

Emotional Intelligence: What it is and Why it Matters

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Ever since the publication of Daniel Goleman's first book on the topic in 1995, emotional intelligence has become one of the hottest buzzwords in corporate America. For instance, when the *Harvard Business Review* published an article on the topic two years ago, it attracted a higher percentage of readers than any other article published in that periodical in the last 40 years. When the CEO of Johnson & Johnson read that article, he was so impressed that he had copies sent out to the 400 top executives in the company worldwide.

Given that emotional intelligence is so popular in corporate America, and given that the concept is a psychological one, it is important for I/O psychologists to understand what it really means and to be aware of the research and theory on which it is based. So in my presentation today, I'd like to briefly lay out the history of the concept as an area of research and describe how it has come to be defined and measured. I also will refer to some of the research linking emotional intelligence with important work-related outcomes such as individual performance and organizational productivity.

Even though the term has been misused and abused by many popularizers, I believe it rests on a firm scientific foundation. Also, while there are aspects of the concept that are not new, some aspects are. Finally, emotional intelligence represents a way in which I/O psychologists can make particularly significant contributions to their clients in the future. So let's begin with some history.

Historical Roots of the Topic

When psychologists began to write and think about intelligence, they focused on cognitive aspects, such as memory and problem-solving. However, there were researchers who recognized early on that the non-cognitive aspects were also important. For instance, David Wechsler defined intelligence as "the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment" (Wechsler, 1958, p. 7). As early as 1940 he referred to "non-intellective" as well as "intellective" elements (Wechsler, 1940), by which he meant affective, personal, and social factors. Furthermore, as early as 1943

Wechsler was proposing that the non-intellective abilities are essential for predicting one's ability to succeed in life. He wrote:

The main question is whether non-intellective, that is affective and conative abilities, are admissible as factors of general intelligence. (My contention) has been that such factors are not only admissible but necessary. I have tried to show that in addition to intellective there are also definite non-intellective factors that determine intelligent behavior. If the foregoing observations are correct, it follows that we cannot expect to measure total intelligence until our tests also include some measures of the non-intellective factors [Wechsler, 1943 #316, p. 103].

Wechsler was not the only researcher who saw non-cognitive aspects of intelligence to be important for adaptation and success. Robert Thorndike, to take another example, was writing about "social intelligence" in the late thirties (Thorndike & Stein, 1937). Unfortunately, the work of these early pioneers was largely forgotten or overlooked until 1983 when Howard Gardner began to write about "multiple intelligence." Gardner (1983) proposed that "intrapersonal" and "interpersonal" intelligences are as important as the type of intelligence typically measured by IQ and related tests.

Now let us switch our historical lens to I/O psychology. In the 1940s, under the direction of Hemphill (1959), the Ohio State Leadership Studies suggested that "consideration" is an important aspect of effective leadership. More specifically, this research suggested that leaders who are able to establish "mutual trust, respect, and a certain warmth and rapport" with members of their group will be more effective (Fleishman & Harris, 1962). At about the same time, the Office of Strategic Services (1948) developed a process of assessment based on the earlier work of Murray (1938) that included the evaluation of non-cognitive, as well as cognitive, abilities. This process evolved into the "assessment center," which was first used in the private sector at AT&T in 1956 (Bray, 1976). Many of the dimensions measured in assessment centers then and now involve social and emotional competencies such as communication, sensitivity, initiative, and interpersonal skills (Gowing, in press; Thornton & Byham, 1982).

I could cite other strands of research and theory, but I think it is clear that by the early 1990s, there was a long tradition of research on the role of non-cognitive factors in helping people to succeed in both life and the workplace. The current work on emotional intelligence builds on this foundation.

Contemporary Interest in the Topic

When Salovey and Mayer coined the term emotional intelligence in 1990 (Salovey & Mayer, 1990), they were aware of the previous work on non-cognitive aspects of intelligence. They described emotional intelligence as “a form of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and action” (Salovey & Mayer, 1990). Salovey and Mayer also initiated a research program intended to develop valid measures of emotional intelligence and to explore its significance. For instance, they found in one study that when a group of people saw an upsetting film, those who scored high on emotional clarity (which is the ability to identify and give a name to a mood that is being experienced) recovered more quickly (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). In another study, individuals who scored higher in the ability to perceive accurately, understand, and appraise others’ emotions were better able to respond flexibly to changes in their social environments and build supportive social networks (Salovey, Bedell, Detweiler, & Mayer, 1999).

In the early 1990’s Daniel Goleman became aware of Salovey and Mayer’s work, and this eventually led to his book, *Emotional Intelligence*. Goleman was a science writer for the New York Times, whose beat was brain and behavior research. He had been trained as a psychologist at Harvard where he worked with David McClelland, among others. McClelland (1973) was among a growing group of researchers who were becoming concerned with how little traditional tests of cognitive intelligence told us about what it takes to be successful in life.

IQ by itself is not a very good predictor of job performance. Hunter and Hunter (1984) estimated that at best IQ accounts for about 25 percent of the variance. Sternberg (1996) has pointed out that studies vary and that 10 percent may be a more realistic estimate. In some studies, IQ accounts for as little as 4 percent of the variance.

An example of this research on the limits of IQ as a predictor is the Sommerville study, a 40 year longitudinal investigation of 450 boys who grew up in Sommerville, Massachusetts. Two-thirds of the boys were from welfare families, and one-third had IQ's below 90. However, IQ had little relation to how well they did at work or in the rest of their lives. What made the biggest difference was childhood abilities such as being able to handle frustration, control emotions, and get along with other people (Snarey & Vaillant, 1985).

Another good example is a study of 80 Ph.D.'s in science who underwent a battery of personality tests, IQ tests, and interviews in the 1950s when they were graduate students at Berkeley. Forty years later, when they were in their early seventies, they were tracked down and estimates were made of their success based on resumes, evaluations by experts in their own fields, and sources like *American Men and Women of Science*. It turned out that social and emotional abilities were four times more important than IQ in determining professional success and prestige (Feist & Barron, 1996).

Now it would be absurd to suggest that cognitive ability is irrelevant for success in science. One needs a relatively high level of such ability merely to get admitted to a graduate science program at a school like Berkeley. Once you are admitted, however, what matters in terms of how you do compared to your peers has less to do with IQ differences and more to do with social and emotional factors. To put it another way, if you're a scientist, you probably needed an IQ of 120 or so simply to get a doctorate and a job. But then it is more important to be able to persist in the face of difficulty and to get along well with colleagues and subordinates than it is to have an extra 10 or 15 points of IQ. The same is true in many other occupations.

We also should keep in mind that cognitive and non-cognitive abilities are very much related. In fact, there is research suggesting that emotional and social skills actually help improve cognitive functioning. For instance, in the famous "marshmallow studies" at Stanford University, four year olds were asked to stay in a room alone with a marshmallow and wait for a researcher to return. They were told that if they could wait until the researcher came back before eating the marshmallow, they could have two. Ten years later the researchers tracked down the kids who participated in the study. They found that the kids who were able to resist temptation had a total

SAT score that was 210 points higher than those kids who were unable to wait (Shoda, Mischel, & Peake, 1990).

Granted that cognitive ability seems to play a rather limited role in accounting for why some people are more successful than others, what is the evidence that emotional and social factors are important? In doing the research for his first book, Goleman (1995) became familiar with a wealth of research pointing to the importance of social and emotional abilities for personal success. Some of this research came from personality and social psychology, and some came from the burgeoning field of neuropsychology. I don't have the time or space to summarize all of this research. Let me, however, give you a few examples that deal specifically with the role that non-cognitive abilities play in success at work.

The Value of Emotional Intelligence at Work

Martin Seligman has developed a construct that he calls "learned optimism" (Schulman, 1995). It refers to the causal attributions people make when confronted with failure or setbacks. Optimists tend to make specific, temporary, external causal attributions while pessimists make global, permanent, internal attributions. In research at Met Life, Seligman and his colleagues found that new salesmen who were optimists sold 37 percent more insurance in their first two years than did pessimists. When the company hired a special group of individuals who scored high on optimism but failed the normal screening, they outsold the pessimists by 21 percent in their first year and 57 percent in the second. They even outsold the average agent by 27 percent (Schulman, 1995).

In another study of learned optimism, Seligman tested 500 members of the freshman class at the University of Pennsylvania. He found that their scores on a test of optimism were a better predictor of actual grades during the freshman year than SAT scores or high school grades (Schulman, 1995).

The ability to manage feelings and handle stress is another aspect of emotional intelligence that has been found to be important for success. A study of store managers in a retail chain found that the ability to handle stress predicted net profits, sales per square foot, sales per employee, and per dollar of inventory investment (Lusch & Serpkenci, 1990).

Emotional intelligence has as much to do with knowing when and how to express emotion as it does with controlling it. For instance, consider an experiment that was done at Yale University by Sigdal Barsade (1998; 1998). He had a group of volunteers play the role of managers who come together in a group to allocate bonuses to their subordinates. A trained actor was planted among them. The actor always spoke first. In some groups the actor projected cheerful enthusiasm, in others relaxed warmth, in others depressed sluggishness, and in still others hostile irritability. The results indicated that the actor was able to infect the group with his emotion, and good feelings led to improved cooperation, fairness, and overall group performance. In fact, objective measures indicated that the cheerful groups were better able to distribute the money fairly and in a way that helped the organization. Similar findings come from the field. Bachman (1988) found that the most effective leaders in the US Navy were warmer, more outgoing, emotionally expressive, dramatic, and sociable.

One more example. Empathy is a particularly important aspect of emotional intelligence, and researchers have known for years that it contributes to occupational success. Rosenthal and his colleagues at Harvard discovered over two decades ago that people who were best at identifying others' emotions were more successful in their work as well as in their social lives (Rosenthal, 1977). More recently, a survey of retail sales buyers found that apparel sales reps were valued primarily for their empathy. The buyers reported that they wanted reps who could listen well and really understand what they wanted and what their concerns were (Pilling & Eroglu, 1994).

Thus far I have been describing research suggesting that "emotional intelligence" is important for success in work and in life. However, this notion actually is somewhat simplistic and misleading. Both Goleman (1998) and Mayer, Salovey, & Caruso (1998b) have argued that by itself emotional intelligence probably is not a strong predictor of job performance. Rather, it provides the bedrock for competencies that are. Goleman has tried to represent this idea by making a distinction between emotional intelligence and emotional competence. Emotional competence refers to the personal and social skills that lead to superior performance in the world of work. "The emotional competencies are linked to and based on emotional intelligence. A

certain level of emotional intelligence is necessary to learn the emotional competencies(Gowing, in press).” For instance, the ability to recognize accurately what another person is feeling enables one to develop a specific competency such as Influence. Similarly, people who are better able to regulate their emotions will find it easier to develop a competency such as Initiative or Achievement drive. Ultimately it is these social and emotional competencies that we need to identify and measure if we want to be able to predict performance.

The Assessment of Emotional Intelligence and Competence

Assuming that emotional intelligence is important, the question of assessment and measurement becomes particularly pressing. What does the research suggest about the measurement of emotional intelligence and competence? In a paper published in 1998, Davies, Stankov, & Roberts (1998) concluded that there was nothing empirically new in the idea of emotional intelligence. This conclusion was based solely on a review of existing measures purporting to measure emotional intelligence at the point in time when they wrote that paper. However, most of those measures were new, and there was not yet much known about their psychometric properties. Research now is emerging that suggests emotional intelligence, and particularly the new measures that have been developed to assess it, is in fact a distinct entity. However, there still is not much research on the predictive validity of such measures, and this is a serious lack. Let me briefly summarize what we really know about the most popular ones.

The oldest instrument is Bar-On’s EQ-I (Bar-On, 1997), which has been around for over a decade. This self-report instrument originally evolved not out of an occupational context but rather a clinical one. It was designed to assess those personal qualities that enabled some people to possess better “emotional well-being” than others. The EQ-I has been used to assess thousands of individuals, and we know quite a bit about its reliability and its convergent and discriminant validity (Gowing, in press; Salovey et al., 1999). Less is known about its predictive validity in work situations. However, in one study the EQ-I was predictive of success for U.S. Air Force recruiters. In fact, by using the test to select recruiters, the Air Force saved nearly 3 million dollars annually (Bar-On, in press). Also, there were no significant differences based on ethnic or racial group.

A second instrument is the Multifactor Emotional Intelligence Scale (Mayer, Caruso, & Salovey, 1998a). The MEIS is a test of ability rather than a self-report measure. The test-taker performs a series of tasks that are designed to assess the person's ability to perceive, identify, understand, and work with emotion. There is some evidence of construct validity, convergent validity, and discriminant validity, but none for predictive validity (Gowing, in press).

A third instrument is the Emotional Competence Inventory. The ECI is a 360 degree instrument. People who know the individual rate him or her on 20 competencies that Goleman's research suggests are linked to emotional intelligence (Goleman, 1998). Although the ECI is in its early stages of development, about 40 percent of the items come from an older instrument, the Self-Assessment Questionnaire, that was developed by Boyatzis (1994). These earlier items had been "validated against performance in hundreds of competency studies of managers, executives, and leaders in North America," Italy, and Brazil (Boyatzis, Goleman, & Rhee, in press). However, there currently is no research supporting the predictive validity of the ECI.

Another measure that has been promoted commercially is the EQ Map (Orioli, Jones, & Trocki, 1999). Although there is some evidence for convergent and divergent validity, the data have been reported in a rather ambiguous fashion.

One other measure deserves mention, even though it is less well-known than the others. Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim (1998) have developed a 33-item self-report measure based on Salovey and Mayer's (1990) early work. There is evidence for convergent and divergent validity. Emotional intelligence scores on this measure were positively associated with first-year college grades and supervisor ratings of student counselors working at various mental health agencies. Also, scores were higher for therapists than for therapy clients or prisoners (Malouff & Schutte, 1998; Salovey, Woolery, & Mayer, in press).

Finally, it might be helpful to keep in mind that emotional intelligence comprises a large set of abilities that have been studied by psychologists for many years. Thus, another way to measure emotional intelligence or competence is through tests of specific abilities. Some of these tests seem rather strong. To name just one example, there is Seligman's SASQ, which was designed to measure learned optimism and which has been impressive in its ability to

identify high performing students, salespeople, and athletes, to name just a few (Schulman, 1995).

Conclusion

So is there anything new about emotional intelligence? In some ways, emotional intelligence really is not new. In fact, it is based on a long history of research and theory in personality and social, as well as I/O, psychology. Furthermore, Goleman has never claimed otherwise. In fact, one of his main points was that the abilities associated with emotional intelligence have been studied by psychologists for many years, and there is an impressive, and growing, body of research suggesting that these abilities are important for success in many areas of life.

However, rather than arguing about whether emotional intelligence is new, I believe it is more useful and interesting to consider how important it is for effective performance at work. Although I have not had the time to cover very much of it, I hope I have shown that there now is a considerable body of research suggesting that a person's ability to perceive, identify, and manage emotion provides the basis for the kinds of social and emotional competencies that are important for success in almost any job. Furthermore, as the pace of change increases and the world of work makes ever greater demands on a person's cognitive, emotional, and physical resources, this particular set of abilities will become increasingly important. And that is good news for I/O psychologists, for they are the ones who are best situated to help clients to use emotional intelligence to improve both productivity and psychological well-being in the workplace of tomorrow.

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