



ELSEVIER

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

SCIENCE @ DIRECT®

Personality and Individual Differences 39 (2005) 937–948

---

---

PERSONALITY AND  
INDIVIDUAL DIFFERENCES

---

---

[www.elsevier.com/locate/paid](http://www.elsevier.com/locate/paid)

# Perceived emotional intelligence and life satisfaction: Predictive and incremental validity using the Trait Meta-Mood Scale

Natalio Extremera \*, Pablo Fernández-Berrocal

*University of Malaga, Faculty of Psychology, Campus de Teatinos s/n 29071 Malaga, Spain*

Received 10 February 2004; received in revised form 1 March 2005; accepted 8 March 2005

Available online 9 June 2005

---

## Abstract

This study investigated the association between Perceived Emotional Intelligence (PEI), measured by the Trait Meta-Mood Scale (TMMS), and life satisfaction in Spanish undergraduate university students. Specially, the predictive and incremental validity of this self-report measure of emotional intelligence was examined. The authors investigated whether PEI would account for variance in satisfaction with life beyond the level attributable to mood states and personality traits. Correlation analysis showed significant associations between Clarity and Repair and higher life satisfaction. Hierarchical multiple regression analysis confirmed these findings and indicated that Clarity accounted further variance in life satisfaction not accounted for by mood states and personality traits. These findings extend previous studies and provide additional support for the incremental validity of the TMMS suggesting that Clarity contribute to life satisfaction independently from well-known mood states constructs and personality traits.

© 2005 Elsevier Ltd. All rights reserved.

*Keywords:* Emotional intelligence; TMMS; Mood states; Personality; Life satisfaction

---

---

\* Corresponding author. Tel.: +34 952 131086.

*E-mail addresses:* [nextremera@uma.es](mailto:nextremera@uma.es) (N. Extremera), [berrocal@uma.es](mailto:berrocal@uma.es) (P. Fernández-Berrocal).

## 1. Introduction

Recently, the idea that Emotional Intelligence (EI) is an important aspect of well-being and everyday coping has generated a great deal of interest. An increasing number of studies have examined the relationship between EI abilities and several important life criteria, with most studies finding significant evidence of EI as an important predictor of real-life outcomes (Charbonneau & Nicol, 2002; Ciarrochi, Deane, & Anderson, 2002; Schutte, Malouff, Simunek, Hollander, & McKenley, 2002). More interestingly, empirical studies demonstrating the incremental validity of EI over other well-known constructs are also growing (Brackett & Mayer, 2003; Lopes, Salovey, & Straus, 2003; Petrides, Frederickson, & Furnham, 2004; Roberts, Zeidner, & Matthews, 2001; Saklofske, Austin, & Minski, 2003).

The development of reliable assessment measures has been paralleled by the advance of theoretical perspectives and later by a growing body of EI empirical research (Mayer, Caruso, & Salovey, 2000). Currently there are two predominant models of EI: ability and mixed models (Mayer, Salovey, & Caruso, 2000). The former has been described by Mayer and Salovey who define EI as a set of abilities to process emotional information accurately and efficiently, including the ability to perceive, assimilate, understand and manage emotions highlighting the importance of emotional information and the uses of reasoning well with that information (Mayer & Salovey, 1997). The latter, mixed model, takes a narrow approach to EI including social skills, traits, and dispositional behavior. A similar distinction between the information-processing EI model and the trait EI model based more upon the type of measurement rather than upon the theoretical approach has been formulated by Petrides and Furnham (2000). Basically, in the field of the instruments of assessment there is a clear distinction among ability measures and self-report measures. Ability measures pertaining to the ability model are based on emotional information processing and imply the use of performance-based scales, which include emotional items that have correct and incorrect answers to examine the emotional abilities outlined in Mayer and Salovey's framework (1997) (e.g., Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT); Mayer, Salovey, & Caruso, 2001).

Similarly, in the domain of self-report measures, it seems that instruments could be divided into two general types to measure EI. On one hand, some instruments, based on Salovey and Mayer's model (1990), have been developed to assess relevant aspects of individuals' perception of their emotional competencies (e.g., Trait Meta-Mood Scale (TMMS); Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). On the other hand, other available tests comprise an extensive and comprehensive review of the literature about personal and interpersonal functioning focusing on "non-cognitive" factors such as social skills, self-esteem and personality dimensions (Emotional Quotient Inventory (EQ-i); Bar-On, 1997; Trait Emotional Intelligence Questionnaire (TEIQue); Petrides et al., 2004).

In the present study we focus on the predictive validity of the TMMS, one of the most widely used self-report measures based on Salovey and Mayer's model (1990) and developed to assess stable individual differences in the qualities of the reflective mood experience (Salovey et al., 1995). This measure taps into what researchers have termed Perceived Emotional Intelligence (PEI), or the knowledge individuals have about their own emotional abilities rather than their actual capacity (Mayer, Caruso et al., 2000; Salovey, Stroud, Woolery, & Epel, 2002). Specifically, the TMMS is a measure of beliefs concerning one's own emotional Attention (perceived attention

paid to one's own emotional states), Clarity (perceived understanding of one's emotional states), and emotional Repair (perceived ability to regulate one's emotional states).

A large number of studies have examined the relationship between TMMS subscales and important life criteria. Salovey et al. (1995) found that individuals with high scores on Clarity showed greater rebound from induced negative mood and greater decline in ruminative thoughts following an experimental stressor. Furthermore, in a natural stress situation, Goldman, Kramer, and Salovey (1996) found that individuals with low emotional Repair were more likely to visit a health center when stress was high, but in time of low stress the repair mood did not predict health center visit. Similarly, research about moral and emotional dilemmas found that moral understanding of the situation is influenced by age (meaning life experience) and by level of emotional Clarity (Fernández-Berrocal & Extremera, *in press*).

Previous studies have also shown that these dimensions are important to discriminate between clinical and general samples. In short, adolescent sex offenders scored higher on Attention to feelings and lower in Clarity and Repair than non-offending adolescents (Moriarty, Stough, Tidmarsh, Eger, & Dennison, 2001). Research has also found that middle-aged women with high scores on Clarity showed higher physical functioning, role physical, social functioning, mental health, and vitality while high mood Repair was associated to greater role physical, role emotional, social functioning, mental health, vitality and general health perceptions, and lower bodily pain (Extremera & Fernández-Berrocal, 2002). In the same sense, higher scores on Clarity and Repair have been associated negatively with symptoms reporting, social anxiety (Salovey et al., 2002), depression (Fernández-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005; Foluso, Fernández-Berrocal, Extremera, Ramos, & Joiner, 2004), several personality disorders (Leible & Snell, 2004), and positively with life satisfaction and better task mastery (Martinez-Pons, 1997). Moreover, high scores on Clarity have been positively associated with fewer cognitive difficulties such as “blinking out” and being unable to think clearly during different exercises under acute stress situations (Gohm, Baumann, & Sniezek, 2001), engaging in active coping, positive reinterpretation of events, and more self-affirming attributions for good events (Gohm & Clore, 2002).

Taken together, the studies above show that components of EI derived from TMMS are relevant predictors of well-being indexes and interpersonal functioning. Nevertheless, there are still considerably fewer published studies on the incremental validity of TMMS above and beyond well-known personality traits in predicting well-being such as life satisfaction. One valuable exception is the work of Palmer, Donaldson, and Stough (2002) who examined the predictive validity of components of TMMS to predict life satisfaction over and above both positive and negative affect. They found that only the Clarity subscale accounted for further variance in life satisfaction not accounted for by positive and negative affect. However, as authors have pointed out, other important temperamental dispositions such as the Big Five personality constructs, which are good predictors of life satisfaction, were not controlled for. Since there is clear evidence that personality dimensions such as Neuroticism and Extraversion are important factors in the prediction of life satisfaction, (Diener & Lucas, 1999; Diener, Oishi, & Lucas, 2003), it is relevant to identify the relation between personality traits and EI dimensions. In previous research, medium to large correlations have been found between personality and EI measures based on mixed models (Davies, Stankov, & Roberts, 1998; Newsome, Day, & Catano, 2000). In contrast, studies using the TMMS have demonstrated that the TMMS factors are distinct from Big Five personality dimensions, particularly Extraversion and Neuroticism (Davies et al., 1998; Salovey et al., 1995).

To test this idea, the present study examined the incremental validity of TMMS subscales in relation to life satisfaction controlling for significant mood states and Big Five personality traits. In our study mood states were measured using a well-known self-rated mood scale, the Profile of Mood States (POMS; Shacham, 1983), which provides an extensive assessment of different transient mood states. Earlier investigations have demonstrated the incremental importance of mood states evaluated by POMS (Pilcher, 1998) or personality dimensions (Diener et al., 2003) in understanding satisfaction with life. However, to date, there appears to be no research studies examining the respective contribution of mood states, personality, and EI in predicting life satisfaction. Based on the findings above, we hypothesized that Clarity, as assessed by the TMMS, would be positively associated with life satisfaction and predict further variance in life satisfaction when the mood states and Big Five are controlled for statistically.

## 2. Method

### 2.1. Participants

One hundred and eighty-four senior undergraduate university students (38 men, 146 women) enrolled at University of Malaga participated voluntarily in this study as requirement for a psychology course. All subjects were Spanish native speakers. They were informed that they would be asked to participate in a research study on personality and emotions. The questionnaires were completed during one class under the supervision of one of several research assistants. Three classes participated in the study; the number of students for each group was approximately between 50 and 70. The questionnaires were presented in the same order in the three groups: TMMS, BFI-44, POMS and SWLS. The mean age was 22.9 years ( $SD = 4.36$ ). Due to incomplete questionnaires, most of the data reported here are based on responses ranging from 161 to 180 participants.

### 2.2. Measures

#### 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). Fernández-Berrocal, Extremera, and Ramos (2004) have developed a Spanish shorter version of the Trait Meta-Mood Scale with 24 items (eight for each subscale). This Spanish version has shown high internal consistency and satisfactory test–retest reliability. This Spanish version was used in the study.

#### 2.2.2. Big Five Inventory-44 (BFI-44; Benet-Martinez & John, 1998)

The BFI-44 is a 44-item; self-report inventory designed to assess the Big Five Factors of personality: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. The BFI-44 scales have shown substantial internal consistency, retest reliability and clear factor structure, as well as considerable convergent and discriminant validity with longer Big Five measures. We used the Spanish version of BFI-44 with similar psychometric properties to the English version (Benet-Martinez & John, 1998).

### 2.2.3. Profile of Mood States, Short Form (POMS-SF; Shacham, 1983)

The POMS is a well-known self-report measure which assesses transient mood states. In this study we evaluated five mood dimensions including tension-anxiety, depression-dejection, anger-hostility, vigor-activity, and fatigue-inertia. We did not include the confusion subscale, because the items did not appear to reflect mood as much as cognitive states. Respondents indicated how much they felt each mood in the prior seven days. We used the Spanish version which has satisfactory psychometric properties (Fernández, Fernández, & Pesqueira, 2000).

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

We used the Spanish version of SWLS to assess the perceived global life satisfaction. Both English and Spanish versions have shown evidence for discriminant validity and appropriate internal consistency (Diener et al., 1985; Atienza, Balaguer, & Garcia-Merita, 2003).

## 3. Results

Means, standard deviations and internal consistency reliabilities (coefficient alpha) for all measured variables are presented in Table 1. Correlations between TMMS subscales, Big Five Inventory, mood states and life satisfaction are shown in Table 2. As can be seen from this table, Attention was correlated positively with Openness and Neuroticism. Clarity was negatively associated with Neuroticism and positively with Extraversion, Agreeableness and Openness. Finally, Repair was negatively associated with Neuroticism and positively correlated with Extraversion, Agreeableness and Openness. None of the zero order correlations between TMMS subscales and Big Five personality traits was large enough (between  $-0.16$  to  $-0.44$ ) indicating that components of PEI were not equivalent to Big Five traits.

Table 1  
Means, standard deviations and reliabilities for different measures

| Scale                 | Mean | SD   | Cronbach's alpha |
|-----------------------|------|------|------------------|
| TMMS-Attention        | 3.25 | 0.80 | $\alpha = 0.88$  |
| TMMS-Clarity          | 3.19 | 0.81 | $\alpha = 0.89$  |
| TMMS-Repair           | 3.22 | 0.78 | $\alpha = 0.86$  |
| POMS-Depression       | 1.66 | 0.61 | $\alpha = 0.82$  |
| POMS-Vigor            | 2.91 | 0.72 | $\alpha = 0.88$  |
| POMS-Tension          | 2.43 | 0.89 | $\alpha = 0.90$  |
| POMS-Anger            | 1.70 | 0.67 | $\alpha = 0.83$  |
| POMS-Fatigue          | 1.92 | 0.80 | $\alpha = 0.85$  |
| BFI-Neuroticism       | 3.05 | 0.79 | $\alpha = 0.82$  |
| BFI-Extraversion      | 3.47 | 0.79 | $\alpha = 0.82$  |
| BFI-Openness          | 3.70 | 0.65 | $\alpha = 0.82$  |
| BFI-Agreeableness     | 3.84 | 0.52 | $\alpha = 0.63$  |
| BFI-Conscientiousness | 3.45 | 0.65 | $\alpha = 0.80$  |
| Life satisfaction     | 4.87 | 1.12 | $\alpha = 0.82$  |

Note:  $161 \leq N \leq 180$  due to missing data.

Table 2  
Correlations between the TMMS subscales and different measures

|                             | 1       | 2      | 3      | 4       | 5       | 6       | 7      | 8      | 9      | 10     | 11     | 12     | 13    | 14 |
|-----------------------------|---------|--------|--------|---------|---------|---------|--------|--------|--------|--------|--------|--------|-------|----|
| 1. Life satisfaction (SWLS) | –       |        |        |         |         |         |        |        |        |        |        |        |       |    |
| 2. TMMS-Attention           | –0.05   | –      |        |         |         |         |        |        |        |        |        |        |       |    |
| 3. TMMS-Clarity             | 0.35**  | 0.15*  | –      |         |         |         |        |        |        |        |        |        |       |    |
| 4. TMMS-Mood Repair         | 0.41**  | 0.04   | 0.23** | –       |         |         |        |        |        |        |        |        |       |    |
| 5. POMS-Depression          | –0.49** | 0.24** | –0.11  | –0.27** | –       |         |        |        |        |        |        |        |       |    |
| 6. POMS-Vigor               | 0.36**  | –0.09  | 0.24** | 0.36**  | –0.45** | –       |        |        |        |        |        |        |       |    |
| 7. POMS-Tension             | –0.21** | 0.16*  | –0.06  | –0.16*  | 0.42**  | –0.08   | –      |        |        |        |        |        |       |    |
| 8. POMS-Anger               | –0.33** | 0.13   | –0.10  | –0.28** | 0.59**  | –0.39** | 0.40** | –      |        |        |        |        |       |    |
| 9. POMS-Fatigue             | –0.35** | 0.12   | –0.12  | –0.14   | 0.59**  | –0.35** | 0.48** | 0.51** | –      |        |        |        |       |    |
| 10. BFI-Neuroticism         | –0.43** | 0.37** | –0.16* | –0.44** | 0.45**  | –0.32** | 0.40** | 0.41** | 0.35** | –      |        |        |       |    |
| 11. BFI-Extraversion        | 0.34**  | 0.09   | 0.32** | 0.27**  | –0.25** | 0.23**  | –0.08  | –0.10  | –0.17* | –0.17* | –      |        |       |    |
| 12. BFI-Agreeableness       | 0.15*   | –0.01  | 0.18*  | 0.18*   | –0.03   | –0.06   | –0.09  | –0.19* | –0.04  | –0.17* | 0.09   | –      |       |    |
| 13. BFI-Conscientiousness   | 0.25**  | –0.04  | 0.20   | 0.13    | –0.30** | –0.01   | –0.17* | –0.09  | –0.16* | –0.08  | 0.09   | 0.22** | –     |    |
| 14. BFI-Openness            | 0.11    | 0.17*  | 0.30** | 0.28**  | 0.03    | 0.20**  | –0.01  | 0.04   | 0.02   | –0.15* | 0.36** | 0.03   | 0.16* | –  |

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

As shown in Table 2, the SWLS correlated significantly with all subscales from PEI, mood states and personality traits (except for Attention and Openness to Experience). Specially, Clarity and Repair were positively correlated with SWLS. On the other hand, Depression, Tension, Anger and Fatigue mood dimensions were negatively correlated with SWLS. Vigor was positively associated with SWLS. Finally, while Extraversion, Agreeableness, Conscientiousness were positively correlated with SWLS, Neuroticism was negatively associated with SWLS.

Following these analyses, the predictive and incremental validity of the TMMS above and beyond the mood states and personality traits were examined (see Table 3). We conducted a hierarchical regression of SWLS to analyze which variables concurrently predicted satisfaction with life with the following order of entry: In the first step, sex and age were entered as a covariate. In the second step, mood states were entered. In the third step, personality traits were entered. Finally, TMMS subscales were entered. A total of 43.6% of the variance in life satisfaction was accounted for ( $R = 0.62$ ,  $R^2 = 0.39$ ;  $F(4, 148) = 23, 82$ ,  $p < 0.001$ ), with depression accounting for 25% ( $p < 0.01$ ) of the variance, neuroticism added an additional 11.6% ( $p < 0.01$ ) and Clarity significantly accounted for 6% ( $p < 0.01$ ) of the unique variance in life satisfaction. No other variables significantly predicted SWLS scores. These findings are evidence that emotional Clarity, a component of PEI, adds significant variance to the prediction of life satisfaction beyond transient mood states and Big Five personality traits as predictors.

Table 3  
Hierarchical multiple regression predicting life satisfaction

|                            | $R^2$ | $F$  | $\beta$ | $P$    | $\Delta R^2$ |
|----------------------------|-------|------|---------|--------|--------------|
| Step 1: Covariate          | 0.00  | 0.70 |         |        | 0.00         |
| 1. Sex                     |       |      | 0.11    | 0.13   |              |
| 2. Age                     |       |      | -0.02   | 0.72   |              |
| Step 2: Mood states        | 0.26  | 9.78 |         |        | 0.25*        |
| 1. Depression              |       |      | -0.23   | 0.04** |              |
| 2. Vigor                   |       |      | 0.05    | 0.54   |              |
| 3. Tension                 |       |      | 0.04    | 0.61   |              |
| 4. Anger                   |       |      | 0.01    | 0.96   |              |
| 5. Fatigue                 |       |      | -0.03   | 0.70   |              |
| Step 3: Personality traits | 0.37  | 5.20 |         |        | 0.12*        |
| 1. Extraversion            |       |      | 0.12    | 0.13   |              |
| 2. Agreeableness           |       |      | 0.03    | 0.66   |              |
| 3. Conscientiousness       |       |      | 0.07    | 0.36   |              |
| 4. Neuroticism             |       |      | -0.26   | 0.01*  |              |
| 5. Openness                |       |      | -0.08   | 0.31   |              |
| Step 4: TMMS subscales     | 0.43  | 4.87 |         |        | 0.06*        |
| 1. Attention               |       |      | 0.07    | 0.33   |              |
| 2. Clarity                 |       |      | 0.20    | 0.01*  |              |
| 3. Repair                  |       |      | 0.13    | 0.10   |              |

\*  $p < 0.01$ .

\*\*  $p < 0.05$ .

#### 4. Discussion

The present study examined the usefulness of the TMMS to predict life satisfaction when the effects of mood states and personality traits are controlled for. In line with other studies that have evaluated life satisfaction (Diener et al., 2003), negative mood (depressive mood) was found to be the best predictor of life satisfaction (25%), followed by neuroticism which accounted for 12%. Even controlling for these variables, emotional Clarity added significant further variance to predict life satisfaction (6%). These findings suggest that individuals who are less depressive and neurotic and know clearly what they are feeling tend to have higher life satisfaction. Besides, this study provides some insight about the distinctness of EI measured by self-report from the personality domain, at least for tools based on Salovey and Mayer's model, showing that components of PEI may account for a certain percentage of the variance in real-life outcomes and underlines the importance of this instrument to be used in individual differences research.

The results of this study support prior research findings regarding the validity of TMMS (Palmer et al., 2002) and provided some empirical evidence for the incremental validity of emotional Clarity in relation to life satisfaction even controlling for mood states and Big Five personality traits. This finding is supported by previous research in which emotional Clarity was related to different well-being indexes in experimental and correlational studies (Extremera & Fernández-Berrocal, 2002; Gohm & Clore, 2002; Gohm et al., 2001; Salovey et al., 1995, 2002). The TMMS subscales showed moderate correlations with personality, mainly with Extraversion and Neuroticism. However, as Saklofske et al. (2003) pointed out, these associations are not surprising given that these traits are well known to be associated with regulation of positive and negative mood, respectively, and mood regulation is a central aspect of the conceptualisation of most of EI approach.

##### 4.1. Conceptual issues

The conceptual overlap between Clarity and Alexithymia, in particular, Difficulty Identifying Feelings (a subscale of the Toronto Alexithymia Scale), is one issue that needs to be considered (Parker, Taylor, & Bagby, 2001). Although theoretically both subscales appear to measure a similar construct related to the ability to discriminate one emotion from another, several empirical research have shown moderate correlations between both subscales (Gohm & Clore, 2000; Palmer et al., 2002), suggesting that these dimensions possibly measure related but distinct aspects of the ability to identify and distinguish specific emotions. This idea is consistent with results from studies in which emotional Clarity was the main variable that showed incremental value in life satisfaction over mood while Difficulty Identifying Feelings failed to account for additional variance in life satisfaction (Palmer et al., 2002).

The current line of investigation acclaims the use of ability measures instead of self-report measures since most of them correlate with dispositional and personality dimensions. However, although measured by self-report, these results show that EI can have some incremental validity in predicting emotional well-being indexes beyond mood states and personality constructs. That is, along with personality dimensions, how people feel is an important component of well-being. In that sense, this finding supports Gohm and Clore's suggestion that individuals who know what



they are feeling might deal better with emotional issues, and, therefore, experience greater psychological well-being relative to those who are less clear about their feelings (Gohm & Clore, 2002). It is likely that individuals who are clear about their feelings and emotions react to a stressful event using more adaptative responses such as eliminating ruminative processes (Salovey et al., 1995), engaging in active coping or in positive reinterpretations of events than individuals who are confused about their emotions (Gohm & Clore, 2002). This explanation would help one to understand, in part, the findings of the present study.

#### *4.2. Limitations and further research*

However, the findings of the present study should be viewed in light of several limitations in the methods used. First, it is possible that shared method variance may have inflated relationships found between measures, in that sense, the use of ability measures would help to compare the predictive validity of self-report (using instruments from the same approach) and ability measures of EI and would throw some light upon the extent to which PEI and actual emotional intelligence are different, distinguishable from other personality attributes, and the degree they actually overlap. For this aim, including objective life outcomes might be useful to reduce the problem of common method variance. Besides, since all measures used in this study are based on self-reports, the problem of faking and response distortion could be present. Future studies should include measures to control for social desirability (Barchard, 2003; Charbonneau & Nicol, 2002; Engelberg & Sjoberg, 2004).

On the other hand, it could be also thought that the confusion subscale from POMS, which was not included in this study, would be related to emotional Clarity. However, since confusion subscale is conceived as an indicator that assesses cognitive states related to alertness and vigilance and does not evaluate emotional dimension, low levels of relation with Clarity are expected.

With respect to the development and validity of TMMS subscales, further work is also required. For example, it seems that some of the items on the Repair factor appear to overlap with other constructs such as optimism, or depression (e.g. “Although I am sometimes sad, I have a mostly optimistic outlook”) raising doubts over the discriminant validity of this subscale (Davies et al., 1998). Future studies should focus on refining the subscale or creating new items on mood repair to deal with items that overlap. In addition, since the TMMS was created in 1995, previously to the reformulation of the Mayer and Salovey’s model of EI (1997), there is an inadequate correspondence between factors of the TMMS and dimensions of the EI model. Like available ability measures, such as MSCEIT, which cover the four-branch model of EI, further work should create a self-report measure of EI which covers appropriately the four areas encompassed by the reformulated model of EI given by Mayer and Salovey (1997).

#### *4.3. Concluding remarks*

Despite these limitations, the results reported here substantiate the importance of Clarity measured by TMMS and its relationship with life satisfaction of the individuals and, more generally, complement findings from recent studies which underline the incremental validity of other self-report instruments of EI to predict life criteria over and above the level attributable to personality

traits (Petrides et al., 2004; Saklofske et al., 2003). The present study is important as it provides further evidence that Clarity is a significant predictor of life satisfaction that merits strong consideration in attempts to know the individual characteristics linked to other well-being indexes. Further research is needed to understand how EI interacts with personality and both influence level of well-being and adaptation of individuals as a necessary step to develop claimed prevention and treatment programs based on EI.

## Acknowledgments

This research was supported by a project no. BSO2003-02573 from Ministry of Education and Science of Spain.

We are grateful to Peter Salovey and Paulo Lopes for their comments and contributions to our work. We wish to express our thanks to Aljoscha Neubauer and anonymous reviewers for their suggestions and comments on earlier versions of this manuscript.

## 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.
- Barchard, K. A. (2003). Does emotional intelligence assist in the prediction of academic success? *Educational and Psychological Measurement*, *63*, 840–858.
- Bar-On, R. (1997). *The Emotional Quotient Inventory (EQ-i): A test of emotional intelligence*. Toronto: Multi-Health Systems.
- Benet-Martinez, V., & John, O. P. (1998). ‘Los Cinco Grandes’ across cultures and ethnic groups: Multitrait-multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, *75*, 729–750.
- Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin*, *29*, 1147–1158.
- Charbonneau, D., & Nicol, A. A. (2002). Emotional intelligence and leadership in adolescents. *Personality and Individual Differences*, *33*, 1101–1113.
- Ciarrochi, J. V., Deane, F., & Anderson, S. (2002). Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences*, *32*, 197–209.
- Davies, M., Stankov, L., & Roberts, R. D. (1998). Emotional intelligence: In search of an elusive construct. *Journal of Personality and Social Psychology*, *75*, 989–1015.
- 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.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213–229). New York: Russell Sage.
- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, *54*, 403–425.
- Engelberg, E., & Sjöberg, L. (2004). Emotional intelligence, affect intensity, and social adjustment. *Personality and Individual Differences*, *37*, 533–542.
- Extremera, N., & Fernández-Berrocal, P. (2002). Relation of perceived emotional intelligence and health-related quality of life in middle-aged women. *Psychological Reports*, *91*, 47–59.
- Fernández, C. A., Fernández, E. M., & Pesqueira, G. S. (2000). Problemas semánticos en la adaptación del POMS al castellano. *Psicothema*, *12*, 47–51.

- Fernández-Berrocal, P., Extremera, N., in press. About emotional intelligence and moral decisions. *Behavioral and Brain Sciences*.
- 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.
- Foluso, W., Fernández-Berrocal, P., Extremera, N., Ramos, N., & Joiner, T. E. (2004). Mood regulation skill and the symptoms of endogenous and hopelessness depression. *Journal of Psychopathology and Behavioral Assessment*, *26*, 233–240.
- Gohm, C. L., Baumann, M. R., & Sniezek, J. A. (2001). Personality in extreme situations: Thinking (or not) under acute stress. *Journal of Research in Personality*, *35*, 388–399.
- Gohm, C. L., & Clore, G. L. (2000). Individual differences in the emotional experience: Mapping available scales to processes. *Personality and Social Psychology Bulletin*, *26*, 679–697.
- Gohm, C. L., & Clore, G. L. (2002). Four latent traits of emotional experience and their involvement in attributional style, coping and well-being. *Cognition and Emotion*, *16*, 495–518.
- 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.
- Leible, T. L., & Snell, W. E. Jr., (2004). Borderline personality disorders and aspects of emotional intelligence. *Personality and Individual Differences*, *37*, 393–404.
- 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.
- Mayer, J. D., Caruso, D., & Salovey, P. (2000). Selecting a measure of emotional intelligence: The case for ability scales. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 320–342). San Francisco: Jossey-Bass.
- 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. (2000). Models of emotional intelligence. In R. J. Sternberg (Ed.), *Handbook of intelligence* (2nd ed., pp. 396–420). New York: Cambridge.
- Mayer, J. D., Salovey, P., & Caruso, D. (2001). *Technical manual for the MSCEIT v. 2.0*. Toronto, Canada: MHS Publishers.
- Moriarty, N., Stough, C., Tidmarsh, P., Eger, D., & Dennison, S. (2001). Deficits in emotional intelligence underlying adolescent sex offending. *Journal of Adolescence*, *24*, 1–9.
- Newsome, S., Day, A. L., & Catano, V. M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences*, *29*, 1005–1016.
- Palmer, B., Donaldson, C., & Stough, C. (2002). Emotional intelligence and life satisfaction. *Personality and Individual Differences*, *33*, 1091–1100.
- Parker, J. D. A., Taylor, G. J., & Bagby, R. M. (2001). The relationship between emotional intelligence and alexithymia. *Personality and Individual Differences*, *30*, 107–115.
- 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.
- Petrides, K. V., & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences*, *29*, 313–320.
- Pilcher, J. J. (1998). Affective and daily event predictors of life satisfaction in college students. *Social Indicators Research*, *43*, 291–306.
- Roberts, R., Zeidner, M., & Matthews, G. (2001). Does emotional intelligence meet traditional standards for an intelligence? Some new data and conclusions. *Emotion*, *1*, 196–231.
- Saklofske, D. H., Austin, E. J., & Minski, P. S. (2003). Factor structure and validity of a trait emotional intelligence measure. *Personality and Individual Differences*, *34*, 707–721.
- 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.
- Schutte, N. S., Malouff, J., Simunek, M., Hollander, S., & McKenley, J. (2002). Characteristic emotional intelligence and emotional well-being. *Cognition and Emotion, 16*, 769–785.
- Shacham, S. (1983). A shortened version of the Profile of Mood States. *Journal of Personality Assessment, 47*, 305–306.