Perceived emotional intelligence and dispositional optimism–pessimism: Analyzing their role in predicting psychological adjustment among adolescents

Natalio Extremera [a,*], Auxiliadora Durán [a], Lourdes Rey [b]

[a] *Department of Social Psychology, Faculty of Psychology, University of Málaga,
Campus de Teatinos s/n, 29071 Málaga, Spain*
[b] *AMADPSI*

Abstract

The current study examined the relationships between perceived emotional intelligence (PEI) (measured by Trait-Meta Mood Scale, TMMS), dispositional optimism/pessimism and psychological adjustment (perceived stress and life satisfaction) in a sample of 498 adolescents (202 males and 296 females). In addition, the present research investigated the extent to which dimensions of PEI predicted variance in life satisfaction and perceived stress beyond the variance explained for by individual differences in optimism and pessimism. TMMS dimensions and dispositional optimism/pessimism showed significant correlations in the expected direction with perceived stress and life satisfaction. Likewise, PEI and dispositional optimism/pessimism were not strongly redundant albeit related. Further hierarchical regression analyses confirmed that emotional clarity and mood repair still remained significant in predicting perceived stress and life satisfaction after the influence of optimism/pessimism were controlled. These results are consistent with previous findings on construct validity of PEI assessed by TMMS. In this sense, data suggest that adolescents with high perceptions of emotional abilities (in particular, high clarity and repair) generally show higher life satisfaction and lower perceived stress. Moreover, to some degree, this effect might be considered as independent from their own optimistic or pessimistic dispositions.
© 2006 Elsevier Ltd. All rights reserved.

* Corresponding author. Tel.: +34 952 137063; fax: +34 952 131100.
E-mail address: nextremera@uma.es (N. Extremera).

1. Introduction

The body of research on individual differences has drastically grown in recent years. Some of the constructs that have classically attracted such a great deal of research attention as individual predictors are dispositional optimism/pessimism. To a certain extent, the interest is due to dispositional optimism/pessimism which have been found to be related to positive and negative adjustment, respectively. Dispositional optimism–pessimism is defined in terms of generalized expectancies concerning important future positive (optimism) and negative outcomes (pessimism) (Scheier & Carver, 1985). In addition, a number of investigators have found that optimism and pessimism represent two partially independent dimensions (Chang, Maydeu-Olivares, & D'Zurilla, 1997; Mroczek, Spiro, Aldwin, Ozer, & Bosse, 1993) and are considered important predictors of psychological well-being (Scheier, Carver, & Bridges, 2001). A series of studies have also shown that these constructs have implications for the manner in which people cope with stressful experiences, and the success with which they cope in their lives. For example, higher scores on optimism have been associated with less psychological maladjustment, including higher perceived stress (Chang, 2002), and greater life satisfaction (Chang et al., 1997). In contrast, there is a good deal of evidence that links pessimism to lower life satisfaction (Chang et al., 1997), greater perceived stress (Chang, 2002) and higher depressive symptoms (Chang, Sanna, & Yang, 2003). For the last decade, increasing attention has been paid in examining the discriminant validity of dispositional optimism–pessimism with respect to other well-known personality variables. In this line, some researchers have confirmed that the influences of these constructs on adjustment can be distinguished from the effect of neuroticism, trait anxiety, self-mastery, self-esteem, information processing styles, and problem orientation, among others (Chang & D'Zurilla, 1996; Chang & Farrehi, 2001; Scheier, Carver, & Bridges, 1994). However, more research would be necessary to distinguish the role of optimism and pessimism on adjustment over the influence of other personal predictors.

In this sense, emotional intelligence (EI) has lately been suggested to be an important factor to predict psychological adjustment to life (Salovey & Mayer, 1990). Following Mayer and Salovey's (1997) theoretical approach, EI is conceptualized as the capacity to perceive, assimilate, understand, and manage emotions in oneself and others. While several ways of measuring EI have been devised (Geher, 2004), generally speaking they might be divided into two main categories: self-report and performance-based measures. Despite its limitations related to response biases, self-report measures are most typically used and they seem to be viable alternatives to performance-based measures for investigating particular research questions (Pérez, Petrides, & Furnham, 2005). In particular, they are generally chosen instead of performance-based measures because they are easy to use, imply relatively low costs in terms of time and economic resources and rely on introspection, which provides unique access to emotional-affective processes. One of the most widely used self-report measures is the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), based on Salovey and Mayer's EI model (1990). This self-report measure evaluates three facets of the reflective processes that accompany mood states termed the meta mood

experience (Salovey et al., 1995). Specifically, Attention, that is, perceived ability to attend to moods and emotions; (2) Clarity, that is, perceived ability to discriminate clearly among feelings; and (3) Repair, that is, individuals' perceived ability to repair negative moods.

The TMMS evaluates a 'reasonable operationalisation of aspects of emotional intelligence' (Salovey et al., 1995, p.147). This scale does not directly tap people's emotional abilities but rather people's perceived beliefs about their emotional abilities. Given its subjective nature, this instrument provides an index of what researchers have called a proxy for Perceived Emotional Intelligence (PEI) (Extremera & Fernández-Berrocal, 2005; Paek, 2006; Salovey, Stroud, Woolery, & Epel, 2002). This conceptual operationalization allows one to distinguish between those studies which employ self-report measures of EI assessing perceived abilities from those using mental abilities tests conceiving EI as a set of skills (Mayer, Salovey, & Caruso, 2002).

Despite the fact that several studies have demonstrated that PEI measured by the TMMS is related to a number of aspects of positive well-being (Fernández-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005; Schmidt & Andrykowski, 2004), no study has examined its incremental validity controlling for dispositional optimism/pessimism. Demonstrating the distinctive of PEI would have important implications for construct validity of TMMS, and thus would provide important theoretical insights into the role of emotion-related processes that influence psychological adjustment. Researchers using the TMMS have attempted to account for individual behaviour and emotional well-being, analyzing how meta-mood abilities influence our cognitions and actions (Salovey et al., 1995, 2002). Recent evidence suggests significant associations between PEI measured by the TMMS and psychological adjustment controlling for personality and mood states (Extremera & Fernández-Berrocal, 2005; Palmer, Donaldson, & Stough, 2002). However, Salovey et al. (1995) raised some concerns on discriminant validity of the TMMS with dispositional optimism, finding moderate correlations between TMMS dimensions (especially mood repair) and optimism measured by the Life orientation Test (LOT). It might be assumed that the way people attend to moods, discriminate between them and regulate emotions would provide insight to individuals about their knowledge of themselves. This emotional knowledge might provide a sense of positive expectancy for future affective events, establishing a conceptual link between PEI and dispositional optimism. It is tentative to think that high or low self-beliefs about one's own emotions and capacity to discriminate and regulate moods might, in part, reflect dispositional optimism or pessimism, respectively. Accordingly, this overlapping might inflate the findings obtained with the TMMS dimensions on real life criteria questioning whether effects attributable to this EI self-report might really be due to variance that TMMS dimensions shared with dispositional optimism/pessimism.

In this line, Catanzaro, Wasch, Kirsch, and Mearns (2000) have documented that our expectancies about one's ability to terminate a negative mood state were moderately related to more global generalized expectancies such as optimism/pessimism. These authors considered that their findings supported the argument that both constructs are related, albeit conceptually distinct. While Optimism–Pessimism refers to a global generalized belief that positive/negative outcomes would be obtained, mood regulation expectancies would be limited to beliefs about reinforcers related to regulating negative mood (Catanzaro et al., 2000).

In order to clarify the validity of PEI, it is necessary for research to distinguish the relative role of PEI and dispositional optimism/pessimism as unique predictors of psychological adjustment. Besides, most of the findings about the incremental validity of TMMS have been demonstrated

in samples of adults (Extremera & Fernández-Berrocal, 2005; Palmer et al., 2002). However, given that findings from adult populations may not generalize to adolescents and that little research has examined the usefulness of EI self-report measures in adolescents (Ciarrochi, Chan, & Bajgar, 2001), this study examined whether the TMMS dimensions would demonstrate incremental validity in an adolescent sample. Before developing EI training programs that may help to protect the adolescents from the emotional difficulties of everyday life, it is essential to establish in this population that EI is a distinctive construct which can predict important criteria over and above other well-established measures (Ciarrochi et al., 2001).

Taking into account the above considerations, the purpose of the present study was twofold. First, we sought to examine the relations among dimensions of TMMS, dispositional optimism/pessimism and psychological adjustment (perceived stress and life satisfaction) in an adolescent sample. Secondly, we sought to examine the incremental validity of TMMS dimensions to predict perceived stress and life satisfaction after the effect of dispositional optimism/pessimism were controlled for statistically. We hypothesized that TMMS dimensions would be significantly related to dispositional optimism/pessimism but not highly enough to be considered redundant. Accordingly, we predicted that PEI would be related to perceived stress and life satisfaction and these associations would remain statistically significant over and above variance accounted for by dispositional optimism/pessimism.

2. Method

2.1. Participants and procedure

Participants were 509 adolescents of the Province of Huelva (Spain) (207 males and 302 females) recruited from different high schools and occupational centers who participated voluntarily and anonymously in the study. Ages ranged from 12 to 19 years ($M = 15.76$, SD = 1.6). The responses provided by 11 participants were dropped from the study because they were incomplete. Hence, the responses provided by the remaining 498 participants (202 males and 296 females) were used.

2.2. Materials

2.2.1. Trait Meta-Mood Scale (TMMS, Salovey et al., 1995)
The TMMS is considered a proxy for PEI (Salovey et al., 2002). It evaluates the extent to which people attend to and value their feelings (Attention), feel clear rather than confused about their feelings (Clarity), and use positive thinking to repair negative moods (Repair). The shortened Spanish version (Fernández-Berrocal, Extremera, & Ramos, 2004) includes 24 items from the original version (eight for each subscale). The original 48 items were subjected to a principal components analysis with a varimax rotation. The items with loadings ⩽.40 were removed. The analysis showed a 3-factor solution with Attention, Clarity and Repair as dimensions in agreement with Salovey et al., findings (1995) for the English version. This Spanish version has shown acceptable internal consistency and satisfactory test–retest reliability and correlated negatively with depression and ruminative responses and positively with life satisfaction. Further details on the scoring,

reliability, and validity of the Spanish version of TMMS can be found in Fernández-Berrocal et al. (2004).

2.2.2. Dispositional optimism–pessimism (Revised Life Orientation Test (LOT-R); Scheier et al., 1994)

This instrument is a 6-item measure (plus 4 filler items) of individual differences in dispositional optimism and pessimism. We employed separate scores to assess for optimism and pessimism. Higher scores on optimism and pessimism subscales reflect a greater tendency to expect more positive and negative outcomes, respectively. We used a well-validated Spanish version (Ferrando, Chico, & Tous, 2002). Extensive evidence of the reliability and validity of the LOT-R and its subscales has been reported (Scheier & Carver, 1985). However, some studies have shown low reliability indexes (.53 for optimism and .64 for pessimism scales) analyzing the two subscales separately (Chang et al., 2003).

2.2.3. The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983)

This scale is a 14-item measure of self-appraised stress. Respondents are asked to rate the frequency during the last month in which they have experienced stress. The shorter 4-item version of the PSS was used in the present study. Higher scores reflect greater perceived stress in the last month. This scale has been validated on numerous occasions and has appropriate psychometric properties (e.g., Cohen et al., 1983; Cohen & Williamson, 1988). We used a well-validated Spanish version (Remor & Carrobles, 2001).

2.2.4. Satisfaction with life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985)

This scale comprises 5 self-referencing statements on perceived global life satisfaction. Participants completed the Spanish version of the Satisfaction with life Scale (Atienza, Balaguer, & Garcia-Merita, 2003). Both English and Spanish versions have shown evidence for discriminant validity and appropriate internal consistency (Atienza et al., 2003; Diener et al., 1985).

3. Results

3.1. Descriptive analyses

Pearson correlations, means, standard deviations and reliability of the different subscales used for the present adolescent sample are presented in Table 1.

As the Table shows, although attention to feelings was positively related to other TMMS dimensions, no significant relationships between attention to feelings and dispositional optimism/pessimism and criterion measures were found. Conversely, scores on the clarity and repair dimensions were significantly related in the expected direction to scores on dispositional optimism and pessimism and adjustment measures. Specifically, clarity was found to be positively related to dispositional optimism and satisfaction with life and negatively associated with perceived stress. Interestingly, no significant relationship between clarity and dispositional pessimism was found. In the same line, higher scores on the repair dimension were positively associated with optimism and satisfaction with life and inversely related to pessimism and perceived stress. Regarding the

Table 1
Means, standard deviations, reliabilities and correlations between different measures

	1	2	3	4	5	6	7
1. TMMS – Attention	–						
2. TMMS – Clarity	.32**	–					
3. TMMS – Repair	.23**	.41**	–				
4. LOT-R-OPT	.06	.22**	.37**	–			
5. LOT-R-PESS	.01	−.04	−.15**	−.21**	–		
6. PSS	.05	−.31**	−.31**	−.32**	.24**	–	
7. SWLS	.05	.21**	.29**	.26**	−.21**	−.48**	–
M	3.20	3.08	3.27	10.75	8.74	6.71	24.29
SD	.84	.77	.77	2.52	2.36	2.83	6.22
Alpha	.86	.82	.79	.51	.44	.66	.79

** $p < .01$.

relation between TMMS dimensions and optimism/pessimism, we found that clarity showed a modest relationship with optimism but not with pessimism while repair showed a moderate association with optimism ($r = .37$, $p < .01$) and to a lower degree with pessimism ($r = −.15$, $p < .01$). It is remarkable that these associations were not so strong as to suggest that TMMS dimensions and dispositional optimism/pessimism appraisal are redundant with each other. Finally, optimism/pessimism were significantly related in the expected direction to satisfaction with life and perceived stress. It is worth noting that clarity, repair and optimism/pessimism have obtained correlation indexes with life satisfaction and perceived stress very similar in direction and magnitude. In general, these findings support the notion that TMMS and LOT are measuring dimensions theoretically related but relatively independent, and thus indicate that both constructs are linked in a similar degree to perceived stress and life satisfaction.

3.2. Difference tests

Difference tests were utilized to further analyze the potential gender differences in TMMS dimensions and the other criterion measures. An oneway ANOVA analysis revealed significant gender differences for the following dimensions: attention ($M = 3.31$ for females and $M = 3.05$; for males; $p < .01$), clarity ($M = 3.01$ for females and $M = 3.19$ for males; $p < .05$), repair ($M = 3.17$ for females and $M = 3.43$ for males; $p < .01$), perceived stress ($M = 7.11$ for females and $M = 6.13$ for males; $p < .01$), pessimism ($M = 8.93$ for females and $M = 8.47$ for males; $p < .05$) and optimism ($M = 10.48$ for females and $M = 11.14$ for males; $p < .01$). Finally, although males score higher than females, no significant differences were found for life satisfaction ($M = 23.96$ for females and $M = 24.78$ for males; $p = .15$).

3.3. Hierarchical regression analyses

To examine the predictive utility of PEI in accounting for variance in life satisfaction and perceived stress beyond what is accounted for by dispositional optimism/pessimism, we conducted a series of hierarchical regression analyses for each of the two criterion measures. In the first step,

sex and age were entered as covariates, dispositional optimism/pessimism were entered as the second step, and the three subscales of TMMS were entered in a block in the final step. The results of the regression analysis relative to the prediction of perceived stress and life satisfaction are reported in Table 2.

With regard to perceived stress, a total of 21% of this variance was accounted for ($R = 0.46$, $R^2 = 0.21$; $F(6.489) = 13.20$; $p < 0.001$), with optimism and pessimism accounting for 15% ($p < 0.01$) and clarity and repair significantly accounted for 6% ($p < 0.01$) of the unique variance in perceived stress. Subjects who reported a higher degree of optimism and lower degree of pessimism, as well as higher perceived skill at distinguishing between moods (Clarity) and greater skill at repairing mood (Repair) scored lower on perceived stress. For life satisfaction, a total of 14% of this variance was accounted for ($R = 0.37$, $R^2 = 0.14$; $F(6.489) = 22.51$; $p < 0.001$), with optimism and pessimism accounting for 9% ($p < 0.01$) and clarity and repair significantly accounted for 5% ($p < 0.01$) of the unique variance in life satisfaction. Subjects who showed a higher degree of optimism and lower degree of pessimism, as well as subjects reporting a higher perceived skill at distinguishing between moods (Clarity) and greater skill at repairing mood (Repair) obtained higher scores on life satisfaction.

Table 2
Hierarchical multiple regression predicting perceived stress and life satisfaction

	R^2	F	β	P	ΔR^2
Perceived stress					
Covariates	0.03	7.22			0.03
Sex			0.16	0.05	
Age			−0.22	−0.48	
Dispositional optimism/pessimism	0.15	21.91			0.12
Optimism			−0.27	0.00**	
Pessimism			0.17	0.00**	
Perceived emotional intelligence	0.21	22.51			0.6
Clarity			−0.19	0.00**	
Repair			−0.12	0.01*	
Life satisfaction					
Covariates	0.00	2.75			0.00
Sex			−0.66	0.14	
Age			−0.08	0.06	
Dispositional optimism/pessimism	0.09	12.84			0.09
Optimism			0.21	0.00**	
Pessimism			−0.16	0.00**	
Perceived emotional intelligence	0.14	13.20			0.05
Clarity			0.10	0.02*	
Repair			0.16	0.01**	

$N = 490$.
* $p < 0.05$.
** $p < 0.01$.

4. Discussion

The present research confirmed the incremental validity of PEI, as measured by TMMS, as a significant predictor of perceived stress and life satisfaction even when controlling for demographic variables and dispositional optimism/pessimism. Specifically, clarity and repair dimensions explained an additional and unique variance of perceived stress and life satisfaction. The current findings replicate earlier results regarding the importance of understanding one's emotions in the development of psychological well-being (Extremera & Fernández-Berrocal, 2005; Feldman Barrett, Gross, Conner, & Benvenuto, 2001). Similarly, several studies by Catanzaro and their colleagues have supported our results, suggesting the importance of successful mood repair to predict psychological adjustment (Catanzaro & Mearns, 1999). This body of work has systematically revealed that high mood regulation expectancies are associated with lower emotional distress and better health functioning (Catanzaro & Mearns, 1999). It is tentative to think that individuals who are high on accurate understanding of own emotions and their mood regulation expectancies would also experience as though they have more control over their stressful environment because they can confer sense and manage their negative moods more adaptively (Shulman & Hemenover, 2006). Our results bolster this argument. People confused about their emotional knowledge abilities and with no confidence in their own emotional regulation abilities are unlikely to feel in control of stressful situations, showing generally higher perceived stress and lower life satisfaction. To some degree, this effect seems to be independent of individual optimistic or pessimistic dispositions.

Besides, the intercorrelations between TMMS dimensions and LOT subscales were not strongly redundant, supporting the idea that both constructs might involve relatively different emotional and cognitive processes. The low-moderate correlations between TMMS dimensions (specially Repair) and LOT suggest that both constructs are somewhat distinctive but related. Our data are in accordance with research by Catanzaro and their colleagues who described moderate relations between one's ability to terminate a negative mood and optimism/pessimism dimensions. They concluded that mood regulation expectancies should be related to more global generalized expectancies of desirable or undesirable events such as optimism/pessimism. Nevertheless, the associations should be moderate between both dimensions given that mood regulation expectancies are a more specific construct, referring only to outcomes of mood regulation (Catanzaro et al., 2000).

Gender differences were also identified in our study regarding all subscales from TMMS, optimism–pessimism and perceived stress. No significant differences between males and females were observed for life satisfaction. However, females scored significantly higher than males in attention, pessimism and perceived stress. Our findings are consistent with earlier studies which have evidenced greater attention to emotions reported by women (Thayer, Rossy, Ruiz-Padial, & Johnsen, 2003), higher perceived stress (Cohen & Williamson, 1988) and more depressive symptoms than males (Nolen-Hoeksema, 2001). This effect is also consistent with the finding that women think more and ruminate more about their emotions than men (Nolen-Hoeksema, Morrow, & Fredrickson, 1993). On the other hand, males scored significantly higher than females in clarity, repair and optimism. Similar findings, regarding the greater mood repair reported by males were obtained by Thayer et al. (2003) who found that females with higher depressive symptoms reported even greater impairment in emotional repair than their male counterparts. Also our results

are in accordance with the body of research that finds that males reported less psychological maladjustment than females (Nolen-Hoeksema, 2001). Nevertheless, even though empirical evidence has indicated no systematic gender-related differences in dispositional optimism–pessimism, it has been proposed that differences in socialization broaden the range of experience for males (Heinonen, Räikkönen, & Keltikangas-Järvinen, 2005).

It is worth noting that clarity and repair were positively associated with life satisfaction and optimism and negatively associated with perceived stress. However, attention did not correlate with any measures used in this study. The latter result was not entirely unexpected, as the attention subscale has been demonstrated to have the higher variability of associations in earlier studies. For example, our finding is consistent with previous research showing no significant associations between attention, optimism and depression (Salovey et al., 1995). However, other studies have found that the attention subscale is negatively associated with life satisfaction (Gignac, 2006), as well as to more physical symptoms of illness (Goldman, Kraemer, & Salovey, 1996). In fact, some other evidences have described that attention is positively correlated with psychological well-being (Shulman & Hemenover, 2006) and lower physiological responses to stress (Salovey et al., 2002). The diversity of results with attention subscale from TMMS make necessary more research to explore the possible mechanisms that link attention and psychological well-being. Specifically, further research to examine under what circumstances high levels of attention of one's emotions may affect healthy functioning is needed.

Although our study provides interesting preliminary evidence on incremental validity of TMMS over dispositional optimism/pessimism, the present findings should be interpreted with caution. First, the reliability indexes obtained for the LOT-R subscales have been quite low, even though these results are also consistent with Cronbach alpha reliabilities (.53 for optimism and .64 for pessimism scales) found in other studies analyzing the two subscales separately (Chang et al., 2003). Second, given that EI self-report measures rely on introspection and require people to make judgments about their own skills, they might be prone to bias or self-enhancement. Further studies might also consider the inclusion of newer ability measures such as the MSCEIT that assesses EI by directly assessing participants' emotional abilities according to a criterion of correctness rather than relying on self-beliefs (Mayer et al., 2002). Both approaches might be seen as complementary more than exclusive. Third, although the present study examined the role of optimism and pessimism tendencies and PEI on psychological adjustment, one cannot draw any conclusions about cause and effect given the cross-sectional design used.

Despite these limitations, the present research provided some empirical evidence that dispositional optimism/pessimism and PEI explained an additional and unique variance of psychological adjustment. Finally, given both constructs share a conceptual link, it could be interesting, as Heinonen et al. (2005) suggested in self-esteem research, to reveal whether intervention and prevention programs targeted to changes in PEI for adolescents may predict dispositional optimism–pessimism in adulthood.

References

Atienza, F., Balaguer, I., & Garcia-Merita, M. (2003). Satisfaction with life scale: analysis of factorial invariance across sexes. *Personality and Individual Differences, 35*, 1255–1260.

Catanzaro, S. J., & Mearns, J. (1999). Mood-related expectancy, emotional experience, and coping behavior. In I. Kirsch (Ed.), *Expectancy, experience and behavior* (pp. 67–91). Washington, DC: American Psychological Association.

Catanzaro, S. J., Wasch, H. H., Kirsch, I., & Mearns, J. (2000). Coping-related expectancies and dispositions as prospective predictors of coping responses and symptoms. *Journal of Personality, 68*, 757–788.

Chang, E. (2002). Optimism–pessimism and stress appraisal: testing a cognitive interactive model of psychological adjustment in adults. *Cognitive Therapy Research, 26*, 675–690.

Chang, E., & D'Zurilla, T. J. (1996). Relations between problem orientation and optimism, pessimism, and trait affectivity: a construct validation study. *Behaviour Research and Therapy, 34*, 185–194.

Chang, E. C., & Farrehi, A. S. (2001). Optimism/pessimism and information processing styles: can their influences be distinguished in predicting psychological adjustment? *Personality and Individual Differences, 31*, 555–562.

Chang, E. C., Maydeu-Olivares, A., & D'Zurilla, T. J. (1997). Optimism and pessimism as partially independent constructs: relations to positive and negative affectivity and psychological well-being. *Personality and Individual Differences, 23*, 433–440.

Chang, E. C., Sanna, L. J., & Yang, K. M. (2003). Optimism, pessimism, affectivity, and psychological adjustment in US and Korea: a test of a mediation model. *Personality and Individual Differences, 34*, 1195–1208.

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

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on applied social psychology* (pp. 31–67). Newbury Park, CA: Sage.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385–396.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality and Social Psychology, 69*, 71–75.

Extremera, N., & Fernández-Berrocal, P. (2005). Perceived emotional intelligence and life satisfaction: predictive and Incremental validity using the Trait Meta-mood Scale. *Personality and Individual Differences, 39*, 937–948.

Feldman Barrett, L., Gross, J., Conner, T., & Benvenuto, M. (2001). Emotion differentiation and regulation. *Cognition and Emotion, 15*, 713–724.

Fernández-Berrocal, P., Extremera, N., & Ramos, N. (2004). Validity and reliability of the Spanish modified version of the Trait Meta-Mood Scale. *Psychological Reports, 94*, 751–755.

Fernández-Berrocal, P., Salovey, P., Vera, A., Extremera, N., & Ramos, N. (2005). Cultural influences on the relation between perceived emotional intelligence and depression. *International Review of Social Psychology, 18*, 91–107.

Ferrando, P. J., Chico, E., & Tous, J. M. (2002). Propiedades psicométricas del test de optimismo Life Orientation Test. *Psicothema, 14*, 673–680.

Geher, G. (2004). *Emotional intelligence: Common ground and controversy*. Hauppauge, NY: Nova Science Publishing.

Gignac, G. E. (2006). Self-reported emotional intelligence and life satisfaction: testing incremental predictive validity hypotheses via structural equation modeling (SEM) in a small sample. *Personality and Individual Differences, 40*, 1569–1577.

Goldman, S. L., Kraemer, D. T., & Salovey, P. (1996). Beliefs about mood moderate the relationship of stress to illness and symptom reporting. *Journal of Psychosomatic Research, 41*, 115–128.

Heinonen, K., Räikkönen, K., & Keltikangas-Järvinen, L. (2005). Self-esteem in early and late adolescence predicts dispositional optimism–pessimism in adulthood: a 21-year longitudinal study. *Personality and Individual Differences, 39*, 511–521.

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. (2002). *Technical manual for the MSCEIT v. 2.0.* Toronto, Canada: MHS Publishers.

Mroczek, D. K., Spiro, A., Aldwin, C. M., Ozer, D. J., & Bosse, R. (1993). Construct validation of optimism and pessimism in older men: findings from the Normative Aging Study. *Health Psychology, 12*, 406–409.

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current Directions in Psychological Science, 10*, 173–176.

Nolen-Hoeksema, S., Morrow, J., & Fredrickson, B. (1993). Response styles and the duration of episodes of depressed mood. *Journal of Abnormal Psychology, 102*, 20–28.

Paek, E. (2006). Religiosity and perceived emotional intelligence among Christians. *Personality and Individual Differences, 41*, 479–490.

Palmer, B., Donaldson, C., & Stough, C. (2002). Emotional intelligence and life satisfaction. *Personality and Individual Differences, 33*, 1091–1100.

Pérez, J. C., Petrides, K. V., & Furnham, A. (2005). Measuring trait emotional intelligence. In R. Schulze & R. D. Roberts (Eds.), *International Handbook of Emotional Intelligence* (pp. 181–201). Cambridge, MA: Hogrefe & Huber.

Remor, E. A., & Carrobles, J. A. (2001). Versión española de la Escala de Estrés Percibido (PSS-14): Estudio psicométrico en una muestra VIH. *Ansiedad y Estrés, 7*, 195–201.

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

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, & health* (pp. 125–154). Washington: 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.

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health Psychology, 4*, 219–247.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology, 67*, 1063–1078.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (2001). Optimism, pessimism, and psychological well-being. In E. C. Chang (Ed.), *Optimism and pessimism: Implications for theory, research, and practice* (pp. 189–216). Washington, DC: American Psychological Association.

Schmidt, J. E., & Andrykowski, M. A. (2004). The role of social and dispositional variables associated with emotional processing in adjustment to breast cancer: an internet-based study. *Health Psychology, 23*, 259–266.

Shulman, T., & Hemenover, S. (2006). Is dispositional emotional intelligence synonymous with personality? *Self and Identity, 5*, 147–171.

Thayer, J. F., Rossy, L. A., Ruiz-Padial, E., & Johnsen, B. H. (2003). Gender differences in the relationship between emotional regulation and depressive symptoms. *Cognitive Therapy and Research, 27*, 349–364.