Available online at www.sciencedirect.com
SCIENCE DIRECT®
ELSEVIER
Personality and Individual Differences 39 (2005) 1135–1145
PERSONALITY AND INDIVIDUAL DIFFERENCES
www.elsevier.com/locate/paid

Emotional intelligence predicts life skills, but not as well as personality and cognitive abilities

Veneta A. Bastian *, Nicholas R. Burns, Ted Nettelbeck

University of Adelaide, Adelaide, SA 5005, Australia

Received 15 May 2004; accepted 12 April 2005
Available online 5 July 2005

Abstract

Emotional Intelligence (EI) is held to explain how emotions advance life goals. While different theories of EI have been proposed there is still controversy about how EI should be conceptualised and measured. It is agreed, however, that EI's relevance depends on it being able to predict significant life outcomes. A study of 246 predominantly first-year tertiary students investigated relationships between EI and a number of 'life skills' (academic achievement, life satisfaction, anxiety, problem-solving and coping). Correlations between EI and academic achievement were small and not statistically significant, although higher EI was correlated with higher life satisfaction, better perceived problem-solving and coping ability and lower anxiety. However, after controlling for the influence of personality and cognitive abilities, shared variance between EI and life skills was 6% or less.

Keywords: Emotional intelligence; Cognitive abilities; Anxiety; Coping; Life satisfaction

1. Introduction

The past 15 years has seen increasing interest in the possibility that emotions may moderate intelligent behaviour by influencing an individual's reaction to and interpretation of information

* Corresponding author.
E-mail address: veneta.bastian@psychology.adelaide.edu.au (V.A. Bastian).

0191-8869/$ - see front matter © 2005 Elsevier Ltd. All rights reserved.
doi:10.1016/j.paid.2005.04.006

(Salovey & Mayer, 1994). Although precursors to EI formed part of earlier theories of social and personal intelligences, Salovey and Mayer (1990) were the first to try and locate the ability to handle emotions within a hierarchical psychometric model of intelligence. Mayer and Salovey (1997) subsequently described EI as "the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge and to reflectively regulate emotions so as to promote emotional and intellectual growth" (p. 10). They have suggested that EI qualifies as an intelligence because, to solve problems, individuals discriminate and monitor emotions in themselves and others; and, to this extent some people are better at these activities than others. This conceptualisation has generated debate, the more so because, according to several studies, females show higher EI than do males (Brackett, Mayer, & Warner, 2004; Mayer, Caruso, & Salovey, 1999; Schutte et al., 1998).

Moreover, EI has been conceptualised in different ways, resulting in confusion about the nature of EI and the best way to measure it (Roberts, Zeidner, & Matthews, 2001). Two broad categories of model have been developed, which have been described as "ability models" or "mixed models" (Mayer et al., 1999). Mayer, Salovey and colleagues have defined EI as an ability, emphasising individual differences in cognitive processing of affective information. In contrast, mixed models (Bar-On, 1997; Goleman, 1995) have included emotional abilities together with personality, motivation and affective dispositions. Ability EI has typically been assessed by putatively objective, maximal-performance measures, similar to the assessment of IQ, and such measures have generally been more correlated to intelligence constructs than to personality (Brackett & Mayer, 2003; Lopes, Salovey, & Straus, 2003; O'Connor & Little, 2003). Conversely, mixed EI models have been assessed by self-report measures, which tend to correlate with personality dimensions (Dawda & Hart, 2000; Saklofske, Austin, & Miniski, 2003; Van Der Zee, Thijs, & Schakel, 2002).

Ultimately, the relevance of EI depends on its prediction of significant life outcomes. Considerable research has focused on workplace success and interpersonal relationships, with EI reported as positively correlated with social network size and quality (Ciarrochi, Chan, & Bajgar, 2001), positive relations with others, perceived parental support and fewer negative interactions with close friends (Lopes et al., 2003), pro-social behaviour, parental warmth and positive peer and family relations (Mayer et al., 1999), more optimism (Schutte et al., 1998), higher empathic perspective taking and self-monitoring in social situations, and higher social skills and higher marital satisfaction (Schutte et al., 2001). Additionally, negative correlations have been reported with illegal drug and alcohol use, deviant behaviour and poor relationships with friends (Brackett et al., 2004), unauthorised absences and exclusions from school (Petrides, Frederickson, & Furnham, 2004) and depression (Dawda & Hart, 2000; Schutte et al., 1998).

Academic achievement, life satisfaction, anxiety, problem-solving and coping ability are other variables relevant in workplace, education and interpersonal situations, only some of which have previously been investigated in relation to EI. Most studies of EI and academic success have used Grade Point Average (GPA). Schutte et al. (1998) reported that EI (Assessing Emotions Scale, AES) at the start of the year significantly predicted end-of-year GPA among first-year college students ($r = .32$). Parker, Summerfeldt, Hogan, and Majeski (2004) and O'Connor and Little (2003) have similarly reported modest correlations between GPA and EI (Emotional Quotient Inventory, EQ-I; $r = .20$, $r = .23$, respectively). However, near-zero correlations between college students' GPAs and EQ-i ($r = .01$; Newsome, Day, & Catano, 2000) and the Mayer, Salovey and Caruso

Emotional Intelligence Test (MSCEIT; $r = .08$; O'Connor & Little, 2003) have also been found. Additionally, after controlling for personality and verbal Scholastic Aptitude Test scores, Brackett & Mayer (2003) found that AES, EQ-i and MSCEIT no longer correlated significantly with GPA ($r = -.10, -.08, .05$, respectively).

Several studies have examined life satisfaction in relation to various EI measures, with all reporting low-to-moderate positive correlations in the order of $r = .11$ to $r = .61$ (Ciarrochi, Chan, & Caputi, 2000; Gannon & Ranzijn, 2005; Martinez-Pons, 1997; Mayer et al., 1999; Palmer, Donaldson, & Stough, 2002; Saklofske et al., 2003; Schutte, Lopez, & Malouff, 2000). However, these studies have not comprehensively controlled for the possible effects of personality and cognitive abilities (if at all, generally only personality or cognitive abilities, but typically not both have been controlled).

To date, little empirical research on coping, problem-solving and anxiety has been conducted. Theoretical links between EI and coping have, however, been proposed. Salovey, Bedell, Detweiller, & Mayer (2000) have suggested that more emotionally intelligent individuals should be more successful at meeting the demands of stressful situations because they are better able to perceive, appraise and therefore regulate their emotions. More particularly, Salovey et al. (2000) have argued that EI components are related to a number of coping processes, such as rumination, social support networks and the disclosure of trauma, suggesting that higher EI should be associated with better coping and the use of more effective coping strategies. Consistent with this, Salovey, Stroud, Woolery, & Epel (2002) have reported higher EI (Repair of emotions from TMMS) to be associated with lower trait passive coping ($r = -.31$), lower state passive coping ($r = -.31$) and more active trait coping ($r = .44$).

Research on problem-solving, anxiety and EI is limited, however, Heppner & Lee (2002) have reported that coping is positively correlated with problem-solving and, like problem-solving, negatively with anxiety. Therefore, given correlations between EI and coping, problem solving and anxiety should be correlated (positively and negatively, respectively) with EI.

This study tested whether Emotional Intelligence (EI) predicts real-life outcomes, after controlling for the influence of cognitive abilities and personality.

The foregoing review has generated three hypotheses:

1. Based on previous research, EI is related to higher levels of academic achievement, life satisfaction and coping ability.
2. Given the correlations between problem-solving, anxiety and coping and between coping and EI, higher EI is associated with better problem-solving and lower anxiety.
3. Considering EI should show significant effects independent of other constructs, after controlling for the effects of personality and cognitive abilities, EI will significantly predict life skills.

2. Method

2.1. Participants

Participants were 246 (69 males; 177 females) predominantly first-year Psychology students ($N = 219$) aged 16–39 years ($M = 19.9 \pm 4.2$). Participation was for course credit.

2.2. Materials

Participants supplied demographic information and completed a battery of 10 measures assessing EI, cognitive abilities, personality and life skills (academic achievement, life satisfaction, anxiety, problem-solving and coping ability). These measures were chosen because they were readily available, widely used and suitable for an Australian sample. These measures were as follows:

Trait Meta Mood Scale (*TMMS;* Salovey, Mayer, Goldman, Turvey, & Palfai, 1995): A 30-item self-report measure that assesses core features of EI for Attention (13-items), Clarity (11-items) and Repair of emotions (6-items). Participants indicate level of agreement with each statement on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Higher scores indicate higher EI.

Assessing Emotions Scale (*AES;* Schutte et al., 1998): A 33-item self-report measure of EI, based on Salovey & Mayer's (1994) definition of EI. Participants indicate level of agreement on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Higher total scores indicate higher EI.

Mayer, Salovey and Caruso Emotional Intelligence Test [*Version 2.0*] (*MSCEIT;* Mayer, Salovey, & Caruso, 2000): An ability measure of EI designed to measure solving emotional problems objectively. MSCEIT has eight tasks (141-questions), presented in multiple-choice format, which produce four subscale scores (Perception, Use, Knowledge and Management) and total score. Administration was via the internet using the MSCEIT Computer Program for Windows™. The test publishers completed all scoring using a consensus method whereby responses were compared for consistency with those from a normative sample. Higher scores indicate higher EI.

Raven's Advanced Progressive Matrices (*RAPM;* Raven, Court, & Raven, 1993): A 36-item, non-verbal, abstract reasoning test. Participants have 40 minutes to complete.

Phonetic Word Association Test (*PWAT;* Brownless & Dunn, 1958): A written test of verbal ability from the Australian Council of Educational Research Shorthand Aptitude Test. Participants must spell correctly 50 words spelt 'phonetically' (e.g., Item: ''bowkay''; answer: ''bouquet''), with 10 minutes to complete.

Revised NEO Personality Inventory (*NEO PI-R;* Costa & McCrae, 1992): A 240-item, self-report measure of five personality dimensions. Participants indicate agreement with each item on a 5-point Likert scale (1 = Strongly Agree, 5 = Strongly Disagree). Higher scores indicate higher incidence of this personality trait.

Satisfaction With Life Scale (*SWLS;* Diener, Emmons, Larsen, & Griffin, 1985): A 5-item, self-report measure of general life satisfaction. Participants indicate level of agreement with each item on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree). Higher scores indicate higher life satisfaction.

Anxious Thoughts Inventory (*ATI;* Wells, 1994): A 22-item, self-report measure assessing anxiety. Participants indicate level of agreement with each item on a 4-point Likert scale (1 = Almost Never, 4 = Almost Always). Higher total scores indicate higher anxiety.

Problem Solving Inventory (*PSI;* Heppner & Petersen, 1982): A 32-item, self-report measure assessing perceived problem solving skills and behaviours. Participants indicate level of agreement on a 6-point Likert scale (1 = Strongly Agree to 6 = Strongly Disagree). Lower total scores indicate more effective perceived problem solving.

COPE (Carver, Scheier, & Weintraub, 1989): A 60-item, self-report multidimensional coping inventory, assessing dispositional coping (typical responses to stressors). Participants indicate fre-

quency of coping behaviours on a 4-point Likert scale (1 = "I don't do this at all" to 4 = "I do this a lot"). Higher total scores indicate higher coping.

Tertiary Entrance Rank (*TER*). Self-reported TER scores provided an independent measure of academic achievement. In Australia, all students completing secondary schooling receive a TER (a percentile ranking based on school performance relative to other students). TERs determine admission to tertiary education. Some older participants did not have useable TERs.

2.3. Procedure

Testing was conducted in groups of up to six people. Participants first completed the two time-limited tasks (PWAT, then RAPM) and then the other tasks.

3. Results

3.1. Descriptive statistics

Descriptive statistics are presented in Table 1. Effect sizes for all gender differences were relatively small with only one reliably favouring females (TMMS Attention; $t(244) = 2.38$; $p = .01$, 2-tailed; $d = .34$).

Table 1
Descriptive statistics

Measure	Subscale	N[a]	Range	Mean ± SD	Reliability
Trait Meta Mood Scale	Attention	246	28–68	49.7 ± 6.5	.84
	Clarity	246	15–55	37.2 ± 6.6	.86
	Repair	246	6–30	21.6 ± 4.3	.83
Assessing Emotions Scale (Total)		239	78–157	123.8 ± 12.5	.89
Mayer Salovey and Caruso Emotional Intelligence Test	Perception	246	42–123	102.5 ± 14.7	.91
	Use	246	42–127	99.5 ± 13.2	.68
	Knowledge	246	55–124	103.7 ± 11.5	.45
	Management	246	51–124	95.5 ± 11.6	.49
	Total	246	33–119	99.6 ± 12.6	.83
Raven's Advanced Progressive Matrices		246	2–36	23.5 ± 7.0	–
Phonetic Word Association Task		246	4–49	36.1 ± 9.0	–
NEO Personality Inventory (Revised)	Neuroticism	246	46–164	98.2 ± 23.8	.76
	Extraversion	246	50–163	118.6 ± 21.2	.79
	Openness	246	39–168	125.4 ± 19.5	.74
	Agreeableness	246	57–164	117.5 ± 18.9	.76
	Conscientiousness	246	43–172	108.6 ± 23.0	.87
Satisfaction With Life Scale		226	6–34	24.3 ± 5.6	.85
Anxious Thoughts Inventory		106	23–80	47.3 ± 11.2	.91
Problem Solving Inventory (Total)		204	48–177	93.0 ± 18.8	.89
The Cope (Total)		204	60–195	136.7 ± 22.3	.87
Tertiary Entrance Rank (TER)		185	50–100	86.2 ± 10.7	–

[a] Incomplete data was due to some measures being added partway through the testing.

3.2. Correlations between EI, personality, cognitive abilities and life skills

Correlations (available data using pairwise correlations) between all measures are shown in Table 2. The reliability of these data were confirmed by comparing with listwise correlations, which revealed markedly similar outcomes.

Self-report EI measures were moderately correlated with personality, but their correlations with cognitive abilities were generally near-zero. In contrast, ability EI measures had low correlations with personality measures, but had low-to-moderate correlations with cognitive abilities. The general trend of these results was that higher EI is associated with higher Extraversion, Openness, Agreeableness and Conscientiousness, but with lower Neuroticism.

Correlations between life skills and EI were higher for self-report than they were for ability EI. These correlations suggest that higher EI is related to higher life satisfaction, perceived problem-solving and coping and lower anxiety. The results for academic achievement were not significant. These correlations also suggest that personality is more highly correlated to the life skills variables than are the cognitive abilities.

3.3. Dimensionality of TMMS and MSCEIT[1]

Using LISREL 8.54 (Jöreskog & Sörbom, 2003), subscales from TMMS and MSCEIT were fitted to a two-correlated-factors model where TMMS subscales defined a self-report EI factor and MSCEIT subscales defined an ability EI factor. This model provided poor fit; chi-square (13) = 33.9, $p < .001$; RMSEA = .081 (CI_{90} = .048, .110); CAIC = 131.5. However, allowing the Knowledge and Management subscales of MSCEIT to have secondary loadings on the self-report EI factor produced a good fitting model, with all loadings statistically significant; chi-square (11) = 16.2, $p = .13$; RMSEA = .044 (CI_{90} = .000, .086); CAIC = 126.8.

A new model including AES loading on the self-report EI factor fitted less well and the loading of MSCEIT Knowledge on the self-report EI factor was not statistically different from zero. Dropping this path from the model improved the fit; chi-square (18) = 37.9, $p = .004$; RMSEA = .067 (CI_{90} = .037, .097); CAIC = 155.0. The estimated correlation between the two EI factors was only .19. These analyses suggest some overlap between TMMS and MSCEIT but that it is possible to achieve relative independence between self-report and ability measures. Factor scores for the self-report and ability EI factors were calculated and analyses for these are also reported.

3.4. Relationship between EI, personality and cognitive abilities

A set of measurement models on the main constructs, using LISREL 8.54, was examined. First, a proxy measure for IQ was calculated as the average of the z-scores for RAPM and PWAT. Next, two basic models were compared; a trait model and a method model. For the trait model, all EI measures defined an EI factor and the five NEO PI-R measures together with IQ defined a second factor. For the method model, all self-report measures (TMMS, AES, NEO PI-R) defined

[1] We are grateful to an anonymous reviewer for suggesting this analysis.

Table 2
Correlation matrix of all measures

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	1																					
2	.32**	1																				
3	.27**	.37**	1																			
4	.46**	.47**	.62**	1																		
5	.13*	.11	.06	.04	1																	
6	.14*	.13*	.12	.12	.51**	1																
7	.22**	.19**	.02	.03	.25**	.26**	1															
8	.34**	.22**	.24**	.26**	.43**	.46**	.34**	1														
9	.51**	.54**	.71**	.99**	.03	.11	.04	.29**	1													
10	.24**	.15*	.04	.02	.79**	.76**	.46**	.74**	.04	1												
11	.10	.09	.09	.06	.13*	.10	.38**	.19**	.08	.27**	1											
12	.26**	.09	.03	.07	.06	.11	.56**	.26**	.08	.26**	.42**	1										
13	.02	−.46**	−.57**	−.37**	−.09	−.05	−.05	−.09	−.42**	−.02	−.18**	.00	1									
14	.31**	.15*	.56**	.61**	.07	.10	.10	.26**	.62**	.07	.05	.01	−.32**	1								
15	.54**	.19**	.25**	.43**	.14*	.13*	.29**	.31**	.44**	.23**	.35**	.31**	−.11	.33**	1							
16	.36**	.23**	.44**	.23**	.12	.15*	.19**	.30**	.31**	.19**	.03	.08	−.34**	.24**	.21**	1						
17	.03	.31**	.23**	.32**	−.02	−.02	.03	.12	.32**	−.04	−.02	.06	−.38**	.11	.10	.27**	1					
18	.04	.09	.09	.05	−.05	−.02	.33**	.17*	.07	.10	.43**	.35**	−.23**	−.03	.11	.15*	.35**	1				
19	.22**	.37**	.52**	.48**	.13	.14	.12	.22**	.51**	.14*	.21**	.04	−.48**	.43**	.19**	.28**	.27**	.29**	1			
20	−.07	−.36**	−.30**	−.22**	−.25**	−.13	−.28**	−.19	−.25**	−.24*	−.22**	.01	.72**	−.16	−.14	−.22*	−.05	−.06	−.46**	1		
21	−.20**	−.36**	−.40**	−.55**	.02	−.00	−.18**	−.22**	−.55**	−.04	−.26**	−.21**	.53**	−.32**	−.46**	−.26**	−.61**	−.38**	−.37**	.29**	1	
22	.11	.15*	.28**	.36**	−.09	−.00	−.02	.08	.36**	−.07	−.04	−.07	−.07	.30**	.06	.08	.16*	−.10	.11	−.01	−.09	1

NB: 1 = Attention; 2 = Clarity; 3 = Repair; 4 = AES Total; 5 = Perception; 6 = Utilisation; 7 = Knowledge; 8 = Management; 9 = Self-report EI Total; 10 = Ability EI Total; 11 = Raven's Advanced Progressive Matrices; 12 = Phonetic Word Association Test; 13 = Neuroticism; 14 = Extraversion; 15 = Openness; 16 = Agreeableness; 17 = Conscientiousness; 18 = Tertiary Entrance Rank; 19 = Satisfaction With Life Scale; 20 = Anxious Thoughts Inventory; 21 = Problem Solving Inventory; 22 = The Cope.

* $p < .05$.

** $p < .01$.

a self-report factor and all ability measures (MSCEIT and IQ) defined an ability factor. Neither model fitted the data well, although fit for the method model was better (CAIC = 540.9 compared to 747.4). The next set of models defined four factors: EI self-report and EI ability, as above, a factor defined by Neuroticism, Agreeableness, and Conscientiousness (NAC), and a second personality factor defined by Extraversion, Openness and IQ (EOIQ). This second factor is consistent with empirical results that suggest that these personality constructs can influence intelligence (see Matthews, Deary, & Whiteman, 2003). By allowing secondary loadings of variables across factors for EI, as above, fixing the correlation between the two EI factors as zero, and the correlation between EI self-report and EOIQ as 1.0, model fit was improved over the basic model (CAIC = 538.1 and 561.4, respectively). However, none of these models provided good fit to the data and the method factor provided a better fit than a trait factor, suggesting that the outcome was highly dependent on measurement procedures. Moreover, while retaining separate traits for EI and personality, overall fit would be improved by collapsing these constructs. Taken together, the results suggest substantial overlap between EI and personality measures. This suggestion is tested further by regression analyses, to follow.

3.5. Hierarchical regression analyses

Hierarchical regression analyses estimated shared variance attributable to each EI and life skill measure. For each regression model a life skill was the dependent variable, with personality, cognitive abilities and EI measures as independent variables (Step 1 = personality and cognitive abilities; Step 2 = EI measure). Given the large number of multiple regressions and space restrictions, one regression (TMMS and SWLS) illustrates this form of analysis (Table 3). Results for all multiple regressions are summarised in Table 4, which shows the contribution to life skills by personality and cognitive abilities measures (Step 1) and R^2 Change attributable to different EI measures (Step 2).

Table 3
Hierarchical regression of Satisfaction With Life Scale on NEO Personality Inventory (Revised) subscales, Raven's Advanced Progressive Matrices (RAPM) and Phonetic Word Association Task (PWAT) (Step 1) and on Trait Meta Mood Scale subscales (Step 2)

Regression step	Predictor variables	β	R^2 change
Step 1	Neuroticism	−.29*	
	Extraversion	.31*	
	Openness	−.02	
	Agreeableness	.08	
	Conscientiousness	.10	
	RAPM	.16*	
	PWAT	−.04	.35; $F(7,218) = 16.7$; $p < .001$
Step 2	Attention	.10	
	Clarity	.13*	
	Repair	.19*	.05; $F(3,215) = 6.0$; $p < .001$

* $p < .001$.

Table 4
Hierarchical regression of life skills on NEO Personality Inventory (Revised), Raven's Advanced Progressive Matrices and Phonetic Word Association Task (Step 1) and the additional R^2 contribution of emotional intelligence (Step 2)

Life skill	Step 1	Step 2				
		TMMS	AES	MSCEIT	Self-report EI	Ability EI
Satisfaction With Life Scale	.35*	.05*	.03	.01	.04*	.01
Anxious Thoughts Inventory	.57*	.01	.01	.06*	.00	.04*
Problem Solving Inventory	.63*	.00	.02	.01	.01	.00
The Cope	.12*	.04*	.06*	.02	.06*	.00
Tertiary Entrance Rank	.35*	.00	.00	.03	.00	.00

Note: TMMS = Trait Meta Mood Scale; AES = Assessing Emotions Scale; MSCEIT = Mayer, Salovey and Caruso Emotional Intelligence Test; Self-report and Ability EI indicate the two EI factors derived from a factor analysis of all EI measures.
* $p < .001$.

As shown in Table 4, despite low-to-moderate correlations between EI and life skills, most variance attributable to life skills was accounted for by personality and cognitive abilities, with contributions from EI being 6% at most. Despite considerable variation in the extent to which personality and cognitive ability variables accounted for different life skills, this trend was observed for all multiple regressions, regardless of the life skill or EI measure involved.

4. Discussion

Contrary to some previous research (Brackett et al., 2004; Ciarrochi et al., 2001; Mayer et al., 2000; Schutte et al., 1998), only one statistically significant gender difference was found (Attention, favouring females).

Results support previous research (Dawda & Hart, 2000; Saklofske et al., 2003; Van Der Zee et al., 2002), that self-report EI measures are more closely related to personality than are ability EI measures. Additionally, cognitive abilities were more closely related to ability EI than to self-report EI (Brackett & Mayer, 2003; Lopes et al., 2003; O'Connor & Little, 2003), although the distinction was less clear here. That the TMMS and AES were significantly correlated with personality, despite being based on ability EI models, models that are reputedly distinguishable from personality traits, is perhaps suggestive of method variance in self-report and personality measures. To reduce personality effects on EI (particularly self-report) measures, it seems likely that how EI is conceptualised and assessed should be reviewed.

Correlations between EI and the life skills showed higher EI was associated with higher life satisfaction, problem-solving and coping ability and with lower anxiety. Correlations between EI and academic achievement, however, were not statistically significant. Self-report EI measures had higher correlations with the life skills than did the ability EI measure. It is likely that this is due to the correspondingly high correlations between life skills and personality and between personality and self-report EI measures, which may partly be attributed to method variance and desirable self-presentation.

Nevertheless, despite predicted low-to-moderate correlations between EI and life satisfaction and coping (hypothesis 1), and better problem-solving and lower anxiety (hypothesis 2),

controlling for personality and cognitive abilities (known predictor variables) in hierarchical regression models (hypothesis 3) substantially reduced the relative contribution of EI, regardless of the measure used. Similar results were also found by Gannon & Ranzijn (2005). They found the incremental validity of the Swinburne University Emotional Intelligence Test on SWLS was only 1.3%, after controlling for demographic variables and personality (but not cognitive abilities because these did not significantly correlate with life satisfaction). Brackett & Mayer (2003) also found little incremental validity in criterion measures when 'intelligence' and personality were controlled. However, in their study only verbal abilities was used, whereas the current study also controlled for abstract reasoning. It is clear that future studies of the predictive validity of EI should control for personality and for a wide coverage of cognitive abilities.

The incremental predictive validity of EI for the life skills assessed here was small—up to 6% at most. However, a number of factors may have affected the results. We used only self-report measures of life skills, so that *perception* of problem-solving and coping ability was measured, not the actual ability per se. Moreover, the concept of EI is still relatively new and there are known problems with the construction of EI measures. It is therefore possible that current measures did not assess EI adequately. It is also possible that the markedly uniform sample assessed (primarily university students) affected the results. For example, EI may be a threshold variable, relevant to a less highly selected sample than that assessed in this study.

References

Bar-On, R. (1997). *Emotional Quotient Inventory (EQ-i): technical manual*. Toronto, 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, 29*, 1147–1158.

Brackett, M. A., Mayer, J. D., & Warner, R. M. (2004). Emotional intelligence and its relation to everyday behaviour. *Personality and Individual Differences, 36*, 1387–1402.

Brownless, V., & Dunn, S. (1958). *Manual for shorthand aptitude test*. Melbourne, Australia: Australian Council for Educational Research.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267–283.

Ciarrochi, J., Chan, A. Y. C., & Bajgar, J. (2001). Measuring emotional intelligence in adolescents. *Personality and Individual Differences, 31*, 1105–1119.

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.

Costa, P. T., & McCrae, R. R. (1992). *NEO PI-R professional manual*. Odessa, Florida: Psychological Assessment Resources, Inc.

Dawda, D., & Hart, S. D. (2000). Assessing emotional intelligence: reliability and validity of the Bar-On Emotional Quotient Inventory (EQ-i) in university students. *Personality and Individual Differences, 28*, 797–812.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*, 71–75.

Gannon, N., & Ranzijn, R. (2005). Does emotional intelligence predict unique variance in life satisfaction beyond IQ and personality? *Personality and Individual Differences, 38*, 1353–1364.

Goleman, D. (1995). *Emotional intelligence: why it can matter more than IQ*. London: Bloombury.

Heppner, P. P., & Lee, D. (2002). Problem-solving appraisal and psychological adjustment. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 298–299). Oxford: Oxford University Press.

Heppner, P. P., & Petersen, C. H. (1982). The development and implications of a personal problem-solving inventory. *Journal of Counseling Psychology, 29*, 66–75.

Jöreskog, K. G., & Sörbom, D. (2003). *LISREL 8.54*. Chicago, IL: Scientific Software International.
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.
Martinez-Pons, M. (1997). The relation of emotional intelligence with selected areas of personal functioning. *Imagination, Cognition and Personality, 17*, 3–13.
Matthews, G., Deary, I. J., & Whiteman, M. C. (2003). *Personality traits* (2nd ed.). Cambridge: CUP.
Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence, 27*, 267–298.
Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: implications for educators* (pp. 3–31). New York: Basic Books.
Mayer, J. D., Salovey, P., & Caruso, D. R. (2000). *Mayer–Salovey–Caruso emotional intelligence test (MSCEIT) user's manual*. Toronto, Ontario, Canada: MHS Publishers.
Newsome, S., Day, A. L., & Catano, V. M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences, 29*, 1005–1016.
O'Connor, R. M., & Little, I. S. (2003). Revisiting the predictive validity of emotional intelligence: self-report versus ability-based measures. *Personality and Individual Differences, 35*, 1893–1902.
Palmer, B., Donaldson, C., & Stough, C. (2002). Emotional intelligence and life satisfaction. *Personality and Individual Differences, 33*, 1091–1100.
Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J., & Majeski, S. A. (2004). Emotional intelligence and academic success: examining the transition from high school to university. *Personality and Individual Differences, 36*, 163–172.
Petrides, K. V., Frederickson, N., & Furnham, A. (2004). The role of trait emotional intelligence in academic performance and deviant behavior at school. *Personality and Individual Differences, 36*, 277–293.
Raven, J. C., Court, J. H., & Raven, J. (1993). *Manual for Raven's progressive matrices and vocabulary scales—advanced progressive matrices, Sets I & II*. Oxford: Oxford Psychologists Press Ltd.
Roberts, R. D., Zeidner, M., & Matthews, G. (2001). Does emotional intelligence meet traditional standards for an intelligence? *Emotion, 1*, 196–231.
Saklofske, D. H., Austin, E. J., & Miniski, P. S. (2003). Factor structure and validity of a trait emotional intelligence measure. *Personality and Individual Differences, 34*, 707–721.
Salovey, P., Bedell, B. T, Detweiller, J. B., & Mayer, J. D. (2000). Coping intelligently: emotional intelligence and the coping process. In C. R. Snyder (Ed.), *Coping: the psychology of what works* (pp. 141–164). New York: Oxford University Press.
Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*, 185–211.
Salovey, P., & Mayer, J. D. (1994). Some final thoughts about personality and intelligence. In R. J. Sternberg & P. Ruzgis (Eds.), *Personality and intelligence* (pp. 303–318). Cambridge, New York: Cambridge University Press.
Salovey, P., Mayer, J. D., Goldman, S. L., Turvey, C., & Palfai, T. P. (1995). Emotional attention, clarity and repair: exploring emotional intelligence using the Trait Meta Mood Scale. In J. W. Pennebaker (Ed.), *Emotion, disclosure and health* (pp. 125–154). Washington, DC: American Psychological Association.
Salovey, P., Stroud, L. R., Woolery, A., & Epel, E. S. (2002). Perceived emotional intelligence, stress reactivity and symptom reports: further explorations using the Trait Meta Mood Scale. *Psychology and Health, 17*, 611–627.
Schutte, N. S., Lopez, E., Malouff, J. (2000). The relationship between cognitive intelligence and emotional intelligence assessed as maximal performance and typical performance. Presented at the *models of intelligence conference*, *New Haven*.
Schutte, N. S., Malouff, J. M., Bobik, C., Coston, T. D., Greeson, C., Jedlicka, C., et al. (2001). Emotional intelligence and interpersonal relationships. *The Journal of Social Psychology, 141*, 523–536.
Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., et al. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences, 25*, 167–177.
Van Der Zee, K., Thijs, M., & Schakel, L. (2002). The relationship of emotional intelligence with academic intelligence and the big five. *European Journal of Personality, 16*, 103–125.
Wells, A. (1994). A multi-dimensional measure of worry: development and preliminary validation of the anxious thoughts inventory. *Anxiety, Stress and Coping, 6*, 289–299.