

Educational Policy on Emotional Intelligence: Does It Make Sense?

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Educational policy on emotional intelligence appears to be based more on mass-media science journalism than on actual educational and psychological research. The first section of this article provides an overview of the research areas of emotional intelligence, social and emotional learning, and character education; it further examines how these areas became linked in the popular press. The second section examines the scientific evidence for whether emotional intelligence underpins social and emotional learning, how emotional intelligence relates to success, and whether it is central to character. We conclude that educational policy in this area has outpaced the science on which it is ostensibly based, and recommendations for the future are made.

KEY WORDS: emotional intelligence; educational policy; socioemotional learning; character education.

Emotional intelligence was formally defined, and aspects of it first measured, in two journal articles in 1990 (Mayer, DiPaolo, and Salovey, 1990; Salovey and Mayer, 1990). Just 5 years later, the concept was popularized in a best-selling book entitled *Emotional Intelligence* (Goleman, 1995) and featured on the cover of TIME (Gibbs, 1995). The popular book made three points that caught the imagination of the public—and educators as well. First, the book saw rudeness, irresponsibility, and violence as a serious problem plaguing both the nation and the nation's schools. Second, the book claimed that scientists had discovered a link between high emotional intelligence and prosocial behavior. Third, the book claimed that emotional

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intelligence was "as powerful, and at times more powerful, than IQ" in predicting success in life (Goleman, 1995, p. 34).

Such claims rapidly entered the educational policy arena. Writing in *Educational Leadership*, Scherer (1997, p. 5) echoed Goleman by stating "emotional intelligence, more than IQ, . . . is the most reliable predictor of success in life and in school." Research in emotional intelligence was viewed as providing a foundation for those working in socioemotional learning, and the two became closely identified (Elias *et al.*, 1997, p. 1). By 1997, at least 22 formal programs of socioemotional learning had been tested in one or more schools or school systems, with some programs emphasizing emotional intelligence throughout the school's entire curriculum (Elias *et al.*, 1997, Appendix C). In Rhode Island, Goleman noted, "they are attempting to make the whole state emotionally intelligent" (Klein, 1997, p. 2), and in fact, the Rhode Island state government created a plan calling for an integration of emotional learning in its social, health, and education programs (Rhode Island Emotional Competency Partnership, 1998).

An initial question raised by all this is whether it makes sense for schools to design policy centered on raising emotional intelligence. It may be that emotional intelligence will be of value to the curriculum, but the history of curricular innovation suggests that caution is in order. For example, beginning in 1986, a California task force spent 3 years and three-quarters of a million dollars on a study of whether to add self-esteem programs to school curricula (Joachim, 1996; Leo, 1990). Amazingly, the task force recommended adopting such programs despite the absence of research evidence that self-esteem would improve learning—or improve any other important school problem such as violence or drug use. Based on the task force's recommendation, self-esteem programs flooded the California public schools, only to be viewed as a waste of school resources and a dismal failure several years later. Had the task force placed sufficient weight on its scientific findings, it might have averted this outcome.

This article examines the scientific findings concerning emotional intelligence. It explores the degree to which educational policies are logically connected to the science pertaining to the intelligence. The first section of this article provides some brief background on the areas of emotional intelligence and of socioemotional learning, how the two areas became linked, and what happened afterward. We pay particular attention to the development of the Mayer and Salovey ability model of emotional intelligence in the science domain (e.g., Mayer and Salovey, 1997), although we review other approaches as well. In addition, we focus on a concern that education policy on emotional intelligence was driven by science journalists as much as by educators and psychologists. The second section examines the scientific bases for educational policy on emotional intelligence. The last section evaluates where scientists and educators might wish to head from here.

HOW EMOTIONAL INTELLIGENCE BECAME A TOPIC OF EDUCATIONAL POLICY

The Beginnings of Emotional Intelligence Research

The term *emotional intelligence* was employed on an occasional basis in the academic literature from the mid-1960s forward, without much attention paid to defining it or to creating an area around it (e.g., Greenspan, 1979, pp. 254–270; Leuner, 1966; Payne, 1986/1983). For example, one tradition considered emotional intelligence to be a Piagetian stage of development (Greenspan, 1979), but couched the concept in a jointly Freudian and Piagetian theoretical model that did little to define or clarify it for most readers.

In an unpublished dissertation, Wayne Payne came close to a first definition of the concept when he wrote that emotional intelligence was a basic intelligence in which:

The facts, meanings, truths, relationships, etc., are those that exist in the realm of emotion. Thus, feelings are facts. . . . The meanings are *felt* meanings; the truths are emotional truths; the relationships are interpersonal relationships. And the problems we solve are emotional problems, that is, problems in the way we feel. (Payne, 1986, p. 165).

Payne's definition left open such questions as what a "felt meaning" means and what kind of truth "emotional truth" is.

The work of Mayer and Salovey more clearly developed the idea of emotional intelligence as an intelligence (e.g., Mayer and Salovey, 1997; 1993; Salovey and Mayer, 1990). In 1990, Salovey and Mayer first formally defined emotional intelligence and demonstrated that aspects of it could be measured (Mayer, DiPaolo, and Salovey, 1990; Salovey and Mayer, 1990). Those authors currently define emotional intelligence as *the capacity to process emotional information accurately and efficiently, including the capacity to perceive, assimilate, understand, and manage emotion* (Mayer, Salovey, and Caruso, 2000).³

³Like emotional intelligence, the term *EQ* was employed on an occasional basis over many years. One early use of EQ was, in fact, to denote *education quotient* (e.g., Feinberg, 1941). Its current incarnation as *emotional quotient* was the consequence of the earlier-mentioned *Time* magazine story that featured EQ in block letters on the magazine's cover. EQ is a rather confusing abbreviation, from our standpoint. IQ, as intelligence quotient, refers to a person's degree of intelligence. Similarly, in the 1930s, EQ, as *education quotient*, referred to a person's degree of education. A high emotion quotient should therefore index how moody or emotionally reactive a person is. In fact, however, EQ was successfully recognized by *Time* readers as referring to the degree of emotional intelligence a person possessed. That is, EQ is a condensed E-IQ, or emotional IQ. Through the years, EQ has stood not only for educational quotient and emotional quotient, but for the English quotient (Dockrell, 1959), engagement quotient (Tryon and Tryon, 1986), ethics quotient (Benedict, 1990), entrepreneurial quotient (*Entrepreneur*, 1993), effectiveness quotient (Drench, 1994), and even eating quotient (Liebman, 1995).

Mayer and Salovey's approach viewed emotional meanings as signals about relationships. For example, angry emotional expressions are viewed as having evolved across species and as signaling a cross-species message of warning. In human beings, such feelings convey important meanings about relationships—the relationships one has with other people, groups, and even objects, as well as the relationships one has with oneself (e.g., guilt signals regret over one's own actions).

In this theory, emotional intelligence involves four broad classes of abilities: perception, integration, understanding, and management of emotion (Table I, column 1). The first ability, perceiving emotions, involves attending to and recognizing feelings. For example, a mother may perceive her son's ill-at-ease posture and accurately perceive that he has done something wrong. The second ability, integrating emotion in thought, involves using personal emotions in thought and communication. For example, she may then tell her son about a time when she had difficulty telling her mother about something she had done wrong, and her own mother's response, in order to encourage him to tell her about the problem. The third ability, understanding emotions, involves reasoning with feelings. This might occur if her son then admits to getting a speeding ticket. She may want to understand the relations among her fear for her son's safety, her anger over possibly rising automobile insurance premiums, and her son's shame over his own behavior. The last group of skills concern management. How will she deal with her own and her son's feelings and behavior to come up with a response that includes a good balance between empathy and discipline? The best feeling management will depend in part on her successful perception of emotion, use of it, and understanding of the feelings involved in the situation to that point, as well as on an understanding of how her actions will determine longer term emotional relations with her son (Mayer and Salovey, 1997).

In addition to providing a more formal definition of emotional intelligence, Mayer and Salovey's 1990 articles described an emotionally intelligent character: a well-adjusted, genuine, warm, persistent, and optimistic person (Mayer, DiPaolo, and Salovey, 1990, pp. 773, 781; Salovey and Mayer, 1990, pp. 199–200).

A Brief Overview of Character Education and Sociocultural Learning

Educators since the time of the Ancient Greeks have been interested in the character of their students. Some educators desired well adjusted, genuine, warm and persistent students; others sought disciplined, respectful, good citizens, and still others sought some other constellation of characteris-

Table 1. Comparison of the Concepts of Emotional Intelligence, Socioemotional Learning, and Character Education

	Emotional Intelligence	Character Education	Socioemotional Learning	Popular Emotional Intelligence
Definition	Emotional intelligence is the ability to process emotional information, particularly as it involves the perception, assimilation, understanding, and management of emotion (after Mayer and Salovey, 1997).	The long-term process of helping young people develop good character, that is, knowing, caring about, and acting on core ethical values such as fairness, honesty, compassion, responsibility, and respect for self and others. (The Character Education Partnership, 1998).	"Socioemotional learning is the process through which children and adults develop the skills, attitudes, and values necessary to acquire social and emotional competence" (Elias <i>et al.</i> , 1997, p. 2).	Emotional intelligence, popularly conceived, involves "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize, and to hope" (Goleman, 1995, p. 34)
Further specification	Four main areas of abilities: (1) Perception and expression of emotion (2) Integrating emotions in thought (3) Understanding emotions (4) Managing emotions	Values emphasized include: (1) fairness (2) honesty. (3) compassion. (4) responsibility (5) respect for self and others (The Character Education Partnership, 1998).	Skills in four domains of learning: (1) Life skills and social competencies (2) Health-promotion and problem-prevention skills (3) Coping skills and social support for transitions and crises (4) Positive contributory service (Elias <i>et al.</i> , pp. 21-22).	Five main areas: (1) Knowing one's emotions (2) Managing emotions (3) Motivating oneself (4) Recognizing emotions in others (5) Handling relationships

tics (Nucci, 1989, p. xiv). There was a recognizable character education movement in the United States in the late 1920's (Artman and Jacobs, 1928). Character education refers to the attempt to form a person's character, particularly as it involves heightening a sense of belonging to and responsibility for others (Benninga and Wynne, 1998). As such, its curricula promote a set of values, such as fairness and honesty, that lead to proper or virtuous behavior (See Table 1, Column 2). The character education movement made its mark even beyond the public schools, for example, in the scouting traditions. The Girl Scouts were established in this country in 1912, and the Girl Scout law states: "I will do my best to be honest and fair, friendly and helpful, considerate and caring, courageous and strong, and responsible for what I say and do, and to respect myself and others, respect authority, use resources wisely, make the world a better place, and be a sister to every Girl Scout" (Girl Scouts USA, 1999). The Boy Scouts, similarly, aspire to be "trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean, and reverent" (Boy Scouts of America, 1999).

A more recent movement, called the socioemotional learning movement, appears closely related to character education. Socioemotional theorists have identified long lists of values associated with their curricula (Table 1, column 3). For example, Elias *et al.* (1997, p. 33) identify 27 values that fall into five broad areas.⁴ These five areas are *self-development* (i.e., confidence, creativity, excellence, purposefulness, and self-discipline), *caring* (i.e., helpfulness, and love), *respect* (i.e., courtesy, honor, and tolerance), *responsibility* (i.e., honesty, justice, loyalty, and service), and *spiritual values* (i.e., peacefulness, reflectiveness, reverence, and thankfulness). The list bears a strong resemblance to those adhered to by the Girl Scouts and Boy Scouts.

Socioemotional learning is said to require skills for navigating the social world, such as the ability to communicate effectively, plan, and exert emotional self-control (Elias, 1997). Advocates of socioemotional learning want to teach these ideas both in and outside the regular curriculum. For example, students might be told to put a "gotcha" sticker on another student exhibiting caring or respect, so as to reward those students for their behavior (Elias *et al.*, 1997, p. 34).

The socioemotional learning movement also draws some of its heritage from that of the affective education movement, which stemmed from the work of humanistic psychologists such as Abraham Maslow and Carl Rogers in the 1950s (Miller, 1976, p. 83). Affective education promoted experiential approaches for building a student's internal personal skills, self-knowledge, and feeling-recognition, with a focus on promoting self-

⁴The original Elias *et al.* (1997) list was alphabetized. The five-area grouping in the text represents our own classification of those values.

esteem and a positive self-image (e.g., Wood, 1996, p. 126). The affective education movement was itself rather broadly defined and often considered synonymous with "humanistic education" and "psychological education" (Miller, 1976, p. 5).

Both the character education and socioemotional learning movements share in common the idea that much of human personality can be modified for the better through learning.⁵ Character educators engage in "developing civic virtue and moral character in our youth for a more compassionate and responsible society" (The Character Education Partnership, 1998). Socioemotional educators engage in educating for a safe, secure, caring society.

There is much to admire in the socioemotional learning and character education traditions. Their values of self-development, caring, respect, responsibility, and spirituality appear to cross many perspectives and ideologies. They represent values that are considered important in many societies and religions precisely because they promote the advancement of a society. These particular values seem well-tailored to socialization within democratic, diverse societies. It is almost as if one generation of socializers was creating the next.

Linking Emotional Intelligence and Education Policy

How did emotional intelligence, which in the early 1990s was a fairly modest academic area, become a subject of educational policy? In the period leading up to 1995, the Fetzer Institute provided financial support to Daniel Goleman, a *New York Times* science journalist, to tie his interests in emotions and the brain to educational work in emotional literacy (Goleman, 1995, p. 341). In addition, the Institute arranged for a series of meetings between researchers in emotional intelligence and related areas on the one hand and educators and curriculum developers on the other (Salovey and Sluyter, 1997, p. xii). The Fetzer Institute also assisted with the development of organizations such as the Collaborative for the Advancement of Social and Emotional Learning (CASEL).

⁵Today, most educators make a political distinction between character education and socioemotional learning. Character education is associated with conservative, right-wing values, and socioemotional learning is associated with left-wing values. It is important to note, however, that this is a historical accident, and that either approach could serve either ideology. Among character educators, teaching such virtues as "patriotism, hard work, and citizenship" may serve a conservative agenda, whereas teaching "skepticism and tolerance" may serve a more liberal agenda (Glanzer, 1998, p. 436). Take away this difference and, perhaps, the movements are not very dissimilar. Perhaps socioemotional learning emphasizes teaching interpersonal skills, whereas character education emphasizes a more general educational approach toward thinking and reasoning about morals. These are complementary approaches.

It was Goleman who provided the link between emotional intelligence and education. In the academic literature, emotional intelligence was increasingly viewed as a focused set of mental abilities. To link emotional intelligence to character, it was useful to equate the two as much as possible. Goleman thus expanded and emphasized the view of emotional intelligence as a list of personality characteristics, including optimism, adjustment, and motivation (Table I, column 4). Goleman stated, "There is an old-fashioned word for the body of skills that emotional intelligence represents: *character*" (Goleman, 1995, p. 285). This character, Goleman asserted, will enhance our schools. Attending to students' emotional competencies will result in a " 'caring community,' a place where students feel respected, cared about, and bonded to classmates" (Goleman, 1995, p. 280).

Goleman's popularization of the concept of emotional intelligence depended in part on broadening it from a specific psychological entity—a mental capacity for processing emotion—to a broader collection of personal qualities. Earlier, Salovey and Mayer had described possible character outcomes of emotional intelligence as including optimism and motivation. Goleman equated these character outcomes with the intelligence itself. This subtle shift led emotional intelligence to become a catch-phrase for anything that involved motivation, emotion, or good character. Virtually any link between personality and good school outcomes could be attributed to this broad conception of emotional intelligence. The problem was that the collection of character attributes now labeled as emotional intelligence was no longer one definable entity, and indeed, could consist of entities that were entirely independent of one another and that could even come into conflict at times (e.g., persistence vs sensitivity).

Using the Link between Emotional Intelligence and Education

Educators interested in policy found the link between emotional intelligence and socioemotional learning enticing. First, there appeared to be a quick public acceptance of the idea that emotional intelligence was required to learn and to behave well. One leader in curriculum development referred to emotional intelligence as "the integrative concept" underlying socioemotional learning (Elias *et al.*, 1997, pp. 27, 29).

Second, policy experts quickly accepted the idea that emotional intelligence predicted success. The senior editor of *Educational Leadership* stated that "emotional well-being is the strongest predictor of achievement in school and on the job" and that "recent studies have shown that emotional intelligence predicts about 80 percent of a person's success in life." (Pool, 1997, p. 12).

Third, these individuals concluded that emotional intelligence was readily observable and assessable in students. For example, good citizenship was evidence of high emotional intelligence (Pool, 1997, p. 12), whereas "dramatic displays of low emotional IQ" could be discerned from temper tantrums and "the inability to regain your composure quickly" (Stuftt, 1997, p. 42).

Finally, throughout the policy literature are references to "fostering" (Novick, 1998, p. 200) or "enhancing" emotional intelligence (Duhon-Haynes, Duhon-Sells, Sells, and Duhon-Ross, 1996, p. 2). Stuftt (1996, p. 43) noted that, "Fortunately, emotional temperament is not set in concrete. Unlike one's intellectual IQ, which is difficult to change, one's emotional IQ is somewhat easier to modify." Pasi (1997) added, "the good news about emotional intelligence is that it is virtually all learned, according to Daniel Goleman" (p. 40).

The previous quotes indicate that certain educators and policy analysts became truly involved with the promise of emotional intelligence. Those quotes further suggest that policy makers were informed by journalistic accounts of the science rather than by the science itself. In essence, the science and policy were connected through science journalism rather than involving direct readings of the emotional intelligence literature (cf. Franknel, 1995; Jerome, 1981).

WHAT IS THE SCIENTIFIC JUSTIFICATION FOR INCLUDING EMOTIONAL INTELLIGENCE IN THE CURRICULUM?

Policy experts appeared to accept emotional intelligence as central to emotional learning, highly predictive of success, essential to character, and readily taught. But does emotional intelligence really underpin emotional learning? Is it the best predictor of success in life, readily taught, or otherwise important for education? This section of our article attempts to find some answers to these questions.

Does Emotional Intelligence Underpin Socioemotional Learning?

Theoretically speaking, emotional intelligence, defined as the capacity to perceive, integrate, understand, and manage emotions, is a good candidate for a capacity underlying emotional learning. (Another possible candidate would be social intelligence, which, in comparison to emotional intelligence, concerns both the emotional and nonemotional understanding

of group dynamics, social status, political relationships, interpersonal activities and impact, and leadership.)

For the statement "Emotional intelligence underlies emotional learning" to prove correct, however, emotional intelligence must be demonstrated to be a useful model of an actual intelligence. Otherwise, the statement is no more sensible than saying "algebraic intelligence" underlies algebra, or even, that "Pythagorean intelligence" underlies understanding the Pythagorean formula, $A^2 = B^2 + C^2$. Thus far, there are no specific algebraic intelligences or Pythagorean intelligences. Rather, we speak of more general "verbal-propositional" intelligences, or "spatial intelligences," or other intelligences for which there exist coherent, distinct areas of abilities. Those more general intelligences are inferred from groups of mental skills that rise and fall together (Carroll, 1993).

This is not the place for an extensive elaboration of the criteria for identifying a part of personality. One central criterion that is worth mentioning, however, is that a personality part must be unitary in some sense—it must be a unitary mechanism like short-term memory, or describe a unitary area of knowledge like self-concept, or be unitary in function like intelligence (Mayer, 1998).

For a concept such as emotional intelligence to gain credibility, it must be clearly defined, and then measurement instruments based on the definition must be developed and evaluated. Mayer and Salovey's (1997) ability definition of emotional intelligence has the longest history (the first version originating in 1990) and the most support in the psychological literature, and for that reason we focus on it here. It should be mentioned that a variety of other concepts are more-or-less closely related to it, including intrapersonal intelligence (Gardner, 1993), pragmatic intelligence (Sternberg and Caruso, 1985), and emotional creativity (Averill and Nunley, 1992).

Mayer and Salovey think of intelligence as a hierarchy of mental abilities, with general intelligence at the top of the hierarchy, and dividing next into verbal (or crystallized) and spatial/performance (or fluid) intelligences, and then more specific intelligences thereafter (e.g., Carroll, 1993; Horn and Noll, 1994), such as, perhaps, abilities at memorization, vocabulary skills, and object rotation. Each of these intelligences represents a partially distinct part of general intelligence.

The most direct measures of emotional intelligence are in the form of ability tests. That is, they ask people to solve emotional problems. The recent introduction of the Multifactor Emotional Intelligence Scale (MEIS), which has 12 ability tasks related to emotional intelligence, has gone some way toward demonstrating the validity of the Mayer and Salovey model. A representative item from the MEIS is as follows:

Contempt most closely combines which two emotions?

1. anger and fear
2. fear and surprise
3. disgust and anger
4. surprise and disgust

The best answer to the above question is “3” because contempt involves angry dismissal, along with disgust at poor performance or poor behavior. Other MEIS items, such as perceiving emotion in faces, designs, and music, are less verbal. Factor analysis indicates that the MEIS has one overall general factor of emotional intelligence and three subfactors. The three subfactors correspond to (1) the accurate perception of emotion (e.g., in faces and music), (2) the understanding of emotional meaning (e.g., how emotions combine and progress over time), and (3) the regulation of emotion (e.g., identifying good alternatives for the social management of emotion). A weaker, fourth factor, integrating emotion in thought, may also be present.

Scores based on each factor and the full test are highly reliable (full test alpha reliability is $r = .96$). In a sample of 503 people, overall emotional intelligence correlated significantly, and modestly, with verbal intelligence ($r = .36$), indicating that it is a member of the family of intelligences that is distinct from verbal comprehension. It also correlated with self-reported empathy ($r = .33$). Results from the MEIS argue strongly for the existence of an emotional intelligence (see Mayer, Caruso, and Salovey, 1999, for more details).

Empirical research on such measures has just begun and is by no means widely accepted as of now. In a recent study of early developed measures of the field, Davies, Stankov, and Roberts (1998) dismissed self-report scales of emotional intelligence, but even worried over “objective” ability measures, including precursors to the MEIS. They concluded that: “as presently postulated, little remains of emotional intelligence that is unique and psychometrically sound. Thus, questionnaire measures are too closely related to ‘established’ personality traits [to be considered anything new], whereas objective measures of emotional intelligence suffer from poor reliability” (p. 1013).

The Davies *et al.* study preceded publication of the highly reliable MEIS. Nonetheless, the quote illustrates the skepticism with which emotional intelligence has been met by some.

If the existence of emotional intelligence as a part of personality becomes widely accepted within the scientific community, then such statements as the one opening this section—that emotional intelligence underlies

socioemotional learning—will be reasonable. If evidence against the intelligence mounts, then this connection will no longer remain.

How Does Emotional Intelligence Relate to Success?

Academic reviewers of the field agree that there is little published at present that indicates what this ability version of emotional intelligence predicts. Some have suggested that predictive validity has escaped the attention of the workers in the field (Davies *et al.*, 1998, p. 1013), but it is more accurate to say that validation has just begun. Ability scales such as the MEIS have existed only for the last few years and have not been widely distributed. Nonetheless, there is considerable evidence that high performance on tasks resembling those on the “emotion perception” scales of the MEIS are correlated with reduced involvement in violent and drug-related behavior (Mayer, Caruso, Salovey, Formica, and Woolery, 1999).

Is it possible that emotional intelligence, defined in the broader popularized fashion (e.g., including motivation, social skills), predicts a great deal? Goleman (1995) argues that if we look at sets of different variables—persistence, warmth, optimism, and so forth—we can predict important life outcomes. Looking at such a broad collection of variables, however, seems no different from everyday personality research. From this perspective, Goleman is probably correct that multiple variables predict important outcomes. Emotional intelligence used in this fashion, however, refers to nothing new.

The second way to interpret the claim that this broadly defined emotional intelligence predicts success is to take seriously the idea that its specific traits are of a special class that are highly important. Although this may be the case, there is little evidence to support it at present. The idea that different traits, such as motivation, empathy, and so on, contribute to a unitary function that contributes dramatically to success is as of yet undemonstrated. Epstein (1998, p. 19) remarked, “Nothing like this has yet been attempted, and . . . all we have is unsupported speculation about the existence of an undefined concept referred to as emotional intelligence” (see also Davies *et al.*, p. 1012; Mayer, Salovey, and Caruso, 2000).

There is not much to suggest that the individual traits in the broader Goleman list (1995) predict success highly on their own. For example, to the degree that Goleman’s concept of “handling relationships” relates to traits of altruism, or warmth, or good feelings, it makes no unusual contribution to success. A study of nearly 24,000 workers found that the Big Five personality trait, Agreeableness, which includes (self-reported) altruism and modesty was irrelevant to job success (Barrick and Mount, 1991).

Similarly, extroversion, which includes warmth and good feelings, did not predict success among teachers, lawyers, or accountants, although it did among salespeople. In the few instances in which traits such as positive feelings did predict success, such as for salespeople, it typically did so at the 2–3% variance level, a far cry from outperforming intelligence (which predicts academic performance in the 10–25% range).

Some recent studies in the area do indicate positive outcomes can be found with self-report scales that might measure Goleman's (1995) concept, but those studies' outcomes are no larger in terms of the percentage "success" they predict than are many other modest but interesting effects found in personality research (see Mayer, Salovey, and Caruso, in press, for a review). Because self-report scales correlate with positive affect—happy, joyful feelings—it may be that happiness as opposed to the emotional intelligence contributes to the success. Happiness is sometimes found to contribute to school achievement (Wessman and Ricks, 1966) and on-the-job performance (e.g., Staw and Barsade, 1993).

The claim that emotional intelligence outpredicts IQ originates in a section of Goleman's 1995 book, in which he implies that emotional intelligence might predict up to 80% of the success in life. We have critiqued that section of his book elsewhere and do not repeat our critique here.⁶ Goleman's argument shifted, however, in his 1998 book. He now implies that emotional intelligence predicts 67% of success at work. In his own words: "I compared which competencies listed [from job descriptions in numerous organizations] as essential for a given job, role, or field, could be classed as purely cognitive . . . and which were emotional competencies. When I applied this method . . . I found that 67 percent—two out of three—of abilities deemed essential for effective performance were emotional competencies. Compared to IQ and expertise, emotional competence mattered *twice* as much" (Goleman, 1988, p. 31). Given Goleman's broad definition of emotional intelligence—by 1998 he focuses on 25 socioemotional skills—the 67% outcome is unsurprising.

⁶Briefly, the logic of the 1995 claim began with the widely accepted idea that intelligence predicts about 20% of the individual differences variability in achievement in school. Goleman implied that the remaining 80% therefore had to be predicted by something else . . . and that something else was emotional intelligence. A century of personality research, however, makes it reasonably certain that intelligence is the single largest predictor of variance in all of personality psychology (e.g., Mischel, 1968). That is, there has never been found a single other variable that predicts as well. When other variables—achievement motivation, extroversion, good mood, and the like—are added in to predictions of school performance, for example, they typically account for 2% or 3% or sometimes 5% of the variance. Why is this? Predicting a person's future success is not much different than making long-range forecasts of earthquakes, hurricanes, the stock market, or geopolitics. It is limited by complexity. The unexplained 80% of success appears to be in large part the consequence of complex and chaotic interactions among hundreds of variables playing out over time.

What personnel managers (or anyone else) desire on the whole, however, is unlikely to characterize a single job applicant. In a list of 25 characteristics, some attributes are likely to conflict. For example, some applicants with a high need to achieve may be lower in cooperation than average. Moreover, what personnel managers desire may not necessarily determine an employee's success. Although traits such as "people skills," "initiative," and "persuasiveness" appear in 67% of job descriptions, it does not mean such attributes predict success—only that such attributes successfully make it into job advertisements. It overlooks the underlying communication of such lists, which may be simply: "When you come to work here, we'll expect you to work hard and get along." Only rigorous scientific investigation can determine whether a trait really leads to success on the job.

Popular claims, such as that emotional intelligence is "twice as important" as traditional intelligence in predicting success, seem overblown, no matter how they are interpreted. Traditional personality research on what contributes to success is far more informative in this regard than popular accounts of the new area of emotional intelligence. Current research on emotional intelligence measured as an ability, however, does suggest that it may predict—at modest levels—important outcomes such as reduced rates of problem behaviors.

Is Emotional Intelligence Central to Character?

Emotional intelligence was originally associated with specific character attributes in the ability literature, but those character attributes were then deemphasized (Mayer and Salovey, 1993, 1997; Mayer and Geher, 1996; Mayer, Caruso, and Salovey, 1999). Intelligence is plastic—it can be used for many different purposes. For example, optimism depends in part on biological/brain underpinnings, on life experiences, and on specific learned styles (e.g., Seligman, Reivich, Jaycox, and Gillham, 1995). Although emotional intelligence may contribute to optimism, much more is at work in determining whether a person is optimistic. Ability scales of emotional intelligence do appear fairly independent of many personality traits. With few or no correlations with other tests above $r = .40$. (Mayer and Geher, 1996; Mayer, Salovey, and Caruso, 1999).

Intelligence, emotional intelligence included, is not synonymous with good feeling. Good classroom behavior includes intellectual dissension, argument, and skeptical critiques as well as supportive, feel-good commentaries. Arguments void of negative emotion can be sterile and otherworldly. Emotionally intense materials—either positive or negative—are better recalled than neutral ones (Rapaport, 1950, p. 94). In addition, mood variation—including precipitous declines into negative feelings such as sadness,

anger, and fear—fosters multiple perspective taking and, perhaps, creativity and genius (Jamison, 1993; Mayer and Hanson, 1995; Richards *et al.*, 1988).

When a policy maker such as Pool (1997) states that “the good citizen [is] . . . the person with a high emotional intelligence” (p. 12), he is, at that very abstract level, equating emotional intelligence with goodness. Who among us, after all, is against good citizenship (defined our own way)? Researchers have joined in the search for an all-good character. The Emotional Quotient Inventory (Bar-On, 1997) measures optimism, assertiveness, self-actualization, self-esteem, and positive mood, among other qualities. There is an “all things bright and beautiful” quality to these descriptions that makes them both hard to criticize in the abstract, but also rather suspicious as a description of the emotionally intelligent character. This positive emphasis does not entirely come to grips with the necessity to cope with, and even fight against, the dangerous or impoverished side of life, let alone the boring, conventional side (Phillips, 1995). Emotional intelligence as an ability emphasizes the selection among values appropriate to the circumstances, recognizing the impossibility of expressing all good things all the time.

Finally, good character is probably possible without emotional intelligence. A person who follows social standards of politeness and good behavior will be perceived as having a good character, independent of their measured level of emotional intelligence. Thus, emotional intelligence, conceived of as an ability, does not necessarily lead to good character; neither is good character dependent upon emotional intelligence. The degree to which the two *are* related is an interesting question which will be answered by future research.

Is Emotional Intelligence Readily Taught?

With a few exceptions, it does not make sense to us to speak of teaching an intelligence. An intelligence refers to a capacity to learn. Most policy experts seem to be discussing teaching emotional knowledge. We have little quarrel with the possibility of teaching in that area. Human beings are wonderful learners and can be taught many things. Understanding emotions is no doubt one of them (Elias, 1997). Thus, although we do not think it makes sense to talk about the ready acquisition of emotional intelligence, a slight change in language—to socioemotional learning—is entirely acceptable to us. How much socioemotional learning improves school performance or has a positive impact on behavior remains to be seen, however, as outcome studies are sparse to date (Zins, Travis, and Freppon, 1997, p. 262).

Is Emotional Intelligence Important in Education?

One area in which there is agreement among the scientific, popular, and policy versions of emotional intelligence is that emotional intelligence broadens what it means to be smart. It means that among some people who are labeled “bleeding hearts,” “romantics,” or “overly sensitive,” there is some important information processing going on. Keeping that in mind may help educators better grasp the whole learner—that the information we convey as educators is both cognitive and emotional.

DISCUSSION AND CONCLUSION

It is easy to see why the popular version of emotional intelligence is appealing to policy makers. Popularizers of the concept have promised that raising students' emotional and social competencies will improve their academic and lifelong pursuits, their interpersonal relationships, and the climate of schools and organizations. Elias *et al.* (1997, p. 1) wrote, “[E]xperience and research show that promoting social and emotional development in children is ‘the missing piece’ in efforts to reach the array of goals associated with improving schooling in the United States.”

Educational policy on emotional intelligence, however, turns out to be based on a very young scientific enterprise. The ability conception of emotional intelligence has some solid studies supporting it, although it has also been criticized in places. The broader, popular models of emotional intelligence, which combine abilities and dispositions or traits, have not been operationalized adequately as of yet. There is no established literature on what the popular version of emotional intelligence might predict. Although some important predictions from the mental ability model are likely, they can be expected to be in the modest but important range of most other personality prediction. There is no reason to believe that emotional intelligence will outperform intelligence as a predictor of school performance—but neither do most variables. Personality variables predicting at lower levels are still of societal significance. Emotional intelligence may predict reductions in bad behavior, which will be a matter of some importance. It is also of considerable value to broaden the understanding of what it means to be intelligent, should the evidence for emotional intelligence become widely accepted, as we expect.

It certainly seems likely that aspects of socioemotional skills can be taught, and that many of these teachable skills have found their way into curricula for socioemotional learning (Greenberg, Kusche, Cook, and Quamma, 1995). Still, no one knows what such education might bring about at this time. For example, the first scholarly volume in the area, *Emotional*

Development and Emotional Intelligence (Salovey and Sluyter, 1997) contained only one chapter on research evaluation of socioemotional learning, which concluded, regarding programs to reduce school violence, "little evaluation information is available about the various approaches" (Zins, Travis, and Freppon, 1997, p. 262). Nor was any research on the outcomes of other programs cited. Goleman's (1995) chapter reviewing "Schooling the Emotions," which also examined such programs, also failed to cite any relevant outcome studies of socioemotional learning, although the chapter reports some anecdotal evidence for their success. One promising, potentially related area of research is in violence prevention (Catalano, Arthur, Hawkins, Berglund, and Olson, 1998).

In the short term, therefore, it is worth acknowledging that psychologists are only beginning to learn about emotional intelligence, and that they do not know the degree to which it would predict success either for individuals or for schools. This does not mean that emotional intelligence is unimportant; nor does it mean that socioemotional curricula are not good or should be abandoned. All it means is that socioemotional programs are implemented, at present, with reasonable hopes that they will have beneficial effects, independent of scientific findings concerning that fascinating newly defined part of personality—emotional intelligence. The developers of socioemotional learning programs, to their credit, have shown interest in program evaluation (Elias *et al.*, 1997, Chapter 7). Such serious interest, if taken up by policy makers, can help prevent policy failures of the sort we outlined at the outset of this article regarding the California self-esteem movement. Findings about how socioemotional learning programs improve schools are directly relevant to their use, and worth examining as they are reported.

If emotional intelligence becomes better established, as we expect it will, it could be integrated into policy in several ways. It might lead to an understanding of how socioemotional programs work. Emotional intelligence also may be integrated into existing curricula. For example, we believe that emotional intelligence may well be fostered by courses in the liberal arts and the creative arts. These areas are often economically squeezed in today's curriculum because it is hard to explain exactly what they are teaching. One important thing they may foster is emotional reasoning. A student who is discussing what a character in a story feels or what emotions a piece of music or art conveys is actively using and perhaps fostering emotional perception and understanding. Understanding emotions on a case-by-case basis, as in literature, may be an important way people become experts in an area (Dreyfus and Dreyfus, 1986). Such links, if borne out by research, may relegitimize areas of education that are presently suffering some loss of status and support.

In the long term, we believe the rush by policy makers to embrace

emotional intelligence is part of a broader syndrome, that consists of successive waves of interest, directed at educating one or another single parts of the mind, that have occurred since the 1950s. These waves of interest often represent shifts in cultural direction or zeitgeist. For example, in the early 1960s, a rising confidence in science and engineering focused attention on the person as machine and on reinforcing the organism to behave in a particular way. The result was an emphasis on teaching machines in education. The later 1960s and the 1970s saw an emphasis on the experiential part of personality by such humanistic psychologists as Abraham Maslow and Carl Rogers; this coincided with the affective education movement (Wood, 1996). In the 1980s, the cognitive part of personality was reflected in both the cognitive revolution in psychology and, in education, in a renewed emphasis on basic academic skills, along with an increased attention to learning disabilities. In the late 1980s, growing international competition gave rise to a renewed focus on intelligence within psychology and to an emphasis on educational accountability, including the idea of state- or nationwide testing. Perhaps as a reaction to the intense academic competition, a subtheme of that decade was also a focus on raising children's self-esteem in school; concomitantly, self-esteem received renewed attention in psychology (Joachim, 1996; Leo, 1990). In the early 1990s in psychology, emotional parts of personality became a focus of attention, crystalizing in the concept of emotional intelligence and in educational programs in socioemotional learning.

What is consistent in this pattern is that both psychologically and educationally speaking, personality is often reduced to a focus on a single area, or even a single part (i.e., learning capacity, intelligence, learning disability, self-esteem, or emotional intelligence). Part of the reason for this is that models for the total personality have been woefully inadequate over the last several decades (see Mayer, 1998a, for a review). Personality psychology is undergoing an integration that has not been seen since the 1930s (Craik, 1998). The field now possesses organizational frameworks to examine all the parts of personality together (e.g., Buss and Finn, 1978; Mayer, 1998a,b; McAdams, 1996). It may be possible to use some of the new integrations of personality to take a new, more sophisticated approach to educating students about themselves as people. This new approach would not be dependent on a single—often amorphous—part of personality. Rather, it would take a look at the articulated whole of personality and would address education to this more balanced picture.

Educational policy related to emotional intelligence is of considerable interest. The policies are well meaning and often executed through promising curricula devoted to socioemotional learning. An examination of the emotional intelligence concept in educational policy indicates some weak-

nesses in how that policy was formulated, however, and some serious lapses in how it is tied to science. Most centrally, the policies are based on popularizations of a very young science that is, at present, still developing support for its central hypothesis that emotional intelligence exists. Various popularizations of the scientific field have included highly enthusiastic claims for emotional intelligence that, thus far, at least, appear unsubstantiated by reasonable scientific standards. Once that disconnect between policy and science is accounted for, the policies may still stand, but their justifications will require reworking. One policy goal worth considering for the future is an educational curriculum based on new integrations in personality psychology.

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