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CHAPTER 26

Emotional Intelligence

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Emotional Intelligence at 20 Years

A comprehensive initial theory of emotional intelligence (EI) and a preliminary demonstration that it could be measured appeared 20 years ago in the scientific literature (Mayer, Salovey, & DiPaolo, 1990; Salovey & Mayer, 1990). In the 2000 edition of the *Handbook of Intelligence* we defined emotional intelligence as

> *the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others. (Mayer, Salovey, & Caruso, 2000, p. 396; see also Mayer & Salovey, 1997)*

Today, EI is conceived of in much the same way by many investigators, and there is a much better sense of what EI is, how it can be measured, and what it predicts than there was two or even one decade ago. Although alternative uses of the term EI exist, they are more likely to refer to a group of diverse positive traits and competencies, not all having to do with emotions, intelligence, or their intersection. There is increasing recognition that this latter use of the term *emotional intelligence* is confusing (e.g., Daus & Ashkanasy, 2003).

Emotional Intelligence Over 20 Years

Before the 1990 articles on emotional intelligence, the term was used on a mostly occasional and inconsistent basis. A literary critic commented that some of Jane Austen's characters exhibited an "emotional intelligence" (Van Ghent, 1953). In a prefeminist German article on motherhood, the author speculated that women might reject their roles as housewives and mothers due to a lack of emotional intelligence (Leuner, 1966). (We note that Leuner proposed LSD as a treatment for such women!) A more focused approach appeared in a dissertation by Payne (1986), who argued that "the mass suppression of emotion throughout the civilized world has stifled our growth emotionally."

In addition to these uses of the term, a number of related concepts also emerged

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by the late 20th century. Influenced by the Hindu yogic traditions, Carl Jung (1921) suggested that some people used a *feeling function* to understand the world: thinking with their hearts. Much later, Steiner (1984) proposed the existence of *emotional literacy* and argued that greater emotional awareness could improve a person's well-being (see also Steiner, 1986, 2003; Steiner & Perry, 1997). Saarni (1990, 1997) argued for a general emotional competence and proposed a model for tracking its development in children (Saarni, 1990, 1997, in press). In the intelligence tradition, Gardner (1993) proposed an *intrapersonal intelligence* that was especially focused on the awareness of feelings.

Relevant empirical work emerged as well. Investigators studying nonverbal perception had begun to examine people's accuracy at recognizing emotions in facial expressions and bodily postures (e.g., Buck, 1984; Rosenthal et al., 1979). And a number of researchers became interested in how emotions influence thought and vice versa (see reviews by Matthews et al., 2002; Mayer, 2000; Oatley, 2004). Our own model of emotional intelligence emerged in the context of these related lines of work.

Within a few years after publication of our initial articles in 1990, a book about EI written for a general audience appeared, selling millions of copies worldwide (Goleman, 1995). The book covered much of the literature reviewed in the aforementioned articles as well as considerable additional research on emotions and brain function, emotions and social behavior, and school-based programs designed to help children develop emotional and social skills.

Goleman's book emphasized earlier comments we had made concerning how people with emotional intelligence might be more socially effective than others in certain respects (Salovey & Mayer, 1990). Particularly strong claims were made as to emotional intelligence's contribution to the individual and society (Goleman, 1995, p. xii). This combination of science and human potential attracted extensive media coverage, culminating, perhaps, when *Time* magazine asked the question "What's your EQ?" on its cover, and stated:

> *It's not your IQ. It's not even a number. But emotional intelligence may be the best predictor of success in life, redefining what it means to be smart. (*Time, *1995)*

In short order, the phrase "emotional intelligence" became widely known, appearing in many magazine and newspaper articles (e.g., Bennetts, 1996; Henig, 1996; Peterson, 1997), books (e.g., Cooper & Sawaf, 1997; Gottman, 1997; Salerno, 1996; Segal, 1997; Shapiro, 1997; Simmons & Simmons, 1997; Steiner & Perry, 1997; Weisinger, 1997), and even in popular comic strips, Dilbert (Adams, 1997) and Zippy the Pinhead (Griffith, 1996). Although the phrase was widely disseminated, its exact meaning often became distorted, and discussions in the popular media were rarely rooted in the scientific literature on the topic.

The first portion of this chapter reviews the concept of emotional intelligence. Some attention is paid to what is meant by the terms *emotion*, *intelligence*, and *emotional intelligence*. A distinction is drawn between models of emotional intelligence that focus on mental abilities and alternative models that, increasingly, are recognized as speaking more generally of personality. Measures of emotional intelligence are examined in the chapter's second section. Findings concerning what emotional intelligence predicts are the topic of the chapter's third section. And finally, we take a look forward in the general discussion.

Theoretical Considerations

The Terms Emotion *and* Intelligence

Theories should be internally consistent, make meaningful use of technical language, and provide the basis for useful predictions. One issue in studying emotional intelligence is that some theories pertain to emotions and intelligence, whereas others seem far broader. Therefore, it is worth examining the constituent terms, *emotion*, *intelligence*, and their combination at the outset.

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CONCEPTIONS OF EMOTION

Emotions are recognized as one of three or four fundamental classes of mental operations. These classes include motivation, emotion, cognition, and (less frequently) consciousness (Bain, 1855/1977; Izard, 1993; MacLean, 1973; Mayer, 1995a, 1995b; Plutchik, 1984; Tomkins, 1962; see Hilgard, 1980; Mayer, Chabot, & Carlsmith, 1997, for reviews). Among the triad of motivation, emotion, and cognition, basic motivations arise in response to internal bodily states and include drives such as hunger, thirst, need for social contact, and sexual desires. Motivations are responsible for directing the organism to carry out simple acts so as to satisfy survival and reproductive needs. In their basic form, motivations follow a relatively determined time course (e.g., thirst rises until quenched) and are typically satisfied in a specific fashion (e.g., thirst is satisfied by drinking fluids).

Emotions form the second class of this triad. Emotions appear to have evolved across mammalian species so as to signal and respond to changes in relationships between the individual and the environment (including one's imagined place within it). For example, anger arises in response to perceived threat or injustice; fear arises in response to perceived danger. Emotions respond to perceived changes in relationships. Moreover, each emotion organizes several basic behavioral responses to the relationship; for example, fear organizes freezing or fleeing. Emotions are therefore more flexible than motivations, though not quite so flexible as cognition.

Cognition, the third member of the triad, allows the organism to learn from the environment and to solve problems in novel situations. This is often in the service of satisfying motives or keeping emotions positive. Cognition includes learning, memory, and problem solving. It is ongoing, and involves flexible, intentional information processing based on learning and memory (see Mayer et al., 1997, for a review of these concepts).

The term *emotional intelligence*, then, implies something having to do with the intersection of emotion and cognition. From our perspective, evaluating theories of emotional intelligence requires an assessment of the degree to which the theory actually pertains to this intersection.

CONCEPTIONS OF INTELLIGENCE

An intelligence researcher was invited mistakenly to a conference on military intelligence by someone who noticed he was an expert on intelligence – but did not notice the kinds of intelligence he studied.[1] Howard Gardner (1997) uses this true story about himself to make the point that *intelligence* is used differently by different people. Although we acknowledge different meanings of the term, we also believe intelligence possesses a core meaning in the sciences. Artificial intelligence, human intelligence, even Offices of Military Intelligence all imply gathering information, learning about that information, and using it to guide reasoning and solve problems. Human and artificial intelligence both imply a mental ability associated with cognitive operations. The mental ability model was represented in pure form by Terman (1921, p. 128), who stated, "An individual is intelligent in proportion as he is able to carry on abstract thinking." In fact, symposia on intelligence over the years repeatedly conclude that the first hallmark of intelligence is the capacity to carry out valid abstract reasoning (Sternberg, 1997).

Intelligence, conceptualized as abstract thinking, has often been demonstrated to predict one or another type of success, particularly academic success. But although it is a potent predictor, it is far from a perfect one, leaving the vast amount of variance

1 The problem of the meaning of intelligence is an old one in the field and should not discourage us. Spearman (1927, p. 24) noted:

> The most enthusiastic advocates of intelligence become doubtful of it themselves. From having naively assumed that its nature is straightway conveyed by its name, they now set out to discover what this nature really is. In the last act, the truth stands revealed, that the name really has no definite meaning at all; it shows itself to be nothing more than a hypostatized word, applied indiscriminately to all sorts of things.

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in successful behavior unexplained. As Wechsler (1940, p. 444) put it, "individuals with identical IQs may differ very markedly in regard to their effective ability to cope with the environment." One way to regard this limitation is to view human life as naturally complex and as subject both to chance events and to complicated interactions. A second approach is to search for better ways to assess intelligence (e.g., Sternberg, 1997). A third approach is to attribute the difference to a combination of nonintellective factors, such as personality traits. These approaches are all complementary and have all been used with different degrees of effectiveness in enhancing psychological predictions of positive outcomes.

Note, however, that there is a fourth alternative to dealing with limitations of IQ's predictive ability. That is to redefine intelligence itself as a combination of mental ability and personality traits. This approach seems very unsatisfactory because it overrides a century of conceptual usage of the term *intelligence*. Labeling nonintellectual characteristics intelligence potentially obscures their meaning (cf. Salovey & Mayer, 1994; Sternberg, 1997). Scarr (1989) notes that goodness in human relationships, athletic ability (i.e., kinesthetic ability), and certain talents in music, dance, and painting have all been labeled intelligence at one time or another. She cautions, however, that "to call them intelligence does not do justice either to theories of intelligence or to the personality traits and special talents that lie beyond the consensual definition of intelligence" (p. 78). Nonetheless, some investigators in the emotional intelligence field have proposed this approach – and we cover them briefly in the section on what we term *mixed models*.

Emotional Intelligence

Both in Western history and in psychology, emotions and reasoning sometimes have been viewed in opposition to one another (e.g., Schaffer, Gilmer, & Schoen, 1940; Publilius Syrus, 100 BCE/1961; Woodworth, 1940; Young, 1936). The contemporary view that emotions convey information about relationships, however, suggests that emotions and intelligence can work hand in hand. Emotions reflect relationships between a person and a friend, a family, the situation, a society, or more internally, between a person and a reflection or memory. For example, joy might indicate one's identification with a friend's success; sadness might indicate disappointment with one's self. Emotional intelligence refers in part to an ability to recognize the meanings of such emotional patterns and to reason and problem solve on the basis of them (Mayer & Salovey, 1997; Salovey & Mayer, 1990).

ABILITY MODELS: SPECIFIC AND INTEGRATIVE

Intelligences are mental abilities, and in the emotional intelligence area, some research focuses on specific abilities related to emotional intelligence, and other research examines many abilities together. Specific-ability models examine a particular realm of emotional intelligence in depth – for example, perceiving emotion in faces. Global ability models look at the general overall pattern of EI. Parallel to such approaches, the emotional intelligence area has given rise to tools for assessment that focus on specific areas and global areas. Specific measures examine just the recognition of emotions in faces, or solely the capacity to be aware of subtle emotional meanings; as such, the specific approaches have the advantage of assessing EI in depth in a particular area and understanding how a person reasons about a given subject matter. Integrative models better allow for an overview of how the parts of EI fit together to form an overall intelligence.

AN EXAMPLE OF AN INTEGRATIVE APPROACH

In this section, we examine an integrative approach to emotional intelligence, the Four-Branch Model of Emotional Intelligence (Mayer & Salovey, 1997). An integrative approach can provide a reasonable first overview of an area because it draws together examples of the specific areas that make up reasoning about emotions

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and emotional information. For reviews of specific-ability areas, the reader is referred to Matsumoto et al. (2000) and Roseman & Evdokas (2004) for examples involving facial emotion recognition and emotional appraisal, respectively.

To return to the integrative approach, as we now view it, emotional intelligence draws together emotional abilities from four classes or branches, as shown in Table 26.1. (The specific skills listed in Column 1 are meant to be representative; there are other skills that could be included on each branch as well as the ones shown.) The most basic skills involve the perception and appraisal of emotion. For example, early on, an infant learns to perceive emotions in facial expressions. The infant cries in distress, or smiles in joy, and watches her reaction mirrored in the parent's face, as the parent empathically reflects those feelings. As the child grows, he or she discriminates more finely among genuine versus merely polite smiles and other gradations of expression. People also read emotional information in the objects they encounter, interpreting emotionally the expansiveness of a dining hall, or the stoicism of a simple and spare Shaker chair (cf. Arnheim, 1974).

The second set of emotional intelligence skills involves using emotional experiences to promote thinking, including weighing emotions against one another and against other sensations and thoughts, and allowing emotions to direct attention. For example, a manager may use a low-energy emotion to help her focus on the detailed editing of a budget spreadsheet.

The third branch involves understanding and reasoning about emotions and using language to describe them. The experience of specific emotions – happiness, anger, fear, and the like – is rule-governed. Anger generally rises when justice is denied; fear often changes to relief; dejection may separate us from others. Sadness and anger "move" according to their own characteristic rules, just as the knight and bishop on a chessboard move in different ways. Consider a woman who is extremely angry and an hour later ashamed. It is likely that certain events in particular may have intervened: she might have expressed her anger more forcefully than she intended, or discovered she falsely believed that a friend had betrayed her. Emotional understanding involves the ability to recognize the emotions, to know

Table 26.1 Overview of a Integrative-Model Approach to Emotional Intelligence

"Emotional intelligence is the set of abilities that account for how people's emotional perception and understanding vary in their accuracy. More formally, we define emotional intelligence as the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others" (after Mayer & Salovey, 1997).

	Examples of Specific Areas
Perception and Expression of Emotion	Identifying and expressing emotions in one's physical states, feelings, and thoughts.
	Identifying and expressing emotions in other people, artwork, language, etc.
Assimilating Emotion in Thought	Using emotions to prioritize thinking in productive ways
	Generating emotions as aids to judgment and memory
Understanding and Analyzing Emotion	Labeling emotions, including complex emotions, and recognizing simultaneous feelings
	Understanding relationships associated with shifts of emotion
Reflective Regulation of Emotion	Staying open to feelings
	Being able to reflectively monitor and regulate emotions to promote emotional and intellectual growth (after Mayer & Salovey, 1997, p. 11)

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how they unfold, and to reason about them accordingly.

The fourth branch of emotional intelligence involves the management and regulation of emotion in oneself and others, such as knowing how to calm down after feeling angry or being able to alleviate the anxiety of another person. Tasks defining these four branches are described in greater detail in the section concerning scale development below.

This mental ability model of emotional intelligence makes predictions about the internal structure of the intelligence, and also its implications for a person's life. The theory predicts that emotional intelligence is, in fact, an intelligence like other intelligences in that it meets three empirical criteria. First, mental problems have right or wrong answers, as assessed by the convergence of methods for scoring the correctness of an answer. Second, the measured skills correlate with other measures of mental ability (because mental abilities tend to intercorrelate), and correlate moderately with socioemotional traits hypothesized to promote or covary with higher emotional intelligence, including agreeableness, empathy, and openness (the latter trait correlates generally with intelligences; Mayer, DiPaolo, & Salovey, 1990; Mayer, Roberts, & Barsade, 2008). Third, the absolute ability level at emotional problem solving rises with age into middle adulthood.

The model further predicts that emotionally intelligent individuals are more likely to (1) have been raised by socioemotionally sensitive parents, (2) be able to communicate and discuss feelings, (3) be nondefensive more generally, (4) be able to cope with emotions effectively and, if desirable, (5) develop expert knowledge in a particular emotional area such as aesthetics, moral or ethical responsiveness, social problem solving, leadership, or spiritual feeling (Mayer & Salovey, 1995).

For us, the limits of EI correspond to basic problem solving that centers on emotional reasoning itself. There are likely other, important abilities that blend into emotional intelligence. For example, recognizing cultural differences in emotional expression is related to EI but might better be considered an aspect of cultural intelligence because the information is as relevant to sociocultural as to emotional understanding (e.g., Earley & Ang, 2003). Although these related abilities are not part of our model, they likely overlap with EI.

Models Labeled "Emotional Intelligence"

BACKGROUND TO MIXING INTELLIGENCE(S) WITH PERSONALITY TRAITS

In addition to models of emotional intelligence, there are models labeled "emotional intelligence" but that include many nonintelligence qualities and traits that, to our minds, more clearly belong to other areas of personality. The idea of mixing intelligence with other factors surely is not new. No less an eminent figure than David Wechsler (1943, p. 103) wondered "whether nonintellective, that is, affective and conative [motivational] abilities are admissible as factors in general intelligence." He suggests that such traits might be. A few sentences thereafter, however, he qualifies the notion: they predict intelligent *behavior* (as opposed to being a part of intelligence per se). Wechsler straddled the fence, as it were. On the one hand, he at times defined intelligence as involving "the aggregate or global capacity of the individual to act purposefully, to think rationally and to *deal effectively with his environment*" (italics added; Wechsler, 1958, p. 7). On the other hand, the intelligence tests that carry his name focus on measuring mental abilities.

MIXED MODELS: SETS OF PERSONALITY CHARACTERISTICS INCLUDING SOME RELATED TO EMOTIONAL INTELLIGENCE

After Wechsler's work, the matter seems to have been settled to most people's satisfaction: Intelligence is a mental ability. However, some people doing work on emotional intelligence have generated mixed models: that is, personality characteristics mixed in with the abilities of emotional intelligence. We acknowledge that

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our first articles on emotional intelligence could have been construed in such a manner (e.g., Mayer, DiPaolo, & Salovey, 1990; Salovey & Mayer, 1990). Although (to us) these articles set out a clear mental ability conception of emotional intelligence, they also freely described personality characteristics that might accompany such an intelligence. Emotional intelligence was said to distinguish those who are "genuine and warm . . . [from those who] appear oblivious and boorish." Emotionally intelligent individuals were also said to exhibit "persistence at challenging tasks' and have "positive attitudes toward life . . . that lead to better outcomes and greater rewards for themselves and others" (Salovey & Mayer, 1990, pp. 199–200). We ourselves may have seemed to mix clear mental abilities with their outcomes and consequences in these initial articles.

Almost immediately after these initial articles on emotional intelligence appeared, we recognized that it was crucial to distinguish more clearly the mental ability concept from its outcomes. Although traits such as warmth and persistence are important, we believe they are better addressed directly, and as distinct from emotional intelligence (Mayer & Salovey, 1993, 1997).

Whether or not our own early writings contributed to the confusion, Goleman's (1995) account of emotional intelligence included a number of personality qualities clearly outside the realm of the intelligences. The five areas Goleman lists are depicted in the first column of Table 26.2, including (1) knowing one's emotions, (2) managing emotions, (3) motivating oneself, (4) recognizing emotions in others, and (5) handling relationships. Each area is further divided. Goleman's specific attributes under motivation, for example, include marshaling emotions, delaying gratification, and entering flow states (Goleman, 1995, p. 43). Even though this was a journalistic account rather than a scientific work, Goleman recognized that he was moving from emotional intelligence to something far broader. He states that "'ego resilience,' . . . is quite similar to [this model of] emotional intelligence" in that it includes social (and emotional) competencies (Goleman, 1995, p. 44). He noted, "There is an old-fashioned word for the body of skills that emotional intelligence represents: *character*" (Goleman, 1995, p. 285).

Goleman (1995) also appeared to make extraordinary claims for the predictive validity of his mixed model. Emotional intelligence, he argued, would confer:

> *an advantage in any domain in life, whether in romance and intimate relationships or picking up the unspoken rules that govern success in organizational politics. (Goleman, 1995, p. 36)*

Arguing that "at best, IQ contributes about 20% to the factors that determine life success," he seemed to us and to others to imply that emotional intelligence would account for much of the "80% [left] to other factors" (Goleman, 1995, p. 34). " What data exist," Goleman wrote of emotional intelligence, "suggest it can be as powerful, and at times more powerful, than IQ." The misimpressions created by these arguments have been addressed by Goleman in an excellent introductory chapter to the 10th anniversary edition of his book (Goleman, 2005).

In the earlier edition of this chapter (Mayer, Salovey, & Caruso, 2000), and in several other articles, we described in considerable detail why his claims were not only unsupported by the evidence, but deeply implausible (Mayer, 1998; Mayer & Cobb, 2000; Mayer & Salovey, 1997). In the 10th anniversary edition of his book, Goleman (2005) said he had been misunderstood and acknowledged that such ideas were unrealistic. It is understandable that a book on EI written for the general public would stretch the boundaries of available empirical findings to make a point. It is also understandable that the popular media might embrace such claims. As we see it, however, other scientists should have employed a more critical eye regarding such a loose rendering of a scientific construct.

A number of ensuing mixed models using the name *emotional intelligence* appeared. For

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Table 26.2 Evolution of the Journalistic Account of "Emotional Intelligence"

Goleman (1995) *Overall Definition(s)*	*Bar-On (1997)* *Overall Definition*	*Petrides and Furnham (2003)* *Overall Definition*
"the abilities called here *emotional intelligence*, which include self-control, zeal and persistence, and the ability to motivate oneself" (Goleman, 1995, p. xii). [. . . and . . .] "There is an old-fashioned word for the body of skills that emotional intelligence represents: *character*" (Goleman, 1995, p. 28). Major Areas of Skills and Specific Examples *Knowing One's Emotions* *recognizing a feeling *as it happens* *monitoring feelings from moment to moment *Managing Emotions* *handling feelings so they are appropriate *being able to soothe oneself *being able to shake off rampant anxiety, gloom, or irritability *Motivating Oneself* *marshaling emotions in the service of a goal *delaying gratification and stifling impulsiveness *being able to get into the "flow" state *Recognizing Emotions in Others* *having empathic awareness *being attuned to what others need or want *Handling Relationships* *having skill in managing emotions in others *interacting smoothly with others	"Emotional intelligence is . . . an array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Bar-On, 1997, p. 14). Major Areas of Skills and Specific Skills *Intrapersonal Skills* *Emotional self-awareness *Assertiveness *Self-Regard *Self-Actualization *Independence *Interpersonal Skills* *Interpersonal relationships *Social responsibility *Empathy *Adaptability Scales* *Problem solving *Reality testing *Flexibility *Stress-Management Scales* *Stress tolerance *Impulse control *General Mood* *Happiness *Optimism	"a constellation of emotion-related self-perceptions and dispositions, assessed through self-report. The precise composition of these self-perceptions and dispositions varies across different conceptualizations, with some . . . being broader than others" (Petrides & Furnham, 2003, p. 40). Major Areas of Skills and Specific Skills *Adaptability *Assertiveness *Emotional appraisal (self and *others) *Emotion expression *Emotion management (others) *Emotion regulation *Impulsiveness *Relationship skills *Self-esteem *Self-motivation *Social competence *Stress management *Trait empathy *Trait happiness *Trait optimism (Petrides & Furnham, 2001, p. 428)

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example, Bar-On's (1997) model of emotional intelligence was intended to answer the question "Why are some individuals more able to succeed in life than others?" A more recent model by Petrides and Furnham (2001, 2003) seems to cover much the same ground. Other, similar approaches have been proposed (e.g., Tett, Fox, & Wang, 2005). Two of these models are summarized in Table 26.2. For example, in his self-report assessment, Bar-On included such characteristics as emotional self-awareness, assertiveness, self-regard, self-actualization, and independence.

ARE MIXED MODELS OF EMOTIONAL INTELLIGENCE REALLY EMOTIONAL INTELLIGENCE?

Mixed models have come in for a good deal of criticism in the psychological literature. Referring specifically to Goleman's (1998) model of emotional intelligence, Locke (2005) referred to it as "preposterous." In fairness, however, Goleman writes as a journalist, not as a scientist. The 2008 *Annual Review of Psychology* coverage of the field concluded the concept of mixed models was questionable (Mayer, Roberts, & Barsade, 2008). Perhaps more important, recent reviews increasingly reflect the idea that the measurement project emanating from such models has failed (Daus & Ashkanasy, 2003; Grubb & McDaniel, 2007; Mayer, Roberts, & Barsade, 2008; Mayer, Salovey, & Caruso, 2008; Zeidner, Roberts, & Matthews, 2008). We will discuss these problems briefly later in this chapter.

The problem is that the concept of mixed-model emotional intelligence is unmoored from the twin concepts of emotion and of intelligence. Recall that Goleman (1995) acknowledges that his model is little different from Block and Block's (1980) model of ego-strength. Petrides and Furnham (2003) acknowledge the content overlap between what they are discussing and the Big Five personality traits. The Big Five are often-measured traits including Extraversion-Introversion, Stability-Neuroticism, Openness-Closedness, Conscientiousness-Carelessness, and Agreeableness-Disagreeableness (e.g., Goldberg, 1990); they seem to have little to do with emotional intelligence. These mixed models, unmoored from the concepts of "emotion" and "intelligence," also have included concepts of constructive thinking (Epstein & Meier, 1989), ego strength (Block & Block, 1980), social desirability (Paulhus, 1991), social insight (Chapin, 1967), and many other constructs.

The Measurement of Emotional Intelligence

Mental ability models of emotional intelligence, as well as mixed models, have prompted the construction of instruments to measure emotional intelligence. Mental ability models of emotional intelligence are most directly assessed by ability measures. Ability measures have the advantage of representing an individual's performance level on a task. We deal with those here, reserving a brief section later for mixed-model measures.

Measures of Emotional Intelligence

EARLY WORK

Emotional Intelligence Measurement before Emotional Intelligence Theory We refer readers to our chapter in the original *Handbook* for an examination of the early measures that led up to contemporary work in emotional intelligence research (Mayer, Salovey, & Caruso, 2000). That earlier chapter examines precursor specific-ability measures related to perceiving emotion. Included were a number of scales of the nonverbal assessment of emotion, for example, of faces (Buck, 1976; Campbell, Kagan, & Krathwohl, 1971; Kagan, 1978; Rosenthal et al., 1979), as well as some additional background on our own work in developing measures of emotional intelligence.

In the past 20 years, a great number of improved, revised ability scales of EI have been introduced and we briefly outline them here. As with models of emotional intelligence more generally, ability scales

P1: PHB Trim: 7in × 10in Top: 0.5in Gutter: 0.875in
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of EI can be divided into "specific-ability" measures and "integrative-model" measures. Specific-ability tests focus on a single area or subarea of emotional intelligence and the integrative-model approach involves tests that span several different ability areas of emotional intelligence. Here, we describe several examples of such scales.

EXAMPLES OF SPECIFIC-ABILITY MEASURES

Perhaps the most highly developed area of specific-ability measurement in emotional intelligence concerns assessments of people's abilities to discern emotional facial expressions. Among these measures, perhaps the most widely used group is the Diagnostic Analysis of Nonverbal Accuracy (DANVA) tests developed by Nowicki and colleagues (e.g., Nowicki & Carton, 1993; Pitterman & Nowicki, 2004). The different versions of these tests measure people's abilities to assess emotions in faces, posture, and auditory perception. For example, in the adult faces version of the test, participants are exposed to a series of 24 faces divided among basic emotions and equated for gender. Then, they must indicate the emotion present in the given face. Another relatively recent scale of note in this area is the Japanese and Caucasian Brief Affect Recognition Test (JACBART; Matsumoto et al., 2000).

Beyond the emotion-in-faces area, recent additions to ability scales have appeared in the areas of understanding emotions and emotion management. These include the Situational Test of Emotional Understanding (STEU) and the Situational Test of Emotion Management (STEM; MacCann & Roberts, 2008). The STEU asks questions about a person's ability to appraise and react to complicated emotional situations. Some questions are phrased to be low in context while others are higher in context. An example of a low-context item is this:

> *An unwanted situation becomes less likely or stops altogether. The person involved is most likely to feel: (a) regret, (b) hope, (c) joy, (d) sadness, (e) relief. (MacCann & Roberts, 2008, p. 542)*

High context items are similar but add in specifics, for example,

> *A supervisor who is unpleasant to work for leaves Alfonso's work. Alfonso is most likely to feel . . . ? (McCann & Roberts, 2008, p. 542)*

Answers to the STEU are keyed to an emotional appraisal theory developed by Roseman (2001); the correct answer for the question above in Roseman's system is "(e) relief."

The STEM focuses on emotion management, as opposed to the STEU's focus on understanding. The STEM, a situational judgment task type of assessment, presents brief vignettes to people; then, correct answers as to management are keyed to responses indicated by two expert groups who answered the scale.

EXAMPLES OF INTEGRATIVE-MODEL MEASURES

Integrative-model measures are similar to specific-ability measures described earlier, but rather than measure just one area of emotional intelligence, they measure multiple areas. As such, they generally are longer and more comprehensive than specific-ability measures. Schultz and Izard's Assessment of Children's Emotion Skills, or ACES (e.g., Schultz et al., 2001), measures children's abilities to assess emotions in pictures of faces, understand the emotions generated by social situations, and appreciate the emotions stemming from social behavior. It has been successfully used in a number of research studies (one to be described in the section, "Examples of EI Research").

In our own laboratory, we have developed the Mayer-Salovey-Caruso Emotional Intelligence Test or MSCEIT. The MSCEIT is a 141-item scale that measures (1) perceiving emotions, (2) using emotions to facilitate thought, (3) understanding emotions, and (4) managing emotions: four areas corresponding to the four branches of our model. Each branch contains two tasks. The perceiving-emotions area, for example, is divided into "faces" and "pictures" tasks. In the "faces" task, test takers view a series of

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faces and respond as to how much a specific emotion (e.g., sadness, fear, happiness, etc.) might be present, using a 5-point scale for each emotion. "Pictures" is similar except that abstract images and landscape photos are employed in place of faces.

The facilitation area is measured with "sensations" and "facilitation" tasks. For the sensations task, for example, test takers are asked to generate a moderate level of an emotion (e.g., joy) and then to match sensations such as a sweet taste or a cool temperature to those feelings. The facilitation task asks participants to match a mood to the kind of thinking it might enhance.

The understanding emotions area is measured by "blends" and "changes." In the blends task, participants match combinations of basic emotions to more complex blends: for example, "anger" and "disgust" might match reasonably closely to "contempt." In the changes task, one kind of item asks what emotion might result if another emotion were intensified (e.g., intensified frustration might lead to rage).

The management area is assessed by emotion management and emotional relationship tasks. Each presents brief vignettes about an emotion-eliciting event and asks the best way to manage emotions in relation to it. Emotion management focuses on regulating one's own emotions; emotional relationships focuses on regulating the feelings of others.

Scoring the MSCEIT Scoring of the MSCEIT and its precursors has generated several potential criteria for correct answers. These include identifying correct answers according to a general population group consensus (i.e., of the standardization sample), or the consensus of emotion experts. A third possibility, having targets describe their emotions, is possible for some tasks such as faces, where the photographed person can describe his or her feelings at the time of the picture. Work with the earlier Multifactor Emotional Intelligence Scale indicated that consensus, expert, and target scoring methods for the same tasks converged on the same answers (Mayer & Geher, 1996). Work with the MSCEIT employed more rigorous procedures. Twenty-one emotions experts provided answers to the test. These expert-identified answers converged dramatically with consensus-identified correct answers in the general sample. Such convergence adds confidence to the expert scoring approach, perhaps, as the optimal method. The nature of emotional information differs from information that is often included in standard intelligence tests, and thus, necessitates the use of different scoring methods. However, the existence of two, independent scoring keys has proven confusing to some, and the lack of a true, veridical scoring key is problematic to others (Matthews, Zeidner, & Roberts, 2002).

The Cohesiveness of the MSCEIT Tasks Integrative-model approaches to emotional intelligence tell us about how the different areas of emotional intelligence may relate to each other – if at all. The MSCEIT and its precursors make clear that emotional intelligence is a unitary ability. That is, the tasks are generally positively intercorrelated with one another. Beyond that general factor of EI, a number of subsidiary factors can be identified. One solution for the MSCEIT's factorial structure divides emotional intelligence into three areas: (1) emotional perception, (2) emotional understanding, and (3) emotional management. Others solutions are consistent with the four-factor model. However, some studies have recommended alternative factor models for the MSCEIT (Palmer et al., 2005).

EMOTIONAL INTELLIGENCE AS A MIXED MODEL MEASURED BY SELF-REPORT SCALES

Just as the ability model of emotional intelligence has generated measures of emotional intelligence, so have mixed models. These models are almost entirely based on self-report. As such, they are filtered through a person's self-concept and impression management motives.

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Ability measurement possesses *process* validity evidence. For example, intelligence tests include a scoring process that verifies that participants can solve problems correctly, independently of the test taker's claims. Self-report lacks such validity evidence; consider the validity of a hypothetical self-report intelligence measure that asks, simply, "How smart do you think you are?" In fact, self-reported intelligence has a relatively low correlation with actual, measured intelligence via ability scales (e.g., Paulhus, Lysy, & Yik, 1998). This also is the case for emotional intelligence, where correlations between the MSCEIT and a self-report scale based on our four-branch model ranged between $r = .07$ and .19 in two samples (Brackett et al., 2006).

Most mixed-model scales, in addition to using self-report, simply measure traits drawn from personality research that are unrelated to emotional intelligence. Bar-On's Emotional Quotient Inventory (EQ_i) includes factors more or less consistent with the individual attributes listed in Table 26.2 of this chapter, ranging from self-actualization to happiness.

Such tests represent, in substantial part, a positive-negative halo effect in how people describe themselves. The Bar-On EQi, for example, correlates negatively and highly (in the $r = -.50$ to $-.75$ range) with measures of negative affect such as the Beck Depression Inventory and the Zung Self-Rating Depression Scale. It also correlates positively with traits related to positive affect. A cross-national administration of the Bar-On and the 16PF (e.g., Cattell, Cattell, & Cattell, 1993) indicated that the Bar-On was consistently positively correlated (mostly between $r = .40$ and .60) with emotional stability, and with components of extraversion including social boldness and social warmth (Bar-On, 1997, pp. 110–111). Tests such as the Bar-On, the Tett (Tett, Fox, & Wang, 2005), and the scales by Petrides and Furnham (2001, 2003) overlap with personality scales such as the NEO-PI measure of the Big Five as highly as do measures expressly developed as alternative measures of the Big Five itself (Mayer, Salovey, & Caruso, 2008, Table 1).

What Does Emotional Intelligence Predict?

We next turn to the predictive validity of emotional intelligence (excluding mixed-model measures). Emotional intelligence predicts specific outcomes in limited but important domains of social interaction. Although emotional intelligence identifies unique variance, it also overlaps, at least at low levels, with other commonly assessed variables. For that reason, researchers interested in emotional intelligence should examine incremental validity of EI in their work, comparing EI assessments with measures of cognitive ability and of other commonly measured personality traits such as the Big Five. Finally, given that some studies have shown differential gender effects, we suggest that researchers examine their data to determine whether EI's effects are similar for men and women. We begin with just two examples of some of the intriguing research in the area and then talk more globally of what EI predicts.

Examples of EI Research

Rosete (2005, 2009) conducted a workplace study that illustrates why it is critical to examine multiple aspects of managerial performance. He studied 117 managers from an Australian public service organization, administering the MSCEIT as well as a personality scale (16 PF) and an EI self-report scale. He also collected performance management ratings based on an extensive data collection and discussion process between the manager and his or her supervisor. These performance behaviors had two dimensions: "what they accomplish" and "how they accomplish it." The "what they accomplish" scale indicated the extent to which the manager hit certain targets such as reaching tax revenue goals or decreasing health insurance costs. The "how they

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accomplish it" ratings examined leadership behaviors such as "facilitates cooperation and partnerships," "communicates clearly," and "inspires a sense of purpose and direction." The MSCEIT significantly predicted performance "what's," accounting for 5% of the variance after controlling for cognitive ability and personality. More interesting, however, was that EI accounted for 22% of the variance for performance "how's," even after accounting for cognitive ability and personality. These results suggest that EI may play a more important role in how managers do their work rather than in what they accomplish.

In a series of studies, Trentacosta and Izard (2007) examined children's emotional knowledge and its relation to academic performance. For example, these authors tested 193 children attending kindergarten in an urban school system chiefly serving low-income and minority children. Of these kindergarteners, 142 were followed up in first grade (Trentacosta & Izard, 2007). The researchers collected various measures of attention, verbal ability, student-teacher closeness, and academic competence. They also employed a measure of "emotional regulation" – a measure of emotional negativity and instability similar to Neuroticism on the Big Five, and the Assessment of Children's Emotion Skills (ACES), which measures knowledge of emotional facial expressions, the emotions involved in social situations, and emotions in social behaviors.

In this particular study, high ACES scorers exhibited better attention to the teacher and to in-class test materials, higher verbal ability, and better overall academic performance in the $r = .20$ to .40 range. (These findings are similar to those found by these authors and their colleagues in other studies.) In a path-analytic model generated using structural equation modeling, the authors concluded that emotion knowledge has a direct, independent influence on academic achievement of $r = .17$ ($p < .05$) after controlling for the many other variables of the study, including intelligence, emotionality, and attention.

Reviewing Recent Reviews

The aforementioned research studies represent just two examples of the burgeoning empirical work in the EI area. The field of emotional intelligence has recently seen three highly visible reviews and critiques that focus especially on ability-based measures. We will summarize the major points and conclusions of those reviews briefly here in regard to what EI predicts.

An article by Zeidner, Roberts, and Matthews (2008), "The Science of Emotional Intelligence," appeared in the *European Psychologist*. The writers divide EI research into four conceptual approaches, but then reduce these, when it comes to measurement, to two: the ability and mixed-model approaches we describe here, writing that "reviews of the various measures of EI . . . have generally been structured around this distinction" (Zeidner et al., 2008, p. 68). In their test-criterion section, they report some selected findings in favor of both types of instruments. Later, however, they conclude that a moratorium on the development of new self-report instruments is needed, while further objective (i.e., ability) measures should be developed. The basis for this recommendation appears to be their conclusion that mixed-model scales are difficult to distinguish from well-known personality dimensions.

To find out more about what EI predicts, it is necessary to move to one of the other two reviews discussed here: Mayer, Salovey, and Caruso's (2008) article, "Emotional Intelligence: New Ability or Eclectic Traits?" appearing in the *American Psychologist*. This review was organized around the schism in the field between ability and mixed models and argued (much as we have here) that the emotional intelligence term was best applied only to the ability approach. The empirical review of measures was summarized, in large part, in a table concerning representative EI results. This table addressed concerns about the incremental validity of EI in predicting various measures of social behavior, with such traits

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as the Big Five and verbal intelligence partialed out. Five studies illustrated such incremental prediction.

Relative to the other two reviews, *Annual Review* coverage was most focused on outcomes of EI. This review can be regarded more as a consensus document, as it drew authors from both of the other reviews mentioned earlier, and a third independent emotions expert. The authors provided a qualitative review of results from all known ability measures of EI, with results from 1990 forward. Their conclusions for emotional intelligence were presented in their Table 2 and related discussion (Mayer, Roberts, & Barsade, 2008, p. 525).

They concluded the following: Children, adolescents, and adults higher in emotional intelligence exhibited better social relations than others. In most studies reviewed, EI correlated positively with indices of good social relations and social competencies, and negatively with the use of destructive interpersonal strategies and indices of social deviance. Moreover, individuals with high EI were perceived as more pleasant, empathic, and socially adroit than others. As might be expected, these results generalized to better intimate and family relations (for which, however, there were fewer relevant studies and results). The findings also generalized to work environments, where employees exhibited more positive performance, engaged in better negotiations with others, and left others feeling better in stressful work encounters. Of specific interest to intelligence researchers and educators, although EI was correlated with better academic achievement, this often washed out when IQ was partialed out. Finally, those with higher emotional intelligence also experienced higher levels of subjective well-being than did their lower-EI counterparts.

Most of the relationships reviewed between EI and the criteria mentioned earlier were in the $r = .20$ to .30 range, and many relationships remained significant after partialing out a number of control variables. However, such results can disappoint readers who are expecting that a single psychological construct accounts for 80% of the variance in important life outcomes! To put these EI results in context, Meyer and colleagues (2001) noted that psychologists ought to be pleased to find relationships at this level – which are comparable to those between, for example, college grades and job performance ($r = .16$), criminal history and recidivism ($r = .18$), and gender and weight ($r = .26$), among others.

The Future of Emotional Intelligence

Capturing the Energy of Mixed-Model Approaches

Earlier in this chapter, it probably seemed as if we dismissed mixed-model approaches to emotional intelligence. Although we are skeptical that this approach will lead to advances in our understanding of emotional intelligence per se, we do acknowledge that many of the traits studied in mixed models are of considerable importance. That is why we recommend calling those traits what they are: aspects of personality, rather than emotional intelligence.

Some psychologists have raised the idea that such traits should be called emotional intelligence simply because they do not fit comfortably into, say, the Big Five approach to personality. The Big Five (described earlier) are five traits often used to represent some of the basic aspects of personal functioning. There is nothing in the discipline of personality psychology, however, that ought to pressure researchers into an either-or choice between emotional intelligence and the Big Five.

In fact, there are several recent contemporary models of personality that can harness the power of studying traits such as optimism and the achievement motive, and competencies such as diversity-sensitivity, and the like. Some models allow for broad organizations of traits, such as the Big Five approach, and contemporary variations of it such as the HEXACO and 10-Aspects models (e.g., DeYoung, Quilty, & Peterson, 2007; Goldberg, 1990). Other models divide personality into functional areas

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such as a person's mental energy (e.g., motives and emotions), or self-regulation (e.g., self-monitoring, self-control and planning). These latter models include Mischel and Shoda's Cognitive-Affective Personality System (CAPS) model (e.g., Mischel, 2004) and the Systems Set division (e.g., Mayer, 2003, 2005). McAdams and Pal's (2006) "New Big Five" is a hybrid model that divides personality into traits, characteristic adaptations, and other qualities.

The aforementioned Systems Set divides personality into four areas and may be especially suitable for the organization of mixed-model personality characteristics (Mayer, 2003). The first is *Energy Development*, which concerns how the person's motives and emotions combine to enhance an individual's psychological energy. Second is *Knowledge Guidance*, which concerns how intelligences and knowledge combine together to guide mental energy. Third is *Action Implementation*, which includes a person's plans and procedures for operating in the situations she or he faces. Finally, there is *Executive Consciousness*, which involves self-monitoring and self-guidance. The four parts of the Systems Set are illustrated in Figure 26.1.

The Systems Set serves as a reasonable organizer for personality traits. In one study, for example, participants using the fourfold division were able to sort 70 commonly studied personality traits into its four categories far better than they could sort the traits using alternative divisions of personality. Using the Systems Set in that study, 97% of the traits could be assigned an area, and judges agreed to such assignments at levels well above chance (Mayer, 2003).

An example of how EI related characteristics might be organized is illustrated in Table 26.3. At the top are the four areas of personal function, as divided according to the Systems Set model. Immediately below are four brief descriptions of the areas. Below that are some prototypical traits that describe each area. For example, Energy Development is described by such traits as the *need for achievement* and *positive affect*. Or, to take another example, *Executive Consciousness* is described by such traits as self-awareness and self-monitoring.

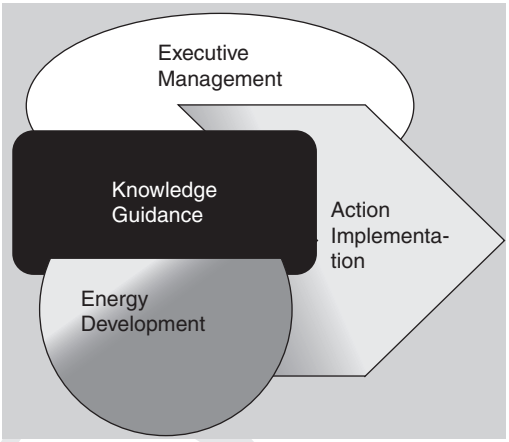

Figure 26.1. The four areas of the systems set. This four-part division of personality has advantages for classifying traits and other qualities of personality. *Energy Development* involves the interactions of motivations and emotions. *Knowledge Guidance* helps direct mental energy toward goals. *Action Implementation* contains plans and skills for operating in the outside environment, and *Executive Management* helps monitor and control the rest. For a further discussion, please refer to the text. Detail from Mayer, J. D. (2009). Psychotherapist's Wall Chart. Lulu.com. Reproduced with permission.

In the last row of Table 26.3, the method is applied to the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides & Furnham, 2003). This self-report, mixed-model measure assesses 15 qualities including Adaptability, Assertiveness, Emotion Perception, Emotion Expression, and so on. These traits are difficult to make congruent with emotional intelligence as reasonably defined. They are, however, very easy to organize within the Systems Set, as shown in the last row of Table 26.3.

When, in the *American Psychologist* article, we recommended that personality traits be labeled as personality traits, part of the reason was to ensure that the field of emotional intelligence survives and thrives as a reputable scientific area. The other reason, however, is that much of the energy behind mixed models, we believe, can contribute more generally to the contemporary field of

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Table 26.3 The Systems Set and Its Integration of Personality Parts

	The Systems Set's Four Areas			
Names of the Systems Set	*Energy Development*	*Knowledge Guidance*	*Executive Management*	*Action Implementation*
Brief Description	Motives and emotions join together to enhance an individual's psychic energy	Intelligences operate on knowledge to enhance problem solving	Self-monitoring, self-regulation, defense and coping	Customary styles of carrying out behavior along with plans for action
Generally relevant traits	Specific motivations of achievement, power, affiliation; positive and negative emotionality as well as specific tendencies toward emotions (e.g., happiness, sadness, etc.)	Intelligence, emotional intelligence, competencies, optimism-pessimism, actual self, ideal self, self-esteem, etc.; mental models of other people and the world	Self-awareness, self-monitoring, defensiveness, repression-sensitization, problem-focused coping, emotion-focused coping	Secure attachment, sociability, shyness, social skills, group competencies
Traits of the TEIQue organized accordingly	Self-motivation; Trait happiness	Emotional perception; Self-esteem; Social awareness; Trait empathy; Trait optimism	Adaptability; Emotional regulation; Impulsiveness (low); Stress management	Assertiveness; Emotional expression; Emotional management of others; Relationships

personality psychology if researchers in the area see how to integrate their work in that now-burgeoning area. We hope our earlier description can serve as one illustration of how this might be done.

THE MENTAL ABILITY OF EMOTIONAL REASONING: REALLY AN INTELLIGENCE?

To return to the mental ability conception of emotional intelligence, there are two further questions often asked about EI. The first is, Is emotional intelligence (as an ability) an intelligence, or a talent, or an acquired skill? Whether EI is an intelligence is, to some extent, a matter of one's definition of "intelligence," "talent," and "skill." To us, an intelligence is a mental ability that involves abstract reasoning with information in an area of some breadth and consequence. Consequently, verbal-comprehension, perceptual-organizational abilities, and emotional intelligence all represent intelligences. By contrast, "talents" begin to mix in highly practiced, physical operations with mental operations, for example, in certain forms of musical performance and athletic prowess. Mental skills, such as those displayed in the game of chess, involve highly focused abilities at limited domains. Because the exact demarcation among intelligences, talents, and skills is difficult to fix at present, this will be a matter of some opinion.

Another issue that speaks to whether EI is a true intelligence is its universality versus cross-cultural nature. We believe

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emotional intelligence is universal or nearly so, and that such universality bolsters its status as an intelligence. The MSCEIT has been translated into such different languages as French, Spanish, Japanese, and Norwegian, and appears to perform comparably in different cultures. Another specific-ability test of EI, the Japanese and Caucasian Brief Affect Recognition Test (JACBART), relies on faces from two different cultures for participants to examine, and the test has been used and is valid with people from many parts of the world. That said, translators of the MSCEIT, for example, have often needed to change items to suit a particular culture so that its content fits with national cultural expectations. Although EI may be universal, in other words, the interpretation of specific items may vary somewhat from culture to culture. There exist, it appears, both universal aspects of emotional understanding and aspects of such understandings that are culturally specific. This seems, once again, consistent with the intelligence concept as presently understood.

Further Research Needed

We have noted that emotional intelligence is part of a larger group of hot intelligences (Mayer, Salovey, & Caruso, 2004). These intelligences are called "hot" because they concern personally relevant information to which people often have personal reactions: of pain, pleasure, defensiveness, emotionality, or moral judgment. Of the partly overlapping intelligences, social intelligence is being newly reoperationalized as a mental ability and has recently seen a revival of interest (e.g., Legree, 1995; Sternberg & Smith, 1985; Weis & Süß, 2007; Wong, Day, Maxwell, & Meara, 1995). A growing body of research supports a practical or successful intelligence (Sternberg, 2003). There also are recent mentions of cultural, personal, and spiritual intelligences (Earley & Ang, 2003; Emmons, 2000; Mayer, 2009). Research on the degree these intelligences overlap and interpenetrate is needed – and remarkably little exists. Moreover, once more is understood about the hot intelligences as a group, their relation and integration with the "cool" intelligences will require further understanding.

Justifiable Excitement Over Emotional Intelligence

To return to emotional intelligence itself, we believe emotional intelligence is worth the excitement. The rigorous search for new intelligences can result in important, incremental predictive power over current measures of intelligence. We believe that emotional intelligence identifies a previously overlooked area of ability critical to certain important areas of human functioning. Before the theory, emotionally intelligent skills lay hidden in the boundary area between mental ability and noncognitive dispositions. Many intelligence researchers were relieved when Scarr (1989) came to the defense of traditional intelligence with the statement that "human virtues . . . such as goodness in human relationships, and talents in music, dance, and painting, should not be called intelligent." Yet there is a borderland between the two. Musical ability, after all, is related to intelligence (e.g., Schellenberg, 2006). Our own intuition was that there was something more than simple emotionality among those people sometimes labeled as touchy-feely, bleeding hearts, sensitive, or empathic souls. Emotional intelligence is the mental ability that lurks amidst the emotions.

There is a social implication of this finding. Scarr (1989) believes that labeling an attribute as an intelligence adjusts social behavior so as to value the entity more than before. She suspects this is one reason some have labeled nonintelligences, such as warmth, as intelligence. Identifying an actual intelligence, therefore, might possibly readjust values. For example, people who have different kinds of skills often can communicate more convincingly about their abilities and limitations. We have often noticed that people in cars readily say, "Oh, I can't navigate well" (low spatial intelligence) and pass the map over to someone else, or turn on the global positioning system (GPS).

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We look forward to the day when, rather than dismiss someone else as a "bleeding heart," or a "touchy feely type," or "oversensitive," a person will feel comfortable saying, "Oh, I can't read emotions; you help me understand how to make my friend feel better." Passing the job of emotional reading over to the individual who can perform it (or, indeed, passing it to some future emotion-sensing device) would be readjusting social values in a way that might make good sense for all parties.

Conclusion

There is growing consensus that emotional intelligence involves the capacity to reason accurately with emotion and emotional information, and of emotion to enhance thought. There is an increasing call to "weed out" those conceptualizations that do not make sense to be called *emotional intelligence*. Alternatively, they can be transplanted in the soil of personality psychology, where they better belong. Current research suggests that mental ability models of emotional intelligence can be described as a standard intelligence, and they empirically meet the criteria for a standard intelligence. Emotional intelligence therefore provides a recognition of an exciting new area of human ability.

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