

The emotional clarity subscale of the Trait Meta-Mood Scale (TMMS) also appears to measure an aspect of Using Emotion as Information (see Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). This scale predicts how much people seem to dwell unproductively on sad thoughts (Salovey et al., 1995). In general, just about every measure of emotional intelligence appears to have a subscale that assesses skill at emotional identification. Such measures include the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, and Caruso, 2002) and the Schutte et al. Emotional Intelligence Scales (SEIS; Schutte et al., 1998).¹

Defusing from unhelpful emotions and thoughts. The third dimension of EI involves the ability to undermine fusion with unhelpful emotions and thoughts. Table 4.1 lists the key components of this skill (see also Subsection 4.4.4). When language processes dominate,

¹We acknowledge that there are rather substantial differences between self-report and ability based measures of emotion perception. However, discussion of these differences is beyond the scope of this chapter. Please see other chapters in this volume (e.g., Chapter 7 by Wilhelm).

humans fuse with the psychological contents of verbal events. The distinction between thinking and the referent of thought is diminished. As a result, emotionally charged thoughts or feelings (particularly those with provocative or pejorative meanings) become connected to powerful and predictable behavior patterns.
(Hayes et al., 1999, p. 149)

In other words, language has the power to bring forth its own reality. The word “milk” brings forth tastes and images of frothy white. It is as if the word has made the milk present. Language is so powerful that people come to see their verbal constructions of life as equivalent to life itself (Hayes et al., 1999). People fail to distinguish between the verbal products and the experience. We sometimes see life through “horrible” colored glasses (Ellis, 2001, Hayes et al., 1999).

One key to undermining fusion is to learn to look *at* our emotionally charged thoughts, rather than *through* them. It is as if there is a sign that says “Bad Mountain” and then a mountain in front of it. Fusion means that people often do not distinguish the sign from the mountain. They see the mountain through the sign “bad mountain.” Defusing means stepping back and looking at the sign as just a sign.

Defusion involves a fundamental shift in context. It involves looking at the feelings, thoughts, sensations, and memories that show up from moment to moment and watching them as they go by. It involves a context shift from the “here and now” (“I am depressed”) to the “there and then” (I have had the evaluation that “I am depressed”). Such shifts help people to see their private experience for what it is—streams of thought, fleeting sensations—rather than what it says it is—facts, dangers that must be avoided (Hayes et al., 1999; Kabat-Zinn, 1990).

Mindfulness is on the opposite side of “fusion”. Mindfulness can be broken down 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 focus on what you are doing, doing what works [Linehan, 1993]). Essentially, mindfulness helps 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).

Mindlessly seeing life through unhelpful thoughts is expected to be a major source of suffering (Ellis, 2001). Ellis has proposed four major classes of unhelpful thoughts (Ellis, 2001). These include demandingness (“Things *must* be a certain way”), low distress tolerance (“I can’t stand it”), “awfulizing” (“My life is awful”), and global evaluations (“I am completely good or bad; work is completely bad”). The key goal in mindfulness training is not to get rid of the thoughts (they are unhelpful but not necessarily harmful). Rather the key is to accept whatever thoughts show up during the course of pursuing goals (effective orientation) and to learn to look at thoughts, rather than through them. The key is to be willing to have the unhelpful thoughts, but not necessarily believe them.

The last two decades have found substantial support for interventions that are designed to increase mindfulness. Acceptance and Commitment Therapy (ACT) is a mindfulness approach that is directly derived from the F.E.A.R. framework described above. There are now nearly two decades of work specifically supporting the efficacy of ACT. Published randomized control trials provide evidence that ACT may do as well or better than traditional cognitive behavioral therapy in reducing depression and anxiety, and that it is effective in the treatment of substance abuse, pain, and psychosis (Hayes, Strosahl, & Wilson, 2002; Zettle, 2003). ACT has also been shown to be effective at reducing stress and sick leave utilization in “normal” populations (Bond & Bunce, 2000; Dahl, Wilson, & Nilsson, 2004).

There is also substantial support for other mindfulness-based interventions, including Dialectic Behavior Therapy (Linehan, 1993), Mindfulness-Based Cognitive Therapy for Depression (Segal, Williams, & Teasdale, 2002), Mindfulness Based Meditation (Cormier & 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., 1999).

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 & Ryan, 2003).

The Demanding Perfection subscale of the Common Belief Survey (CBS-III; Thorpe, Walter, Kingery, & Nay, 2001) measures the extent that people believe 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 & West, 2004).

Another group of measures reflect unhelpful beliefs about uncertainty (e.g., “that uncertainty is awful or intolerable”). These include measures of intolerance of uncertainty (Dugas, Gagnon, Ladouceur, & Freeston, 1998), rigidity (Neuberg & 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, Rheaume, Letarte, Dugas, & Ladouceur, 1994).

Finally, individual differences in rumination seem to reflect high fusion. Rumination can be measured using self-reports measures such as the Emotion Control Questionnaire (Roger & 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 controlling 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, Larson, & Grayson, 1999; Rusting & 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 for their baseline levels of depressive symptoms (Nolen-Hoeksema & Davis, 1999; Nolen-Hoeksema, Parker, & Larson, 1994). High rumination has also been associated with delayed recovery from stress, as indicated by delayed heart-rate and physiological (cortisol) recovery (Roger & Jamieson, 1988; Roger & Najarian, 1998).

Rumination might also be seen as an ineffective emotional orientation, since it appears to involve attempts to use reasoning to escape from unpleasant private experiences (Dugas, Freeston, & Ladouceur, 1997). However, we include it here because it seems to involve a mindless absorption in the content of thought (fusion), rather than looking at thought, and a focus on the future or the past, whilst the present goes unnoticed.

The measures may seem quite different from each other in this section, and to some extent they are. However, there is also some evidence that they interrelate. For example, Brown and Ryan (2003) found that higher mindfulness scores were modestly associated with higher self-reported EI and lower rumination. Dugas and his colleagues found that intolerance of uncertainty is related to ruminative activity (Dugas et al., 1997).

These measures also tend to correlate with neuroticism, or the tendency to experience negative affect (Ciarrochi, Forgas, & Mayer, 2001; Ciarrochi & West, 2004; Dugas et al., 1997). This overlap with personality is sometimes seen as a problem in EI research, as it suggests that the measure may not predict variance over and above personality. We should emphasize again that our goal is not primarily incremental prediction or the creation of new EI measures. Thus, for our purposes, it is not a problem if these measures correlate with neuroticism or other personality measures. In fact, we expect that all the measures reviewed in this chapter reflect processes that *lead* to neuroticism. Thus, it would be absurd to posit that they are independent of this variable.

Again, our goal is pragmatic. We seek to reduce suffering. To a large extent, the two personality traits, positive and negative affectivity, or extraversion and neuroticism, are just two indices of suffering. They do not necessarily provide clues as to what one does about suffering. We will soon discuss how one might intervene to reduce suffering and how the measures discussed here can help assess the processes involved in the intervention.

Defusing self-concepts. The last aspect of EI involves the ability to free oneself, at least briefly, from fusion with unhelpful self-concepts (see Table 4.1). Humans develop a concept of self. The mind then proceeds to evaluate it. We readily evaluate this “self” 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”. The goal in undermining fusion 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.

Individual differences in fusing with unhelpful self-concepts and well-being. It appears to be reasonably well established that low self-esteem is associated with higher levels of negative affect (Blascovich & Tomaka, 1991). Self-esteem is often measured using a self-report scale by Rosenberg (1965). It also appears to be measured by the Bar-On emotional quotient inventory (EQ-i; Bar-On, 1997).

What is somewhat more surprising is that some aspects of high self-esteem have been associated with poor well-being, at least in some circumstances (Kernis, Grannemann, & Barclay, 1989; Rhodewalt, 2001). For example, the Narcissist Personality Inventory (NPI) assesses a person’s sense of grandiosity, self-importance, and specialness (Raskin & 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 & Eddings, 2002).

A related line of research has examined individual differences in the stability of self-esteem. 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, Paradise, Whitaker, Wheatman, & Goldman, 2000).

4.6 REDUCING SUFFERING: LESSONS FROM ACCEPTANCE AND COMMITMENT THERAPY

Now that we have placed a wide variety of EI-relevant measures into the F.E.A.R. framework, we turn to what one might do with knowledge of this framework.

The EI theory proposed here is grounded firmly in what has been termed the “third wave” of cognitive-behavioral therapy (CBT; Hayes, 2004). The second wave of CBT focused on eliminating irrational thoughts or pathological schemas and replacing them with more functional ones (Beck, 1995; Meichenbaum, 1985). In contrast, third-wave CBT does not seek to directly change the content of thought or emotion. Rather, it focuses on acceptance of thoughts and feelings. The goal is to change one’s relationship to such private experiences.

EI research and interventions are meant to apply to all humans, not just clinical populations. The third-wave CBT, Acceptance and Commitment Therapy (ACT), appears to be grounded in principles that apply to all humans. For example, it is based on techniques that have been used for centuries by Buddhists (as opposed to clinical groups), who developed the techniques to relieve humans from the universal causes of suffering. It has also been grounded in the RFT theory of language, thus making it relevant to all language-able beings (Hayes et al., 2001).

ACT is a theoretically driven intervention that is specifically designed to improve three of the four EI dimensions listed in Table 4.1. These include effective emotional orientation, defusing from unhelpful thoughts and emotions, and defusing from unhelpful self-concepts (Hayes et al., 1999). We hypothesize that the ACT intervention should also indirectly improve the ability to utilize emotions as information. For example, if ACT successfully improves emotional orientation, then people will be less likely to repress or avoid unpleasant emotions. Instead, people will be mindfully present to whatever emotions are showing up. We hypothesize that this should make it more likely for these people to be able to utilize this emotion as information (since they are fully aware of it).

How does ACT seek to reduce suffering? We will provide a brief example here (see Hayes et al., 1999, for more detailed treatment). ACT views language processes as the cause of suffering. Thus, the intervention techniques in ACT minimize the use of language and reasoning. Instead, they tend to involve metaphors and exercises that attempt to put people in touch with their own experiences (Hayes et al., 1999). The exercises also tend to shift people into the present moment, and away from excessive reasoning about the past or future.

For example, consider the following ACT intervention for improving emotional orientation (Hayes et al., 1999). It is designed to help people make experiential contact with paradoxical nature of emotion control strategies. People are asked to imagine that they are hooked up to a polygraph that measures exactly how anxious they are feeling. They are told that all they have to do is

not feel anxious for the next three minutes. To make sure they are sufficiently motivated, and to exaggerate the point, we then tell them we will point a gun at their head. If they show any signs of anxiety, then we will pull the trigger. So all they have to do is not get anxious.

People very quickly see the problems of trying to control private experience. ACT has a substantial number of similar exercises that help people to defuse from unhelpful verbal rules (e.g., “I must get rid of my anxiety”) and to discover what works in experience.

Everything done within ACT is in the service of the person’s values (Hayes et al., 1999; Wilson & Murrell, 2004). For example, letting go of emotional control strategies would be encouraged if such letting go would help the person achieve their goals. Defusing from a particular private experience (e.g., the verbal statement “I am worthless”) would only be done if the private experience was acting as a barrier to valued action.

There is substantial evidence that ACT reduces suffering in clinical populations (Hayes et al., 1999). There is increasing evidence that it can be of benefit to “normal” populations. For example, Dahl and colleagues investigated the effects of a brief ACT intervention in the treatment of caretakers and nurses working in the public health sector (Dahl et al., 2004). The participants had chronic stress/pain and were at-risk for high sick-leave utilization. Participants were randomly assigned to ACT or Medical-Treatment-As-Usual (MTAU). Results indicated that ACT participants took fewer sick days and used less medical treatment resources than those in the MTAU condition.

In another study, Bond and Bunce (2000) investigated the effects of ACT in a large media organization (Bond & Bunce, 2003). Participants were randomly assigned to an ACT group, an Innovation Promotion Program (IPP) that helped participants to identify and then change causes of occupational strain, or a waitlist control group. Improvements in mental health and innovation were found following both interventions compared to the waitlist. However, the change processes differed in the two groups. Changes in outcome variables in the ACT condition were mediated only by the acceptance of undesirable thoughts and feelings (EI dimension 1). Changes in the IPP condition were mediated only by attempts to modify stressors. Thus, ACT appeared to improve mental health and behavior through increases in acceptance of unpleasant thoughts, feelings, and sensations.

4.7 CONCLUSIONS AND FUTURE DIRECTIONS

The present EI framework is quite different from the EI ability framework proposed by Mayer and his colleagues (Mayer, Caruso, & Salovey, 1999). Mayer has been interested in creating an EI measure that is similar to intelligence measures (e.g., it has right and wrong answers). His approach has been reasonably successful, in that the EI test predicts such things as job performance, social problem behavior, and relationship quality. The test has also proven to be

largely distinctive from self-report measures of EI and personality (Ciarrochi, Chan, & Caputi, 2000; Mayer et al., 2002).

Our approach has focused on self-report, and therefore will tend to be reasonably distinct from that of Mayer and his colleagues. Thus, we do not see ourselves as competitors. Importantly, our focus on currently existing measures is not an attempt to re-label old measures as EI. We encourage people to use the original labels. We focus on these older measures and the decades of research associated with them in order to get a better understanding of what it means to be emotionally intelligent. Our EI framework will hopefully help organize these measures into coherent groups and suggest new directions for research. For example, it would be worth investigating whether the measures described here capture four separate factors, as would be suggested by our four factor model.

There has been ongoing debate about what EI "ought" to be. Some argue that it ought to be similar to cognitive intelligence and it ought to be measured with ability tests. We start with a different set of assumptions. The F.E.A.R. framework is based on how people manage personally-relevant private experiences. Self-reports seem to allow people to answer questions about personally relevant experiences. When asked the question, "To what extent do you have feelings that you can't quite identify?", people can look into the context of their lives and provide a reasonably accurate report (Taylor & Bagby, 2000). In contrast, ability EI measures appear to ask questions about stimuli with which participant are unfamiliar (e.g., unfamiliar faces and stories). We believe it is possible to be emotionally intelligent with regards to the processing of unfamiliar emotional information, but not be emotionally intelligent when it comes to processing emotional information in the context of our everyday life. Future research needs to investigate this possibility, and to evaluate if an ability-based EI measure can be designed that contains personally relevant content.

One thing is strikingly different about our model compared to others. Our model does not posit that emotionally intelligent people are better able to directly modify and improve their emotions. Indeed, we have argued that emotional control strategies are often the problem, not the solution. Thus, in our framework, the emotionally intelligent person is often willing to have whatever emotions show up, in the service of doing what they value. They accept the emotions and let them pass or stay. This acceptance approach is expected to have a paradoxical effect: By not struggling to eliminate our unpleasant emotions, we are less likely to experience unpleasant emotions. To use a metaphor, by not struggling in quicksand, we are less likely to sink into it.

We do not mean to imply that emotional control strategies are always bad, or that people can not be taught to engage in some effective control strategies. Rather, the prediction is that if people let go of unhelpful attempts to get rid of the pain, they will be less likely to suffer. We seek to undermine unhelpful control moves rather than teaching people new control moves. Research is needed to determine the value of this strategy, though the initial evidence is quite promising (Bond & Bunce, 2000; Dahl et al., 2004; Hayes et al., 1999).

In closing, EI research is thriving, as evidenced by the chapters in this volume and the substantial number of publications that are appearing in peer reviewed journals. We believe that the human desire for self-improvement will keep the field thriving for more years to come. People seem to recognize that some of their suffering is unnecessary. They often realize that they “sweat the small things” and wreck havoc on their most cherished relationships. In our experience, people strongly desire to become more effective with their emotions. We hope that the next decade of EI research will help people to achieve this important goal.

REFERENCES

- Bach, M., & Bach, D. (1995). Predictive value of alexithymia: A prospective study in somatizing patients. *Psychotherapy and Psychosomatics*, *64*, 43–48.
- Bar-On, R. (1997). *BarOn Emotional Quotient Inventory (EQ-i): Technical manual*. Toronto, Canada: Multi-Health Systems.
- Beck, J. S. (1995). *Cognitive therapy: Basics and beyond*. New York: Guilford Press.
- Blackledge, J. T. (2003). An introduction to relational frame theory: Basics and applications. *The Behavior Analyst Today*, *3*, 421–433.
- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson & P. R. Shaver (Eds.), *Measures of personality and social psychological attitudes* (Vol. 1, pp. 115–160). San Diego, CA: Academic Press.
- Bless, H. (2001). Mood and the use of general knowledge structures. In L. L. Martin & G. L. Clore (Eds.), *Theories of mood and cognition: A user's guidebook* (pp. 9–26). Mahwah, NJ: Lawrence Erlbaum.
- Bond, F. W., & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology*, *5*, 156–163.
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology*, *88*, 1057–1067.
- Bourne, E. J. (2000). *The anxiety and phobia workbook*. Oakland, CA: New Harbinger Publications.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, *84*, 822–848.
- Chang, E. C., & D’Zurilla, T. J. (1996). Relations between problem orientation and optimism, pessimism, and trait affectivity: A construct validation study. *Behaviour Research and Therapy*, *34*, 185–194.
- Ciarrochi, J., Chan, A. Y. C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences*, *28*, 539–561.
- Ciarrochi, J., Deane, F. P., & Anderson, S. (2002). Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences*, *32*, 197–209.

- Ciarrochi, J., Forgas, J. P., & Mayer, J. D. (2001). *Emotional intelligence in everyday life: A scientific inquiry*. Philadelphia: Psychology Press/Taylor and Francis.
- Ciarrochi, J., Scott, G., Deane, F. P., & 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.
- Ciarrochi, J., & 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*, 171–188.
- Clark, L. A., Watson, D., & Mineka, S. (1994). Temperament, personality, and the mood and anxiety disorders. *Journal of Abnormal Psychology, 103*, 103–116.
- Cormier, L. S., & Cormier, W. H. (1998). *Interviewing strategies for helpers: Fundamental skills and cognitive behavioral interventions* (4th ed.). Pacific Grove, CA: Brooks/Cole.
- Dahl, J., Wilson, K. G., & 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 preliminary randomized trial. *Behavior Therapy, 35*, 785–802.
- Davey, G. C., Jubb, M., & Cameron, C. (1996). Catastrophic worrying as a function of changes in problem-solving confidence. *Cognitive Therapy and Research, 20*, 333–344.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276–302.
- Dugas, M. J., Freeston, M. H., & Ladouceur, R. (1997). Intolerance of uncertainty and problem orientation in worry. *Cognitive Therapy and Research, 21*, 593–606.
- Dugas, M. J., Gagnon, F., Ladouceur, R., & Freeston, M. H. (1998). Generalized anxiety disorder: A preliminary test of a conceptual model. *Behaviour Research and Therapy, 36*, 215–226.
- D’Zurilla, T. J., Chang, E. C., Nottingham, E. J., & Faccini, L. (1998). Social problem-solving deficits and hopelessness, depression, and suicidal risk in college students and psychiatric inpatients. *Journal of Clinical Psychology, 54*, 1091–1107.
- Elliott, T. R., Herrick, S. M., MacNair, R. R., & Harkins, S. W. (1994). Personality correlates of self-appraised problem solving ability: Problem orientation and trait affectivity. *Journal of Personality Assessment, 63*, 489–505.
- Elliott, T. R., & Marmarosh, C. L. (1994). Problem-solving appraisal, health complaints, and health-related expectancies. *Journal of Counseling and Development, 72*, 531–537.
- Ellis, A. (2001). *Overcoming destructive beliefs, feelings, and behaviors: new directions for rational emotive behavior therapy*. Amherst, NY: Prometheus Books.
- Feldner, M., Zvolensky, M., Eifert, G., & Spira, A. (2003). Emotional avoidance: An experimental test of individual differences and response suppression using biological challenge. *Behaviour Research and Therapy, 41*, 403–411.
- Forgas, J. P. (1995). Mood and judgment: The Affect Infusion Model (AIM). *Psychological Bulletin, 117*, 39–66.
- Freeston, M. H., Rheaume, J., Letarte, H., Dugas, M. J., & Ladouceur, R. (1994). Why do people worry? *Personality and Individual Differences, 17*, 791–802.

- Frenkel-Brunswik, E. (1949). Intolerance of ambiguity as an emotional and perceptual personality variable. *Journal of Personality*, *18*, 108–143.
- Hayes, S. C. (2004). Acceptance and Commitment Therapy, Relational Frame Theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, *35*, 639–665.
- Hayes, S. C., Barnes-Holmes, D., & Roche, B. (2001). *Relational frame theory: A post-Skinnerian account of human language and cognition*. New York: Kluwer.
- Hayes, S. C., Brownstein, A. J., Haas, J. R., & Greenway, D. E. (1986). Instructions, multiple schedules, and extinction: Distinguishing rule-governed from schedule-controlled behavior. *Journal of the Experimental Analysis of Behavior*, *46*, 137–147.
- Hayes, S. C., Hayes, L. J., & Reese, H. W. (1988). Finding the philosophical core: A review of Stephen C. Pepper's world hypotheses. *Journal of Experimental Analysis of Behavior*, *50*, 97–111.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and Commitment Therapy: An experiential approach to behavior change*. New York: Guilford Press.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2002). Acceptance and Commitment Therapy: An experimental approach to behavior change. *Child and Family Behavior Therapy*, *24*, 51–57.
- Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Polusny, M., et al. (2003). *The Acceptance and Action Questionnaire (AAQ) as a measure of experiential avoidance*. Manuscript under review.
- 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.
- Kapleau, P. (1989). *The three pillars of zen: Teaching, practice, and enlightenment*. New York: Anchor.
- Kernis, M. H., Grannemann, B. D., & Barclay, L. C. (1989). Stability and level of self-esteem as predictors of anger arousal and hostility. *Journal of Personality and Social Psychology*, *56*, 1013–1022.
- Kernis, M. H., Paradise, A. W., Whitaker, D. J., Wheatman, S. R., & 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*, 1297–1305.
- Laudan, L. (1981). A confutation of convergent realism. *Philosophy of Science*, *48*, 19–49.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.
- Lyubomirsky, S. (2001). Why are some people happier than others? The role of cognitive and motivational processes in well-being. *American Psychologist*, *56*, 239–249.
- Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, *27*, 267–298.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2002). *The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT): User's manual*. Toronto, Canada: Multi-Health Systems.
- Meichenbaum, D. (1985). *Stress inoculation training*. New York: Pergamon Press.
- Neuberg, S. L., & Newson, J. T. (1993). Personal need for structure: Individual differences in the desire for simpler structure. *Journal of Personality and Social Psychology*, *65*, 113–131.

- Nolen-Hoeksema, S. (1987). Sex differences in unipolar depression: Evidence and theory. *Psychological Bulletin*, *101*, 259–282.
- Nolen-Hoeksema, S., & Davis, C. G. (1999). “Thanks for sharing that”: Ruminators and their social support networks. *Journal of Personality and Social Psychology*, *77*, 801–814.
- Nolen-Hoeksema, S., Larson, J., & Grayson, C. (1999). Explaining the gender difference in depressive symptoms. *Journal of Personality and Social Psychology*, *77*, 1061–1072.
- Nolen-Hoeksema, S., Parker, L. E., & Larson, J. (1994). Ruminative coping with depressed mood following loss. *Journal of Personality and Social Psychology*, *67*, 92–104.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotion*. New York: Cambridge University Press.
- Raskin, R., & 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*, 890–902.
- Rhodewalt, F. (2001). The social mind of the narcissist: Cognitive and motivational aspects of interpersonal self-construction. In J. P. Forgas & K. D. Williams (Eds.), *The social mind: Cognitive and motivational aspects of interpersonal behavior*. New York: Cambridge University Press.
- Rhodewalt, F., & 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*, 97–116.
- Roger, D., & 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*, 721–726.
- Roger, D., & Najarian, B. (1989). The construction and validation of a new scale for measuring emotion control. *Personality and Individual Differences*, *10*, 845–853.
- Roger, D., & Najarian, B. (1998). The relationship between emotional rumination and cortisol secretion under stress. *Personality and Individual Differences*, *24*, 531–538.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rusting, C. L., & Nolen-Hoeksema, S. (1998). Regulating responses to anger: Effects of rumination and distraction on angry mood. *Journal of Personality and Social Psychology*, *74*, 790–803.
- Salovey, P., Mayer, J. D., Goldman, S., Turvey, C., & Palfai, T. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. In J. W. Pennebaker (Ed.), *Emotion, disclosure, and health* (pp. 125–154). Washington, DC: American Psychological Association.
- Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, *124*, 262–274.
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., et al. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, *25*, 167–177.

- Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press.
- Taylor, G. J. (2000). Recent developments in alexithymia theory and research. *Canadian Journal of Psychiatry, 45*, 134–142.
- Taylor, G. J. (2001). Low emotional intelligence and mental illness. In J. Ciarrochi & J. P. Forgas (Eds.), *Emotional intelligence in everyday life: A scientific inquiry* (pp. 67–81). Philadelphia: Psychology Press/Taylor and Francis.
- Taylor, G. J., & Bagby, R. M. (2000). An overview of the alexithymia construct. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 40–67). San Francisco: Jossey-Bass.
- Taylor, G. J., Bagby, R. M., & Luminet, O. (2000). Assessment of alexithymia: Self-report and observer-rated measures. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*. San Francisco: Jossey-Bass.
- Thorpe, G. L., Walter, M. I., Kingery, L. R., & Nay, W. T. (2001). The Common Beliefs Survey-III and the Situational Self-Statement and Affective State Inventory: Test-retest reliability, internal consistency, and further psychometric considerations. *Journal of Rational-Emotive Therapy and Cognitive Behavior Therapy, 19*, 89–103.
- Tokar, D. M., Fischer, A. R., & Subich, L. M. (1998). Personality and vocational behavior: A selective review of the literature, 1993–1997. *Journal of Vocational Behavior, 53*, 115–153.
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review, 10*, 34–52.
- Wegner, D. M., & Zanakos, S. (1994). Chronic thought suppression. *Journal of Personality, 62*, 615–640.
- Wenzlaff, R. M., & Wegner, D. M. (2000). Thought suppression. *Annual Review of Psychology, 51*, 59–91.
- Wilson, K. G., & Murrell, A. R. (2004). Values work in acceptance and commitment therapy: Setting a course for behavioral treatment. In S. C. Hayes, V. M. Follette, & M. M. Linehan (Eds.), *Mindfulness and acceptance: Expanding the cognitive-behavioral tradition* (pp. 120–151). New York: Guilford Press.
- Wulfert, E., & Hayes, S. C. (1988). Transfer of a conditional ordering response through conditional equivalence classes. *Journal of the Experimental Analysis of Behavior, 50*, 125–144.
- Zettle, R. D. (2003). Acceptance and Commitment Therapy (ACT) vs. systematic desensitization in treatment of mathematics anxiety. *Psychological Record, 53*, 197–215.