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# On Emotionally Intelligent Time Travel: Individual Differences in Affective Forecasting Ability

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*In two studies, the authors examined whether people who are high in emotional intelligence (EI) make more accurate forecasts about their own affective responses to future events. All participants completed a performance measure of EI (the Mayer-Salovey-Caruso Emotional Intelligence Test) as well as a self-report measure of EI. Affective forecasting ability was assessed using a longitudinal design in which participants were asked to predict how they would feel and report their actual feelings following three events in three different domains: politics and academics (Study 1) and sports (Study 2). Across these events, individual differences in forecasting ability were predicted by participants' scores on the performance measure, but not the self-report measure, of EI; high-EI individuals exhibited greater affective forecasting accuracy. Emotion Management, a subcomponent of EI, emerged as the strongest predictor of forecasting ability.*

**Keywords:** *affective forecasting; emotional intelligence; self-knowledge; emotion regulation; individual differences*

**W**hen people choose a university to attend, house to buy, or wine to order at a restaurant, they are likely to consult their own predictions about how the

available options would make them feel. Yet, recent research suggests that such predictions, or affective forecasts, often are inaccurate. There are, after all, a number of obstacles to successful emotional time travel—people are likely to err in affective forecasting if they inaccurately envision the future event itself, misremember how they felt in response to similar past events, or fail to adequately take into account the host of potential differences between their physical and psychological state at the time of forecasting and the time of experiencing (Wilson & Gilbert, 2003). As a result of these shortcomings in the

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emotional time travel machine, people often overestimate or underestimate the intensity and duration of their feelings in response to a future event and they may occasionally misjudge the specific emotion they will experience.

Although sometimes harmless, such affective forecasting errors can have important intrapersonal and interpersonal costs (for a recent review, see Dunn & Laham, *in press*). Beyond driving people to pursue goals that are unlikely to produce genuine happiness (Gilbert & Wilson, 2000), affective forecasting errors may lead people to make poor medical decisions (Riis et al., 2005; Sieff, Dawes, & Loewenstein, 1999). In addition, affective forecasting errors have been implicated in psychological disorders (e.g., Cox & Swinson, 1994; Craske, Rapee, & Barlow, 1988), and because people often use their own predicted feelings as a starting point in imagining how someone else would feel in a particular situation, the shortcomings of emotional time travel may beget interpersonal misunderstandings (e.g., Van Boven & Loewenstein, *in press*; Van Boven, Loewenstein, & Dunning, 2003).

Yet, although individuals who are relatively adept at affective forecasting are likely to have an edge in finding happiness, making good decisions, and understanding other people, we know almost nothing about who those individuals are or how to identify them. There is some evidence that older people and East Asians may be less prone than others to overestimate their emotional responses to life events, although their relatively unbiased forecasts may not be particularly accurate (Lam, Buehler, McFarland, & Ross, 2005; Wilson, Gilbert, & Salhouse, 2001). Indeed, because most previous studies have examined people's forecasts and experiences regarding only a single event, it is unclear whether there are stable individual differences in forecasting ability. In the few studies that have required participants to report multiple forecasts and experiences, however, substantial individual variability in forecasting accuracy has been observed (Kahneman & Snell, 1992; Totterdell, Parkinson, Briner, & Reynolds, 1997).

What personal attributes might predict individual differences in affective forecasting ability? Although a number of variables, such as gender, age, and life experience, may be associated with forecasting ability, we believe that emotional intelligence (EI) may be a meaningful predictor of individual differences in this domain. EI refers to the processes involved in the perception, use, understanding, and management of one's own and others' affective states (Mayer & Salovey, 1997). Whereas alternative conceptualizations of EI (e.g., Baron, 1997; Petrides & Furnham, 2003) is based primarily on popularized notions of the construct (e.g., Goleman, 1995, 1998) or well-established dimensions of personality (e.g., the Big Five), Mayer and Salovey's

(1997) ability-based model of EI involves the accurate processing of emotion-relevant information (e.g., facial expressions), the use of emotions in reasoning, the understanding of emotional cues, and the regulation of emotion-driven behavior.

EI ability is reliably measured as a set of mental skills with performance tests such as the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, & Caruso, 2002a). Evidence is accumulating that MSCEIT scores are related to a wide range of outcomes of psychological and social importance. For example, MSCEIT scores are associated positively with quality interpersonal relationships and social competence and associated negatively with social deviance, anxiety, and depression (for a review, see Brackett & Salovey, 2004; Mayer, Salovey, & Caruso, 2004).

The MSCEIT measures performance on four central subcomponents of EI: (a) perception of emotion, (b) use of emotion to facilitate thought, (c) understanding of emotion, and (d) management of emotion. The latter two subcomponents may be particularly relevant to affective forecasting ability. Individuals who score high on Understanding Emotions have abundant knowledge of how emotions blend (e.g., anger and disgust together lead to contempt) and metamorphize (e.g., annoyance leads to anger, which leads to rage). On the MSCEIT, Understanding Emotions is assessed by asking individuals to decide which specific emotions are likely to result from a particular, complex situation as well as how one or more emotions might lead to another different emotion. Participants, for example, are asked to judge the extent to which a woman who was annoyed with a coworker for taking credit for a project would feel anger, annoyance, or frustration when the coworker took credit again. Thus, individuals who score high in this domain of EI may have an advantage in affective forecasting because of their ability to identify the specific emotions that stem from complex affective experiences.

The Emotion Management (EM) domain may have even broader relevance to affective forecasting accuracy. Individuals who score high in this domain show strong recognition of how emotions are actively dealt with following emotion-provoking situations; these individuals exhibit insight into the ways in which an initial emotion or mood may be reinforced, reduced, or preserved. On the EM section of the MSCEIT, test-takers are asked to evaluate how various behaviors, social situations, and subjective construals will minimize, maximize, or maintain a particular emotional experience. Participants, for example, are asked to judge the extent to which a person's positive, carefree mood would be preserved by ignoring the good feeling, focusing on all the things that are going well for her or trying to cheer

up a depressed relative. Thus, although the term “emotion management” is commonly used to refer to the capacity to reduce negative emotions, the EM domain of the MSCEIT is designed to capture a broader understanding of how positive and negative emotions can be both minimized and maximized, as well as preserved. Thus, individuals who score high on EM may make more accurate affective forecasts because they possess sophisticated insight into the internal and external forces that interact with a given event to produce emotional experiences. For example, in predicting how she will feel the day after her favored candidate is elected president, a woman high in EM might recognize that her feelings will be driven not only by the outcome itself but also by whether she will be surrounded by other political aficionados (reinforcing her positive feelings) or will be busy with other unrelated activities (diluting her positive feelings). Across a broad range of situations, individuals who score high in EM should be more adept at calibrating their affective forecasts because of their ability to take into account the idiosyncratic features that will mitigate or intensify their reactions to an emotion-relevant event.

Although we hypothesized that forecasting ability would be related to scores on a performance measure of emotional intelligence, we did not expect that forecasting ability would be related to self-reported EI. Recent research has demonstrated that performance and self-report measures of EI are not strongly correlated ( $r_s < .25$ ) and performance, but not self-report, measures of EI predict social behavior (Brackett, Rivers, Shiffman, Lerner, & Salovey, in press). Indeed, it appears that EI operates in a similar fashion to cognitive intelligence such that a self-report measure cannot be used as a proxy measure for actual intelligence (Dunning, Johnson, Ehrlinger, & Kruger, 2003; Paulhus, Lysy, & Yik, 1998). Thus, whereas actual EI should promote accurate affective forecasts, as described in detail above, there is little reason to believe that simply perceiving oneself as emotionally intelligent would confer any benefits for affective forecasting.

In the present research, we examined whether EI—and the understanding and managing emotions subcomponents in particular—predicted affective forecasting ability. Participants completed EI measures and later were asked to estimate how they would feel and report their actual feelings in response to events, including a presidential election and term paper (Study 1) and a basketball game (Study 2). We hypothesized that individuals who were high in EI would make more accurate affective forecasts regarding their emotional response to these events. We further hypothesized that only a performance measure of EI (the MSCEIT), but not a self-report measure, would predict forecasting ability.

## STUDY 1

### Method

*Overview.* At the beginning of the fall 2004 semester, participants completed a battery of pretest measures, including one performance and one self-report measure of EI (the MSCEIT and Self-Rated Emotional Intelligence Scale [SREIS], respectively). Later in the semester, participants were asked to predict how they would feel following the U.S. presidential election and then to report their actual feelings after the election. Finally, about 1 month later, participants were asked to predict how they would feel after receiving their term paper grade and then to report their actual feelings after receiving it.

*Participants.* In return for extra course credit, 84 students in a psychology course at Yale University provided data for all phases of the study as part of a larger research project on emotion-related skills and social functioning. Twenty-five participants were men, 53 were women, and 6 did not report their gender.

### Emotional Intelligence

*MSCEIT.* The MSCEIT (Mayer, Salovey, & Caruso, 2002a) is a 141-item performance test that operationalizes the four emotion-related abilities (i.e., perception use, understanding, and management of emotion) that comprise Mayer and Salovey’s (1997) theory of EI. The test requires participants to identify emotions in faces and designs, to indicate feelings that facilitate and interfere with specific thought processes, to answer questions on how emotions combine to form other emotions and how emotional reactions blend and progress over time, and finally to choose the consequences of various forms of emotional management in both self- and other-relevant situations. The MSCEIT yields scores for each of the four domains of EI as well as a total score. Correct answers on the test are measured by expert and consensus scoring, which closely converge ( $r_s > .90$ ; Mayer, Salovey, Caruso, & Sitarenios, 2003). In consensus scoring, respondents are given credit for correct answers to the extent that their answers match those provided by the normative sample (more than 5,000 heterogeneous individuals from North America). Similarly, in expert scoring, respondents are given credit for answers that match the answers from a pool of emotions experts (21 members of the International Society for Research on Emotion). Split-half reliabilities in the present study were greater than .77 for the four subscales and .94 for the total score. More information on the psychometric properties and validity of the test can be found elsewhere (Brackett & Salovey, 2004; Mayer, Salovey, & Caruso, 2002b).

*SREIS.* The SREIS (Brackett et al., in press) was developed to map onto the MSCEIT; it measures people's self-reported ability to perceive, use, understand, and manage emotions. For example, on the SREIS, the perception of emotion is assessed with statements such as, "I am good at reading people's facial expressions." Participants rate their agreement with each item from *disagree strongly* (1) to *agree strongly* (5). As demonstrated by Brackett et al. (in press), the SREIS has a similar factor structure to the MSCEIT and scores on the SREIS correlate in the expected directions with neuroticism ( $r = -.42$ ), well-being ( $r = .47$ ), and life satisfaction ( $r = .25$ ). Consistent with this previous research, the SREIS had acceptable reliability ( $\alpha = .84$ ) in the present study, as did each of the subscales ( $\alpha s > .70$ ).

### Forecasts and Experiences

*Event 1: Presidential election.* Participants completed in-class surveys on U.S. Election Day (November 2, 2004) and 2 days after the election (November 4, 2004). On Election Day, participants reported how happy they were feeling currently and predicted how happy they would be 2 days later if George W. Bush won the election and if John F. Kerry won the election, as well as reporting which candidate they preferred. On November 4, participants again rated their current happiness. Consistent with Gilbert, Pinel, Wilson, Blumberg, and Wheatley's (1998, Study 3) election study, participants rated their current and predicted happiness on 9-point scales ranging from *not at all happy* (1) to *extremely happy* (9), allowing for direct comparisons between forecasted and actual happiness.

*Event 2: Term paper.* Approximately 1 month after the election, participants completed an in-class survey when they handed in their term papers. They then completed a second survey when they received their graded papers back 3 weeks later. On the first survey (Time 1), participants rated their current feelings of happiness and sadness on scales ranging from *not at all happy* (1) to *extremely happy* (9) and from *not at all sad* (1) to *extremely sad* (9). Next, participants reported the grade they were expecting on the paper. Using the 9-point scale, participants predicted how happy they would be after getting their paper back if they received a grade (a) one step higher than they were expecting (e.g., an A- instead of a B+) and (b) two steps higher than they were expecting. In addition, participants rated how sad they would be if they received a grade (a) one step lower and (b) two steps lower than they were expecting. Three weeks later, upon receiving their graded term paper, participants again rated their current happiness and sadness on the same scales used at Time 1.

### Results

*Analytic strategy.* To create an index of forecasting (in)accuracy, we first calculated the absolute value of the difference between each participant's affective forecast and experience for each event.<sup>1</sup> This measure was used because we were primarily interested in the size rather than the direction of errors in affective forecasts, that is, we saw no clear justification for predicting that people high in EI would be less susceptible to forecasting errors in just one direction (i.e., overestimation vs. underestimation). Participants' accuracy scores for the election were significantly correlated with their accuracy scores for the term paper ( $r = .28$ ,  $p = .009$ ), suggesting that some people are indeed more accurate forecasters than others across situations. Thus, we averaged participants' accuracy scores for the election and the term paper to create a cross-situational index of forecasting accuracy.

*Main analyses.* To test whether EI predicted forecasting accuracy, we first entered total MSCEIT scores into a regression predicting the cross-situational forecasting accuracy index. Supporting our hypothesis, MSCEIT scores significantly predicted forecasting accuracy ( $\beta = -.22$ ),  $t(82) = -2.04$ ,  $p = .045$ ; participants who were higher in EI exhibited smaller errors (i.e., greater accuracy) in affective forecasting. Next, we entered participants' scores on each of the four separate branches of the MSCEIT (but not the total score) into a regression analysis predicting forecasting accuracy. The EM domain emerged as the sole significant predictor of forecasting accuracy ( $\beta = -.31$ ),  $t(79) = -2.38$ ,  $p = .02$ , all other branches ( $t s < 1$ ); likewise, there was a significant zero-order correlation between forecasting accuracy and EM ( $r = -.30$ ,  $p = .006$ ) but not between accuracy and any of the other domains ( $p s > .13$ ). Because the EM domain was driving the observed relationship between the MSCEIT and forecasting accuracy, we used scores for this domain as the primary independent variable in all subsequent analyses.

*Self-reported EI.* To examine whether self-reported EI predicted forecasting accuracy as well or better than did ability-based EI, we entered EM scores from both the SREIS and the MSCEIT into a regression analysis predicting forecasting accuracy. As predicted, SREIS scores failed to predict forecasting accuracy ( $t < 1$ ), whereas MSCEIT scores remained a significant predictor of accuracy ( $\beta = -.30$ ),  $t(77) = -2.73$ ,  $p = .008$ , highlighting the apparent inadequacy of self-reported EI as a predictor of forecasting ability. There were also no significant zero-order correlations between forecasting accuracy and SREIS-EM or SREIS-total scores (see Table 1).

**TABLE 1:** Correlation Matrix (Study 1)

Measure	1	2	3	4	5	6	7	8
1. Forecast accuracy (composite)	—	.75**	.84**	-.22* [-.19 <sup>†</sup> ]	-.30** [-.25*]	-.11	-.04	-.30**
2. Forecast accuracy (election)		—	.28**	-.26* [-.23*]	-.24* [-.19 <sup>†</sup> ]	.00	.04	-.27*
3. Forecast accuracy (paper)			—	-.11 [-.09]	-.24* [-.20 <sup>†</sup> ]	-.16	-.09	-.23*
4. MSCEIT-total				—	.74**	.11	.05	.12
5. MSCEIT-EM					—	.10	.03	.23*
6. SREIS-total						—	.85**	.01
7. SREIS-EM							—	-.09
8. Gender								—

NOTE: Coefficients in brackets are partial correlations, controlling for gender; all other coefficients are zero-order correlations. The forecast accuracy indices were calculated such that higher numbers indicate poorer accuracy; thus, variables that are negatively correlated with these indices are associated with better accuracy (i.e., smaller forecasting errors). MSCEIT = Mayer-Salovey-Caruso Emotional Intelligence Test; EM = Emotion Management; SREIS = Self-Rated Emotional Intelligence Test. Gender was coded as 0 = male and 1 = female; for calculation of partial correlations, missing values of gender were set to .67 (sample mean).  
<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

*Gender.* As shown in Table 1, EM was related to gender, with women scoring significantly higher than men on this branch of the MSCEIT (although gender was not significantly related to total scores on the MSCEIT). In addition, women exhibited greater forecasting accuracy than did men. Therefore, we entered gender and EM scores into a regression analysis predicting forecasting accuracy, which revealed significant, independent effects of both gender ( $\beta = -.25$ ),  $t(75) = -2.25$ ,  $p = .03$ , and EM ( $\beta = -.24$ ),  $t(75) = -2.17$ ,  $p = .03$  (see Table 1 for additional analyses controlling for gender).

*Separate event analyses.* Although averaging forecasting accuracy scores across the election and paper situations provides the most reliable index of stable individual differences in forecasting ability, we also conducted additional analyses for the term paper and election events separately.<sup>2</sup> Consistent with the main analyses, MSCEIT-EM scores significantly predicted forecasting accuracy for the term paper ( $\beta = -.24$ ),  $t(82) = -2.20$ ,  $p = .03$ , and the election ( $\beta = -.24$ ),  $t(82) = -2.22$ ,  $p = .03$ . Furthermore, compared to those in the bottom tertile on EM, participants in the top tertile exhibited relatively small forecasting errors for both the election and the paper situations, as shown in Table 2.

## Discussion

The present study provides initial evidence of stable, predictable individual differences in forecasting accuracy. Participants' accuracy in forecasting their emotional responses to the U.S. presidential election was significantly related to their subsequent accuracy in forecasting their emotional responses to receiving their term paper grades. More important, the stable component of forecasting accuracy was reliably predicted by EI (as measured by the MSCEIT).<sup>3</sup> Specifically, the EM

**TABLE 2:** Means and Standard Deviations on Forecast Accuracy Index (by Event) for Participants in the Top and Bottom Tertiles of MSCEIT-Emotion Management.

	Bottom Tertile M (SD)	Top Tertile M (SD)	Difference T
Presidential election	2.14 (1.51)	1.29 (0.94)	2.55*
Term paper	2.71 (1.58)	1.46 (1.26)	3.27*
Basketball game	3.08 (2.39)	1.08 (.76)	2.88*

NOTE: Higher numbers indicate poorer accuracy.  
 \* $p < .05$ .

domain of the MSCEIT surfaced as the critical aspect of EI for predicting forecast accuracy.

Although we hypothesized a priori that people who scored high on the MSCEIT would exhibit greater forecasting accuracy due to their high EI, the observed relationship between MSCEIT scores and forecasting accuracy also could have emerged if the high scorers on the MSCEIT were more driven for consistency—people who intentionally stuck to their guns and reported feeling the same way they had predicted feeling also would appear accurate on our forecasting index. This perspective suggests that the relationship between MSCEIT scores and accuracy on our forecasting index should have been stronger for the election (in which only 2 days elapsed between forecasts and experiences) than the term paper (in which 3 weeks elapsed between forecasts and experiences); intentionally maintaining consistency between forecasts and experiences should be much easier when little time has passed and one's forecast can be easily recalled. In fact, however, the relationship between MSCEIT scores and forecasting accuracy was virtually identical in the election and paper studies, casting doubt on this alternative explanation. Still, it is conceivable that the paper grade was more important than the election outcome to most participants and that the relative

importance of the paper grade provoked a greater drive to achieve consistency between forecasts and experiences, potentially canceling out the effect of the greater time lapse on forecast-experience consistency.

Therefore, in Study 2, we asked participants to report forecasts and experiences regarding an event—a school basketball game—that was personally important to some individuals and unimportant to others, and we assessed personal importance using a well-validated measure of sports team identification (Wann & Branscombe, 1993). If consistency motivation underlies the relationship between MSCEIT scores and forecast-experience correspondence, then this relationship should be stronger among committed fans, for whom the game's outcome is high in importance and therefore more likely to trigger a drive for consistency between forecasts and experiences.

As well as examining this alternative explanation, Study 2 was designed to extend our investigation to a somewhat different aspect of emotional experience; whereas Study 1 examined happiness and sadness, which are strongly related to emotional valence, Study 2 examined excitement, which is related to emotional arousal. Finally, because we were initially somewhat agnostic about which branch(es) of the MSCEIT would best predict forecasting accuracy, it was important to test whether the EM domain again would emerge as the critical predictor of accuracy using a different event, emotion, and sample.

## STUDY 2

### Method

*Participants.* A total of 38 undergraduates in a marketing course at Duke University completed all phases of the present study in exchange for course credit. This sample included 18 women, 18 men, and 2 who did not report their gender.

*Procedure.* Participants completed the same battery of pretest measures used in Study 1, including the MSCEIT and the SREIS. A week later, participants were asked to complete a short forecasting survey pertaining to a major home game between the Duke men's basketball team and their long-time rivals from the University of North Carolina (UNC), which was scheduled for the next day. Participants were asked to imagine Duke (a) winning and (b) losing the game against UNC and to predict how excited they would be feeling the day after each of these possible outcomes on a scale from *not at all* (1) to *extremely* (9). To assess the personal importance of the basketball game for individual participants, we asked them to complete Wann and Branscombe's

(1993) seven-item sports team identification survey, which includes items such as, "How important to you is it that the team wins?" and "How important is being a fan of the team to you?" Responses to these items were averaged to create a team identification score for each participant ( $\alpha = .89$ ). The day after the game against UNC (which Duke lost), each participant was contacted via e-mail and asked to rate their actual feelings of excitement on the same 9-point scale used on the forecast survey.

### Results

*Main analyses.* We conducted the same analyses as in Study 1. Consistent with Study 1, participants' total scores on the MSCEIT significantly predicted forecasting accuracy, with participants who scored higher in EI exhibiting smaller errors (i.e., greater accuracy) in their affective forecasts ( $\beta = -.49$ ),  $t(36) = -3.38$ ,  $p = .002$ . When all four branches of the MSCEIT were entered into a regression analysis predicting accuracy, the EM domain again emerged as the sole significant predictor ( $\beta = -.52$ ),  $t(33) = -2.92$ ,  $p = .006$ , all other branches,  $ts < 1$ . However, there were significant zero-order correlations between forecasting accuracy and the Use of Emotion domain ( $r = -.35$ ,  $p = .03$ ) and the Understanding of Emotion domain ( $r = -.37$ ,  $p = .02$ ), as well as the EM domain ( $r = -.59$ ,  $p < .0005$ ). Consistent with Study 1, participants who scored in the top tertile of EM exhibited significantly smaller forecasting errors than those who scored in the bottom tertile (see Table 2).

*Self-reported EI.* As in Study 1, we entered EM scores from the SREIS and the MSCEIT into a regression predicting forecasting accuracy; only MSCEIT scores predicted accuracy,  $t(34) = -4.09$ ,  $p < .0005$ , whereas SREIS scores did not ( $t < 1$ ). Furthermore, there were no significant zero-order correlations between forecasting accuracy and either SREIS-EM or SREIS-total scores (see Table 3).

*Gender.* Women scored slightly higher than did men on the MSCEIT overall and on the EM domain specifically, but gender failed to emerge as a significant predictor of affective forecasting accuracy in the present study (see Table 3). When both gender and EM were entered into a regression predicting forecasting accuracy, the effect of EM was significant ( $\beta = -.59$ ),  $t(33) = -3.87$ ,  $p < .0005$ , but the effect of gender was not ( $t < 1$ ; see Table 3 for additional analyses controlling for gender).

*Personal importance.* To examine whether the personal importance of the basketball game moderated the relationship between EM and forecasting accuracy, we entered EM and team identification scores (both

**TABLE 3:** Correlation Matrix (Study 2)

Measure	1	2	3	4	5	6	7
1. Forecast accuracy	—	-.49** [-.50**]	-.59** [-.60**]	.07	.21	-.17	-.07
2. MSCEIT-total		—	.78**	.00	-.02	.22	.32 <sup>†</sup>
3. MSCEIT-EM			—	-.10	-.17	.15	.31 <sup>†</sup>
4. SREIS-total				—	.65**	.31 <sup>†</sup>	-.11
5. SREIS-EM					—	.04	-.36*
6. Team identification						—	.03
7. Gender							—

NOTE: Coefficients in brackets are partial correlations, controlling for gender; all other coefficients are zero-order correlations. The forecast accuracy index was calculated such that higher numbers indicate poorer accuracy. MSCEIT = Mayer-Salovey-Caruso Emotional Intelligence Test; EM = Emotion Management; SREIS = Self-Rated Emotional Intelligence Test. Gender was coded as 0 = male and 1 = female; for calculation of partial correlations, missing values of gender were set to .50 (sample mean).

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

centered), as well as their interaction, into a regression predicting accuracy. Although the main effect of EM was significant ( $\beta = -.57$ ),  $t(34) = -4.13$ ,  $p < .0005$ , neither the main effect of team identification nor the Emotion Management  $\times$  Team Identification interaction approached significance, both  $ts < 1$ .

## Discussion

In Study 2, individuals who were high in EI ability made relatively accurate affective forecasts regarding their excitement level following a big basketball game, thereby extending the findings of Study 1 to a new event and sample and a different aspect of emotional experience. Although multiple domains of EI were correlated with forecasting accuracy, EM again emerged as the best predictor of accuracy. Furthermore, the effect of EM remained significant after controlling for degree of identification with the basketball team. Team identification also failed to moderate the relationship between EM and accuracy. This finding casts additional doubt on the consistency-motive explanation; according to this alternative explanation, the relationship between EI and accuracy index scores should be higher when an event is personally important (as a school basketball game is for people who strongly identify with the team).

## GENERAL DISCUSSION

The research reported here provides the first evidence of stable, predictable individual differences in affective forecasting accuracy. A performance measure of EI—but not a self-report measure—reliably predicted the accuracy of participants' affective forecasts.<sup>4</sup> This relationship between EI and forecast accuracy appeared in the context of emotion-relevant events in three quite different arenas: politics, academics, and sports. EM emerged as the most critical aspect of EI for predicting forecasting accuracy,

although there was some evidence of relationships between accuracy and other domains of EI.

The fact that the relationship between EI and forecasting ability is best explained by EM suggests that when making forecasts, people high in this ability recognize how they will up- or down-regulate emotions in the face of affective events, leading them to make more realistic assessments of their postevent feelings. People who score high on the EM domain of the MSCEIT realize that emotional responses are not a simple function of an event's occurrence, instead appreciating how emotions following an event can be mitigated or reinforced by both internal factors (e.g., direction of attention) and external factors (e.g., interaction partners). In essence, high-EM individuals have an intuitive understanding of one of the central conclusions of happiness research, and of social psychology more broadly: Well-being depends less on the objective events one encounters than on how those events are construed, dealt with, and shared with others. Because high-EM individuals recognize this core concept and possess specific knowledge about how various subjective construals, coping strategies, and social situations can modify emotional responses to events, they are likely to have a pervasive advantage in making affective forecasts.

Although we found that EM was the best predictor of forecasting ability, the other domains of EI are not irrelevant. Indeed, the MSCEIT is constructed hierarchically, with EM at the top because of its reliance on the other domains; to manage emotions effectively, one must first be able to monitor, discriminate, and label feelings appropriately. It is therefore not terribly surprising that (a) significant zero-order correlations emerged between forecasting accuracy and the Use and Understanding domains of EI in Study 2 and (b) EM accounted for the most unique variance when all four domains were entered simultaneously into a multiple regression predicting accuracy in Studies 1 and 2.

Of course, it is still notable that the Understanding Emotions domain was uncorrelated with accuracy in

Study 1 and that it failed to account for unique variance (above and beyond EM) in both studies. We suspect that our selection of events may have been responsible for the limited predictive contribution of the Understanding Emotions domain. In undertaking a first investigation of individual differences in forecasting accuracy, we intentionally selected events that have been commonly studied within the affective forecasting literature. These events (similar to most events studied in the extant forecasting literature) involve fairly straightforward gains or losses. Wilson and Gilbert (2003) argue that even while going astray in predicting the intensity of their emotional reactions, most people should be reasonably adept at predicting the specific emotions they will experience following such common gain/loss situations, thereby leaving high scorers on the Understanding Emotions domain without a special advantage. In contrast, more complicated situations (e.g., an unwanted pregnancy) should provoke a relatively complex and dynamic blend of emotions, which might be anticipated more accurately by individuals who score high on Understanding Emotions. Although certainly important, such complex and ambivalent situations are obviously less common than the simple gains and losses we all experience on a daily basis; therefore, EM is likely to have a more pervasive influence on forecasting accuracy than does Understanding Emotions. Nonetheless, it would be worthwhile to examine individual differences in accuracy regarding the specific emotions (e.g., anger vs. contempt) that would be experienced in complex situations, a task that should favor individuals high in Understanding Emotions.

The present findings have intriguing implications for research on both affective forecasting and EI. Moving beyond the extant focus on identifying situational influences on forecasting errors and biases, the current study highlights the potentially important role of individual difference variables (i.e., emotion-related skills) in shaping forecast accuracy. Furthermore, our findings suggest that people lack self-insight regarding their own capacity for self-insight, that is, people's self-reports of EI (on the SREIS) were uncorrelated with both their MSCEIT scores and with affective forecasting accuracy. These findings are consistent with past research demonstrating that performance tests as opposed to self-report measures of EI predict important criteria, including mental health and social competence (Brackett et al., in press; Brackett & Mayer, 2003). The findings reported here also extend the validity of performance tests of EI to a novel outcome: intertemporal self-knowledge.

Still, on a practical level, one might wonder whether the individual differences in forecasting accuracy observed here have meaningful implications for everyday life; after all, even if our more inaccurate participants felt happier or sadder than they expected after George Bush's victory,

surely most of them would stand by their vote. As noted by Gilbert (2005), however, discrepancies between affective forecasts and emotional experiences can give rise to more striking discrepancies between planned and enacted behavior—few of the Kerry voters who anticipated lasting depression and a resulting move to Canada have actually made their way north of the border. Although occasional discrepancies between planned and enacted behavior may be relatively innocuous, few would gladly relinquish the ability to plan behavior and make behavioral trade-offs based on an accurate assessment of their own future feelings. Furthermore, to the extent that understanding how someone else would feel in a given situation depends on correctly envisioning one's own feelings in that situation, the ability to make consistently accurate affective forecasts should be valuable for salespeople, policy makers, and anyone whose life or livelihood depends on interacting successfully with other people.

## NOTES

1. For the election event, we calculated the difference between participants' actual happiness on November 4th and how happy they had predicted feeling that day, given a George Bush win. Similarly, for participants who scored one or two steps higher than expected on the paper, we subtracted their predicted happiness given that grade from their actual happiness after getting their grade. For participants who scored one or two steps lower than expected, we subtracted their predicted sadness given that grade from their actual sadness after getting their paper back.

2. The reelection of George Bush represented a negative event for most participants; on Election Day, 82% reported a preference for Kerry, 13% reported a preference for Bush, and 5% did not report a preference for either. In contrast, the term paper represented a positive event for the majority of participants, with 60% scoring higher than they expected. Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) scores were unrelated to candidate preferences and to paper grades ( $ps > .50$ ).

3. We argue that affective forecasts are better calibrated with actual experiences among individuals high in emotional intelligence (EI), but the present findings could have emerged if high-EI participants either made more moderate affective forecasts or reported more moderate emotional experiences; because our primary dependent variable is a difference score, the extremity of either forecasts or experiences could be responsible for our results, creating a possible artifact. To examine the extremity issue, we calculated each participant's deviation from the midpoint of 5 on each 9-point forecast and experience scale (e.g., participants would have received a deviation score of 2 if they selected either 3 or 7 on a given scale). Midpoint deviation scores were not reliably related to MSCEIT-Total or MSCEIT-Emotion Management scores (all  $ps > .30$ ). Furthermore, examining the zero-order correlations between affective forecasts, emotional experiences, and EI revealed no consistent pattern. Thus, high-EI individuals did not simply report less extreme forecasts or experiences, suggesting that the calibration between forecasts and experiences (rather than the extremity of either) underlies the present findings.

4. Although the focus of our investigation was on forecasting accuracy rather than bias, we conducted additional analyses to examine whether EI was related to a tendency to overestimate versus underestimate intensity of emotional experience. Subtracting experiences from forecasts to create a raw difference score for each participant, we found no systematic relationship between EI and directionality of forecasting errors. For the term paper, the raw difference score was unrelated to total EI scores ( $r = -.10, ns$ ) or Emotion Management



(EM) scores on the MSCEIT ( $r = -.08, ns$ ). For the election, the raw difference score was significantly related to total EI ( $r = .22, p = .05$ ) and EM ( $r = .29, p = .007$ ); high EI was associated with a tendency to predict greater happiness than was actually experienced, and this relationship was significant for both Bush and Kerry voters, even though the election represented a positive event for the former and a negative event for the latter. Finally, for the basketball game in Study 2, the raw difference score was unrelated to total EI ( $r = -.05, ns$ ) or EM ( $r = -.11, ns$ ). Therefore, there is no evidence in the present research that EI is related to a systematic bias toward either underestimation or overestimation of emotional experience.

## REFERENCES

- Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: Technical manual*. Toronto, Canada: Multi-Health Systems.
- Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of intelligence. *Personality and Social Psychology Bulletin, 29*, 1147-1158.
- Brackett, M. A., Rivers, S. E., Shiffman, S., Lerner, N., & Salovey, P. (in press). Emotion-related abilities and social functioning: A comparison of self-report and performance measures of EI. *Journal of Personality and Social Psychology*.
- Brackett, M. A., & Salovey, P. (2004). Measuring emotional intelligence as a mental ability with the Mayer-Salovey-Caruso Emotional Intelligence Test. In G. Geher (Ed.), *Measurement of emotional intelligence* (pp. 179-194). Hauppauge, NY: Nova Science Publishers.
- Cox, B. J., & Swinson, R. P. (1994). Overprediction of fear in panic disorder with agoraphobia. *Behaviour Research & Therapy, 32*, 735-739.
- Craske, M. G., Rapee, R. M., & Barlow, D. H. (1988). The significance of panic expectancy for individual patterns of avoidance. *Behavior Therapist, 19*, 577-592.
- Dunn, E. W., & Laham, S. A. (in press). A user's guide to emotional time travel: Progress on key issues in affective forecasting. In J. P. Forgas (Ed.), *Hearts and minds: Affective influences on social cognition and behavior*. New York: Psychology Press.
- Dunning, D., Johnson, K., Ehrlinger, J., & Kruger, J. (2003). Why people fail to recognize their own incompetence. *Current Directions in Psychological Science, 12*, 83-87.
- Gilbert, D. T. (2005, January 20). Four more years of happiness. *The New York Times*.
- Gilbert, D. T., Pinel, E. C., Wilson, T. D., Blumberg, S. J., & Wheatley, T. P. (1998). Immune neglect: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology, 75*, 617-638.
- Gilbert, D. T., & Wilson, T. D. (2000). Miswanting: Some problems in the forecasting of future states. In J. P. Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. 178-197). Cambridge, UK: Cambridge University Press.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam.
- Kahneman, D., & Snell, J. (1992). Predicting a change in taste: Do people know what they will like? *Journal of Behavioral Decision Making, 5*, 187-200.
- Lam, K. C. H., Buehler, R., McFarland, C., & Ross, M. (2005). Cultural differences in affective forecasting: The role of focalism. *Personality and Social Psychology Bulletin*.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp.4-30). New York: Basic Books.
- Mayer, J. D., Salovey, P., & Caruso, D. (2002a). *The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Version 2.0*. Toronto, Canada: Multi-Health Systems.
- Mayer, J. D., Salovey, P., & Caruso, D. (2002b). *MSCEIT technical manual*. Toronto, Canada: Multi-Health Systems.
- Mayer, J. D., Salovey, P., & Caruso, D. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry, 15*, 197-215.
- Mayer, J. D., Salovey, P., Caruso, D., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion, 3*, 97-105.
- Paulhus, D. L., Lysy, D. C., & Yik, M. S. M. (1998). Self-report measures of intelligence: Are they useful as proxy IQ tests? *Journal of Personality Psychology, 66*, 525-554.
- Petrides, K. V., & Furnham, A. (2003). Trait emotional intelligence: Behavioral validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality, 17*, 39-57.
- Riis, J., Loewenstein, G., Baron, J., Jepson, C., Fagerlin, A., & Ubel, P. A. (2005). Ignorance of hedonic adaptation to hemo-dialysis: A study using ecological momentary assessment. *Journal of Experimental Psychology: General, 134*, 3-9.
- Sieff, E. M., Dawes, R. M., & Loewenstein, G. (1999). Anticipated versus actual reaction to HIV test results. *American Journal of Psychology, 112*, 297-311.
- Totterdell, P., Parkinson, B., Briner, R. B., & Reynolds, S. (1997). Forecasting feelings: The accuracy and effects of self-predictions of mood. *Journal of Social Behavior & Personality, 12*, 631-650.
- Van Boven, L., & Loewenstein, G. (in press). Cross-situational projection. In M. D. Alicke, D. Dunning, & J. Krueger (Eds.), *The self in social judgment*. New York: Taylor & Francis.
- Van Boven, L., Loewenstein, G., & Dunning, D. (2003). Mispredicting the endowment effect: Underestimation of owners' selling prices by buyer's agents. *Journal of Economic Behavior & Organization, 51*, 351-365.
- Wann, D. L., & Branscombe, N. R. (1993). Sports fans: Measuring degree of identification with their team. *International Journal of Sport Psychology, 24*, 1-17.
- Wilson, T. D., & Gilbert, D. T. (2003). Affective forecasting. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 346-412). San Diego, CA: Academic Press.
- Wilson, T. D., Gilbert, D. T., & Salthouse, T. (2001). [Predicted emotional reactions across the adult life span]. Unpublished raw data, University of Virginia.

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