Emotional Intelligence: Issues in Paradigm Building

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CHAPTER TWO

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It was Super Bowl Sunday, that sacrosanct day when most American men are to be found watching the biggest football game of the year. The flight from New York to Detroit was delayed two hours in departing, and the tension among the passengers—almost entirely businessmen—was palpable. As they finally arrived at Detroit, a mysterious glitch with the boarding ramp made the plane stop some one hundred feet from the gate. Frantic about arriving late, people on the plane leapt to their feet anyway.

One of the flight attendants went to the intercom. How could she most effectively get all the passengers to comply with federal regulations requiring they all be seated before the plane could finish taxiing to the gate?

She did *not* announce in a stern voice, "Federal regulations require that you be seated before we can move to the gate."

Instead, she warbled in a singsong tone, suggestive of a playful warning to an adorable small child who has done something naughty but forgivable, "You're staaanding!"

At that, everyone laughed and sat back down until the plane had finished taxiing to the gate. And given the circumstances, the passengers got off the plane in a surprisingly good mood (Goleman, 1998b).

The flight attendant's adept intervention speaks to the great divide in human abilities that lies between the mind and heart, or more technically, between cognition and emotion. Some abilities are purely cognitive, like IQ or technical expertise. Other abilities integrate thought and feeling and fall within the domain of *emotional intelligence,* a term that highlights the crucial role of emotion in their performance.

All emotional intelligence abilities involve some degree of skill in the affective domain, along with skill in whatever cognitive elements are also at play in each ability. This stands in sharp contrast to purely cognitive aspects of intelligence, which, to a large degree, computers can be programmed to execute about as well as a person can: on that Sunday flight a digitized voice could have announced, "Federal regulations require that all passengers be seated before we proceed to the gate." But although the basic content of the digitized and "live" messages might have been the same, lacking the flight attendant's sense of timing, artful wit, and affect, the computerized version would have fallen flat. People might have grudgingly complied with the firm directive but would have undergone nothing like the positive mood shift the attendant accomplished. She was able to hit exactly the right *emotional* note—something cognitive capabilities alone are insufficient for, because by definition they lack the human flair for feelings.

Peter Salovey and John Mayer first proposed their theory of emotional intelligence (EI) in 1990. Over the intervening decade, theorists have generated several

distinctive EI models, including the elaborations by Salovey and Mayer on their own theory. The theory as formulated by Salovey and Mayer (1990; Mayer, Salovey, & Caruso, 2000) framed EI within a model of intelligence. Reuven Bar-On (1988) has placed EI in the context of personality theory, specifically a model of well-being. My own model formulates EI in terms of a *theory of performance* (Goleman, 1998b). As I will show in this chapter and Chapter Three, an EI-based theory of performance has direct applicability to the domain of work and organizational effectiveness, particularly in predicting excellence in jobs of all kinds, from sales to leadership.

All these EI models, however, share a common core of basic concepts. Emotional intelligence, at the most general level, refers to the *abilities to recognize and regulate emotions in ourselves and in others.* This most parsimonious definition suggests four major EI domains: *Self-Awareness, Self-Management, Social Awareness,* and *Relationship Management.* (As theories develop, the terms they use develop too. As I discuss in Chapter Three, these are the domain names in the most recent version of my model. Some readers may be familiar with earlier versions of these names.)

These four domains are shared by all the main variations of EI theory, though the terms used to refer to them differ. The domains of Self-Awareness and Self-Management, for example, fall within what Gardner (1983) calls *intrapersonal intelligence,* and Social Awareness and Relationship Management fit within his definition of *interpersonal intelligence.* Some make a distinction between *emotional intelligence* and *social intelligence,* seeing EI as personal self-management capabilities like impulse control and social intelligence as relationship skills (see, for example, Bar-On, 2000a). The movement in education that seeks to implement curricula that teach EI skills uses the general term *social and emotional learning,* or SEL (Salovey & Sluyter, 1997).

The EI model seems to be emerging as an influential framework in psychology. The span of psychological fields that are now informed by (and that inform) the EI model ranges from neuroscience to health psychology. Among the areas with the strongest connections to EI are developmental, educational, clinical and counseling, social, and industrial and organizational psychology. Indeed, instructional segments on EI are now routinely included in many college-level and graduate courses in these subjects.

One main reason for this penetration seems to be that the concept of emotional intelligence offers a language and framework capable of integrating a wide range of research findings in psychology. Beyond that, EI offers a positive model for psychology. Like other positive models, it has implications for the ways we might tackle many problems of our day—for prevention activities in physical and mental health care and for effective interventions in schools and communities, businesses, and organizations (Seligman & Csikszentmihalyi, 2000). Our increasing understanding of EI also suggests a promising scientific agenda, one that goes beyond the borders of personality, IQ, and academic achievement to study a broader spectrum of the psychological mechanisms that allow individuals to flourish in their lives, their jobs, and their families and as citizens in their communities.

In this chapter and the next I seek to explore the implications of the EI framework for the workplace, and particularly for identifying the active ingredients in outstanding performance, and to review the business case for the utility to an organization of selecting, promoting, and training people for EI. Specifically, this chapter offers a brief history of the EI concept and the increasing interest it is generating, discusses concerns

about definitions and means of distinguishing EI abilities from other abilities, and introduces some ideas and data for comparing EI and IQ as predictors of how well a person will perform in a job.

The EI Paradigm Evolves

A paradigm, writes Thomas Kuhn, in his landmark work *The Structure of Scientific Revolutions* (1970), "is an object for further articulation and specification under new or more stringent conditions" (p. 23). He adds that once a model or paradigm has been articulated, the signs of scientific vigor include "the proliferation of competing articulations, the willingness to try anything, the expression of explicit discontent, the recourse to philosophy and to debate over fundamentals" (p. 91). By Kuhn's criteria, the emotional intelligence paradigm shows signs of having reached a state of scientific maturity.

It has taken decades to reach this point. In the field of psychology the roots of EI theory go back at least to the beginnings of the intelligence testing movement. E. L. Thorndike (1920), professor of educational psychology at Columbia University Teachers College, was one of the first to identify the aspect of EI he called *social intelligence.* In 1920 he included it in the broad spectrum of capacities that individuals possess, their "varying amounts of different intelligences." Social intelligence, wrote Thorndike, is "the ability to understand and manage men and women, boys and girls—to act wisely in human relations" (p. 228). It is an ability that "shows itself abundantly in the nursery, on the playground, in barracks and factories and salesrooms, but it eludes the formal standardized conditions of the testing laboratory" (p. 231). Although Thorndike did once propose a means of evaluating social intelligence in the laboratory—a simple process of matching pictures of emotive faces with descriptions of emotions—he also maintained that because social intelligence manifests in social interaction, "genuine situations with real persons" would be necessary to accurately measure it.

In 1937, Robert Thorndike and Saul Stern reviewed the attempts to measure the social intelligence E. L. Thorndike had discussed, identifying three different areas "adjacent to social intelligence, perhaps related to it, and often confused with it" (p. 275). The first area encompassed primarily an individual's attitude toward society and its various components: politics, economics, and values such as honesty. The second involved social knowledge: being well versed in sports, contemporary issues, and general "information about society." This area seemed often conflated with the first. The third form of social intelligence was an individual's degree of social adjustment: introversion and extroversion were measured by individuals' responses to questionnaires (p. 276). One widely known questionnaire of the time that Thorndike and Stern reviewed was the George Washington Social Intelligence Test, developed in 1926. It measured, for example, an individual's judgment in social situations and in relationship problems; recognition of the "mental state" of a speaker (measured through ability to match the person's words with the names of emotions), and ability to identify emotional expression (measured through ability to match pictures of faces with the corresponding emotions).

But Thorndike and Stern concluded that the attempts to measure the "ability to deal with people" had more or less failed: "It may be that social intelligence is a complex of several different abilities, or a complex of an enormous number of specific social habits and attitudes." And they added, "We hope that further investigation, via situation

tests, movies, etc., getting closer to the actual social reaction and further from words, may throw more light on the nature of ability to manage and understand people" (p. 284).

The next half century of psychology, dominated as it was by the behaviorist paradigm on one hand and the IQ testing movement on the other, turned its back on the EI idea. Still, even David Wechsler (1952), as he continued to develop his widely used IQ test, nodded to "affective capacities" as part of the human repertoire of capabilities.

Howard Gardner (1983) had a major hand in resurrecting EI theory in psychology. His influential model of multiple intelligence includes two varieties of *personal intelligence,* the *interpersonal* and *intrapersonal intelligences;* EI, as mentioned earlier, can be seen as elaborating on the role of emotion in these domains.

Reuven Bar-0n (1988) developed perhaps the first attempt to assess EI in terms of a measure of well-being. In his doctoral dissertation he used the term *emotional quotient* ("EQ"), long before it gained widespread popularity as a name for emotional intelligence and before Salovey and Mayer had published their first model of emotional intelligence. Bar-On (2000a) now defines EI in terms of an array of emotional and social knowledge and abilities that influence our overall ability to effectively cope with environmental demands. This array includes (1) the ability to be aware of, to understand, and to express oneself; (2) the ability to be aware of, to understand, and to relate to others; (3) the ability to deal with strong emotions and control one's impulses; and (4) the ability to adapt to change and to solve problems of a personal or a social nature. The five main domains in his model are *intrapersonal skills, interpersonal skills, adaptability, stress management,* and *general mood* (Bar-On, 1997b).

Finally, in 1990, Peter Salovey at Yale and his colleague John Mayer, now at the University of New Hampshire, published the seminal article "Emotional Intelligence," the most influential statement of EI theory in its current form. Salovey and Mayer's original model (1990) identified emotional intelligence as the "ability to monitor one's own and other's feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action" (p. 189). Citing a need to distinguish emotional intelligence abilities from social traits or talents, Salovey and Mayer evolved a model with a cognitive emphasis. It focused on specific mental aptitudes for recognizing and marshalling emotions (for example, knowing what someone is feeling is a mental aptitude, whereas being outgoing and warm is a behavior). A comprehensive EI model, they argued, must include some measure of "thinking about feeling," an aptitude lacked by models that focus on simply perceiving and regulating feelings.

Their current model is decidedly cognitive in focus (Mayer & Salovey, 1997). In this model, emotional intelligence comprises four tiers of abilities that range from basic psychological processes to more complex processes integrating emotion and cognition. In the first tier of this "mental ability model" is the complex of skills that allow an individual to perceive, appraise, and express emotions. Abilities here include identifying one's own and other's emotions, expressing one's own emotions, and discriminating the expressions of emotion in others. The second tier abilities involve using emotions to facilitate and prioritize thinking: employing the emotions to aid in judgment, recognizing that mood swings can lead to a consideration of alternative viewpoints, and understanding that a shift in emotional state and perspective can encourage different kinds of problem solving. In the third tier are skills such as labeling and distinguishing between emotions (differentiating liking and loving, for instance), understanding

complex mixtures of feelings (such as love and hate), and formulating rules about feelings: for example, that anger often gives way to shame and that loss is usually accompanied by sadness. The fourth tier of the model is the general ability to marshal the emotions in support of some social goal. In this more complex level of emotional intelligence are the skills that allow individuals to selectively engage in or detach from emotions and to monitor and manage emotions in themselves and in others.

Salovey and Mayer's 1997 model is developmental: the complexity of emotional skill grows from the first tier to the fourth. However, all the mental aptitudes they describe fit within the general matrix of self-other recognition or regulation.

The Increasing Interest in EI

My primary role as an EI theorist has been to propose a theory of performance that builds on the basic EI model, adapting it to predict personal effectiveness at work and in leadership (Goleman, 1998b). As I have done so, my role has also been that of a synthesizer, bringing together a broad array of findings and theories in psychology and integrating them into the emotional intelligence framework.

In my role as a science journalist, I have aimed to disseminate the EI concept, primarily through my book *Emotional Intelligence* (Goleman, 1995a) but also through other publications (for example, Goleman, 1998a, 1998b, 2000a, 2000b). The EI concept has found remarkably receptive audiences throughout the world: the 1995 book has, at this writing, been published in thirty-three foreign editions, is available in more than fifty countries, and has more than five million copies in print worldwide. Howard Gardner (1999) contends that *Emotional Intelligence* is now the most widely read social science book in the world. Amazon.com now lists more than seventy titles on emotional intelligence.

My 1998 follow-up book, *Working with Emotional Intelligence,* articulated my EI-based theory of performance, made the business case for the importance of EI at work, and set forth guidelines for effective individual development of the key EI-based competencies. That book has also been widely published, as of this writing going into print in twenty-nine foreign editions and becoming a best-selling business book in many countries.

Although this wave of interest has, perhaps inevitably, given rise to many questionable claims for EI—particularly in the business realm—that should not detract from the solid science that supports EI or from its implications for psychology. As a theoretical construct the EI model is very new. Yet in the last few years psychologists have begun the process of establishing validity for measurement tools (Davies, Stankov, & Roberts, 1998). There have been some detours in this process. One of the stranger ones came when a group of Australian psychologists seized on an informational quiz I had compiled in 1995, somewhat in the spirit of the satirical *Journal of Irreproduceable Results,* for a popular magazine (Goleman, 1995b). Without contacting me, the psychologists treated the quiz as though it were a serious measure (Davies et al., 1998). They were apparently oblivious to my warning preceding the quiz that there were as yet (in 1995) no well-validated paper-and-pencil assessments of EI. They also missed the pointed humor in the quiz scoring key, which rated answers on a scale where the low end was "Newt" and the high end "Gandhi." And they earnestly reported that the quiz had abysmal reliability and validity!

Despite such digressions, the EI construct has now passed several validation benchmarks. In terms of formal theory, EI meets traditional criteria for an intelligence (Mayer, Caruso, & Salovey, 2000a). As I have discussed, in the influential framework of multiple intelligences formulated by Howard Gardner (1999), EI fits squarely within the spectrum of personal intelligence, elaborating on the role of emotions in the intrapersonal and interpersonal intelligences. And there is now an array of validated instruments for assessing aspects of EI (see, for example, Bar-On, 2000a; Mayer, Caruso, & Salovey, 2000b; Boyatzis, Goleman, & Rhee, 2000).

In addition, the EI model is already influential in the business community, unusually so for such a recently proposed theory. Organizations are applying an array of EI-based instruments for predicting on-the-job performance (as Marilyn Gowing discusses in Chapter Five). A strong interest in the professional applications of the EI concept is apparent in the field of industrial and organizational psychology. The American Society for Training and Development, for example, has published a volume describing "best practice" guidelines for helping people in organizations cultivate the EI-based competencies that distinguish outstanding performers from average ones (Cherniss & Adler, 2000). An article I published in the *Harvard Business Review* on the role of emotional intelligence in effective leadership (Goleman, 1998a) immediately became the review's most requested reprint. This response also suggests high levels of interest in EI in the business community. And there are other signs of considerable interest: for example, the first annual conference on EI and the workplace, sponsored by conference promoter Linkage, Inc., in 1999, was the most heavily enrolled of Linkage's many professional conferences that year.

The model of EI as a variety of intelligence has a wide range of implications. But I believe that when it comes to applications in the workplace and organizational life, the EI-based theory of performance I articulate in the next chapter has more direct implications—and applications—particularly in predicting and developing the hallmarks of outstanding performers in jobs of every kind and at every level.

Issues in EI Theory

Arguing from their framework of EI as a theory of intelligence, Mayer, Salovey, and Caruso (2000) make a distinction between EI models that are *mixed* and those that are *pure* models, or *ability* models, focusing exclusively on cognitive aptitudes. Mixed models, they argue, contain a melange of abilities, behaviors, and general disposition and conflate personality attributes—such as optimism and persistence—with mental ability.

Based on their reading of my 1995 book, Mayer, Salovey, and Caruso (2000) contend that my EI model is mixed. But the point of that book was to explore EI as a groundbreaking conception of intelligence rather than to systematically articulate an EI model. The EI-based theory of performance I first described in *Working with Emotional Intelligence* in 1998 is a formulation that seems to meet Mayer et al.'s criteria for a pure model. It is competency based, comprising a discrete set of abilities that integrate affective and cognitive skills but are distinct from abilities measured by traditional IQ tests.

For example, I agree with Mayer, Salovey, and Caruso's critique that a "warm and outgoing nature" is not an EI competence. It may be seen as a personality trait. However, it may also be a reflection of a specific set of EI competencies, chiefly those

involving the ability to relate positively to others—that is, those found in the Social Awareness and Relationship Management clusters. Likewise, optimism, although it may be seen as a personality trait, may also refer to specific behaviors that contribute to the competence I label Achievement Drive.

Mayer, Salovey, & Caruso's model draws upon a psychometric tradition that an intelligence must meet three criteria to be defined as such. The proposed intelligence must be conceptual (that is, it must reflect mental aptitudes rather than behaviors), it must be correlational (that is, it must share similarities with yet remain distinct from other established intelligences), and it must be developmental (that is, the aptitudes that characterize it must increase with an individual's experience and age). Mayer et al. demonstrate that emotional intelligence meets these criteria.

Arguing from a different perspective, Howard Gardner (1983, 1999) has proposed broadening our notion of intelligence so that it incorporates many significant faculties that have traditionally been beyond its scope. The psychometric tradition invoked by Mayer, Salovey, and Caruso (2000), Gardner argues, is too narrow. The psychometric tradition focuses on intellectual aptitudes that can be measured by standardized tests, but performance on such tests does not necessarily translate into success in school or in life. In expanding the range of significant aptitudes for such success, Gardner (1999) defines an intelligence as "the biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (p. 33–34).

Gardner thus adds several new items to the standard list of criteria for an intelligence. His criteria suggest further arguments for considering EI a distinct variety of intelligence.

- *Potential for isolation by brain damage, making it separable from other abilities in the functioning of the brain.* Studies have indicated that trauma to the brain's emotional circuitry and that circuitry's connections to the prefrontal areas can have significant consequences for the performance of competencies associated with EI, such as Empathy or Collaboration, yet can leave abilities associated with pure intellect entirely intact (Damasio, 1994).
- *An evolutionary history and evolutionary plausibility.* The limbic structures in the brain that govern emotion integrate with neocortical structures, particularly the prefrontal areas, in producing the instinctual emotional responses that have been essential for our survival throughout human evolution (Lewis, Amini, & Lannon, 2000). These prefrontal limbic structures appear to be the underlying circuits for the bulk of the EI competencies.
- *An identifiable core operation or set of operations.* A universal characteristic of EI models is a 2 x 2 core set of operations constituting the overall ability to recognize and regulate emotions in oneself and others. (Figure 3.1 is an example of this core set of operations.).
- *Susceptibility to encoding in a symbol system.* We are able to articulate our feelings and the operations of the core EI abilities. (The EI theory of performance discussed in Chapter Three represents one form of this encoding.)
- *A distinct developmental history, along with a definable set of expert, or end state, performances.* Emotional skills range from the simple (recognizing that you're upset) to the complex (artfully calming down an upset colleague). Emotional skills tend to develop

in children at specific and recognizable stages: for example, there is a point at which young children become able to label emotions and talk about their feelings, and this ability precedes the ability to recognize feelings in others and to soothe them (see, for example, Saarni, 1997). Experts, such as high performers in the workplace, exhibit this developmental dimension in their set of learned EI competencies (Goleman, 1998b).

EI Versus IQ as a Predictor of Workplace Performance

Does EI predict success more strongly than IQ? In one sense, this question is purely academic: in life, cognitive abilities and emotional intelligence always interplay. But in another sense, it has practical implications for significant workplace decisions. For example, in Chapter Eight Claudio Fernández-Aráoz offers qualitative data suggesting that basing the selection of high-level executives solely on their academic intelligence and business expertise and ignoring their emotional intelligence often leads to poor choices that can be disastrous for an organization. Data establishing the relative contribution of EI and IQ to effective performance would be of both theoretical and practical importance—for instance, providing a scientific rationale for making more balanced decisions in hiring and promotions.

There is good reason to expect that EI and IQ make separate and discrete contributions to performance. For one thing, early studies of the correlation between IQ and EI show a range from 0 to .36, depending on the measures used. John Mayer, using his own EI measure, reports a zero correlation with fluid intelligence and a .36 correlation with verbal IQ; Reuven Bar-On, using his own measure, finds correlations ranging from .06 to .12—positive but not significant (Mayer, 2000; Bar-On, 2000a).

However, the EI concept has been articulated relatively recently, and there has not yet been time to conduct a longitudinal study designed to assess the predictive power of EI relative to IQ in distinguishing workplace performance over the course of a career. My belief is that if such a study were done, IQ would be a much stronger predictor than EI of which jobs or professions people can enter. Because IQ stands as a proxy for the cognitive complexity a person can process, it should predict what technical expertise that person can master. Technical expertise, in turn, represents the major set of threshold competencies that determine whether a person can get and keep a job in a given field. IQ, then, plays a sorting function in determining what jobs people can hold. However, having enough cognitive intelligence to hold a given job does not by itself predict whether one will be a star performer or rise to management or leadership positions in one's field.

In my own analysis of competency data for outstanding performers within a given field, an emphasis on emotional intelligence–based abilities emerged. These data were gathered from several hundred organizations (Goleman, 1998b). Mostly proprietary and so not typically shared outside companies, they reveal the competencies that a given organization has concluded distinguish star performers from average ones in a specific job or role. Such studies are undertaken for competitive, strategic reasons: companies want to identify these key capabilities so that they can hire and promote people who have them or develop them in their employees (Spencer & Spencer, 1993).

The competencies in these models generally fall into one of three domains: technical skills (for example, software programming), purely cognitive abilities (for example, analytical reasoning), and abilities in the EI range (such as customer service or conflict management abilities). These EI-based competencies combine both cognitive and

emotional skills, and so are distinguished from purely cognitive abilities like IQ and from technical skills, which have no such emotional component.

Comparing the three domains, I found that for jobs of all kinds, emotional competencies were twice as prevalent among distinguishing competencies as were technical skills and purely cognitive abilities combined (Goleman, 1998b). In general the higher a position in an organization, the more EI mattered: for individuals in leadership positions, 85 percent of their competencies were in the EI domain. These competency models reflect the perceived value of EI competencies relative to technical and cognitive abilities and so are highly consequential. They already guide decisions about who is hired, who is put on a fast track for promotion, and where to focus development efforts—particularly for leadership—in many of the largest organizations throughout the world (Spencer & Spencer, 1993).

EI may so strongly outstrip intellect alone in this context because those in the pools that were evaluated had had to clear relatively high entry hurdles for IQ and technical competence. For most positions, particularly those at the higher levels of an organization, competencies in technical and cognitive realms are *threshold* skills, essential requirements for entry into fields like engineering, law, or the executive management of an organization. Because everyone in a given field has its threshold skills, these basic abilities lose their power as *distinguishing* competencies, the capabilities that set outstanding performers apart from average.

IQ, then, mainly predicts what profession an individual can hold a job in—for instance, it takes a certain mental acumen to pass the bar exam or the MCATs. Estimates are that in order to pass the requisite cognitive hurdles such as exams or required coursework or mastery of technical subjects and enter a profession like law, engineering, or senior management, individuals need an IQ in the 110 to 120 range (Spencer & Spencer, 1993). That means that once one is in the pool of people in a profession, one competes with people who are also at the high end of the bell curve for IQ. This is why, even though IQ is a strong predictor of success among the general population, its predictive power for outstanding performance weakens greatly once the individuals being compared narrow to a pool of people in a given job in an organization, particularly at its higher levels (Goleman, 1998b).

In contrast, there is less systematic selection pressure for emotional intelligence along the way to entering the ranks of such professions. Of course some minimal level of EI is needed to be successful in school and to enter a profession, but because there is no specific EI hurdle one must clear to enter a profession, there is a much wider range of EI abilities among those one competes with in one's field. For that reason, once people are in a given job, role, or profession, EI emerges as a more powerful predictor of who succeeds and who does not—for instance, who is promoted to the upper echelons of management and who passed over.

In short, my position is that IQ will be a more powerful predictor than EI of individuals' career success in studies of large populations over the career course because it sorts people before they embark on a career, determining which fields or professions they can enter. But when studies look *within* a job or profession to learn which individuals rise to the top and which plateau or fail, EI should prove a more powerful predictor of success than IQ.

IQ Versus EI: The Data

My position on this question has been misrepresented by John Mayer and his colleagues (Mayer, Salovey, and Caruso, 2000), apparently based on a misreading of my 1995 book, in which I state that EI "can be as powerful, and at times more powerful, than IQ" in predicting success at a variety of life tasks (p. 34). They infer that I was asserting that EI should predict success at levels higher than $r = .45$, the figure that many studies have found for IQ as a predictor of success in fields such as academics. However, as I have since pointed out to Mayer, my statement pertained to areas in life where IQ predicts not at that strong level but at weaker ones—areas such as health or marital success. With regard to work performance, as I have just explained, my prediction is that in distinguishing successful people *within* a job category or profession, EI will also emerge as a stronger predictor than IQ of who, for instance, will become a star salesperson, team head, or top-rank leader.

The resolution of this issue awaits the appropriate research. The existing data that speak to the relative contribution of EI and IQ to career success are sparse and largely indirect. For example, among the measures taken of eighty graduate students at the University of California-Berkeley in 1950, Feist and Barron (1996) identified measures that in retrospect seemed to reflect EI—for example, measures of emotional balance and interpersonal effectiveness. Feist and Barron report these surrogate measures of EI accounted for 13 percent of variance over and above IQ scores in predicting the students' career success forty years later, whereas IQ added no variance over and above the EI measures. Although these surrogate measures do appear to fall within the EI domain, they reflect only a slim portion of the EI spectrum.

One of the few longitudinal studies to directly compare the contribution to work performance (as gauged by promotions) of cognitive competencies and EI competencies was done by Dulewicz and Higgs (1998). They reanalyzed data from a seven-year study of the career progress of fifty-eight general managers in the United Kingdom and Ireland, assessing three domains of ability—emotional skill (which they call EQ), intellectual aptitude (IQ), and managerial competency (MQ) that contributes to on-the-job performance. The emotional skill category included abilities like Resilience, Influence, Assertiveness, Integrity, and Leadership. The IQ domain was not assessed by intelligence test scores but by competencies used as surrogate measures, such as Analysis, Judgment, Planning, Creativity, and Risk-Taking. MQ included Supervision, Oral Communication, Business Sense, Self-Management, and Initiative and Independence.

Dulewicz and Higgs found that their measure of emotional intelligence accounted for 36 percent of the variance in organizational advancement whereas IQ accounted for 27 percent and MQ 16 percent. This suggests that EI contributes slightly more to career advancement than does IQ. However, there are several limitations to this study. One is that the measure of IQ involves surrogates—such as Judgment, Creativity, and Risk-Taking—that have questionable or uncertain relationships to standard measures of intelligence. Another limitation is that some competencies classified in the IQ and MQ domains—such as Self-Management, Initiative, and Risk-Taking—arguably belong in the EQ category. In addition, compared to the generic EI model described in this chapter, the study's EQ model fails to reflect the full spectrum of EI, omitting several key competencies, including any measure of Self-Awareness, a cluster of competencies that some research suggests is the cornerstone of emotional intelligence (Boyatzis, Goleman,

& Rhee, 2000). For all these reasons, this study seems to underestimate the effect of emotional intelligence on success.

The relative significance of emotional competencies compared to cognitive abilities has also been borne out by several converging analyses using different data sets. A competency study drawing on models from forty companies revealed that strengths in purely cognitive capacities were 27 percent more frequent in the stars than in the average performers, whereas greater strengths in emotional competencies were 53 percent more frequent (Goleman, 1998b). In Boyatzis's classic 1982 study of more than two thousand supervisors, middle managers, and executives at twelve organizations, all but two of the sixteen abilities setting the star apart from the average performers were emotional competencies. And an analysis of job competencies at 286 organizations worldwide by Spencer and Spencer (1993) indicated that eighteen of the twenty-one competencies in their generic model for distinguishing superior from average performers were EI based. However, a more definitive analysis—particularly a multiple regression using such a data set—remains to be done. My prediction is that when such a study is done, EI-based competencies will have greater power than IQ-based measures in predicting which individuals in a given job pool will be outstanding.

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