

WHAT WE KNOW ABOUT EMOTIONAL INTELLIGENCE

How It Affects Learning, Work, Relationships, and Our Mental Health

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1 Emotional Intelligence: Mapping out the Terrain

The advantage of the emotions is that they lead us astray, and the advantage of science is that it is not emotional.

—Oscar Wilde, 1891, *The Picture of Dorian Gray*

Emotional intelligence seems to be everywhere. Educators, executives, and life-style gurus have all bowed to the notion that what people need most in contemporary life is emotional awareness, heightened sensitivity, and street smarts. But what is “emotional intelligence”? And why has it assumed such prominence in the present culture?

To answer such questions, it is important to start with a working definition of emotional intelligence. For now, we will take this term to refer to a generic competence in perceiving emotions (both in oneself and in others). This competence also helps us regulate emotions and cope effectively with emotive situations (e.g., Goleman 1995a, b). Thus conceived, emotional intelligence appears important because many people fail to manage emotions successfully. We may be blind to our own emotional reactions. Or we may fail to control our emotional outbursts. Worse still, we may act foolishly under pressure.

From this standpoint the potential importance of emotional intelligence should become self-evident. Have you a problem in a personal relationship or in your marriage? Difficulties coping with work stress and assignments? Is your school climate of concern? Low emotional intelligence may be at play. Training emotional intelligence in schools, workplaces, and psychiatric clinics then offers a viable, and valuable, solution to perceived individual, community, national, and global needs. It is the quick fix panacea for manifest problems in personal relations, at work, and during the educational process.

Despite much recent enthusiasm in the media, trade texts, and even psychological handbooks, some caution and skepticism are requisite. Perhaps emotional intelligence is nothing more than a popular fad along the lines

of crystal healing, sexual intelligence, feng shui, and other New Age excesses. Our stated goal in writing this book is to offer a state-of-the-art overview of “what’s what and what’s not” in the domain of emotional intelligence. We do so by examining the “knowns and unknowns” of “emotional intelligence” from a scientific angle. It is our intention to arm the reader with a cache of facts, figures, and anecdotes from which to evaluate the status of this newly minted construct.

Popular interest in emotional intelligence stems from a perspective that is cross-fertilized by academic studies. These studies seek to develop sophisticated theories of the psychological and biological concomitants, causes, and antecedents of emotionally intelligent behaviors. They also seek accurate measures of these character traits and behaviors. Further still, such studies are conducted to understand how emotional intelligence is related to valued social outcomes and functions. In this chapter we lay out some of the reasons why there has been so much “buzz” surrounding emotional intelligence, as well as its place within a cultural zeitgeist that is increasingly accepting and valuing the expression of human emotions. We also set forth a case for developing a rigorous science of emotional intelligence, touching on different visions proposed by leading authorities. Further we examine why applications of this new construct may be important. This section covers the potential of emotional intelligence research for improving mental health, prosocial behavior, educational outcomes, and occupational success. We conclude the chapter by listing key issues that we will discuss in subsequent chapters.

The Emergence of a New Intelligence

It is of pivotal importance to note, at the outset, that emotional intelligence is thought of as a type of *intelligence*. That is to say, individuals differ by some objective ability in dealing with emotion. It is believed that the ways in which the difference is manifest are complex and varied. Consider thus one of many principled lists of abilities we might compile:

1. Detecting a person’s emotions by facial cue, voice pitch and rhythm, bodily posture both standing and sitting
2. Understanding the antecedents and consequences of emotions
3. Facilitating thought by evoking particular emotions
4. Regulating negative emotions such as anger and sadness

The concept of emotion connected to intelligence seems reasonable because we likely encounter emotional geniuses, emotional idiots, and the



Figure 1.1
Emotional stupidity in action during the 2006 FIFA World Cup

typical person of moderate emotional competence in our day-to-day activities. In short, the idea of an intelligence continuum is compelling. Unfortunately, it is often “emotional stupidity” in action that is witnessed in real time by billions across the globe, as highlighted by the example shown in figure 1.1. A contrasting, alternate position is how people typically deal with emotion by a qualitative style of behavior that is neither intrinsically good nor bad; that is, some people tend to be calm whereas others are more excitable. Calmness, however, is not necessarily better (or worse) than excitability. We will have more to say about this way of behaving later in the chapter. The concept of emotional intelligence currently being discussed implies a strict structure that interlinks emotional abilities with other aptitudes, including conventional mental ability. Thus, to understand what is meant by emotional intelligence, we must examine how “emotional” intelligence might be different from standard, consensually agreed-on forms of “cognitive” intelligence.

General Intelligence and Its Critics


The concept of emotional intelligence did not appear out of the blue. It is firmly rooted in past psychological thinking, research, and practice. The concept has come to prominence against a background of dissatisfaction

with conventional theories of intelligence. It has been nurtured beyond infancy by those who contend that a single IQ score does not do justice to all the potential that an individual may possess. To understand the historical underpinnings of emotional intelligence, we briefly discuss the concept of human intelligence and how it is currently viewed by experts.

Most people believe they know what intelligence is, possibly because they have had to take tests of this, or related attributes, over the course of their lives. The term typically refers to intellectual and academic capacities for abstract reasoning, analysis, and problem-solving. Indeed for more than a century psychologists have labored to devise ever more sophisticated tests of such qualities. The efforts have borne fruit to the extent that standardized IQ tests predict an individual's future academic and occupational success. Nobel laureates, college professors, and rocket scientists do in fact typically obtain higher scores on these types of tests than most people. A key assumption is that there is a unitary general intelligence. That is, although people differ somewhat in their aptitudes for particular kinds of thinking—such as verbal or mathematical reasoning—there is an overarching general cognitive ability that contributes to a wide range of intelligent behaviors.

This scientific model of intelligence, which is based on rigorous theory, measurement, and application, undoubtedly captures the essence of what it means to be an intelligent person. Still many psychologists have challenged the notion that intelligence is nothing more than abstract problem-solving ability. Doubts about conventional intelligence go back to the beginnings of the field in the twentieth century. Pioneers of intelligence testing, such as Alfred Binet (see the sidebar on the next page), were aware that general intelligence might not be the only factor important for social functioning (Landy 2005).

Emotional intelligence may be viewed as a subset of the “social intelligence” domain. Landy (2006) traces the term to the educator John Dewey (1909), whom he quotes as follows: “Ultimate moral motives and forces are nothing more or less than social *intelligence* [italics in the original]—the power of observing and comprehending social situations—and *social power* [italics in the original]—trained capacities of control—at work in the service of social interests and aims” (p. 43). Dewey's concern was the school curriculum. Subsequently the psychologist Edward L. Thorndike described social intelligence as an ability distinct from abstract intelligence, defining it as “the ability to manage and understand men and women, boys and girls, to act wisely in human relations” (1920, p. 228). Thorndike never attempted to develop a test for social intelligence, believ-

<p>Alfred Binet (1857–1911)</p> 	<p>Brief biography of Alfred Binet, one of the pioneers of intelligence testing</p> <p>How did Alfred Binet create the first intelligence test? Fortunately for the millions of children with learning disorders, Binet had spent “quality time” with his daughters. He asked them questions and queried how they solved them. This led to an understanding of their individual differences, and more important, that not all thought processes follow the same course. Binet was thus able to argue against the prevailing view that “lack” of intellect in certain fields was an “illness.” His discovery of different kinds of memory led to a government appointment to develop tests intended to identify areas of weakness in school children. In association with Theophile Simon, Binet identified developmental achievement levels expected of normal children. The <i>mental age</i> criteria that were the basis of these tests remain a benchmark in assisting children exhibiting poor performance in specific areas. Unfortunately, Binet died only five years after the first use of his test, and the necessary revisions and refinements were left largely to others. The antecedents in Binet’s career show how some decisions can lead to change that is for the better. His first degree was in law, after which he worked with Jean-Martin Charcot in hypnosis. He also studied phrenology and is reported to have great sympathy with the physiognomists to boot.</p>
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ing that it should be observed in real-life behavior. In the decades that followed, researchers sporadically tried to develop and validate standardized tests for social intelligence. These measures included, for example, tests of the respondent’s ability to recognize emotive gestures and facial expressions, measures that bear more than passing resemblance to some contemporary indicators of emotional intelligence.

With behavioral, and later cognitive, models serving as major scientific movements, the status of emotions were relegated to a supporting role in many psychological theories. These accounts variously framed the accepted subject matter of intelligence research as that dealing with behaviors or cognitive thought. In recent years, however, the notion of a unitary, general intelligence has come under attack. For example, Howard Gardner (1983, 1999) has proposed that there are multiple intelligences in addition to abstract reasoning, such as musical and kinesthetic intelligence. Gardner also refers to two types of ability that resemble emotional

intelligence, and most likely were a major factor in its development: interpersonal intelligence (understanding the feelings and intentions of others) and intrapersonal intelligence (awareness and discrimination of one's feelings).

Assuming Gardner to be correct, we can no longer refer to people as being more or less intelligent in some general sense. Instead, people typically show more complex patterns of higher functioning for some activities, and lower for others. At the extreme Gardner describes cases of so-called savants who may be subnormal in terms of their intelligence test score but capable of remarkable artistic accomplishments. Movies such as *Forrest Gump* seem to encapsulate this idea as it pertains to the intra- (and inter-) personal realm. Thus the lead character possesses subnormal intellectual talents yet is capable of remarkable life-affirming emotional connections with others. Such fictional accounts are not without precedent, sometimes on the flip side. For example, some individuals with autism or Asperger's syndrome do obtain high IQ scores but fail to understand or connect with people around them.

Origins of the Concept of Emotional Intelligence

The term emotional intelligence—which we will abbreviate to EI—has been attributed to various sources. Literary accounts of Jane Austen's *Pride and Prejudice* refer to various characters possessing this quality (Van Ghent 1953, p. 106–107; see figure 1.2). On Wikipedia (<http://en.wikipedia.org> 2007), reference is made to the Dutch science fiction author Carl Lans who published two novels in the 1960s elaborating the concept, including use of the phrase “emotional quotient.” In scientific psychology, the first reference appears to come from the German psychoanalyst Barbara Leuner. Writing in 1966, she suggested that the hallucinogenic drug LSD might help women with low emotional intelligence. Leuner believed this condition resulted from early separation from their mothers and led to these women having more emotional problems than their counterparts. (Thankfully perhaps, the use of hallucinogens married with psychotherapy to improve EI has not survived the 1960s.) Wayne Payne (1986) was the first author to use the term in an English language source, arguing that emotional awareness was an important component to develop in children. The first systematic research on EI was conducted by two psychologists whose work is featured prominently in the current volume: Jack Mayer and Peter Salovey (e.g., 1993). Yet the current popularity of EI reflects the impact of a single book, Daniel Goleman's (1995a) *Emotional Intelligence*, an international best seller (Gibbs 1995).



Figure 1.2

Author Jane Austen, to whom the literary critic Dorothy Van Ghent, as early as 1953, attributes various aspects of emotional intelligence in the characters she penned

The Vision Thing: How Daniel Goleman Created Interest in a “New” Intelligence?

Having obtained a PhD from Harvard University, Daniel Goleman became a journalist at the *New York Times*. During his twelve years there he worked on various stories relating to the brain and emotion. After reading a scientific article by Mayer and Salovey, he was inspired to write a book that would become one of the best-selling psychological texts ever: *Emotional Intelligence: Why It Can Matter More Than IQ*. In the book Goleman (1995a) sets out a comprehensive account of EI and its relevance to society. His central thesis is that emotional illiteracy is responsible for many social evils including mental illness, crime, and educational failure. Furthermore people at work often fall short of their potential through failing to manage their emotions appropriately. Job satisfaction and productivity are threatened by unnecessary conflicts with coworkers,

failure to assert one's legitimate needs, and failure to communicate one's feelings to others. Goleman pushes the intelligence envelope in various respects throughout his writings. Some of the ways in which his thesis conflicts with conventional psychology are as follows:

Definition of intelligence Goleman includes qualities such as optimism, self-control, and moral character as part of intelligence. Normally such qualities are seen as reflecting components of personality, not ability.

Stability of intelligence Typically cognitive intelligence has been viewed as fairly stable over time. By contrast, Goleman emphasizes that emotional intelligence can be learned and increased, seemingly at any time, over one's life span.

Intelligence in everyday life In order to enjoy a successful life Goleman (1995a, 1998) claims that "EQ" is more important than IQ. These success factors include such disparate indicators as being promoted at work and maintaining secure and fruitful relationships with others. Indeed a subtext of Goleman's (1995a) book is that IQ is much overrated; as one of the chapter headings reads, "Smart is dumb."

Intelligence with a moral dimension Conventionally intelligence refers to a set of capabilities and skills that are equally at the service of the philanthropist and the evil genius. Goleman (1995a), however, relates EI to moral character: "emotional literacy goes hand in hand with education for character, for moral development, and for citizenship" (p. 286; see chapter 5 of this volume for a contrarian view).

So what exactly did Goleman (1995a) mean by "emotional intelligence"? His first book set out a laundry list of desirable qualities, including self-confidence, sensitivity, self-awareness, self-control, empathy, optimism, and social skills. Indeed the present authors (Matthews, Zeidner, et al. 2002) criticized Goleman for listing almost every positive quality that was not actually cognitive intelligence. Subsequently Goleman (2001) sought to put the traits that focally define EI on a more systematic basis. This basic schema is reproduced in table 1.1.

Goleman's model suggests two key divisions separating different aspects of EI. First are distinguished those elements of EI that refer to personal competencies (e.g., self-awareness) from those that relate to social competencies (e.g., empathy). This distinction corresponds to Gardner's (1983) intrapersonal and interpersonal competencies. Second are distinguished facets of EI that relate to awareness from those that concern the management and regulation of emotion. For example, recognizing that someone

Table 1.1
Goleman’s (2001) 2 by 2 model of emotional competencies, with examples of each of four types of competency

	Self (personal competence)	Other (social competence)
Recognition	Self-awareness <ul style="list-style-type: none">• Emotional self-awareness• Accurate self-assessment• Self-confidence	Social awareness <ul style="list-style-type: none">• Empathy• Service orientation• Organizational awareness
Regulation	Self-management <ul style="list-style-type: none">• Self-control• Trustworthiness• Conscientiousness	Relationship management <ul style="list-style-type: none">• Communication• Conflict management• Teamwork and collaboration

is unhappy is different from being able to cheer the person up. And yet both “reading” emotions and changing emotions constructively relate to the overall facility of EI. Combining the division of “self” compared to “others” and “recognition” compared to “regulation” yields the 2 by 2 classification for emotional competencies given in table 1.1. Each of the various attributes of EI can be classified as belonging to one of the four cells of the table.

Goleman (2001) argues that the qualities listed are *emotional competencies*. As such, they may be defined as learned capabilities based on emotional intelligence that result in outstanding performance at work or in other domains of life (see also Goleman 1998). Leaving aside the circularity of defining emotional competence in terms of emotional intelligence, the definition here emphasizes the dependence of emotional intelligence on learning. By contrast, psychological theories of intelligence have typically defined mental ability in terms of *aptitude*, that is, a preexisting capacity to acquire specific mental skills through learning. Thus IQ test scores are normally seen as indicators of the person’s potential for acquiring academic knowledge and not the knowledge itself (Jensen 1998).

In contrast, Goleman (1998) sees emotional intelligence as a set of learned skills that may translate directly into success in various social domains, such as the workplace. For example, “the empathy competence” helps team leaders to understand the feelings of team members, leading to greater team effectiveness. This same competence helps the salesperson to close more sales by being better able to “read” the customer’s emotional reactions to a given product. Conversely, emotionally unintelligent behaviors may be highly damaging to organizations. While

ostensibly such an argument may be persuasive, more often it is the obverse: as Hogan and Stokes (2006) pithily note, “the primary reason employees leave a company is poor management—people don’t quit organizations, they quit managers” (p. 269).

Emotion and the Culture Wars

Despite, or perhaps because of, its lack of psychological orthodoxy, *Emotional Intelligence* struck a powerful chord with various professional groups and the general public. Leaving aside the issue of whether Goleman’s revision of intelligence is correct, there are several sociological and cultural reasons for the success of the EI concept. Historically, as several writers (e.g., Mayer, Salovey, et al. 2000a) have noted, Western culture has embraced conflicting attitudes toward emotions, especially strong, passionate emotion (as a case in point, see the conflict and confluence between emotions and intelligence described by various luminaries in table 1.2). The dangers of furious anger and erotic passion are always clear, however, and as Ben Ze’ev (1997) points out, the spontaneous nature of these emotional reactions are perceived as antithetical to moral responsibility.

At times the intellect has ruled the passions, as exemplified by the classical virtue of temperance, and the Stoic philosophy that judgment should be unclouded by emotion. Other cultural trends have placed more value on the heart than on the head, including romantic philosophy and the 1960s counterculture. There may be a contemporary zeitgeist that favors free emotional expression, arising as a counterpoint to technocratic Western society’s increasing emphasis on formal academic qualifications, standardized testing, and reliance on hard statistical data in policy-making. Take the enthusiasm for remedies from “alternative medicine,” such as homeopathy, despite the lack of any scientific data supporting their medical effectiveness. Such a zeitgeist is entirely in tune with Goleman’s view that “the wisdom of the heart” has been unduly neglected (see figure 1.3 for our take on this issue).

Goleman’s vision also downgrades cognitive or academic intelligence. Another best-seller of the 1990s, Herrnstein and Murray’s (1994) *The Bell Curve*, offers what appears, to many, a dark vision of IQ as destiny. They argue that because IQ is stable and strongly influenced by genetics, society is arranged by strata that are defined by intelligence, with a “cognitive elite” at the top. Those of low IQ have little choice but to accept

Table 1.2

Conflict and confluence of intelligence and emotions as exemplified by a selection of quotes from famous luminaries

Artists
<i>The artist is a receptacle for emotions that come from all over the place: from the sky, from the earth, from a scrap of paper, from a passing shape, from a spider's web.</i> —Pablo Picasso, sculptor and painter, 1881–1973
<i>Let's not forget that the little emotions are the great captains of our lives and we obey them without realizing it.</i> —Vincent Van Gogh, painter, 1853–1890
Philosophers
<i>Man becomes man only by his intelligence, but he is man only by his heart</i> —Henri Frédéric Amiel, philosopher, 1821–1881
<i>The degree of one's emotions varies inversely with one's knowledge of the facts: the less you know the hotter you get.</i> —Bertrand Russell, philosopher, 1872–1970
Scientists
<i>Intellectuals solve problems; geniuses prevent them.</i> —Albert Einstein, physicist and philosopher, 1879–1955
<i>We should take care not to make the intellect our god; it has, of course, powerful muscles, but no personality.</i> —Albert Einstein, physicist and philosopher, 1879–1955
<i>The fairest thing we can experience is the mysterious. It is the fundamental emotion which stands at the cradle of true art and true science. He who knows it not and can no longer wonder, no longer feel amazement, is as good as dead, a snuffed-out candle.</i> —Albert Einstein, physicist and philosopher, 1879–1955
<i>What a distressing contrast there is between the radiant intelligence of the child and the feeble mentality of the average adult.</i> —Sigmund Freud, psychiatrist and philosopher, 1856–1939
<i>Where we have strong emotions, we're liable to fool ourselves.</i> —Carl Sagan, astronomer, 1934–1996
Writers
<i>There can be no knowledge without emotion. We may be aware of a truth, yet until we have felt its force, it is not ours. To the cognition of the brain must be added the experience of the soul.</i> —Arnold Bennett, novelist, 1867–1931
<i>Character is higher than intellect. A great soul will be strong to live as well as think.</i> —Ralph Waldo Emerson, poet, 1803–1882
<i>There is no human being who having both passions and thoughts does not think in consequence of his passions—does not find images rising in his mind which soothe the passion with hope or sting it will dread.</i> —George Eliot, novelist, 1819–1880
<i>One is certain of nothing but the truth of one's own emotions.</i> —E. M. [Edward Morgan] Forster, novelist and essayist, 1879–1970

Table 1.2
(continued)

<i>The course of every intellectual, if he pursues his journey long and unflinchingly enough, ends in the obvious, from which the non-intellectuals have never stirred.</i> —Aldous Huxley, novelist, 1894–1963
<i>The sign of an intelligent people is their ability to control emotions by the application of reason.</i> —Marya Mannes, writer and critic, 1904–1990
<i>Glamour [is] the power to rearrange people's emotions, which, in effect, is the power to control one's environment.</i> —Arthur Miller, author, 1915–2005
<i>Emotion turning back on itself, and not leading on to thought or action, is the element of madness.</i> —John Sterling, poet, 1806–1844



Figure 1.3

A caricature of Goleman's (1995a, 1998) vision for the future, where the heart is the ruler of human intellect and interaction.

poor educational prospects, menial jobs, and a relatively unrewarding economic life.

Against this backdrop, many critics then argued that consideration needs to be given to alternative life-success factors. For example, Epstein (1998) argues that people are resentful of the excessive importance attached to IQ and scholastic attainment. Real-life experience and “street smarts (over “book smarts”) should be venerated as well. Although part of this argument is a reaction to the messages contained in *The Bell Curve*, another is part of a perceived stereotype associated with “academic-types.” As the British literary critic Terry Eagleton (*New Statesman*, September 13, 2004) notes:

Intellectuals are weird, creepy creatures, akin to aliens in their clinical detachment from the everyday human world. Yet you can also see them as just the opposite. If they are feared as sinisterly cerebral, they are also pitied as bumbling figures who wear their underpants back to front, harmless eccentrics who know the price of everything and the value of nothing.

With such boundaries drawn, authors that denigrate academic ability are likely to find a receptive audience. Indeed the zeitgeist, at least as expressed through various media outlets, seems to include a remarkable hostility to studious children and adults alike. Witness, for example, the success of the *Revenge of the Nerds* movie franchise, with sales of a recent special edition doing remarkably well. Part of its continued appeal is undoubtedly related to Eagleton's tacit critique. It is within such a fertile climate, that Goleman's best-selling trade text was cultivated. Furthermore Goleman emphasizes that emotional intelligence differs from IQ in being malleable and trainable; it serves as a democratic form of intelligence that virtually anyone can acquire.

Positive Psychology: Toward an Emotion-Friendly Culture

In academic circles the more emotion-friendly zeitgeist is also expressed by the increasing movement toward a "positive psychology" that explores the sources of happiness, satisfaction, optimism, and well-being (e.g., Fredrickson and Losasda 2005; Seligman and Csikszentmihalyi 2000). One of the key figures in this movement, Martin Seligman, sees psychology as historically fixated on people's problems, which in turn has led to an overemphasis on treating various forms of mental illness. However, personal fulfillment requires more than the absence of pathology. Seligman and Csikszentmihalyi (2000) argue that people need positive emotional experiences, autonomy, and self-determination in pursuing personally important goals. Also requisite is connection to community and positive social interactions. A mission statement on the Web site for Seligman's Positive Psychology Center (<http://www.ppc.sas.upenn.edu>) describes three pillars for the movement:

Positive Psychology has three central concerns: positive experiences, positive individual traits, and positive institutions. Understanding positive emotions entails the study of contentment with the past, happiness in the present, and hope for the future. Understanding positive individual traits consists of the study of the strengths and virtues: the capacity for love and work, courage, compassion, resilience, creativity, curiosity, integrity, self-knowledge, moderation, self-control, and wisdom. Understanding positive institutions entails the study of the strengths that foster better communities, such as justice, responsibility, civility, parenting, nurturance, work ethic, leadership, teamwork, purpose, and tolerance.

These sentiments echo Goleman's (1995a) hope for improving the human condition by raising emotional intelligence. Like Goleman, by their positive psychology, Seligman and Csikszentmihalyi focus on improving the quality of life through educational and workplace interventions, and through fostering communities that encourage civic engagement. They also emphasize the need for scientific research that supports these goals. They point out that earlier attempts to develop a "positive psychology" of personal growth and self-actualization (notably the humanistic psychology of Carl Rogers and Abraham Maslow) lacked empirical rigor. Afterward humanistic psychology spawned excessive enthusiasm for invalid self-help programs responsible for New Age excesses such as crystal healing.

Indeed it is difficult to take issue with the aims of positive psychology. The movement has done the field of psychology a service by directing research toward important neglected topics. However, some concerns have been voiced by critics of positive psychology. For example, Richard Lazarus (2003) points out that positive psychology artificially separates positive and negative experiences. The meaningful events of people's lives typically interweave both types of emotion. In short, the good side of life cannot be appreciated or understood without reference to its downside. There is virtue in being resilient in the face of adversity, and learning from one's failures.

Lazarus (2003) also sees disquieting parallels between positive psychology and a long tradition of popular self-help books trumpeting the virtues of positive thinking. Although Seligman (e.g., Seligman and Csikszentmihalyi 2000) has distanced himself from this position, there is a danger of positive psychology degenerating into "happyology," addressing a naïve belief that the only important thing to life is being happy. A search on amazon.com in early 2008 revealed 48 titles containing "positive psychology," virtually all of which were self-help books. There is a wider positive psychology movement that feeds off the scientific program of Seligman and colleagues but does not necessarily exercise due scientific caution and rigor. We imagine that researchers on positive psychology would wish to separate their work from this self-help movement.

There may be a message here for EI researchers. Proponents of EI (e.g., Goleman 2001) see self-confident and happy workers as being more productive, but as we will see in chapter 9, the empirical evidence is more nuanced. Dissatisfaction with prevailing conditions at home, work, and school can be a powerful motivator toward achievement. Conversely, happiness can breed complacency. A related issue is whether positive

moods interfere with realistic perceptions. Optimism can lead people to neglect danger signs, as when someone fails to see a doctor about a potential health problem. A review of the issue recognizes that self-deceptive beliefs can lull people into an illusory contentment, but positive emotions are beneficial if they are integrated with realism and active engagement with life (Schneider 2001). Proponents of emotional intelligence are unlikely to dissent. Yet there remains a danger that research on emotional intelligence cannot in practice distinguish between illusory and authentic self-fulfillment.

Rationality Bites Back

As we have noted, historically, positive emotions have sometimes been viewed with no less suspicion than negative emotions for promoting irrationality, impulsiveness, and mindless hedonism. At the present time something of a backlash against the values of the positive psychology movement may be discerned. A case in point is self-esteem. In the 1970s and 1980s the United States saw a wave of enthusiasm for self-esteem training in children as an educational tool for increasing school achievement. California even created a task force for this purpose. However, social commentators (e.g., Stout 2000; Twenge 2006) have increasingly seen this effort as doing more harm than good. A curriculum that places feeling good about oneself as the top priority, regardless of actual behavior or accomplishment, simply fosters a false sense of entitlement. Children might come to believe that whatever school work they do merits praise regardless of its quality. Stout (2000) believes that the self-esteem curriculum promotes a narcissistic sense of inflated personal worth, and emotivity, in the sense that feelings rather than rational analysis are seen as the key to success in life. The term “trophy generation” has been coined to reflect the trend in competitive sports—as well as many other aspects of life—where “no one loses” and everyone gets a “Thanks for participating” trophy. The emphasis is on a heightened sense of entitlement, of comfort, and of rights and privileges. Twenge (2006) claims that today’s young adults—called the “Me Generation”—are characterized by excessive individualism and narcissism that feeds into social disconnection and depression. Her thesis is supported by several studies tracking changes in these personal qualities over the latter part of the twentieth century (e.g., Twenge and Im 2007).

As we will see in chapter 6, the doubts of educators about the value of self-esteem are supported by research. Baumeister et al. (2005) review extensive studies suggesting that although raising self-esteem improves

positive emotions, it does little else. For example, high self-esteem appears a consequence rather than a cause of academic achievement. Baumeister et al. also points out a “dark side” to high self-esteem, which can promote narcissism and aggression toward others. Paulhus (1998) describes a character trait of self-enhancement, a sometimes unrealistically positive view of the self that raises both self-esteem and narcissism but can provoke negative reaction from others. Arrogance is not always popular. As we will see, questionnaires assessing emotional intelligence typically contain a self-esteem component (e.g., Bar-On 2000). But is this self-esteem rooted in a realistic understanding of one’s emotional competencies, or is it more narcissistic in nature?

We noted earlier that Western culture is ambivalent about emotions. The same applies to the intellect. Research does not show any downside to academic intelligence; if anything, on average, high IQ individuals are a little better adjusted than those lower in IQ (Zeidner and Matthews 2000). Yet there is a persistent stereotype, played to the full by Goleman (1995a) and other EI researchers, to the effect that academic intelligence is incompatible with common sense and real-life competence. To quote George Orwell, “there are certain things one has to be an intellectual to believe, since no ordinary man could be so stupid.” Of course, there may be a conflation here of the crustier variant of the college professor with high IQ, a type found in all walks of life. As we have mentioned already, part of the popular appeal of EI is that it resonates with an anti-intellectual sentiment.

During our writing a skirmish in the culture wars surrounded a purportedly honest and accurate memoir of drug addiction, James Frey’s *A Million Little Pieces*. Confronted by evidence from police reports and court records that the book falsely records key elements of Frey’s life, the author’s response appears illuminating. According to various reports (e.g., Associated Press, January 12, 2006) Frey “acknowledged he had embellished parts of the book but said that was common for memoirs and defended ‘the essential truth’ of ‘A Million Little Pieces.’” The book is “about drug addiction and alcoholism,” he said. “*The emotional truth is there*” [our italics]. Whatever the facts of this case, the author’s response represents a contemporary view, that “emotional truth” and personal authenticity may be more important than the literal or factual truth revealed by objective evidence and intellectual analysis.

On the value of the intellect, however, there are also signs of a cultural backlash. The title of Charles Sykes’s (1995) book conveys this concern: *Dumbing down Our Kids: Why America’s Children Feel Good about Them-*

selves but Can't Read, Write, or Add. As with popular works on EI, there is an obvious element of hyperbole, but there are evidently popular worries, whether or not well-founded. The sociologist Frank Furedi (2006) has written on the declining status of the intellectual in contemporary culture. He argues that truth and objectivity are increasingly denigrated by a postmodernism relativism that promotes social inclusion above all else. In a complementary book Furedi (2004) made a case that Anglo-American countries are orienting toward a "therapy culture" that frames everyday life in terms of emotions, and especially vulnerability and "victimhood." Not everyone believes that emotions are undervalued.

It is not our intention to endorse or reject any of the cultural views on the respective roles of emotion and the intellect to which we have referred. Our central point is simply this. To a perhaps unprecedented degree, Western culture is perplexed by emotions. Indeed Furedi (2006) points to a modern dilemma associated with complexity: it seems no one person can understand the culture in its entirety, leading to increased specialization of knowledge. Perhaps our understandings of emotions are becoming similarly fragmented. These dissonant views form a dangerous backdrop to the emergence of emotional intelligence. It is dangerous because scientists are likely no less susceptible to cultural pressures and biases than anyone else. The vulnerability of thinking to cultural tides and currents makes a rigorous and skeptical analysis of emotional intelligence complicated but essential.

Toward a Science of Emotional Intelligence

Why Science?

Our message thus far is that emotional intelligence is difficult to research. The concept is so wide-ranging that it is unclear what human qualities are central to it. Social-emotional abilities cannot be expressed in conventional psychological tests, even those that purport to measure emotional competencies. Both popular and professional notions of emotional intelligence can be powerfully shaped by the conflicting currents of thought about the value of emotion held within contemporary Western culture.

Beyond a concern with objective truth, there are several reasons why a scientific understanding of emotional intelligence is necessary. In the passages that follow, we discuss these reasons in some depth.

Targeting the Exceptional If we want to foster emotional intelligence and brilliance in order to profit from the wisdom of the emotionally gifted, we

need to know who they are. Equally we need to be able to identify the emotionally impoverished in order to develop meaningful interventions. Just as good IQ tests are needed to identify cognitively gifted (as well as challenged) individuals, standardized EI tests are required to identify those individuals who may need emotional enrichment, as well as support and training in dealing with emotion-laden situations.

Understanding Abnormality and Deviance One of Goleman's (1995a) themes is that low EI leads to various mental problems, including emotional disorders and antisocial behaviors. British Conservative Party leader David Cameron recently attracted some ridicule in the press for suggesting that "hoodies" (young thugs) need love and hugs rather than jail time. Evidently an enthusiast for cryptopositive psychology, Cameron was also quoted as saying "Improving our society's sense of well-being is, I believe, the central political challenge of our time" (AP, July 20, 2006). But is it true that interventions geared toward increasing subjective well-being and positive emotional support will contribute to solving societal problems such as violent crime? As our picture (figure 1.4) suggests, at least one "hoodie" was unimpressed with the idea. We need a scientific account of the role of EI in abnormality and deviant behavior to inform us whether raising EI will improve individual and societal well-being.

Mapping the Natural Ecology of Emotional Intelligence It is unlikely that emotional intelligence is distributed randomly across human social groups. For example, both popular stereotypes and rigorous personality research (Costa et al. 2001) suggest that women are more likely to possess "agreeable" characteristics. In turn, components comprising agreeableness such as empathy, awareness of the feelings of others, and coping with stress through "tending and befriending" are thought by some to be central to emotional intelligence. Valid measurement of EI is necessary to test whether there are such gender differences and other types of group differences, including age, social class, and cross-cultural differences. It is also important to understand how emotional intelligence might be distributed across different occupational groups. Are social workers really more emotionally intelligent than computer programmers? And does having high EI benefit (or hinder), for example, those involved in law and order?

Discovering the Sources of Emotional Intelligence Assuming emotional intelligence exists, what determines the affective intelligence of an indi-



Figure 1.4

A “hoodie” responds to politician David Cameron’s suggestion that young criminals need more love

vidual? If EI is like most other human characteristics, we may assume that it reflects both genes and the social environment in which the child develops. The individual’s DNA interacts with external stimulation in building the brain, including those brain structures that influence emotion. Perhaps emotional intelligence can be linked to the neurology of structures in the frontal lobes of the brain, which are known to be important for regulating and controlling emotion (Bechara et al. 2000). Already recent research suggests that both frontal and temporal lobes support emotionally intelligent reasoning (Reis et al. 2007). In addition the quality of interactions with caregivers and peers, which the child experiences, is known to affect emotional development. For example, maltreatment and deprivation are known to have various serious adverse effects (Smith and Walden 1999). Perhaps emotional intelligence reflects the extent to which the child is exposed to good role models for expressing and managing emotion.

Understanding Emotional Intelligence as a Process It is often said that the concept of “intelligence” is poorly formulated and largely misunderstood. Simply enumerating a person’s IQ fails to inform us of how intelligence plays out as an ongoing process in real-life contexts (Sternberg 1985). Similarly we need a scientific account of how emotional intelligence is expressed in handling the problems and challenges of life. We need, for example, to know how it helps the person *adapt* to threats and opportunities. This process view is especially important if emotional intelligence, as claimed, is more malleable than IQ. In the absence of understanding processes, interventions are likely to be futile at best, perhaps even dangerous.

Debunking Myths We have demonstrated that some of the claims made about emotional intelligence are grandiose. Moreover popular culture is vulnerable to fads and enthusiasms that have little relation to reality. It is essential to develop a rigorous science that allows for a skeptical examination of popular beliefs about emotional intelligence. If myths are debunked, scientific progress becomes “easier” to foster.

The Three Pillars Supporting a Science of Emotional Intelligence

Having made a case as to why a scientific account of emotional intelligence is important, it is imperative now to suggest what shape such a program of inquiry might take. Matthews, Zeidner, et al. (2002) list three essential pillars for a scientific treatment of emotional intelligence (see figure 1.5). In what follows, we delineate these pillars as there are germane to many of the arguments made throughout the current book.

Scientifically Justifiable Measurement As an essential condition, any new construct must be open to reliable and valid measurement. In the case of EI, measurement is pivotal because of uncertainties over what “emotional intelligence” actually is. Anyone can write a laundry list of desirable personal qualities (and many have done so). To show, however, that the list of qualities has some unique common element that can be meaningfully labeled “emotional intelligence” is another matter. For the fledgling construct of EI to take wing, it must be measured as a distinct personal quality that promotes effective social functioning. Without measurement, accounts of EI are little more than verbiage; armchair discourse (or better still, cocktail hour conversation) whose validity cannot be determined.

Measurement places the study of emotional intelligence in the field of *individual differences*, or differential psychology, because it allows the sci-

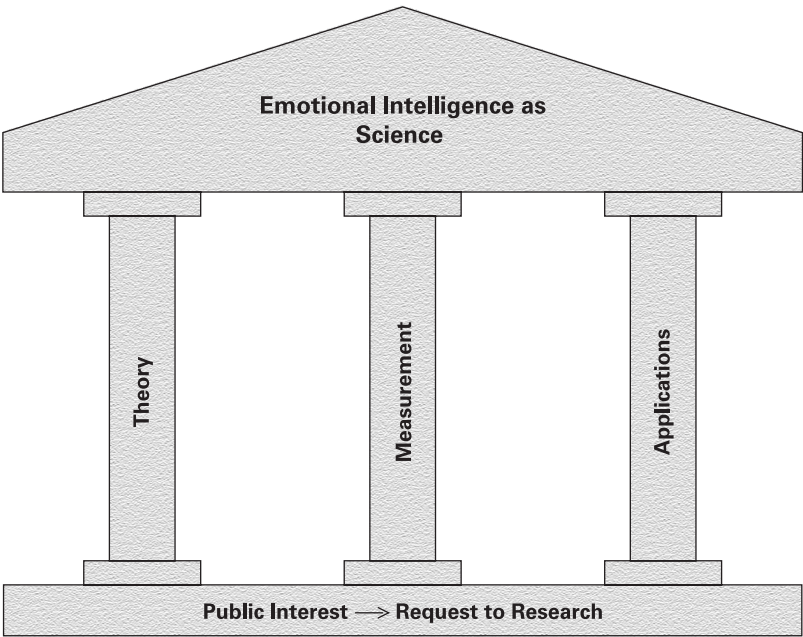


Figure 1.5
The three pillars of a science of emotional intelligence

entific researcher to evaluate individuals as being more or less emotionally intelligent. Standard differential psychology recognizes that ability, or superior performance in some domain, is fundamentally distinct from personality. The latter refers to styles of behavior that differ from one another qualitatively but are not “correct” or “incorrect.” Thus an important goal for research is to show how tests for EI fit into this larger scheme of individual differences. Also pivotal in such a framework is to differentiate emotional intelligence from personality and conventional intelligence.

Compelling Theory We also need a theory of what it means to be emotionally intelligent, a theory that identifies the key psychological processes involved. Suppose that we have a test that succeeds in picking out those people that have a talent for understanding and dealing with emotions. What is special about the way that these emotionally gifted individuals process emotional information? What is special about how they respond to emotive situations? And what features of emotional processing contribute to emotional illiteracy?

Various psychological theories may help us in seeking the sources of emotional intelligence. One possibility—highlighted by Goleman (1995a)—is that EI is engrained in the neurons of the brain. Neuroscientists have been especially interested in areas of the frontal lobes of the brain that seem to control the infusion of emotion into decision-making. Damage to these areas causes emotionally unintelligent behaviors such as violent mood swings, reckless impulsivity, and poor decision-making. Alternatively, we may look to the software (rather than the hardware) of the brain, in terms of the mental models that people build of their place in the social world around them. There is an important cognitive-psychological tradition of linking emotion to personal beliefs and evaluations and emotional dysfunction to excessively negative cognitions. Perhaps EI resides in building mental models that promote productive social engagement with others.

We should note, however, that a subtext of much writing on EI is that emotions have a mental life independent of thought and cognition (which may or may not be true). We will not say much more about theory at this point, but we will return to these issues in later chapters. A related issue is whether the attributes of EI are truly adaptive. Do they truly promote success in real life? Is it really important to have high self-esteem, empathy for others, and accurate perceptions of emotions? Perhaps only a psychologist would be introspective enough to ask these questions, but it is important to demonstrate evidence for their utility in life.

Meaningful Applications In addition the practical value of EI must be demonstrated, and across diverse fields. These fields might include education (see chapter 8), organizational psychology (see chapters 9 and 10), and mental health (see chapter 11). We are not painting on a blank canvas here. Applied psychologists have contributed much in developing practical interventions already. In many cases interventions are based on theory and supported by evidence. So it needs to be shown that emotional intelligence offers something new, that it adds to and augments current practice. Applied research has in fact tended to proceed at one remove from laboratory-based research that is more focused on measurement issues. We will argue that although basic and applied research could be seen as separate strands of research, they would both benefit from greater integration. The practitioner, of course, focuses on remedial measures against some specific problem, such as children with behavior problems, ineffective leadership at work, or severe depression requiring clinical treatment.

We will shortly look again at the potential of emotional intelligence in applied settings.

Visions in Conflict: Alternate Models of Emotional Intelligence

In this section we provide a quick tour of the state-of-the-art in scientific research on EI. We aim simply to summarize the different approaches researchers have taken in their search for the essence of emotional intelligence. At this point our survey will be fairly uncritical. Subsequently we will look at some of the challenges faced by this program of research.

A basic difficulty has been that different psychologists have disparate visions of what a science of emotional intelligence should look like. Indeed it may be that different research teams are investigating entirely different personal qualities. We have already introduced Jack Mayer and Peter Salovey as two of the founders of the scientific study of emotional intelligence. In several articles (e.g., Mayer, Salovey, et al. 2000a, b) they aim to discriminate among some of the different scientific conceptions of emotional intelligence. Other authors (e.g., Perez et al. 2005) have been concerned especially with the relationship between EI and personality theory. These analyses give us three conflicting ways of understanding emotional intelligence, which we discuss below.

Ability Models Mayer, Salovey, et al. (2000b) favor defining emotional intelligence as an ability resembling other standard intelligences. That is, high EI persons are objectively superior to those of lower EI in performing certain activities associated with emotions. In their four-branch model (see chapter 3) Mayer and colleagues differentiate four essential components of EI: identifying emotions, assimilating emotions into thought, understanding emotions, and managing the emotions of oneself and others. This ability model is relatively narrow in scope; much of what Goleman (1995a) describes as EI is not relevant to the Mayer, Salovey, et al. (2000b) conception. Mayer, Salovey et al. (2000a, b) claim that EI relates specifically to interactions between emotions and cognitions; using emotion to enhancing thinking and using thought to regulate emotion. A third psychological domain—motivation—falls outside their definition, although other authors have attributed motivational components to EI, such as persistence in adversity and motivations to support and connect with other people (e.g., Goleman 1995a).

Besides the four-branch model, other ability-based definitions are possible. For example, Scherer (2007) cites competencies in appraisal

(accurate perceptions of emotive events) and communication (effective listening and speech) as possible bases for emotional intelligence. There is also research concerned specifically with accurate perception of emotions, a faculty that is relatively straightforward to measure using objective techniques (e.g., Davies et al. 1998; Roberts, Schulze, et al. 2005, 2006). Further still, Lane (2000) has suggested that awareness and verbal expression of emotion may be critical for human survival; EI may relate to the sophistication with which the person can articulate emotional experience.

Abilities are best measured through objective tests akin to IQ tests. These tasks present the respondent with problems that can be scored on a right-or-wrong basis. The difficulty is that it is hard to write test items relating to emotional functioning that can be objectively scored. The correct way to handle an aggressive coworker or comfort an upset family member may depend on circumstances and the particular individuals concerned. Nonetheless, Mayer and colleagues have published two widely used tests for EI, the Multi-factor Emotional Intelligence Scale (MEIS), and its successor, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). We examine these tests in depth in chapter 3.

Mixed Models A broader conception of emotional intelligence incorporates both abilities and qualities such as personality and motivational traits that assist the person in using EI in real life. For example, a person with a warm, sympathetic personality may find it easier to deploy skills for managing the emotions of others. Goleman's (1995a) account of EI, which includes qualities such as optimism, empathy, and good character, is a mixed model. More scientific approaches aim to list the specific abilities and traits that contribute to real-world adaptation (e.g., Bar-On 2000). As we will see in chapter 4, mixed models embrace a multitude of qualities. Questionnaires have also been used to assess more narrowly defined personal characteristics relevant to EI, including regulation of moods (Salovey et al. 1995) and "alexithymia," which is a deficiency in the ability to understand and verbalize one's own feelings (Taylor and Bagby 2004).

Researchers in the mixed model tradition have typically used questionnaires to assess emotional intelligence (e.g., Schutte et al. 1998). The approach is based on the often unstated assumption that people have sufficient insight into their own emotions and real-life functioning for self-reports to be valid. This assumption, as we will see in chapter 4, is questionable. Another difficulty is that questionnaire assessments tend to overlap with standard personality traits such as extraversion and emo-

tional stability. Nevertheless, questionnaires for EI have become widely used in research. In principle, they provide a straightforward and economical means for measuring individual differences in emotional functioning.

Trait Emotional Intelligence The difficulties of trying to assess abilities by self-report, exemplified by mixed model research, has led some researchers (e.g., Perez et al. 2005; Tett et al. 2005) toward a radical re-conceptualization of emotional intelligence. The idea is that emotional abilities and competencies may be dauntingly difficult to measure systematically, certainly by questionnaire. However, there may be personality traits that relate directly to emotional functioning (e.g., assertiveness, empathy). Trait emotional intelligence represents an overarching personality factor that represents the person's emotional self-confidence (Petrides et al. 2007). Like conventional personality traits, trait EI represents a qualitatively style of behavior and experience that is adaptive in some contexts but not in others.

A focal research challenge is then to integrate trait EI and its facets into standard personality research. Does work on trait EI add new facets to existing personality models? Or does it just describe existing traits from a different perspective? We will also address these issues in chapter 4.

Loose Ends Some important conceptual issues not entirely accommodated within the different EI models that we have described thus far appear worthy of mention. One issue is the extent to which EI is primarily a *social* intelligence. There is a long tradition of researchers who have attempted to develop objective tests for social abilities (e.g., understanding and coping with the behaviors of others) with rather mixed results (Kihlstrom and Cantor 2000; Matthews, Zeidner, et al. 2002). As we noted earlier, Gardner (1983) differentiates intrapersonal from interpersonal intelligence. Although some authors, including Goleman (2001), have recognized that self-related can be distinguished from other-related aspects of EI, it remains unclear to what extent EI is expressed only through interaction with others. We should bear in mind that emotions have important social functions, in communicating personal status and needs to others (Oatley and Johnson-Laird 1995).

A second issue is the extent to which emotional intelligence is conscious or unconscious. Psychology makes a pivotal distinction between processes that are explicit or implicit. On the one hand, explicit processes are accessible to consciousness; the person can describe them verbally. Implicit

processes, on the other hand, are unconscious and resistant to articulation. For example, describing the parts of a bicycle (wheels, handlebars, etc.) requires explicit memory, whereas actually riding a bike requires implicit memory; it is difficult to verbalize the motor skills involved. There may indeed be separate brain systems for implicit and explicit processing (Rolls 1999). Similarly, describing how one would deal with an emotionally challenging situation is an explicit activity, but actually interacting with someone who is emotionally upset also involves implicit processing. Responses to another's body language and other social signals may be unconscious (Bargh and Williams 2006), as is our own nonverbal behavior. One of our themes in this book is that the focus of research on explicit EI may lead to neglect of important implicit competencies and skills.

A third issue we might call the “de-contextualization” of emotional intelligence. Can we ever really separate emotional competence from the contexts and situations to which it applies? Similar concerns about cognitive intelligence have generated the controversial suggestion that practical intelligence geared to real-life problems should be separated from abstract, academic intelligence (Wagner 2000). The way we process emotions is highly context-dependent. Although there are universal facial expressions of emotion, we use contextual knowledge to decode emotion expressions. For example, we know from experience which of our friends tend to exaggerate their emotions. We also have no difficulty laughing when a comedian puts on a tragic expression. A test of how quickly the person recognizes standard emotion expressions may not capture the real-life richness and context-dependence of our understanding of facial emotions.

A particular instance of context is culture. A display of emotion that is acceptable in one culture may be deeply offensive in another. Research on EI has tended to shy away from cross-cultural analyses, but it is likely that emotionally intelligent behavior is culturally dependent. At the extreme we might wonder whether emotional intelligence refers not to any basic universal human ability but to the extent of the person's learning of their culture's rules for handling emotion. Most Westerners would instantly lose 20 emotional intelligence points as soon as they arrive at Narita airport in Japan. Alternatively, a foreigner's speed of adaptation to novel cultural norms may be an index of EI. Indeed it appears on such a premise that the eminently popular film *Lost in Translation* was based.

Applied Research

It is a well-trying tactic in psychology to begin with a test and then explore what the results tell us about the person tested. However, applied psychologists typically begin, not with a test, but with a problem. Applied research focuses on solving problems, and assessment is considered useful only in so far as it supports solutions. Goleman's (1995a) book was rich in problems—ironically so, given the interest of positive psychologists in emotional intelligence. If the book is in fact to be believed, our civilization is experiencing an emotional decline and fall, as reflected in an “age of melancholy” (p. 240), a “modern epidemic of depression” (p. 240), and “poisoning the very experience of childhood” (p. 233). The solution, according to Goleman, is a concerted effort to train emotional intelligence in schools and the workplace.

Emotional problems in childhood are usually divided into “externalizing”—acting out in often antisocial ways—and “internalizing” problems such as anxiety and depression. The emotionally intelligent educator is concerned with both. As we will see in chapter 8, programs for social and emotional learning (SEL) aim to educate children in emotional competence, to improve their well-being (less internalizing), to make them more responsible citizens (less externalizing), and to enhance classroom learning. Advocates of SEL encourage schools to find room in the curriculum for training in skills such as constructive conflict resolution, avoiding drug and alcohol use, and relating to their peers. There is evidence for the effectiveness of such programs. However, training programs for social skills existed long before the notion of emotional intelligence. So it seems reasonable to ask whether research on EI has really added anything to such programs or whether it is just a convenient banner under which to raise awareness of the issues.

There is also growing interest in emotional intelligence at work, in terms of improving both worker well-being and company productivity. As in education these applications rest in part on truisms, for example, that it is important that employees are able to work constructively with others. It is difficult to argue against the notion that it is useful to train skills such as teamwork, conflict resolution, and leadership. However, as with education it is unclear how much “added value” can be attached to emotional intelligence. There has even been backlash against the idea that EI is the panacea for all organizational problems (e.g., Landy 2005). For example, a leading applied psychologist, Kevin Murphy, has described emotional intelligence as one of the big ten misses of industrial and

organizational psychology over the last decade (see Murphy 2006a, b). According to Murphy (see Murphy and Sideman 2006; Murphy 2006a), whereas the version of EI managers prefer is a mess, the version scientists can live with doesn't predict that much. Murphy's caustic comments aside, it is perhaps unfortunate that EI was ushered into industrial-organizational psychology with such a fanfare of hyperbole. The more sober advocates of EI (e.g., Jordan et al. 2007) rightly call for careful evidence-based research to realize the promise of increasing emotional competence at work.

A final area of application is in promoting mental health and well-being. Both ordinary unhappiness and clinical disorders may follow from poor understanding and management of one's own emotions. In everyday life, misunderstanding others' feelings, lashing out impulsively in challenging situations, and failing to engage positively with others may all lead to stress and avoidable unhappiness. These symptoms of emotional illiteracy have been addressed in studies of how people cope with stress, how they negotiate intimate relationships and marriage, and how lack of self-control may lead to deviant behaviors such as substance abuse and crime. Clinical psychology has for many years recognized that unrealistic beliefs about oneself contribute to emotional dysfunction. But a closer focus on how people understand and regulate their emotional states may bring therapeutic benefits. A particularly dramatic example of low EI may be provided by autism and related developmental disorders. The autistic child appears to be unable to understand other people or form emotional connections with them, leading to social withdrawal and abnormality. Again, a science of EI may provide important clinical benefits (Vachon and Bagby 2007).

Concluding Comments: Atlantis Is to Myth as Emotional Intelligence Is to ... ?

In 1665 the Jesuit polymath Athanasius Kircher published his book *Mundus Subterraneus* in Amsterdam. Among many wonders and mysteries (including a toad sealed within a stone and a Swiss dragon) is a map showing the continent of Atlantis placed squarely between Spain and the Americas (see figure 1.6). Of course, the continent is mythical, but the map poses the challenge of research on emotional intelligence. We know there may well be uncharted terrain—and perhaps whole continents—to be mapped, but we do not know exactly where to look or where the new land is to be located on existing world maps. That is, we have quite good “maps” of personality and ability already, but it is unclear where emo-

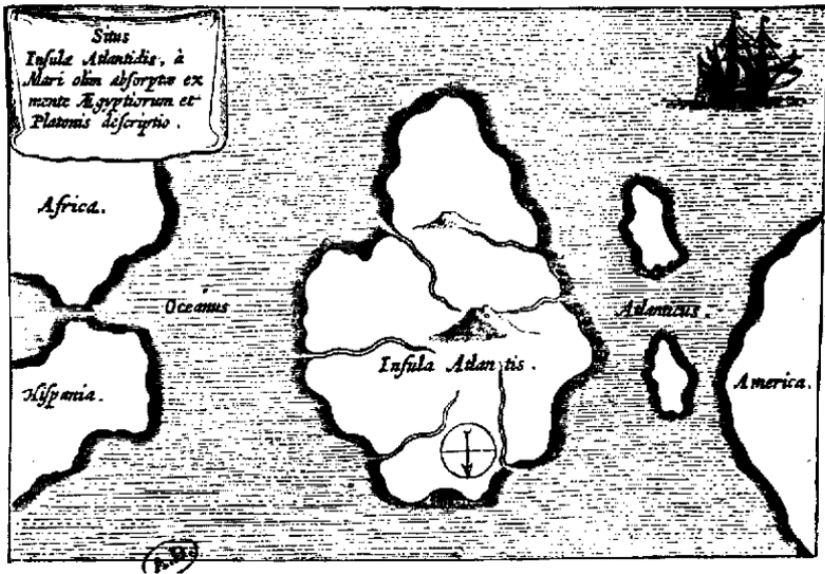


Figure 1.6

Map of Atlantis, from *Mundus Subterraneus* published by Athanasius Kircher in 1665. Is emotional intelligence akin to Atlantis or a scientifically verifiable construct?

tional intelligence should be placed within this existing sphere. Like early explorers in search of new continents, researchers on EI are at risk of several distinct errors:

1. Emotional intelligence may be entirely mythical, like Atlantis.
2. Emotional intelligence may exist, but be of relatively minor importance—a small island rather than a major landmass.
3. What is labeled as emotional intelligence may in fact be known and charted terrain—like marking Ireland as Atlantis on the map.
4. Different researchers may attach the name emotional intelligence to many different constructs; rather as historians have variously identified Atlantis with Santorini, the Azores, the Bahamas, and numerous other islands.

Alternatively, it may be that emotional intelligence truly represents a large swathe of new psychological terrain, and its exploration will add much to our understanding of individual differences in emotion. Another, more subtle possibility is that work on emotional intelligence will discover little new terrain but will add importantly to our understanding of existing

constructs, like mapping the universe with radio waves rather than visible light.

We have seen how scientific conceptions of EI differ from one another, sometimes radically. These uncertainties in definition carry over into difficulties in measurement. Tests for EI may not measure any true ability at all. Alternatively, they may simply re-package existing personality and ability scales, or they may measure some trivial competence that is weakly related (or worse still unrelated) to real life. Careful scientific research is needed to discern whether emotional abilities, competencies, and personality traits lie beyond our current charts of human intelligences and dispositions. Without such a scientific effort, we can have no clear notion of how people differ in their regulation of emotion. Nor can we hope to help practitioners in workplaces, schools, and psychiatric clinics.

In our previous book (Matthews, Zeidner, et al. 2002) we concluded that there is no evidence for the extreme claims made for the importance of EI in the popular literature on the subject. It is simply false to say that studies show that EQ is more predictive of real-life success than IQ, for example. We also argued that there is little support for Goleman's (1995a) position that training EI will serve as a panacea for the problems of the world. The evidence we will review in later chapters of the present book will support a similarly cautious appraisal of the potential value of emotional intelligence.

At the same time it is important to evaluate what new knowledge studies of emotional intelligence may add to our understanding of emotional competence. One vision is that of Mayer, Salovey, et al. (2000a, b), a vision perhaps shared by other researchers that are relatively optimistic about the scientific status and impact of emotional intelligence (e.g., Jordan et al. 2007). In their conception, EI meets criteria for a standard intelligence; it represents a true ability with far-reaching implications for real life. As we will see in chapter 3, they argue that their test assesses a major quality of the person, distinct from standard personality and intelligence measures. To evaluate such a claim, we will look at the measurement properties of their tests, and research that examines whether EI test scores are actually predictive of real-life emotional and social competence (chapter 6). Another vision is of EI as being more akin to personality, and so measurable by questionnaire. We will consider "mixed" and "trait" models of EI in chapter 4, and evaluate whether the increasingly popular questionnaires for EI measure anything different from standard personality traits.

While much of this book will be geared toward evaluating existing research, we will also suggest an alternative vision of emotional intelligence; one that is in some ways at odds with that of proponents of EI, as currently defined. Our position is that there may be no common element to the various constructs and accompanying measures labeled as emotional intelligence. Current research may instead relate to a potpourri of often unrelated personal characteristics. We will try to sift what is new and important in this research from what adds little to existing understanding. Some constructs may be discarded altogether, some may be seen as no more than existing constructs repackaged, and some may be genuinely new and interesting. There may be both new personality traits and new abilities in the latter category. We will propose too that much work on emotional intelligence neglects the psychological theory of emotion. We will explore how emotional competencies and temperaments develop in childhood (chapter 5), how emotion infuses our social relationships (chapter 6), and how people differ in their coping with stress (chapter 7). By the end of the book we will have set out systematically the diversity of personal qualities labeled—aptly or not—as emotional intelligence, and their psychological significance. We will also have assessed the practical relevance of emotional intelligence in various fields (chapters 7 to 11).

Summary Points: Chapter 1

- Emotional intelligence may be defined as a generic competence in perceiving emotions (both in oneself and in others), in regulating emotions, and in coping effectively with emotive situations.
- Viewed as a form of intelligence, emotional intelligence has a rich history, including links to social, practical, interpersonal, and intrapersonal intelligences. That history suggests difficulties with measurement and theory that, while not insurmountable, pose challenges for the concept virtually from its inception.
- Emotional intelligence also has close links to the positive psychology movement, which has placed increasing emphasis on the importance of happiness and well-being. Recent trends suggest something of a backlash against this movement; negative emotions, for example, have an important role in adaptive functioning.
- A scientific understanding of emotional intelligence is needed in order to (1) target the exceptional, (2) understand abnormality and deviance, (3)

comprehend group differences, (4) uncover underlying processes, and (5) debunk myths and fads that are associated with popularization of the concept.

- The three pillars that are needed to establish a science of emotional intelligence are sound measurement, compelling theory, and successful application. We will use these pillars to evaluate the success (or otherwise) of various approaches to emotional intelligence covered in the remainder of this book.