Emotion
2005, Vol. 5, No. 1, 113–118

1528-3542/05/$12.00 DOI: 10.1037/1528-3542.5.1.113

BRIEF REPORTS

Emotion Regulation Abilities and the Quality of Social Interaction

Paulo N. Lopes and Peter Salovey
Yale University

Stéphane Côté
University of Toronto

Michael Beers
Yale University

Emotion regulation abilities, measured on a test of emotional intelligence, were related to several indicators of the quality of individuals' social interactions with peers. In a sample of 76 college students, emotion regulation abilities were associated with both self-reports and peer nominations of interpersonal sensitivity and prosocial tendencies, the proportion of positive vs. negative peer nominations, and reciprocal friendship nominations. These relationships remained statistically significant after controlling for the Big Five personality traits as well as verbal and fluid intelligence.

Keywords: emotional intelligence, emotion regulation, personality, social interaction

How people regulate emotions affects their relationships, well-being, and stress (Gross, 2002; Hochschild, 1983). Individuals differ in their ability to regulate emotions, some choosing more successful strategies than others (Mayer & Salovey, 1997; Salovey & Mayer, 1990). This study examined whether emotion regulation abilities are associated with the quality of social relationships among college students as viewed by the participants and by their broader peer network.

The ability to regulate emotions entails modulating emotional experience to attain desired affective states and adaptive outcomes. This ability is crucial for emotional intelligence (Gross & John, 2002; Salovey & Mayer, 1990; Salovey, Mayer, & Caruso, 2002). According to Mayer and Salovey (1997), emotional intelligence encompasses four interrelated abilities involved in the processing of emotional information: perceiving emotions, using emotions to facilitate thinking, understanding emotions, and regulating one's own emotions and the emotions of others. These abilities are thought to be important for social interaction because emotions serve communicative and social functions, conveying information about people's thoughts and intentions, and coordinating social encounters (Keltner & Haidt, 2001). Out of these four abilities, emotion regulation is probably the most important for social interaction because it influences emotional expression and behavior directly. One inappropriate outburst of anger can destroy a relationship forever. In contrast, the ability to perceive and understand emotions influences social interaction more indirectly, by helping people interpret internal and social cues and thereby guiding emotional self-regulation and social behavior.

Emotion regulation can influence social interaction through several mechanisms. Most saliently, it colors the emotional tone of social encounters. Displays of pleasant emotions tend to elicit favorable responses from others whereas the expression of negative emotions often drives other people away (Argyle & Lu, 1990; Furr & Funder, 1998). Emotions are contagious (Hatfield, Cacioppo, & Rapson, 1994). In addition, emotion regulation might promote or facilitate positive expectations for social interaction (e.g., Cunningham, 1988), the use of effective social interaction strategies (e.g., Furr & Funder, 1998; Langston & Cantor, 1989), a flexible focus of attention, sound decision making under stress, and executive functions associated with the coordination of numerous skills required for effective social behavior.

Emotion regulation is associated with the quality of social functioning among children (e.g., Eisenberg, Fabes, Guthrie, & Reiser, 2000). Yet relatively few studies have examined the link between emotion regulation, measured as an ability, and social adaptation in adult, nonclinical populations. In one recent study, college students scoring higher on an ability measure of emotional regulation reported having more positive relationships with others;

Editor's Note. Richard E. Petty served as the action editor for this article.—RJD

Paulo N. Lopes, Peter Salovey, and Michael Beers, Department of Psychology, Yale University; Stéphane Côté, Joseph L. Rotman School of Management, University of Toronto, Toronto, Ontario, Canada.

This research was supported in part by funding from Portugal's Fundação para a Ciência e a Tecnologia and the European Social Fund to Paulo N. Lopes and by National Cancer Institute Grant R01-CA68427, National Institute of Mental Health Grant P01-MH/DA56826, National Institute on Drug Abuse Grant PSO-DA13334, and the Donaghue Women's Health Investigator Program at Yale awarded to Peter Salovey.

We thank Marc Brackett, Linda Jarvin, John Mayer, Barbara Munck, Jerome Singer, Gill Sitarenios, Richard Schottenfeld, and Robert Sternberg for their help.

Correspondence concerning this article should be addressed to Paulo N. Lopes, who is now at the Department of Psychology, School of Human Sciences, University of Surrey, Guilford GU2 7XH, England, or to Peter Salovey, Department of Psychology, Yale University, 2 Hillhouse Avenue, P.O. Box 208205, New Haven, CT 06520-8205. E-mail: p.lopes@surrey.ac.uk or peter.salovey@yale.edu

less conflict and antagonism in their relationship with a close friend; and greater companionship, affection, and support in their relationship with a parent (Lopes, Salovey, & Straus, 2003). In the present study, we extended research on emotional abilities in adulthood in three ways. First, we drew on multiple informants (participants and peers). Second, we examined a context of social interaction at which previous research has not yet looked (the broader peer network in college). Third, we examined several criteria that are theoretically relevant for understanding the multifaceted realm of social interaction (e.g., social dominance, interpersonal sensitivity, mood management, and friendship). Although social relationships cannot be gauged adequately by any single indicator, examining how participants view themselves and are viewed by their peers along these dimensions sheds light on the quality of their social interactions at multiple levels of analysis.

We expected emotion regulation abilities to explain criteria above and beyond the Big Five personality traits and verbal and fluid intelligence because theory and research suggest that these are distinct constructs (Brackett & Mayer, 2003; Lopes et al., 2003; Mayer, Salovey, & Caruso, 2000). Measures of emotional abilities are designed to assess information-processing skills and knowledge, whereas Big Five inventories assess response tendencies. Measures of emotional abilities assess information-processing skills and knowledge pertaining to the affective system, whereas measures of verbal and fluid intelligence focus on verbal, quantitative, spatial, and analytical skills and knowledge.

Our measurement approach involved assessing people's ability to rate the effectiveness of different strategies for managing emotionally charged situations. This approach taps into people's capacity to analyze and solve emotional problems, necessarily reflecting their knowledge of emotional situations and emotion regulation strategies. Emotion regulation can operate through cognitive, expressive, behavioral, and physiological processes. Therefore, no single ability measure can assess all underlying capacities. Although the association between declarative knowledge and performance varies across domains, knowledge, broadly construed, is essential for expert performance in any domain. For example, performance in mathematics depends to a large extent on one's knowledge of strategies for analyzing and solving problems and on the automatization of mental routines involved in this type of information processing. We assume that emotion regulation is a domain where, as with mathematics, both knowledge and practice are essential for expert performance.

In light of these considerations, we formulated the following hypotheses:

> *Hypothesis 1:* Emotion regulation abilities are related to indicators of the quality of social interactions.

> *Hypothesis 2:* Emotion regulation abilities are related to indicators of the quality of social interactions over and above variance accounted for by the Big Five personality traits and verbal and fluid intelligence.

Method

Participants

Participants were 76 junior and senior undergraduate students living in the same residential college at Yale University, representing 51% of all juniors and seniors living in that college. Ages ranged from 19 to 23 years ($M = 20.9$, $SD = 0.7$). Fifty-one percent were women; 77% were Caucasian, 17% were Asian or Asian American, and 5% listed other ethnic identities; 58% were seniors and 42% were juniors; 95% were native English speakers; and all had spent 5 or more years in English-speaking languages or schools.

Procedure

We conducted this study in one of the small residential colleges where undergraduates live after their 1st year at Yale University. We recruited only 3rd- and 4th-year students, who were likely to know one another fairly well. To recruit as many people as possible, we advertised the study widely and paid participants $20. Participants received brief oral instructions together with a packet of questionnaires to take home and complete in their own time. The packet included a cover letter, a consent form, a battery of questionnaires, and instructions to complete a test of emotional intelligence online. Participants returned completed questionnaires in closed envelopes to the investigators or to the college dean's office.

To obtain information from the broader peer network, we asked participants to nominate colleagues who were in the same class and residential college as themselves in response to a questionnaire tapping into the quality of social interaction. We gave them a list of classmates and told them "You may nominate no one, a few people, or as many as eight classmates for each question."

Measures

Emotion regulation ability. We assessed emotion regulation abilities with the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT Version 2.0; Mayer, Salovey, & Caruso, 2002). As an ability test, the MSCEIT differs from self-report questionnaire measures of emotional intelligence such as the Emotional Quotient Inventory (Bar-On, 1997; see Mayer et al., 2000). Confirmatory factor analysis of 2,112 adults' responses to the MSCEIT showed that emotion regulation abilities are one of four emotional abilities measured by this test (Mayer, Salovey, Caruso, & Sitarenios, 2003). The split-half reliability of this subscale was .81. Another study reported a test–retest correlation of .86 (Brackett & Mayer, 2003).

The emotion regulation subscale of the MSCEIT assesses intrapersonal and interpersonal emotion regulation abilities through separate tasks totaling 29 items. Respondents rate the effectiveness of different strategies for regulating one's own feelings in specified situations and managing emotionally challenging interpersonal situations. The test publisher does not authorize reproduction of actual test items, but the following are abridged examples of items considered during the development of the test:

> Debbie just came back from vacation. She was feeling peaceful and content. How well would each action preserve her mood? (1) She started to make a list of things at home that she needed to do. (2) She began thinking about where and when to go on her next vacation. (3) She called a friend to tell her about the vacation . . .

> Ken and Andy have been good friends for over 10 years. Recently, however, Andy was promoted and became Ken's manager. Ken felt that the new promotion had changed Andy in that Andy had become

> very bossy to him. How effective would Ken be in maintaining a good relationship, if he chose to respond in each of the following ways? (1) Ken tried to understand Andy's new role and tried to adjust to the changes in their interactions. (2) Ken approached Andy and confronted him regarding the change in his behavior . . .

MSCEIT scores reflect the extent to which a person's responses match those of a sample of 21 experts from the International Society for Research on Emotion or a large sample of the general public (5,000 individuals from various nations). The rationale for using expert and consensus criteria is described elsewhere (Legree, 1995; Mayer, Salovey, Caruso, & Sitarenios, 2001). Item scores reflect the percentage of people in the comparison sample who provided the same response. For example, if 56% of the expert sample indicated that a certain strategy is highly effective and a person chooses that answer, his or her score is incremented by .56. Expert- and consensus-based MSCEIT scores correlate highly ($r >$ .9; Mayer et al., 2003), and findings tend to replicate across the two scoring methods (e.g., Brackett & Mayer, 2003; Lopes et al., 2003). Because interrater agreement is higher for expert than consensus ratings (Mayer et al., 2003), our analyses were based on expert scoring.

Quality of social interactions. Eight indicators assessed self- and peer perceptions related to the quality of social interaction. Two were self-report Likert scales. The first assessed interpersonal sensitivity and prosocial tendencies (henceforth abbreviated to interpersonal sensitivity) with eight items, including the following: "Are you sensitive to the feelings and concerns of others?" "Are you good at understanding other people's points of view?" "Are you difficult to deal with?" "Are you willing to help others?" The second assessed socioemotional competence and dominance (henceforth abbreviated to socioemotional dominance) using nine items, including the following: "Do you have good 'people skills'?" "Can you handle difficult interpersonal problems?" "Do you express your feelings appropriately?" "Do you handle stress well?" "Are you happy?" These scales were anchored at 1 = *not at all (much below average)*, 5 = *about average,* and 9 = *extremely (far above average).*

Six peer nomination scales evaluated how participants were perceived by their peers. Interpersonal sensitivity and prosocial tendencies included seven items (e.g., "Who is most sensitive to the feelings and concerns of others?" "Who really cares about others?" "Who goes out of his or her way to help others?"). Interpersonal dominance and competence included six items (e.g., "Who is the most social?" "Who would be a good colleague to work with?" "Who has the best 'people skills'?" "Who seems to know most about the goings-on of others?"). Emotional management and mood included eight items (e.g., "Who handles his or her feelings well?" "Who creates conflicts or tension?" "Who is most happy?"). Friendship and liking included three items (e.g., "Who are you friends with?" "Who do you like most?"). These four scales were based on tallies standardized within class (done separately for juniors and seniors) for each question. Because all scales included more positively than negatively valenced items (to minimize resistance to participation), these scores might be influenced by social visibility. The proportion of positive versus negative nominations is an important indicator of the overall positivity of peer perceptions because it is less confounded with social visibility. Finally, the number of reciprocal friendship nominations reflected all the instances when participants nominated classmates in response to the questions "Who are you friends with?" and "Who do you like most?" and were also nominated by those same classmates in response to these questions.

Control variables. We administered the following measures: the BFI-44, a 44-item, self-report measure of the Big Five personality traits, with a 1–5 response format (John & Srivastava, 1999); the Mill Hill vocabulary scale for adults, a 66-item test of crystallized verbal intelligence (Raven, Court, & Raven, 1994); and Scale 3 of the Cattell culture-fair test of "g," designed to assess fluid, general intelligence among high-ability groups (Cattell & Cattell, 1973). Because of time constraints, we administered only Form B of the Cattell test, consisting of 50 items. We provided written instructions for each section of the culture-fair test of *g*. We asked participants to time themselves and write down the exact time when they started and finished each section in order to stimulate accurate timekeeping. Finally, we obtained Scholastic Achievement Test (SAT) scores and college grade point average (GPA) from university records with the permission of participants. These scores serve as proxies for academic or "general" intelligence.

Results

Descriptive statistics and correlations for all measures are presented in Table 1. The reliability of the Cattell test of "g" was low, possibly because we used the short version of the test, did not follow standard administration procedures, and relied on a selective sample.[1] Emotion regulation ability correlated significantly with four out of eight indicators of the quality of social interactions: self-reports and peer nominations of interpersonal sensitivity, reciprocal friendship nominations, and the proportion of positive versus negative peer nominations. These findings support our first hypothesis.

We used hierarchical regression analyses to examine the incremental validity of emotion regulation abilities in relation to the Big Five and verbal and fluid intelligence. Given the sample size, we conducted separate analyses controlling for the Big Five, on the one hand, and verbal and fluid intelligence on the other. After controlling for the Big Five, we found that emotion regulation abilities were still significantly associated with reciprocal friendship nominations, $\beta = .27$, $t(68) = 2.16$, $p < .05$, and the proportion of positive versus negative nominations, $\beta = .28$, $t(67) = 2.37$, $p < .05$; they were marginally associated with peer nominations of interpersonal sensitivity, $\beta = .20$, $t(66) = 1.80$, $p = .08$; but they were not significantly associated with self-rated interpersonal sensitivity. After controlling for verbal and fluid intelligence, we found that emotion regulation abilities were still significantly associated with self-rated interpersonal sensitivity, $\beta = .30$, $t(72) = 2.67$, $p < .01$, peer nominations of interpersonal sensitivity, $\beta = .28$, $t(69) = 2.47$, $p < .05$, and the proportion of positive versus negative nominations, $\beta = .28$, $t(70) = 2.50$, $p < .05$, and that they were marginally associated with reciprocal friendship nominations, $\beta = .22$, $t(71) = 1.93$, $p = .06$.

When we controlled simultaneously for the Big Five personality traits and verbal and fluid intelligence, emotion regulation abilities

[1] One person whose score on the Cattell test of "g" was extremely low was imputed a score equal to 3 standard deviations below the mean.

Table 1
Descriptive Statistics and Correlation Matrix

	M	*SD*	1	2	3	4	5	6
1. Gender[a]	.51	—	—					
2. Neuroticism	3.06	0.80	.10	(.83)				
3. Extraversion	3.17	0.81	.00	−.16	(.87)			
4. Openness/Intellect	3.72	0.71	−.12	.03	.23*	(.84)		
5. Agreeableness	3.62	0.59	.12	−.36**	−.03	.11	(.71)	
6. Conscientiousness	3.75	0.75	.27*	−.13	−.07	−.09	.19	(.85)
7. Mill-Hill Vocabulary Scale	45.88	6.38	−.14	.02	−.02	.11	−.01	−.07
8. Cattell Culture Fair Test of *g*	32.95	3.51	−.20	−.28**	.07	.13	.10	−.14
9. SAT-verbal	733.42	56.53	.01	.10	−.15	.26*	−.07	−.03
10. SAT-math	739.73	48.45	−.14	.06	−.19	−.11	.17	−.01
11. GPA	3.53	0.30	.07	.12	.07	.10	−.01	.40**
12. Emotion regulation ability	**93.94**	**12.20**	**.24***	**−.20**	**.15**	**.11**	**.40*****	**.13**
13. Self-reports of interpersonal sensitivity and prosocial tendencies	6.44	1.02	.04	−.19	.08	.14	.62***	.07
14. Peer nominations of interpersonal sensitivity and prosocial tendencies	−0.01	0.71	.10	−.01	−.17	−.06	.44***	−.08
15. Self-reports of socioemotional competence and dominance	5.91	1.09	−.15	−.49***	.55***	.06	.24*	.03
16. Peer nominations of interpersonal competence, dominance, and assertiveness	−0.04	0.71	−.20	−.01	.29**	.02	.18	.13
17. Peer nominations of emotional management and mood	0.02	0.56	.02	−.15	−.21	−.11	.24*	−.04
18. Peer nominations of friendship and liking	−0.02	0.78	−.06	.02	.03	−.07	.23*	−.06
19. Reciprocal friendship nominations	0.02	0.97	.07	.04	.01	−.10	.00	.13
20. Proportion of positive versus negative peer nominations	0.72	0.28	.16	.00	−.08	−.14	.28*	−.15

Note. $72 \leq N \leq 76$ because of missing data. Reliabilities (in parentheses) are reported along the diagonal. Cronbach's alpha is reported for all scales except ability measures. For the Mill-Hill, Cattell, and emotion regulation ability scales, we report split-half reliabilities corrected by the Spearman-Brown formula because of item heterogeneity (these scales include items of varying levels of difficulty, and Mayer–Salovey–Caruso Emotional Intelligence Test emotion regulation ability comprises two different tasks). Figures concerning emotion regulation ability are set in boldface. SAT = Scholastic Achievement Test; GPA = grade point average.
[a] Gender was coded as 1 = female, 0 = male.
* $p < .05$. ** $p < .01$. *** $p < .001$.

remained significantly associated with reciprocal friendship nominations and the proportion of positive versus negative nominations, and marginally associated with peer nominations of interpersonal sensitivity. When we controlled for GPA and SAT scores as indicators of academic intelligence, emotion regulation abilities remained significantly associated with self-rated interpersonal sensitivity, peer nominations of interpersonal sensitivity, and the proportion of positive versus negative nominations. Adding gender as a control variable to the main models described above did not substantially alter our findings. Finally, we repeated the main analyses using multilevel models that took into account the nesting of subjects within class (juniors and seniors) and found very similar results. Taken together, these findings support our second hypothesis.

Discussion

This study marks one of the first attempts to examine the relationship between emotion regulation abilities, assessed with a performance measure of emotional intelligence, and the quality of social relationships, assessed with both self- and peer reports. Individuals scoring high on emotion regulation abilities viewed themselves as more interpersonally sensitive and prosocial than their counterparts. They were also viewed more favorably by their peers, as indicated by peer nominations for interpersonal sensitivity and prosocial tendencies, the proportion of positive versus negative peer nominations, and reciprocal friendship nominations. After we controlled for the Big Five personality traits as well as verbal and fluid intelligence, emotion regulation abilities remained significantly associated with both the proportion of positive versus negative nominations and reciprocal friendship nominations. These findings support our hypotheses regarding the criterion and incremental validity of emotion regulation abilities and are consistent with previous research based mostly on self-reported outcomes (e.g., Lopes et al., 2003). They suggest that we need to consider both emotional abilities and dispositions to understand social interaction.

We cannot infer causality. However, our findings raise the possibility that training in emotion regulation abilities might help people to interact with others effectively.

The quality of social interactions is influenced by many factors, including social skills, personality traits, motivation, and person-environment fit. Therefore, any specific abilities are likely to have only a modest impact on the quality of social interactions. Given the importance of social adaptation, however, such small effects can be very important.

Although the correlations were in the expected directions, emotion regulation ability was not significantly related to self-reports of extraversion and neuroticism (personality traits associated with

7	8	9	10	11	12	13	14	15	16	17	18	19	20
(.84)													
.17	(.61)												
.60*	.14	—											
.07	.23	.18	—										
.24*	−.03	.36**	.17	—									
.00	**.12**	**.08**	**−.12**	**−.07**	**(.63)**								
−.10	−.10	−.22*	−.08	−.16	**.28***	(.81)							
−.10	.06	.14	.16	.11	**.29***	.19	(.85)						
−.24*	.13	−.28*	−.09	−.16	**.14**	.37**	−.05	(.83)					
.08	−.06	.07	.03	.20	**.05**	.15	.29**	.19	(.84)				
−.04	.16	.20	.10	.12	**.16**	.03	.65***	−.02	.20	(.75)			
−.08	.04	.04	−.02	.05	**.17**	.15	.63***	.12	.65***	.52***	(.72)		
−.24*	.02	−.11	−.19	−.07	**.23***	−.08	.25*	.00	.29*	.03	.37**	(.91)	
−.09	.20	.17	−.03	−.03	**.30***	.13	.64***	.10	.30**	.60***	.67***	.23*	—

positive and negative affect, respectively) or to peer nominations of emotional management and mood. There are several possible explanations for this. First, the MSCEIT assesses the ability to identify effective emotion regulation strategies but does not assess all that it takes to regulate emotions effectively in real life. Second, people can develop emotional regulation abilities to compensate for temperamental dispositions (Kagan, 1998), undermining the relationship observed between measures of emotion regulation abilities and measures of dispositional affect. Third, the development of emotional regulation abilities might influence agreeableness more than dispositional affect if the latter is more strongly influenced by temperamental reactivity, as Larsen (2000) proposed. It would be interesting to examine interactions between emotion regulation ability and the Big Five personality traits, but a small sample size did not allow us to test interaction effects in the present study.

The MSCEIT has been criticized because expert or consensus scoring might tap into knowledge of social norms and social conformity rather than actual ability (Matthews, Zeidner, & Roberts, 2002). However, knowledge is essential to ability and expertise in most realms of endeavor (Sternberg, 1996). Attunement to social norms, display rules, and feeling rules is essential to emotional intelligence. Therefore, we cannot disentangle ability, knowledge, and conformity fully. Moreover, in many domains of ability (practical, creative, social, and emotional) there are often no absolute right and wrong answers, but rather many ways to solve a problem (Sternberg, 1996). This calls for expert or consensus scoring. High agreement between expert and consensus norms for the MSCEIT (Mayer et al., 2003) suggests that experts generally view consensual responses as correct. Finally, MSCEIT scores are unrelated to social desirability (Barchard, 2001; Lopes et al., 2003), and the subscales have different correlates, suggesting that they do not tap into a single dimension reflecting conformity (Lopes et al., 2004). Further research is needed to understand the mechanisms linking emotion regulation abilities and the quality of social interactions. Examining whether knowledge of emotion regulation predicts the quality of social interactions above and beyond general social knowledge would be an interesting avenue for further research.

Additional data collected from the present sample revealed that, unlike the emotion regulation subscale, the other subscales of the MSCEIT (perceiving, using, and understanding emotions) were not consistently associated with social adaptation. This is consistent with our theorizing that emotion regulation plays a crucial role in social interaction but also raises questions about the cohesiveness of emotional intelligence as a domain of ability. Note as well that the present findings were limited by a modest sample size, modest participation rate, and selective sample.

References

Argyle, M., & Lu, L. (1990). Happiness and social skills. *Personality and Individual Differences, 11,* 1255–1261.

Barchard, K. A. (2001). *Emotional and social intelligence: Examining its place in the nomological network.* Unpublished doctoral dissertation, University of British Columbia, Vancouver, Canada.

Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: A measure of emotional intelligence.* Toronto, Ontario, Canada: Multi-Health Systems.

Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin, 29,* 1147–1158.

Cattell, R., & Cattell, A. (1973). *Measuring intelligence with the Culture Fair Tests: Manual for Scales 2 and 3.* Champaign, IL: Institute for Personality and Ability Testing.

Cunningham, M. R. (1988). What do you do when you're happy or blue? Mood, expectancies, and behavioral interest. *Motivation and Emotion, 12,* 309–331.

Eisenberg, N., Fabes, R. A., Guthrie, I. K., & Reiser, M. (2000). Dispositional emotionality and regulation: Their role in predicting quality of social functioning. *Journal of Personality and Social Psychology, 78,* 136–157.

Furr, R. M., & Funder, D. C. (1998). A multimodal analysis of personal negativity. *Journal of Personality and Social Psychology, 74,* 1580–1591.

Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology, 39,* 281–291.

Gross, J. J., & John, O. P. (2002). Wise emotion regulation. In L. Feldman Barrett & P. Salovey (Eds.), *The wisdom in feeling: Psychological processes in emotional intelligence* (pp. 297–319). New York: Guilford Press.

Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional contagion.* New York: Cambridge University Press.

Hochschild, A. R. (1983). *The managed heart.* Berkeley: University of California Press.

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford Press.

Kagan, J. (1998). *Galen's prophecy.* Boulder, CO: Westview Press.

Keltner, D., & Haidt, J. (2001). Social functions of emotions. In T. J. Mayne & G. A. Bonanno (Eds.), *Emotions: Current issues and future directions. Emotions and social behavior* (pp. 192–213). New York: Guilford Press.

Langston, C. A., & Cantor, N. (1989). Social anxiety and social constraint: When making friends is hard. *Journal of Personality and Social Psychology, 56,* 649–661.

Larsen, R. J. (2000). Toward a science of mood regulation. *Psychological Inquiry, 11,* 129–141.

Legree, P. I. (1995). Evidence for an oblique social intelligence factor established with a Likert-based testing procedure. *Intelligence, 21,* 247–266.

Lopes, P. N., Brackett, M. A., Nezlek, J., Schütz, A., Sellin, I., & Salovey, P. (2004). Emotional intelligence and social interaction. *Personality and Social Psychology Bulletin, 30,* 1018–1034.

Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality, and the perceived quality of social relationships. *Personality and Individual Differences, 35,* 641–658.

Matthews, G., Zeidner, M., & Roberts, R. D. (2002). *Emotional intelligence: Science and myth.* Cambridge, MA: MIT Press.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence* (pp. 3–31). New York: Basic Books.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2000). Models of emotional intelligence. In R. Sternberg (Ed.), *Handbook of intelligence* (pp. 396–420). New York: Cambridge University Press.

Mayer, J. D., Salovey, P., & Caruso, D. (2002). *Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT): User's manual.* Toronto, Ontario, Canada: Multi-Health Systems.

Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2001). Emotional intelligence as a standard intelligence. *Emotion, 1,* 232–242.

Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion, 3,* 97–105.

Raven, J. C., Court, J. H., & Raven, J. (1994). *Manual for Raven's Progressive Matrices and vocabulary scales.* Oxford, England: J. C. Raven.

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9,* 185–211.

Salovey, P., Mayer, J. D., & Caruso, D. (2002). The positive psychology of emotional intelligence. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 159–171). New York: Oxford University Press.

Sternberg, R. J. (1996). *Successful intelligence—How practical and creative intelligence determine success in life.* New York: Simon & Schuster.

Received August 8, 2003
Revision received May 2, 2004
Accepted May 6, 2004 ■