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CHAPTER

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Mindfulness-Based Emotional Intelligence Training: A New Approach to Reducing Human Suffering and Promoting Effectiveness

There has been substantial confusion in the field of emotional intelligence (EI). People seem to disagree on what EI is, what it predicts, and whether EI is distinctive from traditional measures. Despite all these disputes, EI continues to attract substantial interest from both the public and from scientists. What is so appealing about EI? Perhaps people recognize a fundamental paradox: Science has helped us to gain amazing control over our external world, yet we have made little progress in getting control of our internal, emotional worlds. For example, we can travel around the world in less than a day, but we don't seem to have made much progress in reducing road rage, racism, murder, and suicide. If we look honestly at the human condition, we must admit that emotional *un*intelligence is everywhere. People may be turning to EI, perhaps hoping that it will help them get control of their lives.

The purpose of the present chapter is to provide a theory about why people often act so ineffectively in the context of emotions. We then use the theory to hopefully accomplish two goals, namely, (1) to provide an organizing framework for the vast number of EI-relevant measures currently in the field, and (2) to connect these measures to a coherent intervention.

□ Defining a Few Terms

We work within a functional contextualist framework [1]. This means that our primary focus is on *influencing* behavior, rather than merely predicting it. Specifically, the goal of our EI work is to identify the conditions that promote effectiveness and reduce suffering. We define effectiveness as the achievement of goals that are determined by each individual client. “Reduction of suffering” is a bit more difficult to define, but can be operationally defined by high scores on negative indices of well-being (e.g., depression and anxiety), and/or an increase of scores on positive indices of well-being (e.g., life satisfaction).

Our discussion focuses on processes that are presumed to promote emotionally intelligent behavior and indirectly reduce suffering. It is critical to distinguish between emotional intelligence and emotionally intelligent behavior. Emotional intelligence refers to people’s ability to process emotions and deal effectively with them (see Chapter 1 in this volume). EI refers to people’s *potential*. In contrast, “emotionally intelligent behavior” refers to how effectively people actually behave in the presence of emotions and emotionally charged thoughts.

Simply put, emotionally unintelligent behavior occurs when emotions impede effective action, and emotionally intelligent behavior occurs when emotions do not impede effective action, or when emotions facilitate effective action. Emotional intelligence (as an ability) is one set of processes hypothesized to promote emotionally intelligent behavior. There are other potential processes, many of which will be discussed in this chapter.

Perhaps a few examples of emotionally intelligent behavior will clarify our definition. If you are anxious, does that feeling stop you from going to get a health checkup (we assume this would be inconsistent with your goal of maintaining health)? If you are very angry at your friend, do you hit him (assuming your goal is to maintain friendly relations)? If you feel sad, does this stop you from caring for a loved one (assuming you value such “care”)? These are three examples of emotionally unintelligent behavior. The processes that we specify in this chapter are hypothesized to help people act more intelligently and more effectively pursue their personal values and goals when they feel anxious, angry, or sad. Emotionally intelligent people would, according to our definition, feel anxious *and* get a health checkup, feel angry *and* treat people with respect, and feel sad *and* still support loved ones.

In our model, emotionally intelligent behavior (EIB) is presumed to reduce unnecessary suffering. Thus, reduced suffering is essentially an after-effect of people moving towards what they value (or engaging in EIB). For example, if people feel sad and continue to do the things they

value, they may be less likely to experience depression because their abilities to consistently engage in personally meaningful and vital activities would be expected to minimize depression over the long term. Similarly, if someone experiences anxiety about an upcoming test, and focuses on studying for it, rather than procrastinating, then they may be less likely to experience excess anxiety and regret. In contrast, if they try to avoid studying and avoid thinking about the test, then they may ironically experience more anxiety about the test in the long run (see section on emotional orientation, below).

Our review focuses on processes that are both presumed to promote emotionally intelligent behavior, and that can be modified by an intervention. By talking about these processes, we do not make any assumptions about whether the processes refer to either a “potential,” or a “tendency.” The ultimate purpose of everything done within our EI approach is about intervening to help people lead better, more vital lives. Thus, we are not interested in EI-relevant measures in themselves, but rather how these measures facilitate effective interventions.

Why People Seem to be so Emotionally Unintelligent—Language-Based Processes

Relational Frame Theory (RFT), a modern behavioral theory of language and cognition that has undergone rigorous empirical testing (see [2] for an initial summary of this work), suggests that psychological suffering is virtually ubiquitous in human beings primarily because of the way language works. Very briefly, RFT posits that the way we think about our experiences dramatically changes those experiences by transforming direct contingency stimulus functions—or, in other words, by pervasively altering our impressions of what is actually going on in ways that lead us to act as if the illusory world created through abstract thoughts is real.

RFT endorses the notion that, although we can only ever be completely certain that thoughts referring to phenomena we can directly perceive with our five senses are effectively “real,” we are often erroneously convinced that thoughts referring to abstract, non-sensible phenomena are just as true and accurate. For example, I can be certain that I feel anxious in the sense that I can physically sense bodily components of anxiety (rapid heart beat, tense shoulders, sweaty skin, etc.). But the evaluative thoughts that anxiety is a *bad* thing and that *there is something wrong with me* for feeling anxious, and the prescriptive thought that *I must avoid* anxiety or bad things will happen, do not refer to formal stimulus properties that can be directly sensed. Although the thoughts that there is something

wrong with me, and anxiety is bad and must be avoided, are not immutable truths, I may act as if they are, and correspondingly go to great and often counterproductive lengths to avoid anxiety.

Evaluative and prescriptive language surrounding experiences like anxiety are only the tip of the iceberg. RFT predicts that virtually any emotion or other aspect of human experience can be arbitrarily evaluated and involved in unnecessary behavioral limitations and prescriptions. In blunt language, there are virtually unlimited ways in which we can be weighed, measured, and found wanting. The hope lies in the fact that these measurements are not real.

The hallmark of an RFT-informed perspective on what makes a person emotionally intelligent thus involves an awareness of the illusory qualities of language that allow emotions and other aspects of our experience to be negatively evaluated and to participate in *apparent* causal relations with subsequent behavior. The emotionally intelligent person, from our perspective, is able to recognize unpleasant emotions for what they are: constellations of physiological sensations, thoughts, and behavioral predispositions that are not intrinsically harmful, can be fully and willingly experienced, and need not determine what is done next. The emotionally unintelligent person views the negative evaluations and prescriptive thoughts surrounding emotions as fundamentally true and behaviorally binding (e.g., if I feel angry, I must act aggressively and get revenge).

The FEAR acronym (fusion, evaluation, avoidance, reason giving), drawn from RFT-based Acceptance and Commitment Therapy (ACT [3]) describes in more detail how this kind of emotional unintelligence develops.

Fusion

In a basic sense, cognitive fusion occurs when we “take our thoughts too seriously” and assume that what we believe corresponds to immutable truths. In a more technical sense, cognitive fusion is a process that enables language’s ability to transform direct stimulus functions (to literally change the characteristics and implications of our experience).

When negative evaluations and inaccurate or dysfunctional verbal rules (referred to as “reasons” or “reason giving” in the FEAR acronym) are cognitively fused with, problems arise. When one fuses with negatively valenced evaluations of one’s experience, the stimulus functions of that experience are transformed and become correspondingly more negative or aversive than they actually “are” from the perspective of a non-verbal organism. (Or, more precisely, than they actually would be from a direct contingency perspective.) While such negative evaluations can confer an advantage (e.g., when framing one’s experience negatively

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leads oneself to successfully change unsatisfactory or unnecessarily prohibitive circumstances), they often create more aversive stimulation and harmful experiential avoidance than necessary. For example, a man who becomes depressed following a run of bad luck, and subsequently fuses with thoughts that he is hopelessly inadequate to life's challenges, is then likely to feel even worse about himself and to avoid potentially constructive challenges likely to test his worthiness.

Similarly, fusion with problematic verbal rules or "reasons" can lock one in to actions prescribed by those rules and prohibit actions discordant with them. For example, a woman who fuses with a verbal rule stating that anger must never be expressed may be ineffective at solving interpersonal conflicts because following this rule would often prohibit an open discussion of her perspective and her grievances. Thus, while fusion with evaluations and verbal rules/reasons can often confer a psychological and behavioral advantage, such fusion can often enhance psychological suffering and contribute to more maladaptive behavior as well.

Evaluation

Language allows us to create labels (such as "anxiety" and "sadness") for our internal states. Once labeled, such states can be readily evaluated, and these evaluations are very often negative [3]. When these negative evaluations are fused with, we may then try to avoid the internal states just as we avoid genuinely threatening external events. We may even verbally generate more global and abstract labels such as "our life." As it can with any other stimulus, our minds can then verbally evaluate "our life" as "worthless" and "unbearable," thereby providing the impetus for a variety of problematic behaviors designed to avoid the sizable psychological pain associated with such thoughts—substance abuse, social isolation, even suicide. Finally, language allows us to create ideals about ourselves, other people, and the world around us. Our minds 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 [4–5], and that negative self- and global evaluations play critical roles in a great number of psychological disorders, including post-traumatic stress disorder [6] and depression [7].

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 [3], [8].

The downsides to experiential avoidance are now well documented. Research has shown that when subjects are asked to suppress a thought, they later show an increase in this suppressed thought as compared with those not given suppression instructions [9]. Indeed, the suppression strategy may actually stimulate the suppressed mood in a kind of self-amplifying loop [10].

Reason Giving/Rule Creation

People learn to put forth reasons as valid and sensible causes of behavior [3]. Unfortunately, people begin to believe their own reasons and stories [3], even when they do not correspond well to actual, direct contingencies and are harmful or unproductive 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't take a risk, although experience can show them that they can take risks *and* be anxious [11].

EI-Relevant Processes Derived from the Theory

We now turn our attention to the different dimensions that we believe undermine the harmful influence of FEAR-based action and that promote emotionally intelligent behavior. For a book-length treatment of how to undermine FEAR, please see Hayes et al. [3] and other work under the heading of Acceptance and Commitment Therapy (ACT). We view Mindfulness-based Emotional Intelligence Training (MBEIT) as an ACT intervention applied to organizations.

After describing each dimension, we will review a number of individual difference measures that appear to tap into the dimensions, and discuss their relationship to well-being. The purpose of discussing the measures is not to rename old measures as "EI." We use the original names. These measures index processes that are presumed to promote emotionally intelligent behavior. Our purpose is to put a wide range of measures into a coherent theoretical framework that is tied to specific interventions.

From a functionalist perspective, the main reason to talk about these measures is because they may help to make a difference in people's lives.

Such measures may help people to evaluate which aspect of an intervention is or is not working. It may also help to identify client's strengths and weaknesses and thereby create an intervention that is tailored to each individual's needs.

□ Effective Emotional Orientation

Defining Effective Emotional Orientation

Effective emotional orientation (EEO) involves willingness to have private experiences (e.g., anxiety), when doing so fosters effective action (Table 10.1). 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 [3].

People quite reasonably avoid things in the world that are aversive. Cognitive fusion with negative evaluations exponentially increases the amount of stimuli in one's world experienced as 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. A rule of thumb regarding private experience is, "If you're not willing to have it, you have it" [3]. This is completely different from the rule of public experience. If you not willing to have something unpleasant in the public world (say, an ugly sofa), you can usually 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" members are interrelated, yet sometimes statistically separable. In general, all of the measures of EI-relevant processes described in this chapter have this family property. This chapter will focus on measures that have found empirical support from multiple, independent laboratories.

The first individual difference we discuss—EEO—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 [12–15]. It has been shown to be associated with low psychological distress and positive coping strategies, even when controlling

TABLE 10.1. Processes that are hypothesized to promote emotionally intelligent behavior

EI-relevant process	Description
Effective emotional orientation	<ul style="list-style-type: none"> • Letting go of unhelpful emotion control strategies • 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 • Understanding that private experiences do not have to stop one from pursuing a valued direction (and therefore one doesn't have to get rid of them)
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, etc. • Understanding how emotions progress over time • Distinguishing between helpful and unhelpful emotions and emotionally charged thoughts
Defusing from 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"> • Seeing that emotionally charged thoughts about life are not equivalent to life • Looking <i>at</i> emotionally charged ways of framing (thinking about) experiences, rather than <i>through</i> them • Being able to be mindful and accepting of moment to moment experience (either internal or external)
Defusing from 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"> • Recognizing that self-evaluations are not descriptions of our essence • Escaping the perceived need to defend self-esteem • Looking <i>at</i>, rather than <i>through</i>, self-evaluations • 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
Effective action orientation	<ul style="list-style-type: none"> • Clear awareness of values and their relative importance • Ability to take action that is consistent with goals and values, even in the context of: <ul style="list-style-type: none"> ◦ 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

for optimism, pessimism, positive affectivity, negative affectivity, and stressful life events [15–16]. 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 [17].

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 [18].

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 [19–20]. It has been associated with a range of negative emotional states [19]. 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 [20]. In another study utilizing the AAQ, participants high in emotional avoidance showed more anxiety in response to CO₂ (biological challenge), particularly when instructed to suppress their emotions [10].

□ Using Emotion as Information

The second dimension of our model involves the ability to use emotions as information (UEI) to inform effective action (see Table 10.1). 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 [21].

The FEAR framework suggests that we tend to evaluate our unpleasant or otherwise unwanted 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 [22]. 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. 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 highly related to Bar-On's self-report EI measure [23], 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 [24]. 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 [15]. A longitudinal study found that alexithymia predicts persistent somatization at 2-year follow-up [25].

The emotional clarity subscale of the Trait Meta-Mood Scale (TMMS) also appears to measure an aspect of using emotion as information [26]. This scale predicts how much people seem to dwell unproductively on sad thoughts [26]. 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 [27] and the Schutte et al. emotional intelligence inventory [28].

In contrast to the above scales, the Levels of Emotional Awareness Scale (LEAS) is based on performance rather than self-report [29]. People low in emotional awareness tend not to use specific emotion terms (sadness, anger) to describe their emotional experience. Instead, they focus on cognitions ("I'd feel confused"), bodily sensations ("I'd feel tired") and undifferentiated emotional states ("I'd feel bad"). Research has shown people high in emotional awareness are less likely to allow moods to bias their judgments in mood congruent directions [30]. Other research suggests that people high in emotional awareness have higher levels of social well-being. Ciarrochi et al. found that emotionally aware adults have a higher number of social supports [30]. More recently, Bajgar found that emotionally aware boys are less likely to be involved in anger outbursts and fights and emotionally aware girls are more likely to be popular with their peers [31].

We 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.

□ Defusing from Unhelpful Emotions and Thoughts

The third dimension of our model involves the ability to undermine fusion with unhelpful emotions and thoughts. Table 10.1 lists the key components of this skill (see also the above subsection on fusion).

When language processes dominate, “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” [3, p. 149].

In other words, language has the power to bring forth its own reality. The word “milk” psychologically brings forth the taste of milk, images of frothy whiteness, and even the near sensation of coldness. It is as if simply speaking or thinking of 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 [3]. People fail to distinguish between the verbal constructions and the actual experience. We sometimes see life through “horrible” colored glasses [3], [32], and when these colored sights are taken at face value, life itself can become horrible.

One key to undermining fusion is to learn to look *at* our emotionally charged thoughts, rather than *through* them. Normally, we do not even notice the process of thinking that occurs through virtually all our waking hours. Thoughts occur but are not recognized as thoughts *per se*. Rather, they are implicitly assumed to be accurate descriptions of our experiences. A first step in viewing thinking simply as behavior we engage in (rather than immutable reflections of reality) is to notice that we are indeed “creating” strings of words and to notice how these words might be coloring our perceptions of our direct experiences. This involves realizing first hand that words are simply maps of the terrain, not the terrain itself—and that these maps are often grossly inadequate.

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 us see our actual, direct experiences for what they are—streams of words and changing physical sensations and urges—rather than what our minds say our direct experiences are [3], [33]. Very often, vast differences exist

between basic experiences created by direct, non-verbal contingencies, and the confabulated versions of these same experiences created by verbal processes.

The antidote to the FEAR-based behaviors just described involve the highly interrelated processes of cognitive *defusion* and acceptance. Procedures instilling the shift in context described above instantiate this defusion and disrupt problematic transformations of stimulus function created through language. Once defusion has “de-thorned” the bushes one metaphorically stands in, it becomes easier to accept one’s position and orient toward behavior more instrumental in achieving personally held values. Some defusion and acceptance-based techniques, for example, involve those elsewhere referred to as “mindfulness.” 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, mindfully focus on what you are doing, doing what works [34]). 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 [32]. Ellis has proposed four major classes of unhelpful thoughts [32]. 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, as they are not harmful in and of themselves. 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. One must be willing to have unpleasant thoughts, and not believe them.

The last two decades have found substantial support interventions that are designed to facilitate the strategic use of defusion and acceptance. Acceptance and Commitment Therapy (ACT) is an acceptance- and defusion-based approach that addresses processes designated by the FEAR framework. There are now nearly two decades of work specifically supporting the efficacy of ACT, as well as over 60 empirical RFT studies supporting aspects of the ACT model. 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 [35–36]. ACT has also been shown to be effective at reducing stress and sick leave utilization in “normal” populations [37–38].

There is also substantial support for other acceptance or mindfulness-based interventions, including Dialectic Behavior Therapy [34], Mindfulness-based Cognitive Therapy for Depression [39], mindfulness-based meditation [40], and Mindfulness-based Stress Reduction [33]. Many other approaches have benefited by adding mindfulness and acceptance components to their inventions (for a review see [3]).

Individual Differences in Mindfulness and Fusion with Particular Types of Unhelpful Thoughts

There are several scales related to this 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 [41].

The Dysfunctional Attitudes Scale (DAS [42]) is commonly used in clinical practice and measures the extent people believe, or fuse with, certain unhelpful thoughts. It can be divided into two dimensions [43–44]. The first dimension is about the “dire need” for power and success, and includes beliefs that relate to perfectionism (being perfectly achieving), performance evaluation, not seeming weak, and a need for admiration and control. The second dimension relates to acceptance, and includes feeling a “dire need” for social acceptance, love, and approval. The DAS (and similar scales) have been shown to relate to well-being, discriminate between clinical and non-clinical groups, and predict changes in well-being in a longitudinal design [43–44]. In addition, there is evidence that reduction in dysfunctional beliefs due to clinical interventions are associated with reductions in disturbing emotional states [42], [45–46].

Another group of measures reflect unhelpful beliefs about uncertainty (e.g., “that uncertainty is awful or intolerable”). These include measures of intolerance of uncertainty [47], rigidity [48], and intolerance of ambiguity [49]. These measures have been shown to relate to depression and anxiety in both clinical and normal populations [47], [50].

Finally, individual differences in rumination seem to reflect high fusion. Rumination can be measured using self-reports measures such as the Emotion Control Questionnaire [51]. Ruminators seem to be stuck in their thoughts, engaging in repetitive and passive thinking about a problem [52]. 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 [47]). It has been associated with a range of emotional difficulties, including anger and depression [53–54]. 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 [54–56]. High rumination has also been associated with delayed recovery from stress, as indicated by delayed heart rate and physiological (cortisol) recovery [57–58].

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 [59]. 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 found across several studies that higher mindfulness scores were modestly associated with higher self-reported emotional intelligence and lower rumination [41]. Dugas and his colleagues found that intolerance of uncertainty is related to ruminative activity [59]. More recently, Godsell and Ciarrochi found that the measures discussed in this section and other sections all tend to correlate, sometimes substantially [60].

It is also worth noting that these measures tend to correlate with neuroticism, or the tendency to experience negative affect [59], [61–62]. 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 paper 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 some extent, the two personality traits, positive and negative affectivity, are just two imperfect indices of suffering. They don't necessarily provide clues as to what one does about suffering.

Defusing Self-Concepts

The last aspect of our model involves the ability to free oneself, at least briefly, from fusion with unhelpful self-concepts (see Table 10.1). Humans develop a concept of self. The mind then proceeds to evaluate it. We readily evaluate this “self” as “good,” “bad,” “kind,” “flawed,”

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“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 formal or direct property of the cup—a property that can be directly perceived by one of the five senses. “Roundness” or “hardness” can be said to be a formal property of the cup, but abstract notions like “badness” or “goodness,” with no directly perceivable physical referent, cannot be considered a formal property of the cup. Similarly, abstract verbalizations like “bad” or “good” cannot be said to be an innate property of the “self.” While logical or pseudo-logical arguments might conclude that one is “bad,” such an abstraction relies on arbitrary (but conventionalized) criteria and thus is not as uniformly verifiable as one’s physical properties and attributes.

This apparently philosophical distinction between formal (physical sensible) and abstract stimulus properties actually has some vital and pertinent implications for human suffering. If abstractions inherent to negative evaluations and problematic verbal rules literally do not have concrete physical referents like those that formally descriptive words have, then these abstractions are not formally binding. The universe does not know or care if one is “bad” or “good” because the concepts of badness and goodness are simply verbal constructions. They are not immutable truths, but rather are verbal illusions that need not have a binding domination over one’s life. Yet humans tend to confuse the nebulous quality of evaluations (“I’m bad”) with the solidity of formal descriptions (“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 [3], [32].

Problems arise when people come to identify with unhelpful self-concepts. Whatever verbal concept of “me” I have becomes, for all practical purposes, the equal of the actual “me.” People are then drawn into protecting the concept of self as if it is part of the self [3]. They seek to feed it, or defend it against attack. People begin to 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 these evaluations. In other words, one could have a negative self-evaluation yet 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 words that may 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 [4]. Self esteem is often measured using a self-report scale by Rosenberg [63]. It also appears to be measured by the Bar-On emotional quotient inventory [64].

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 [65–66]. For example, the Narcissist Personality Inventory (NPI) assesses a person's sense grandiosity, self-importance, and specialness [67]. 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 [68].

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 [65]. 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 [65]. Other research shows that unstable self-esteem is associated with goal-related affect characterized by greater tenseness and less interest [69].

Effective Action Orientation

Effective action orientation (EAO) involves the ability to take value-congruent action in the context of strong emotions and self-doubts. It also involves the ability to sustain this action even in the face of inconsistent feedback, frustration, and failure (see Table 10.1).

Measuring Effective Action Orientation

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 [70].

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 [71]. 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 [71–73].

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” [70, p. 274]. This conceptualization of self-control runs contrary to MBEIT, which suggests that one does not have to change one’s inner responses to act effectively [3]. 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 this 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 [70].

Self-control can be measured using behavioral tasks, as well as the self-report measures described above. Specifically, a substantial amount of developmental research has looked at children’s ability to delay gratification in particular situations [74–76]. For example, one study offered adolescents \$7 immediate payment or \$10 one week later [76]. 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, pre-school children were offered the choice of one marshmallow immediately versus two at a later time. This task predicted performance 10 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 [74].

MBEIT and Other EI Frameworks

The MBEIT model seeks to specify the causes or “normal” human suffering that are expected to be relevant to every language able human being (see above paragraphs on FEAR). Much of the theory and evidence for MBEIT comes from the clinical domain. It’s distinctive emphasis is on intervening to improve emotional functioning.. It does not seek to specify how emotional information is processed, unless such a specification is of direct relevance to an intervention.

In contrast, Mayer's Ability model of EI (see Chapter 1 in this volume) developed out of basic research in emotion and in intelligence. Their theory seeks to specify how emotional information processing occurs and can be located within a mechanistic philosophical framework (see Chapter 2 in this volume). One key premise of this framework is that if the information processing and emotions systems can be understood, then it will help researchers to plan interventions.

Finally, there are a number of empirically driven models of emotional intelligence, most notably that of Bar-On [64] and Goleman [77]. These approaches have used research and past experience to identify emotionally relevant characteristics that appear to be useful for people at work, in relationships, and other domains. For example, Goleman's model [77] includes such characteristics as impulse control, hope, enthusiasm, social adroitness, and character. Bar-On's model [64] includes empathy, social responsibility, flexibility, problem solving, and happiness.

At the conceptual level, there is remarkably little overlap between the major approaches. For example, value-laden dimensions such as "character" and "social responsibility" are found in the empirically driven models, but not in MBEIT or ability-based models. The approaches also differ in their emphasis on measuring ability versus measuring typical performance (MBEIT and empirical approaches). One may in principle have a high potential to act effectively, but often fail to do so (e.g., when one is not motivated to do so).

We believe that the different approaches may have the ability to inform each other. MBEIT may suggest dimensions of optimal performance that are not currently measured by the Mayer's ability-based measure of EI (the MSCEIT). For example, the future MSCEIT may measure the ability to act effectively even when experiencing strong emotion and impulses (termed "effective action orientation" in our approach). Similarly, the ability-based approach may suggest useful directions for interventions that are not currently captured in the MBEIT model. For example, one might examine how to improve the "emotional facilitation" dimension of Mayer's ability model. There is certainly much integrative research that still needs to be done.

□ Conclusions

We have presented a framework, which captures the core processes (FEAR) that are proposed to underlie emotionally unintelligent behavior and suffering. This framework helps to organize a substantial amount of individual difference research, and structure it in such a way that it can be linked to a coherent theory. 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.

Importantly, this framework allows one to connect each of the individual difference measures to a coherent intervention strategy [3]. The measures may be useful in guiding the intervention strategies (e.g., in specifying what processes most needs to be targeted). They may also be useful in measuring progress in the intervention. Future research is needed to evaluate these possibilities.

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