

Emotional Intelligence and Giftedness

John D. Mayer
Donna M. Perkins
David R. Caruso
Peter Salovey

This article examines the relation between concepts of emotional giftedness and emotional intelligence, and attempts to relate a person's level of emotional intelligence to the actual ways they cope with challenging social situations. Emotional intelligence and social behavior were explored in a pilot study with adolescents. Emotional intelligence was measured with the Multifactor Emotional Intelligence Scale (Mayer, Salovey, & Caruso, 1997), an ability-based measure of emotional perception, facilitation, understanding, and management. General intelligence was measured with the Peabody Picture Vocabulary Scale (Dunn & Dunn, 1981). Each of the 11 adolescents also answered questions about how he or she had handled a difficult social encounter. Those with higher emotional intelligence were better able to identify their own and others' emotions in situations, use that information to guide their actions, and resist peer pressure than others.

John D. Mayer is Professor of Psychology at the University of New Hampshire and has served on the editorial boards of *Psychological Bulletin* and the *Journal of Personality and Social Psychology*, and has been a National Institute of Mental Health Postdoctoral Scholar at Stanford University. His current work concerns emotional intelligence, integrative models of personality, and the effects of personality on an individual's life. **Donna M. Perkins** is a doctoral student in Developmental Psychology at the University of New Hampshire. In addition to research in adolescent emotional intelligence, she has studied racial attitudes in preschool children from a cognitive development perspective. **David R. Caruso** is a management consultant who focuses on psychological assessment and executive coaching. He is a Research Affiliate at Yale University and has conducted research studies on emotional intelligence. **Peter Salovey** is Professor of Psychology and of Epidemiology and Public Health, and Chairman of the Department of Psychology at Yale University. He is also the Director of the Department of Psychology's Health, Emotion, and Behavior (HEB) Laboratory and Co-director of the Yale Center for Interdisciplinary Research on AIDS (CIRA). With John D. Mayer, he articulated the first model of emotional intelligence and designed the first ability-based measures of it.

...I found out my friend had died. I learned about it from another person during 1st period. It was strange at first (and this is going to sound weird)... It was like I just had this one huge lump of emotion that couldn't be defined. I was feeling something but couldn't figure out what it was. My teachers were nice, but they'd just as soon not discuss unpleasant issues. I get most of my strength from my friends. From my friends I learned how to better deal with my emotions from those who had lost more people than I. They also helped me figure out what emotions I was feeling.¹

The above description of an emotional reaction was from a student who measured high on a scale of emotional intelligence. This article examines the nature of emotional intelligence, and compares it to the concept of emotional

This passage is a combination of one person's response to two survey questions, that they answered together. The passage has been slightly reordered but is otherwise verbatim.

*Manuscript submitted November, 1999.
Revision accepted August, 2000.*

giftedness. It suggests that emotional giftedness might be identifiable by high scores on an emotional intelligence measure, and describes one such measure, the Multifactor Emotional Intelligence Scale (MEIS). A pilot study is presented in which 11 students were administered the adolescent version of the Multifactor Emotional Intelligence Scale (MEIS-A). These data were used to gain insight into how those low and high in emotional intelligence cope with challenging social situations.

Conceptions of Giftedness, Emotional Giftedness, and Emotional Intelligence

Mental giftedness refers to a set of interrelated concepts. Seven theories of giftedness are summarized in Table 1 to indicate some of the commonalities and differences among them. Most theorists define giftedness as involving an especially high intellectual or technical aptitude in one area or another (e.g., Gagne, 1995; Marland, 1972; Morelock, 1995; Renzulli, 1978; Sternberg & Davidson, 1985). In addition, a dose of creativity and novelty is also considered a hallmark (Renzulli, 1978; Sternberg & Davidson, 1985). Some theories further view heightened mental energy or excitability as contributing to giftedness. Such excitability renders the person especially functional and committed to a particular field or task (e.g., Morelock, 1995; Piechowski, 1986; Renzulli, 1978). Finally, there are some theories that primarily attend to productivity and outputs of creativity (e.g., Sternberg & Zhang, 1995).

The areas in which giftedness may exhibit itself vary tremendously; these are also shown for the seven theories in Table 1. For example, Marland (1972, p. 10) lists general intelligence, academic aptitude, creativity, leadership ability, the visual and performing arts, and psychomotor ability (see Cohn, 1981, who also included social abilities). Although not in our tables, because it is intended as a theory of intelligences rather than giftedness, Gardner's (1983/1993) list of intelligences can be viewed as areas of talent (see Scarr, 1989) in such areas as music and bodily movement as well as intra- and inter-personal skills. Moreover, some view giftedness as occurring in the area of morality (e.g., Colby & Damon, 1999).

Few of the lists in Table 1 refer specifically to giftedness in the area of emotions. The psycho-educational literature has generally omitted mention of any specific area of emotional giftedness. One important exception is the work of Piechowski and Dabrowski (Piechowski, 1986, pp. 195-196; Dabrowski & Piechowski, 1977, p. 116, 164), who discussed an emotional giftedness that involved heightened capacities for empathy, justice, and moral sensitivity, among others. Emotional giftedness also was said to involve the capacity to be aware of feelings, to differentiate among feelings, and to create better and deeper relationships, among other characteristics.

Emotional Intelligence and Emotional Giftedness

Like giftedness, the term emotional intelligence carries multiple meanings and connotations. Most people have heard of emotional intelligence through the popular book by Goleman (1995). That work was loosely based on the ability model of Mayer and Salovey (e.g., Mayer & Salovey, 1993; 1997; Salovey & Mayer, 1990). Salovey and Mayer's original ability model was concerned with specific skills that were likely to

Concepts of Giftedness

Theory	Key Features of Giftedness	Areas of Expression in Giftedness
Gagne (1995, p. 106) Differentiated Model	Aptitude Domains (e.g., in the intellectual, the creative, the socioaffective, spheres)	Intellectual (e.g. reasoning, verbal, spatial, reasoning...), Creative (e.g. originality, inventiveness), Socioaffective (e.g. leadership, empathy), Sensorimotor Capacity (e.g. strength, endurance)
Renzulli (1978, p. 184) Three Ring Conception	Above Average Ability (e.g. intelligence) Task Commitment (e.g. determination and industry) Creativity (e.g. originality and constructive ingenuity)	Mathematics, Visual Arts, Physical Sciences, Philosophy, Social Sciences, Law, Religion, Language Arts, Music, Life Sciences, Movement Arts
Piechowski (1986, p. 192) Developmental Potential (from Dabrowski)	Forms and Expression of Psychic Overexcitability (e.g. surplus of psychomotor energy, intellectual curiosity, emotional intensity and extremes of feelings)	Psychomotor (e.g. surplus of energy, psychomotor emotional tension), Sensual (e.g. sensory pleasure, expression of emotional tension), Intellectual (e.g. probing questions, problem solving, ...), Imaginational (e.g. free play of the imagination, spontaneous imagery as an expression of emotional tension), Emotional (e.g. somatic expression, intensity of feelings...)
Marland (1972, p. 10) U.S. Dept. of Education	Demonstrate Achievement and/or Potential Ability	General Intelligence, Special Academic Aptitudes Creative or Productive Thinking, Leadership, Visual/Performing Arts, Psychomotor Ability
Sternberg & Zhang (1995, p. 89, 92) Pentagonal Implicit Theory (relative to peers)	Excellence Criterion (e.g. superior) Rarity Criterion (e.g. unusual) Productivity (e.g. leads to productivity) Demonstrability (e.g. demonstrated on a valid performance test) Value Criterion	Creativity, Intelligence, Social Skills, Motivation, Achievement <i>Note: these were areas of giftedness the authors surveyed people about; they do not represent a formal theory.</i>
Sternberg & Davidson (1985, p. 42) Triarchic Theory of Giftedness	Cognitive Functioning (e.g. verbal, quantitative, memory intelligence) Contextual Fitting (e.g. adaptation to and shaping of environments) Process Novelty (e.g. deal with novelty and automatize information processing)	Intellectual (e.g. verbal, quantitative, spatial, memorial) Artistic (e.g. painting, musicianship, drama, dance) Niche-fitting (e.g. adaptation to, selection of, shaping of physical and interpersonal environment) Physical (e.g. sports, physical survival in difficult terrain)
Morelock (1995, p. 8) Columbus Group Movement	Advanced cognitive abilities (e.g., intellectual ability) Heightened Intensity (e.g., see Dabrowski, 0000). Qualitatively enhanced internal awareness (e.g., emotional and cognitive melding and interaction)	"Talented" "multi-leveled potential for domain-specific creative-productivity in the world."

Table 1.

make up the intelligence and included reference to some neurophysiology as well (e.g., TenHouten, Hoppe, Bogen, & Walter, 1985; more recently, see works by Damasio, 1994; LeDoux, 1995). The popular version of the theory developed by Goleman broadened the initial description of emotional intelligence such that it included many motivational concepts (e.g., zeal and persistence), and finally, equated emotional intelligence with character (Goleman, 1995, p. xii, 285). The term emotional intelligence, however, is more usefully employed to denote an actual ability-based intelligence than as a synonym for character or personality (see Mayer, Salovey, & Caruso, 2000a; 2000c, for a more extensive discussion of these issues).

Emotional intelligence will be considered an actual, traditional, intelligence here. From this perspective, emotional intelligence arises from a productive union of the cognitive and emotion systems. The cognitive system carries out abstract reasoning about emotions, while the emotion system enhances cognitive capacity. More specifically, individuals high in emotional intelligence have the ability to perceive, understand, and manage emotions, on the one hand, and to allow emotions to facilitate their thought, on the other.

There is a resemblance between some of the descriptions of emotional giftedness in Table 2, e.g., "...differentiation of a hierarchy of feelings...a broader union with intellectual and imaginational..." (Dabrowski & Piechowski, 1977, p. 116), and the idea that emotional intelligence involves the perception, facilitation, understanding, and management of feelings. For that reason, emotional giftedness might be identifiable, in part,

by high scores on tests of emotional intelligence. The pilot study to be reported below examines 11 adolescents who are given a test of emotional intelligence, and who independently reported their actions in difficult social situations. One purpose was to see whether differences between high and low scores might be connected to what has, in the past, been referred to as emotional giftedness.

The Measurement of Emotional Intelligence with Scales of Ability (the MEIS and MEIS-A)

Ability measures potentially related to emotional intelligence have been studied for years, including work in the area of physiognomic emotional expression (Stein, 1975) and non-verbal communication (Buck, 1980), among others. The first scales under the name "emotional intelligence" date to 1990, with more substantial emotional intelligence scales – those employing multiple tasks and sophisticated scoring – introduced somewhat later (Mayer, DiPaolo, & Salovey, 1990; Mayer & Geher, 1996; Mayer, Salovey, & Caruso, 1997; Mayer, Salovey, & Caruso, 2000b). Two such tests, the Multi-factor Emotional Intelligence Scale (MEIS) and the companion adolescent version (MEIS-A), have provided considerable information about emotional intelligence (Mayer, *et al.*, 1999). The MEIS and MEIS-A are based on an intelligence model of emotional intelligence in which the overall intelligence is divided into four areas or branches:

Concepts of Giftedness Related to Emotional Intelligence

From literature on emotional giftedness	[Describing the two highest levels of emotional giftedness – referred to as “emotional overexcitability”:] ...differentiation of a hierarchy of feelings, growth of exclusivity of feelings, and indissoluble relationships of friendship and love. Emotional overexcitability appears in a broader union with intellectual and imaginal in the process of working out and organizing one’s own emotional development...It gives rise to states of elevated consciousness and profound empathy; it fosters depth and exclusivity of love and friendship. There is a sense of transcending and resolving one’s personal experiences in a more universal context (Dabrowski & Piechowski, 1977, p 116). [Describing the characteristics of developmental potential in adolescence...] Awareness of feelings and conscious attention to them, interest in others as persons and empathy toward them. They show distinct interest in their own emotions and those of others. Their interest in others as persons extends to all ages. (Piechowski, 1986, p. 195-196)
From literature on moral giftedness	Although children have natural emotional reactions to moral experiences, there is much that children must learn about how to manage these reactions. First, children must learn to direct their moral emotions towards effective social action. Second, they must learn to modulate their emotional reactions. Raw, primitive emotion – however morally insensitive – is a reliable guide for neither judgment nor conduct. Above all, children must learn to channel their emotional responses into streams of moral motivation that impel productive action. This requires the ability both to feel the response and to temper it when necessary. The response cannot be lost, but it must be placed in the perspective of realistic knowledge about the limits of social knowledge (Damon, 1988, Pp. 120-122).
From literature on emotion and reason	...this opposition of cognition and emotion must...be challenged for it disorients everything it touches... I do not propose to surrender intellectual controls to wishful thinking, nor shall I portray the heart as giving special access to a higher truth. Control of wishful thinking is utterly essential in cognition; it operates, however, not through an unfeeling faculty of Reason but through the organization of countervailing critical interests in the process of inquiry. These interests of a critical intellect are, in principle, no less emotive in their bearing than those of a wayward wish. The heart, in sum, provides no substitute for critical inquiry; it beats in the service of science as well as of private desire. (Scheffler, 1977, p 171-172)

Table 2.

(1) the ability to perceive emotions, (2) to access, generate, and use emotions so as to assist thought, (3) to understand emotions and emotional knowledge, and (4) to regulate emotions so as to promote emotional and intellectual growth (after Mayer & Salovey, 1997, p. 8).

The theory of emotional intelligence views emotions as an evolved signal system, where each emotion denotes a particular relationship within oneself or with the outside world (Mayer, Caruso, & Salovey, 1999; Mayer, Salovey & Caruso, 2000a; see Lazarus, 1994). According to this idea, emotional signals evolved across animal species so as to convey information about relationships (Darwin, 1872). For example, an animal’s angry growl warns of attack; an animal’s fearful facial expression depicts the intention to escape. Because people evolved to recognize emotional information, this information can be determined, in part, by surveying a social group so as to determine the emotional content of a given stimulus. Some test items on the MEIS ask exactly that sort of question: that is, what is the emotional content in a specific face, or color, or design. The correct answer to such a question can be determined by examining the consensus response to it, and then by assessing an individual’s agreement or disagreement with that consensus. Other criteria for correct answers have also been evaluated, including expert and target criteria. Expert criteria involve having emotion experts, such as clinicians, judge the correct answer. Target criteria (used only in tasks in which an individual person’s feelings are being judged) involve having a targeted person report his/her feelings at that particular time, thereby setting the criterion (see Mayer & Geher, 1996; Mayer, Caruso, & Salovey, 1999).

For a mental characteristic to qualify as a standard intelligence, it must be operationalized as an ability, must meet a number of correlational criteria, must be independent of prior intelligences, and must develop with age. The sorts of items on the MEIS and MEIS-A indicate that emotional intelligence can be operationalized as abilities.

The MEIS and MEIS-A were written so as to be content-valid vis-a-vis the Mayer and Salovey (1997) model of emo-

tional intelligence. For example, Branch 1, Emotional Perception, is measured by the degree to which participants can identify emotions in faces, music, abstract designs, and stories. In the *Stories* subtest, test-takers read a series of brief stories, and gauge the emotional experiences of characters. The participant rates seven emotions on a five-point scale (definitely not to definitely present):

This story comes from an 11-year-old girl. *I don't feel like practicing the violin. My dad said that I have to, but then he asked me to do something else. That's good, because I hate to practice. I'll do the other chore my dad asked me to do so that I can delay practicing. My brother plays piano but my parents don't make him practice like I have to.*

	Definitely NOT Present			Definitely PRESENT		
angry	1	2	3	4	5	
happy	1	2	3	4	5	Rate
fearful	1	2	3	4	5	each
surprised	1	2	3	4	5	
sad	1	2	3	4	5	
jealous	1	2	3	4	5	emotion
ashamed	1	2	3	4	5	

According to the consensus scoring approach, if a participant responded that the young girl above was 3 on the *angry*, scale, and two thirds — or .67 — of the standardization sample answered the same, the participant would receive a score of .67 for the answer. On the other hand, if the participant answered 5 on the anger scale and only one out of twenty — .05 — of the standardization sample did so as well, the participant would receive a score of only .05 for that answer. Consensus scores correlate fairly highly with, and appear somewhat superior to, Expert and Target scores, in that the consensus scores are more reliable and correlate more highly with desired criteria (Mayer, Caruso, & Salovey, 1999). For this reason, consensus scores were employed in the following study.

Branch 2, involves the ability to access and use emotions to improve thoughts. It is measured through tasks of synesthesia (e.g., comparing an emotional feeling to a taste, smell, or other sensation) so as to assess feeling-access, as well as through other tasks, such as one in which a person must identify what emotion would best help them solve a given mental problem. In *Synesthesia*, the test-taker creates a mild emotion, and then rates the emotion in comparison with other sensations such as how hot or cold, or yellow or blue a feeling is. Participants rate feelings on a series of separate scales. For example:

Imagine something that might happen to you in the future that would make you feel a little happy. Imagine this happiness until you feel it mildly. Don't go overboard: just imagine enough to feel a little happy. Think about how you would feel by checking the appropriate box for each term.

warm	1 []	2 []	3 []	4 []	5 []	cold
bright	1 []	2 []	3 []	4 []	5 []	dim

This task is believed to assess a person's capacity to relate experiences when it is useful, and to relate feelings to other mental sensations.

Branch 3 (Understanding Emotions) measures emotional knowledge and reasoning. In the *Blends* task of this branch, the individual is presented with a complex emotion and asked which of several sets of one or two simple emotions make it up. For example, is optimism closer to a combination of *calmness and joy*, or to *anticipation and happiness*? The test taker chooses the best answer, which, in this example, consensus opinion would likely identify as the second of these alternatives.

Finally, one's ability to regulate emotions is measured by Branch 4. In one such task, the individual reads a short vignette involving another person who faces an emotional problem, followed by descriptions of various actions that one could take to assist that person. For example, in the MEIS-A, one story reads:

There is going to be a party in a few weeks, and a lot of kids have been invited. It will be a real blast and you are looking forward to going. You call a friend to ask if they want to get a ride with you to the party. Your friend doesn't say anything for a few seconds, and then blurts out that they aren't going to the party. When you ask why, they say because they weren't invited. What do you do?

The participant must then choose from among several alternatives, two of which are shown below:

This is a really tough situation, but it's an honest mistake so it's best for me not to interfere in this problem. I would just not say much and then change the subject to something else.

		<i>Not Effective</i>		<i>Very Effective</i>	
Circle one:	1	2	3	4	5

This stuff happens all the time. It isn't my problem. I would see if they just wanted to hang out or have some fun.

		<i>Not Effective</i>		<i>Very Effective</i>	
Circle one:	1	2	3	4	5

The factorial (or structural) validity of the MEIS and MEIS-A is promising. A factor analysis of the scale, based on sample of 500 undergraduates, indicated that the test measured four distinct areas of emotional intelligence roughly corresponding to the four-branch model. Because all four branches

were positively intercorrelated, it was also sensible to speak of an overall emotional intelligence score (Mayer, Caruso, & Salovey, 1999).

The coefficient alpha reliability of the full scale MEIS is $\alpha = .96$ (Mayer, Caruso, & Salovey, 1997) and the reliability of the MEIS-A is $\alpha = .94$ (Caruso, Van Buren, Mayer, & Salovey, 2000). In an independent study, the reliability of the MEIS was reported to be $\alpha = .90$ (Ciarrochi, Chan, & Caputi, 2000).

In regard to discriminant validity, emotional intelligence appears moderately correlated with, but meaningfully distinct, from general intelligence, with the correlation ranging from $r = .05$ to $.30$, depending upon the specific measure of general intelligence employed (see Ciarrochi *et al.*, 2000; Mayer *et al.*, 1999). This means that about 10% of an individual's deviation from average is accounted for by variation in general intelligence. Emotional intelligence, therefore, appears to be a member of the family of intelligences, while remaining distinct enough to be studied in its own right. In regard to predictive validity, mounting evidence suggests it is related to lower levels of drug use and violence (Mayer, Caruso, & Formica, 2000; Rubin, 1999; Trinidad & Johnson, 2000).

Considering evidence for its content, factorial, discriminant, and predictive validity, the MEIS and MEIS-A appear promising as measures of emotional intelligence. As mentioned, another core aspect of intelligence is that it increases with age - at least until the beginning of early adulthood. Young adults (mostly 18-21 years of age) outperformed those a bit younger (mostly 13-16 years old) on the MEIS test problems. Collectively, these findings provide good initial evidence that emotional intelligence is a standard intelligence (Mayer, Caruso, & Salovey, 1999). A revised version of the MEIS, the MSCEIT, is presently under development. Results with the MSCEIT replicate and extend those found with the MEIS (Mayer, Salovey, & Caruso, 2000b).

Although the MEIS and MEIS-A have been the subject of large sample studies reported elsewhere (e.g., Ciarrochi, *et al.*, 2000; Mayer, Caruso, & Salovey, 1999), they have not yet been applied to a study of the gifted. In the pilot study, aptitude in emotional intelligence is examined in relation to how adolescents function in conflictual social situations.

A Pilot Study Examining Emotional Intelligence

Eleven adolescents ranging in age from 13 years, 4 months to 17 years, 4 months ($M = 15.7$) were surveyed. Seven were enrolled in a summer institute at the University of New Hampshire pertaining to theater and to science. The remaining four adolescents were members of the local community and known to the second author. All were Caucasian. Parental informed consent and participant consent were obtained. Data were collected anonymously, and participants were explicitly informed that they could choose not to answer any questions that made them uncomfortable.

Participants were identified who were high or low in emotional intelligence based on scores on a short form of the MEIS-A, containing four subscales (Stories, Synesthesia, Blends, and Managing Self and Others).² The purpose of this study was to understand something about how they handled emotionally difficult situations by asking them to, "Think about the last time you were out with some friends and they wanted to do something you were uncomfortable with (e.g., it seemed risky or not a good choice)" This was followed by

²Participants took several other scales that were not analyzed for this study.

some specific questions:³ "Please: describe how the situation began; tell us why it made you uncomfortable (account for your feelings); what is it about you (not your parents' or others' views or hopes for you) that made you uncomfortable and respond that way; how did you handle it; explain what the situation had to do with any of your long-term goals; how would your parents have felt about what you did; and, explain what the situation had to do with any of your parents' long-term goals for you."

Because a student's level of verbal reasoning would likely impact their verbal fluency and the sophistication of their responses, the 11 participants were also administered the Peabody Picture Vocabulary Test (PPVT; Dunn & Dunn, 1981). By measuring both verbal and emotional intelligence, it was possible to look at the independent contribution of both types of intelligence to a student's response to a difficult social situation. Therefore, the responses of the participants who were high or low on emotional intelligence could be examined independent of verbal ability.

Findings from the Pilot Study

To obtain an estimate of verbal IQ for each participant, the PPVT, Form M raw score was calculated for each participant. It was then converted to a verbal IQ equivalent for each participant based on that participant's age. According to the PPVT manual, verbal IQs measured by the test have a $M = 100$, with an $S = 15$ (Dunn & Dunn, 1981, p. 43). This sample had a $M = 117$ verbal IQ with an $S = 13$, which indicates it is above average in intelligence.

The 11 participants total scores on the MEIS-A were calculated by determining the mean consensus score for each participant on a specific task and summing the means and averaging them again so as to create a mean consensus score across tasks for each participant. The average participant's consensus score was $M(11) = .31$, with an $S(11) = .031$.

Next, an emotional IQ score (EIQ) was calculated in such a way that the scores would be comparable to IQ scores with a mean set to 100 and a standard deviation of 15. To do this, the average consensus score calculated above was compared to the adjusted average consensus scores on the MEIS-A for a larger, independent adolescent sample who had taken the MEIS-A (Caruso, Van Buren, Mayer & Salovey, 2000; $N = 290$).⁴

The two participants who scored lowest on EIQ, and similarly, fairly low on VIQ identify the starting points for the discussion of EIQ and VIQ in this sample. For all passages quoted below, spelling and punctuation were corrected where necessary, repetitiousness omitted in places, and the original questions were added in brackets, to assist comprehension where

necessary. These initial two passages proceed as follows:

Participant 11 (14 year old female; VIQ: 105; EIQ: 84):
We were at a birthday party. A game [was played], it was stupid, because it made me look like an idiot... [How did you handle it?] I cried and left [How would/did your parents feel?] They would have felt disappointed.

Here is the second one:

Participant 8 (15 year old male; VIQ: 93; EIQ: 86).
[Describe how the situation began?] *They wanted to take their mom's van for a ride then bring it back. [Tell us why it made you uncomfortable?] Because if we got caught it would be bad. I don't like to get in trouble. [How did you handle it?] I went with them. [How would your parents have felt?] Yelled.*

Both protocols are noteworthy for their minimal, telegraphic description of the social situation the individuals faced. The lack of detail prevents us from understanding much of what is going on in either situation, except that both sound problematic. In each case, the writer appeared unable to foresee or control circumstances; there was no depiction of any motivations, feelings, or possible outcomes (until they happened).

The person next highest in EIQ is about one standard deviation higher than the first two writers (or 14-16 EIQ points higher); the participant's VIQ is 22-34 points higher, or nearly two standard deviations above that of the first two:

Participant 5 (16 year old male; VIQ: 127; EIQ: 100):
[Describe how the situation began?] *They wanted me to beat the hell out of...[someone]. Personally, violence makes me uncomfortable (but I wasn't a pacifist). I love nature and always think about what pain I am causing someone even if I try not to. [How did you handle it?] They won, but I fought so that I would never harm him, only piss him off. A little while after that I became a total pacifist, except for my brothers! [How would your parents have felt?] My dad would have beat me.*

The individual writing here illustrates a far more complex appreciation of the situation than the earlier two participants. When asked, "tell us why it made you uncomfortable," he notes that *personally, violence makes me uncomfortable*, although he also fails to acknowledge any discomfort he felt concerning friends who *wanted [him] to beat the hell out of someone*. He appears more inclined to use abstract principles of pacifism than to reflect on his personal experience of the situation as it unfolds. There is no explicit indication in the protocol that the young man recognizes any conflict concerning the peer pressure he is facing.

The next protocol provides an important contrast, because it comes from someone whose VIQ is 10 points lower than in the previous protocol, but whose EIQ is roughly 20 points higher. This profile may perhaps help us understand the different contributions in understanding that the two forms of intelligence take.

Participant 9 (15 year old male; VIQ 116; EIQ: 123). *We were outside at night with cars going by on the highway and some of my friends decided to start mooning cars. [Tell us why it made you feel uncomfortable?] Well, mooning cars is wrong not to mention illegal, so how else am I supposed to feel? Well, I guess if it wasn't for my values that were instilled in me from when I was little I probably would have joined them...Well, put simply, I just didn't do it. [How would your parents have felt?] Well, like I said, I didn't do it so they probably would be proud of me.*

³ We used another question as well, which did not elicit as much information as the question reported. The alternative question was: Think about an emotional situation involving you that occurred within your school setting. Briefly describe something you learned about these emotions from each of the following sources: a course (please specify), a friend or other peer, a teacher, guidance counselor, or other school staff member.

⁴ The mean and standard deviation reported for the entire MEIS-A test, on the sample of 290, was $M = .31$ and $S = .03$ (Caruso, Van Buren, Mayer, & Salovey, 2000), and $M = .320$ and $S = .039$ on the five subtests used here. The mean on the five subtests was adjusted downward 1 SD (.03) to reflect the likely over-performance of the standardization sample — drawn from private school students in Greenwich, CT — relative to other, more representative, samples. An identical adjustment was made in score reporting for the original MEIS-A test out of similar concerns; Mayer, Salovey, & Caruso (1997). Some further support for such an adjustment comes from a recent study in which the sample scored about 1 SD lower than the standardization sample on Branches 3 and 4 (although not on the overall test; Trinidad & Johnson, 2000). Note that the rank order of participants on emotional intelligence is unchanged by this adjustment; the adjustment of norms applies only to the samples' overall level relative to others.

The difference here is that the young man did not give in to peer pressure but rather identified discomfort in himself, and then refrained from doing what he felt to be wrong. It is worth comparing this protocol to that of the last participant, the quasi-pacifist (#5), whose friends got him to beat someone up. As we have already noted, Participant 5 never directly identifies a conflict between himself and his peers over the use of violence. It is implicit in what he writes (*Personally, violence makes me uncomfortable...*) and a few sentences later, *They won—* meaning, his friends got him to beat up someone up he didn't want to — but he seems to avoid connecting the two. In fact, he even inserts a seeming non-sequitor concerning nature, *I love nature and always think about what pain I am causing someone...* which perhaps helps him keep a psychological distance from what is going on. By contrast, the participant (#9), who refrained from mooning other cars, had a measured VIQ far lower than the earlier participant whose friends wanted him to beat someone up. Nonetheless, this non-mooner was admirably direct when discussing the conflict he faces: *I guess if it wasn't for my values that were instilled in me from when I was little I probably would have joined them....*

Next, let's contrast the non-mooning Participant 9 with Participant 7, whose EIQ is essentially identical, but whose VIQ is a full 24 points higher.

Participant 7 (17 year old female; VIQ 140; EIQ 123). *I was at a friend's house and we were going mini-golfing. I'm not allowed to ride with teenage drivers, so I had to drive myself to the course... [What made you feel uncomfortable?] I felt like...[driving there myself] was the only way I could go with them. I didn't want to get lost. I can be unsure of myself sometimes. I decided to drive there, because I had ridden past it the same day, and figured that if I got lost I could just come back the way I came. I hope not to get in any serious accidents that are my fault, and being lost could cause me to be less cautious. But, the situation also helped me be more independent. [How would your parents feel?] I thought they might have been a little mad for not calling them first, but they weren't. My parents want me to become more independent and more comfortable driving.*

The problem's context — whether one believes one is experienced enough to drive somewhere — is more internal than some of the other challenges reported. This person seems at least as emotionally observant as the prior participant; she knows her feelings — her own insecurities, versus her actual abilities — and their relation to her need for independence. Although the potential threat of an automobile accident is raised, it is not in the context of drinking or speeding, but rather as a distant potential consequence of anxiety over being lost. In the end, she chooses an appropriate growth experience for herself (motivated as well by wanting to play mini-golf!). Perhaps the higher VIQ score assists this person to integrate the emotional information with other sorts of information about driving, life, and independence.

The young woman who was the highest EI scorer in the group was seven points lower in VIQ and six points higher in EIQ than the autonomous driver described immediately before:

Participant 6 (16 year-old female; VIQ: 133; EIQ: 128): *Once my friends wanted to sneak in someone's room and paint them while he slept. It began as joking around ("wouldn't this be funny; could you believe it if?"). Then it slowly evolved into dares ("I bet you wouldn't," or "I dare you to."). I felt like it was betraying the trust I had*

with the other person, I didn't feel right with sneaking up on a sleeping person with no way to defend himself, and I thought doing this would make the person have his feelings hurt. I know how little pranks like this could really hurt someone's feelings, make them feel like everyone is making fun of them, taking away their dignity and disrespecting them. I won't do that to someone because I understand how badly that can hurt. [How did you handle it?] Told them straight out that it was a degrading thing to do and they shouldn't be so cruel. Asked them how they would like it? [Relation to long-term goals] I'm not sure. One of my everyday goals is to try my hardest not to judge or make fun of someone. [Parent's reaction?] They would have been proud, but its just one of those things that sort of never gets talked about because they would have also said, I ruined a perfectly harmless joke. [Parent's goals?] My parents want me to be respectful.

Considered on its own merits, this highest EIQ protocol is quite interesting in what it has to say for the integrating of emotional information and relationships. The protocol provides the richest description of an emotional event, with its drama of individual-peer group conflict. The individual displays a keen eye for emotional detail as she records the group's gradual decision to play a prank, from considering the idea (*wouldn't this be funny*) to considering its plausibility (*I bet you wouldn't*) to pressuring dares (*I dare you to*). It is followed by a detailed consideration of emotional ramifications (this could really hurt someone's feelings) and social consequences (*...taking away their dignity and disrespecting them*), and empathy (*I understand how badly that can hurt.*). From this deep understanding comes a clear decision and unequivocal action, as she *Told them straight out that it was a degrading thing to do and they shouldn't be so cruel....* Intelligence does not always lead to certainty, however, and it is also noteworthy that, at the conclusion of the protocol, the writer wonders whether her parents might conclude that she *ruined a perfectly harmless joke!* This indicates her capacity to take multiple, conflicting perspectives concerning emotional situations.

It is worth comparing this prank-stoppers' passage to that of the Participant 5, the quasi-pacifist whose friends had wanted him to beat someone up. The quasi-pacifist and this young woman had roughly equivalent VIQs (127 vs. 133), but the woman above's EIQ was a full 28 points — nearly two standard deviations — higher. One noticeable difference between the two stories was that the young man fought, as his friends wanted him to (although he reports that he fought so as to *never harm* the person he was beating up), whereas the young woman stood up to her friends and prevented a prank. Moreover, the young woman's friends seemed far more benign than the group of young men aiming to beat someone up. It might be that the young woman's higher emotional intelligence has led her to choose more open and considerate friends. Both young people also were interested in moral issues. The young man reports he became a pacifist after the incident (except for his brothers!). The young woman is interested in such principles as trust, doing what is right, and the like. She adds in, however, a richer emotional context for her feelings and reasoning.

Summary and Conclusions

At the outset of this article, giftedness was said to involve high mental ability, commitment to a particular task, and creativity. Emotional giftedness, in turn, was said to involve the

capacity to be aware of feelings, to differentiate among feelings, and to create better and deeper relationships, among other characteristics (Dabrowski & Piechowski, 1977, p. 116). Did the highest-scoring EIQ participants fit this profile?

The 11 cases examined here seemed to bear out such a possibility. First, students with high emotional intelligence appeared to better and more completely organize emotional material about peer relationships, compared to those lower in emotional intelligence. In addition, those higher in emotional intelligence portrayed emotional situations in a more accurate and rich fashion that included more of the subtle and sometimes conflicting feelings of those around them, compared even to other participants roughly matched on verbal intelligence. There was a further suggestion that, behaviorally, those higher in emotional intelligence stood up to those who do unpleasant, wrong, or destructive acts. It was also of note that general and emotional intelligence may work together. For example, we saw the possibility in Participant 7 (who was deciding about driving to a mini-golf game), that general intelligence integrated emotional with non-emotional information about the self, and thereby permitted better overall personal planning.

High emotional intelligence resembles not only emotional giftedness, but also the related concept of *positive maladjustment* (Dabrowski, 1970). This maladjustment vis-a-vis the gifted and their peers is said to be:

...positive because it means being true to oneself and to the universal ideals of compassion, caring, and to the idea that each individual deserves consideration.

Grounded in empathy and a sense of justice, such stance is often in opposition to others' self-interest, prejudice, and ruthlessness. Therefore, the two terms, *emotional giftedness* and *positive maladjustment* overlap."

(Piechowski, 1997, p. 3)

Positive maladjustment occurred in the present sample when those adolescents higher in emotional intelligence defied their peers so as to protect others.

What the theory of emotional intelligence adds to this analysis may be a systematic and carefully worked out description of the aptitude involved in emotional giftedness. Emotional intelligence, defined as above, seems more in tune with contemporary psychological thought and research, perhaps, than does the psychoanalytically-inspired and sometimes pathological-sounding over-excitability conception on which Dabrowski's writings were based (cf., Dabrowski, 1964, p. x).

Adolescents' and their parents' concerns over the lack of civility, perceived violence in the schools, and similar matters, is quite understandable. If emotional intelligence assists adolescents in making better social and life choices then it may well be important to assess and to nurture. In addition, teaching students more about emotions and emotional reasoning may plausibly raise a given student's level of emotional functioning (independent of its influence on emotional intelligence itself). If only some of these hypotheses regarding emotional intelligence are borne out, the consequences seem of some importance. As emotional giftedness and emotional intelligence are better understood, it increasingly appears that such abilities are related to a number of highly adaptive, pro-social

5. If we knew nothing about the differences in emotional intelligence among these students, it would be tempting to describe the difference in terms of defense mechanisms — that some participants were more open, or less defended, about their own and others feelings. This raises an area of possible future research as to whether emotional intelligence can explain some of the phenomena of psychological defense.

interactions — interactions that involve greater respect for one another, as indicated in the analyses here, and more generally, interactions with less violence, lower use of tobacco and alcohol, and higher levels of respect (e.g., Mayer, Caruso, & Formica, 2000; Rubin, 1999; Trinidad & Johnson, 2000).

REFERENCES

- Buck, R. (1984). *The communication of emotion*. New York: The Guilford Press.
- Caruso, D. R., Van Buren, A., Mayer, J. D., & Salovey, P. (2000). *Emotional intelligence, empathy, and artistic intelligence in adolescents*. Unpublished manuscript available from the authors.
- Ciarrochi, J. V., Chan, A. Y. C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences*, 28, 539-561.
- Cohn, S. J. (1981). What is giftedness? A multidimensional approach. In A. H. Kramer (Ed.), *Gifted children* (pp. 215-281). New York: Trillium Press.
- Colby, A., & Damon, W. (1999). In M. Killen & D. Hart (Eds.), *Morality in everyday life: Developmental perspectives* (pp. 342-370). New York: Cambridge University Press.
- Dabrowski, K. (1964). *Positive disintegration*. Boston: Little, Brown.
- Dabrowski, K., & Piechowski, M. M. (1977). *Theory of levels of emotional development (Vol. 1: Multilevelness and positive disintegration)*. Oceanside, NY: Dabor Science Publications.
- Damasio, A. R. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Putnam Publishing Group.
- Damon, W. (1988). *The moral child: Nurturing children's natural moral growth*. New York: The Free Press.
- Dunn, L. M., & Dunn, L. M. (1981). *PPVT: Peabody Picture Vocabulary Test - Revised: Manual for Forms L and M*. Circle Pines, MN: American Guidance Service.
- Gagne, F. (1995). From giftedness to talent: A developmental model and its impact on the language of the field. *Roeper Review*, 18, 103-111.
- Gardner, H. (1993). *Frames of mind: The theory of multiple intelligences (10th anniversary edition)*. New York: Basic Books.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam.
- Janos, P. M., & Robinson, N. M. (1985). Psychosocial development in intellectually gifted children. In F. D. Horowitz & M. O'Brien (Eds.), *The gifted and talented: Developmental perspectives*. Washington, D.C.: APA Books.
- Lazarus, R. S. (1994). *Emotion and adaptation*. New York: Oxford University Press.
- LeDoux, J. E. (1995). Emotion: Cues from the brain. *Annual Review of Psychology*, 46, 209-235.
- Marland, S. P., Jr. (1972). *Education of the gifted and talented: Report to the Congress of the United States by the U.S. Commissioner of Education*. Washington, DC: U.S. Government Printing Office.
- Mayer, J. D. (September, 1999). Emotional intelligence: Popular or scientific psychology? *APA Monitor*, p. 50.
- Mayer, J.D., DiPaolo, M., & Salovey, P. (1990). Perceiving affective content in ambiguous visual stimuli: A component of emotional intelligence. *Journal of Personality Assessment*, 54, 772-781.
- Mayer, J. D., & Geher, G. (1996). Emotional intelligence and the identification of emotion. *Intelligence*, 22, 89-113.
- Mayer, J.D., Caruso, D.R. & Formica, S. (2000). *Emotional intelligence and the life space*. Manuscript in preparation.
- Mayer, J. D., Caruso, D., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27, 1-32.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey D. J. Sluyter (Eds.) *Emotional development and emotional intelligence*. New York: Basic Books.
- Mayer, J. D., Salovey, P., & Caruso, D. (2000a). Competing models of emotional intelligence. In R. J. Sternberg (Ed.), *Handbook of intelligence*. New York: Cambridge.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2000b). *Draft Manual for the MSCETT, Research Version 1.1* (3rd Ed). Toronto, Canada: Multi-Health Systems. [Available via e-mail from lisa.a@mhs.com]
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2000c). Emotional intelligence as zeitgeist, as personality, and as a standard intelligence. In R. Bar-On & J. D. A. Parker (Eds.), *Handbook of emotional intelligence*. New York: Jossey-Bass.
- Morelock, M. J. (1995). On the nature of giftedness and talent: Imposing order on chaos. *Roeper Review*, 19, 4-12.
- Norman, A. D., Ramsay, S. G., Martray, C. R., & Roberts, J. L. (1999). Relationship between levels of giftedness and psychosocial adjustment. *Roeper Review*, 22, 5-9.
- Piechowski, M. M. (July/August, 1997). *Emotional giftedness: An expanded view*. Paper presented at the 12th Annual World Conference of the World Council for Gifted and Talented Children. Seattle, WA. [ERIC Document Reproduction Service No. ED 413 695].
- Piechowski, M. M. (1986). The concept of developmental potential. *Roeper Review*, 8, 190-197.
- Piechowski, M. M. (1979). Developmental potential. In N. Colangelo & R. T. Zaffran (Eds.), *New voices in counselling the gifted* (pp. 25-57). Dubuque, IA: Kendall/Hunt.
- Renzulli, J. S. (1978). What makes giftedness: A reexamination of the definition. *Phi Delta Kappan*, 60, 180-184.
- Renzulli, J. S. (1988). A decade of dialogue on the three-ring conception of giftedness. *Roeper Review*, 11, 18-25.
- Rubin, M.M. (1999). *Emotional intelligence and its role in mitigating aggression: A correlational study of the relationship between emotional intelligence and aggression in urban adolescents*. Unpublished doctoral dissertation, Immaculata College, Immaculata, PA.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9, 185-211.
- Scheffler, I. (1977). In praise of the cognitive emotions. *Teachers College Record*, 79, 171-186.
- Stein, M. I. (1975). *Manual for PCT: The Psychonomic Cue Test: A measure of cognitive control principle*. New York: Behavioral Publications.
- Sternberg, R. J., & Davidson, J. E. (1985). In Horowitz & O'Brien (Eds.), *The gifted and talented: Developmental perspectives*. Washington, D.C.: American Psychological Association.
- Sternberg, R. J., & Davidson, J. E. (Eds.) (1986). *Conceptions of giftedness*. New York: Cambridge University Press.
- Sternberg, R. J., & Zhang, L. (1995). What do we mean by giftedness? A pentagonal implicit theory. *Gifted Child Quarterly*, 39, 88-94.
- TenHouten, W. D., Hoppe, K. D., Bogen, J. E., & Walter, D. O. (1986). Alexithymia: An experimental study of cerebral commissurotomy patients and normal control subjects. *American Journal of Psychiatry*, 143, 312-316.
- Trinidad, D. R., & Johnson, C. A. (2000). *The association between emotional intelligence and early adolescent tobacco and alcohol use*. Manuscript submitted for publication.