Title

Be water: Direct and indirect relations between perceived emotional intelligence and

subjective well-being.

Abstract

Trait Emotional Intelligence (TEI) has been shown to have predictive capacity for certain dimensions of adaptation, such as life satisfaction and affectivity. The Trait Meta Mood Scale, based on the EI ability model, has been shown to have predictive capacity for subjective well-being through its three factors (attention, clarity and emotional repair), but little is known about the mediating role played by these dimensions, both amongst themselves and in relation to other variables. The aim of the present study was to analyse the direct and indirect relationships between the TMMS factors and subjective well-being dimensions, using structural equation modelling, while also including self-efficacy in the model as a mediator of these relationships. Attention was found to have a negative effect on subjective well-being, which was inhibited when clarity and repair were included as mediators. Self-efficacy played a major role since it increased the positive effect of clarity and repair on subjective well-being. This study provides evidence of the advantage of using the TMMS factors separately, and of studying their mediational role in order to better understand the processes underlying the manner in which TEI influences subjective well-being.


*Keywords:* Trait emotional intelligence; Subjective well-being; Self-efficacy; Structural equation models.

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## Trait Emotional Intelligence

Interest in the construct known as emotional intelligence (EI) has meant that over the last two decades, much research has been carried out on aspects related to both its development and how it affects the lives of individuals and organisations. Linked to this effort is the underlying importance of clarifying how EI is conceptualised. One possible categorisation is based on the elements which constitute the construct. This approach distinguishes between a) ability models, which consider EI as a set of cognitive capacities for the processing of emotional information (Mayer, Roberts, & Barsade, 2008), and b) mixed models, which include both cognitive skills and personality traits of a lower order among the elements (Pérez, Petrides, & Furham, 2005; Petrides & Furham, 2001). A second categorisation of EI models is based on the type of measurement used to evaluate the construct, rather than on its elements, and distinguishes between a) trait EI, measured by self-report questionnaires, and b) ability EI, which is related to emotion-related cognitive abilities and is measured by performance-based tests (Petrides, Pita, & Kokkinaki, 2007; Pérez et al, 2005). Specifically, trait emotional intelligence (hereinafter, TEI) refers to an individual's metacognition of their emotional abilities. Similarly to the type of EI measured using performance tests, TEI helps us to understand individual differences in people's reactions to changes in their feelings and mood states (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), and may provide greater insight into how emotional processes are related to other human processes. Both ability EI and trait EI have shown a capacity to predict certain dimensions of people's adaptation (Mayer et al., 2008), such as improved health (Martins, Ramalho, & Morin, 2010; Schutte, Malouff, Thorsteinsson,

Bhullar, & Rooke, 2007), a greater level of happiness and well-being (Austin, Saklofske, & Egan, 2005; Gignac, 2006; Gohm & Clore, 2002b; Kong & Zhao, 2013; Martinez-Pons, 1997; Schutte et al., 2010; Thompson, Waltz, Croyle, & Pepper, 2007) and satisfactory inter-personal relationships (Gohm & Clore, 2002a; Salovey, Stroud, Woolery, & Epel, 2002; Trickey, Farhall, Wertheim, Hinch, & Ong, 2011).

**TEI and Subjective well-being**

One of the variables associated with trait EI is subjective well-being, understood as an individual's subjective experience regarding their own life (Diener, 2009c). Subjective well-being has a cognitive component, which refers to the individual's judgment of the path their life has taken so far and is called satisfaction with life, and an affective one, which concerns the feelings of pleasure and displeasure experienced by the individual in question, and which can be associated with affectivity (Diener & Lucas, 1999). Following decades of research into this issue, several authors have highlighted the key role played by subjective well-being as an indicator of quality of life (Diener, 2009c; Howell, Kern, & Lyubomirsky, 2007). An increasing body of research is providing evidence of the incremental validity of TEI over subjective well-being, even when controlling for traditionally associated variables as personality or socio-demographic characteristics. In short, greater TEI is usually linked to improved satisfaction with life and positive affect, as well as to lower negative affect (Fernández-Berrocal & Extremera, 2008; Kong & Zhao, 2013, 2012b; Palmer, Donaldson, & Stough, 2002; Petrides et al., 2007; Schutte et al., 2010).

**TEI and self-efficacy**

Certain authors have focused on the relationship between TEI and self-efficacy, understood as people's beliefs about their ability to produce levels of performance that influence the events that affect their lives (Bandura, 1997). Self-efficacy is recognised

as an important predictor of health outcomes (Ajzen, 2002), and people who have high levels of self-efficacy experience higher subjective well-being than people who do not (Caprara & Steca, 2005; Lent et al., 2005; Luszczynska, Scholz, & Schwarzer, 2005; Ryan & Deci, 2001). As regards TEI, diverse studies have revealed the existence of a positive relationship between EI and self-efficacy (Chan, 2004; Penrose, Perry, & Ball, 2007).

**Trait Meta Mood Scale and self-efficacy: predictive role for subjective well-being**

The Trait Meta Mood Scale (TMMS; Salovey et al., 1995) was the first tool developed to measure TEI (Pérez et al., 2005), and is still one of the most commonly used instruments today. Its dimensions are attention to feelings, emotional clarity and emotional repair (Salovey et al., 1995). The first dimension refers to the attention paid to one's emotional mood. It is the first step in the meta-mood experience and is a prerequisite for understanding and repairing emotional states. Emotional clarity refers to people's clear experience of their feelings and their understanding of them, as well as their combinations, causes and consequences. The third dimension, emotional repair, refers to the ability to regulate one's own positive and negative emotional states. All three dimensions are correlated, with attention to feelings being required in order to understand one's emotions, and emotional clarity being necessary for their adaptive management (Fernández-Berrocal & Extremera, 2008; Palmer, Gignac, Bates, & Stough, 2003; Trickey et al., 2011). The TMMS has been linked to well-being; and while some authors study this relationship using a general factor which aggregates all three TMMS dimensions (Gignac, 2006; Gohm & Clore, 2002b; Martinez-Pons, 1997; Schutte et al., 2010), others defend the differential predictive capacity of each one. In this sense, emotional clarity has been found to be the dimension most closely associated with subjective well-being, and the best direct predictor of positive affect and satisfaction

with life, as well as low levels of negative affect (Extremera & Fernández-Berrocal;

2008; Palmer et al., 2002), even when positive and negative affect are controlled

(Extremera & Fernández-Berrocal, 2005; Palmer et al., 2002). Similarly, some studies

have found a positive relationship between emotional repair and satisfaction with life

(Extremera, Durán, & Rey, 2009; Rey, Extremera, & Pena, 2011; Thompson et al.,

2007).

However, the role played by attention to feelings in relation to subjective well-

being is less clear. If we accept that a certain level of attention is required in order to

properly understand and control emotions, it may be inferred that this dimension

contributes to improving subjective well-being (Lischetzke & Eid, 2003). Nevertheless,

constant attention to one's emotions could be maladaptive (Thompson et al., 2011). The

results are controversial, as some studies have found associations between attention and

higher negative affect, as well as lower levels of satisfaction with life (Extremera et al.,

2009; Salovey et al., 1995; Swinkels & Giuliano, 1995), while others failed to find any

relationship between attention and subjective cognitive or affective well-being

(Extremera & Fernández-Berrocal, 2005; Gohm & Clore, 2002b; Palmer et al., 2002;

Rey et al., 2011; Salovey et al., 2002).  There are various possible explanations for these

contradictory results, such as cultural differences in the predictive role of attention to

feelings between, for example, Anglo-Saxon and Hispanic societies (Fernández-

Berrocal & Extremera, 2008). Another explanation may be the mediating role played by

the TMMS dimensions, both amongst themselves and with subjective well-being. In this

sense, emotional repair has been found to moderate the relationship between attention to

feelings and subjective well-being; thus, high attention combined with low repair is

associated with lower subjective well-being, while when repair is high, the relationship

between attention and subjective well-being becomes positive (Lischetzke & Eid, 2003;

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Palmer et al., 2003). These mediational roles of the TMMS dimensions require further research.

Furthermore, few studies have analysed the relationship between the TMMS dimensions and self-efficacy, although a recent publication found a positive link between this concept and both emotional clarity and repair (Durán, Extremera, Rey, Fernández-Berrocal, Montalbán, 2006). Nevertheless, the mediational role of self-efficacy in the relationship between TEI and the dimensions of subjective well-being has yet to be analysed.

**Structural equation modelling to study mediational roles**

Previous research has found that certain inter-relationships exist between the TMMS dimensions, subjective well-being and self-efficacy. The dimensions themselves can be seen as possible mediators which can help improve our understanding of how these constructs relate to each other. Structural equation modelling (SEM) is broadly accepted as a means of testing hypotheses of mediation (Bollen, 1987), constituting an analytical alternative to regression and correlational analyses.

Of the few studies that have been conducted in this field using SEM, the one by Gignac (2006) analysed the relationship between TEI and satisfaction with life, finding that both constructs were related even after controlling for affectivity. EI was operationalised as a single factor, although no analysis was offered of the differential predictive capacity of the TMMS dimensions in relation to satisfaction with life. Another recent work involving adolescents found that emotional clarity and emotional repair were directly and indirectly linked to life satisfaction, with self-esteem as a partial mediator (Rey et al., 2011).

**The present study**

In light of the above, the aim of the present study is to provide increased insights into the relationship between TEI, subjective well-being and self-efficacy, as well as to provide empirical evidence regarding the relationship between the three TMMS factors. In this respect, we expect to replicate the sequential relationships between the three TMMS components outlined in the Introduction. Our second aim is to explore the relationships existing between the TMMS dimensions and cognitive and affective subjective well-being, as well as their link with self-efficacy. Finally, we also aim to determine whether or not the TMMS dimensions have an indirect effect on subjective well-being through both the other dimensions of TEI and self-efficacy. Thus, we expect to find direct relationships among variables in light of the results obtained by previous research, such as, for example, that clarity is the dimension most closely associated with the different components of subjective well-being, or that repair affects life satisfaction. But we also expect to find evidence of the indirect effects of the different components of the TMMS on subjective well-being, mediated by both the other sub-dimensions of the construct and self-efficacy. Figure 1 provides a detailed overview of the expected direct and indirect effects.

(INSERT FIGURE 1 AROUND HERE)

In light of the relationships found in previous studies, the majority of which were based on correlation and regression analyses, this model aims to provide a comprehensive perspective which will hopefully serve to clarify certain conflicting questions (i.e. how attention affects satisfaction with life or negative affectivity) which, in our view, are the result of the mediating effect of the other TEI dimensions. In order to better address the stated hypotheses, we applied the SEM strategy to our data analysis.

## Method

**Participants and procedures**

The sample comprised 423 teachers from 15 schools in Guipúzcoa (Spain), at pre-university level. 22.2% of participants were men and all were aged between 21 and 61, with the mean age being 41.3 (SD = 10).

**Procedure**

Participants were working in schools which were scheduled to take part in an initiative to promote EI. The present study was a preliminary phase, aimed at analysing the extent to which EI and well-being were related. Participants completed the survey in group sessions held at each school.

**Measures**

*Trait emotional intelligence.* The Trait Meta Mood Scale (TMMS-24; Fernández-Berrocal, Extremera, & Ramos, 2004) is a 24-item self-report questionnaire which assesses TEI in accordance with three subscales: attention, clarity and repair. Alphas for the validated Spanish version are .90, .90 and .86 for the three dimensions, respectively.

*Positive and negative affectivity.* The Positive and Negative Affect Scale (PANAS; Sandín et al., 1999) measures affectivity using positive and negative affect subscales. Each subscale has 10 items. The Spanish version of the scale has good reliability ($\alpha = 0.88$, positive affect; $\alpha = 0.90$, negative affect).

*Satisfaction with life.* The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) measures life satisfaction as a cognitive judgment process through 5 items. Internal consistency for the Spanish version is adequate ($\alpha = 0.87$).

*Self-efficacy.* The General Self-efficacy Scale (Sanjuán, Pérez, & Bermúdez, 2000) assesses subjects' perceived self-efficacy through 10 items. It studies the individual's stable

belief regarding their capacity to control stressful life events. Reliability level for the tool is good ($\alpha = 0.87$).

**Statistical analyses**

In order to validate the measurement model, a confirmatory factorial analysis (CFA) was conducted on all the items of the constructs included in the model. The CFA was estimated with EQS 6.1 (Bentler, 1995), using the maximum likelihood method. Once the reliability and validity of the instrument had been confirmed, the hypotheses regarding the structural model were analysed using the same statistical program.

<div align="center"><strong>Results</strong></div>

**Validation of the measurement model**

A confirmatory factor analysis (CFA) estimated by maximum likelihood was used to test the reliability and validity of the measurement model. As the raw data showed evidence of non-normal distribution (Mardia's coefficient normalised estimate =60.70), robust statistics were used (Satorra & Bentler, 1994) according to Hu, Bentler & Kano's (1992) recommendations. The results of the CFA indicated a good fit to the data [*S-B Chi*$^2$ (*df* = 1207) = 2243.24 ($p < .01$); *TLI* = .892; *CFI* = .897; *RMSEA* = .046 [.043; .048]. All items loaded significantly ($p < .01$) on their factors with loadings higher than .70, evidencing the convergent validity of the measurement model (Churchill, 1979).

A composite reliability higher than .70 and an average variance extracted (AVE) higher than .50 in all the latent constructs (Fornell & Larcker, 1981) confirmed the high internal consistency of the factors. Discriminant validity was evaluated by checking that none of the 95% confidence intervals of the factor correlation estimation included the value 1.0 (Anderson & Gerbing, 1988), and also that the squared correlation between each of the latent variables was smaller than their corresponding AVE (Fornell &

Larcker, 1981). Thus, we can conclude that the measures used provide evidence of reliability, as well as convergent and discriminant validity. Correlations between latent variables are showed in table 1.

**TEI, self-efficacy and subjective well-being: Structural model**

Having assured the reliability and validity of the measures, we tested the proposed conceptual model (Figure 1) using structural equation modelling. The empirical estimates for the main-effects model are shown in Table 2, along with the direct and indirect effects. The results indicate that the data fit our conceptual model acceptably (*S-B Chi$^2$* (*df* = 1207) = 2,239.87 (*p* <. 01); *CFI* = .897; *TLI* = .892; *RMSEA* (CI 95%) = .046 [.043; .048].

The expected relationship between affectivity and satisfaction with life was confirmed, with positive affect being found to increase satisfaction with life and negative affect to diminish it. We also observed that both clarity and repair had a direct effect on self-efficacy. This latter variable had both a direct effect on positive affectivity and an indirect influence on life satisfaction, through positive affect.

For the dimensions of the TMMS, a positive and significant relationship was found between attention to feelings and emotional clarity, as well as between clarity and repair. The expectation regarding the existence of a positive relationship between attention to feelings and emotional repair was not confirmed; the results obtained indicated that attention has a significant direct and negative effect on emotional repair although, interestingly enough, its indirect effect through clarity is positive and significant.

With respect to the relationship between the dimensions of the TMMS and subjective well-being, attention to feelings was found to have a positive direct influence on negative affectivity, and no statistically significant influence was found on

satisfaction with life. Again, these relationships were inverted when clarity was involved; in other words, when mediated by clarity, greater attention to feelings resulted in lower negative affect and higher satisfaction with life. Emotional clarity emerged as the dimension most closely related to subjective well-being, as it had a significant negative effect on negative affectivity, and a positive one on positive affect and satisfaction with life. It is worth noting that these two effects were further increased through indirect pathways involving self-efficacy and emotional repair. The effects of emotional repair on subjective well-being were mixed. While the expected negative relationship between repair and negative affectivity was not found, repair was observed to have a direct effect on positive affectivity as well as an indirect effect on this same dimension, through self-efficacy. Consequently, improved repair leads to more positive affectivity. Furthermore, the direct relationship between repair and satisfaction with life was not statistically significant, although it is worth noting that its indirect effect, through self-efficacy and positive affect, was both positive and significant.

<center>(INSERT TABLE 2 AROUND HERE)</center>

<center>**Discussion**</center>

The psychosocial factors involved in an individual's ability to adapt to their environment are currently the subject of much interest in the field of psychology, due to their potential to improve quality of life and prevent illness (Diener, 2009c; Howell et al., 2007). The results of the present study provide information regarding the association between the TMMS dimensions and those of subjective well-being (Diener & Lucas, 1999), including mediational relationships which lead to new indirect relations between variables.

Firstly, our results confirm the sequential relationship which exists between the three TMMS dimensions: attention to feelings was found to have a positive effect on

emotional clarity, just as clarity has on emotional repair (Fernández-Berrocal & Extremera, 2008; Salovey et al., 1995; Trickey et al., 2011). It is worth noting that the negative effect of attention on emotional repair became positive when clarity was taken into consideration in the relationship. This result is consistent with the findings of several previous studies (Lischetzke & Eid, 2003; Palmer et al., 2003) regarding the key role played by emotional clarity in cases of high attention levels. In other words, when clarity levels are low, high attention may be harmful for emotional management, but in the case of higher clarity, attention to feelings is good for regulatory processes.

Regarding the relationship between the TMMS dimensions and other variables, and consistently with some prior results, attention to feelings was found to have a direct and positive impact on negative affectivity (Extremera et al., 2009; Salovey et al., 1995; Swinkels & Giuliano, 1995, Thompson et al., 2011). Interestingly, when clarity mediated this relationship, the nature of this association was reversed and became negative, thus fostering the reduction of negative affectivity.

In much the same way, attention to feelings had a positive effect on satisfaction with life, but only when clarity was included. We can therefore say that attention to feelings has a beneficial indirect effect on subjective well-being, through emotional clarity. This finding strengthens the key role played by emotional clarity in subjective well-being, and differs from the results of some other studies, in which attention to feelings was not found to be beneficial to subjective well-being (Extremera & Fernández-Berrocal, 2005; Gohm & Clore, 2002b; Palmer et al., 2002; Rey et al., 2011; Salovey et al., 2002). This serves to highlight the fact that good levels of clarity can guarantee that attention to feelings will lead to positive outcomes.

As expected, emotional clarity once again emerged as the key dimension of the TMMS, since it had a direct influence on all three dimensions of subjective well-being, and played a mediating role between well-being and the TMMS dimensions. Higher clarity levels were linked to positive affect and satisfaction with life and, notably, this relationship was further enhanced through self-efficacy and emotional repair.

As regards emotional repair, our results confirmed its positive relationship with subjective well-being. This finding, which ties in with previous results (Extremera et al., 2009; Extremera et al., 2011; Thompson et al., 2007), is due not only to emotional repair's direct influence on positive affectivity, but also to its indirect relationship with life satisfaction, through self-efficacy. In this sense, the role played by self-efficacy in the relationship between the TMMS dimensions and subjective well-being is particularly worth highlighting. Firstly, both clarity and repair have an effect on self-efficacy, which in turn is positively linked to positive affect and satisfaction with life (Caprara & Steca, 2005; Lent et al., 2005; Luszczynska et al., 2005; Ryan & Deci, 2001). Secondly, we also found that self-efficacy mediated the relationship between the TMMS dimensions and subjective well-being. It is specifically worth noting that the effect of repair on satisfaction is evident only through self-efficacy and positive affect. This result underscores the idea that emotional repair leads to a greater satisfaction with life, as well as greater positive affect when people believe in their own ability to cope with events. This mediating role of self-efficacy displays certain parallels with the results obtained by Rey et al. (2011) in relation to self-esteem.

Our results highlight the importance of studying the TMMS as a three-dimensional construct rather than a general factor. They also underscore the need to take into account the way in which these three dimensions influence each other as an interconnected system, either through the study of indirect relationships (as suggested

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here) or using other operationalization proposals linked to the construct of trait EI, that include different combinations of its dimensions. The results presented above show the advantage of not focusing solely on the direct relationships between attention, clarity and repair, on the one hand, and the other variables under study on the other, but rather of exploring the moderating function of these dimensions, and studying the potential interactions between them. The results also support the important role played by clarity as the key dimension in relation to subjective well-being, since 1) it directly influences all the dimensions of subjective well-being in an adaptive way, 2) it plays a mediating role between the other two dimensions of the TMMS, and 3) it is a key mediator in the relationship between attention, repair and the dimensions of subjective well-being, rendering these relationships positive from the point of view of adjustment.

One limitation of this present study was the sample composition, as it was constituted solely by teachers. For this reason, the findings cannot be generalised to the broader community based on this study alone. We should emphasise the importance of both confirming the results with the general population, and of validating them in other cultures, in order to determine whether or not the pattern of relationships is dependent on cultural context. Longitudinal studies may also help further our knowledge regarding how these dimensions are related prospectively.

In this sense, analytical tools, such as structural equation models, may help clarify the relationship chains that exist between constructs (Bollen, 1987), overcoming the limitations to which other analysis methods are subject, mainly as regards the study of indirect relations between variables.

All in all, this study has provided empirical evidence of the complexity of the relationship between TEI and well-being. We have observed the existence of relationships that are inverted or enhanced when the mediating influence of TEI

dimensions, such as clarity or repair, are taken into account. Furthermore, self-efficacy was found to strengthen the relationship between TEI and both the cognitive and affective dimensions of subjective well-being, and not only does positive affect exert a mediating effect on the improvement of life satisfaction (Gignac, 2006), but the TMMS and self-efficacy factors themselves are also important facilitators of this same construct. To sum up, our study shows that the dimensions of the TMMS (as a measure of TEI) flow through unexpected paths in their relationship with well-being, and the degree of clarity with which we perceive and understand our feelings is the key variable. Consequently, in order to increase well-being, we should follow Bruce Lee's words of wisdom and "be water."

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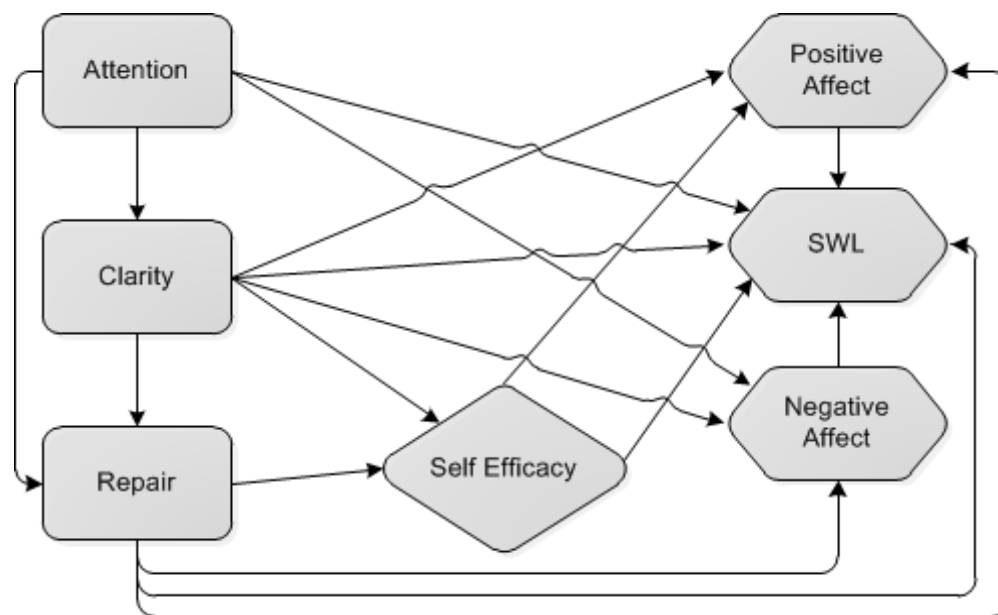
*Figure 1. Structural Equation Model for TEI, self-efficacy and subjective well-being dimensions*

Table 1

*Reliability and validity indicators and correlations between the TMMS, subjective well-being and self-efficacy*
Table 1.

| | CA | CR | AVE | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Attention | 0.79 | 0.85 | 0.45 | 1.00 | | | | | | |
| 2. Clarity | 0.88 | 0.88 | 0.49 | 0.57** | 1.00 | | | | | |
| 3. Repair | 0.89 | 0.89 | 0.54 | 0.18** | 0.50** | 1.00 | | | | |
| 4. Positive affect | 0.83 | 0.84 | 0.47 | 0.27** | 0.52** | 0.52** | 1.00 | | | |
| 5. Negative affect | 0.85 | 0.86 | 0.44 | 0.15** | -0.13* | -0.11 | -0.09 | 1.00 | | |
| 6. Satisfaction with life | 0.87 | 0.89 | 0.62 | 0.17** | 0.44** | 0.39** | 0.49** | -0.21** | 1.00 | |
| 7. Self-efficacy | 0.94 | 0.94 | 0.62 | 0.17** | 0.48** | 0.55** | 0.51** | -0.13* | 0.52** | 1.00 |

Note: CA=Cronbach's alpha; CR=Composite reliability; AVE=Average Variance Extracted
$**p<.01$; $*p<.05$

Table 2

*Hypotheses testing. Direct, indirect and total effects*

| | | Effect | | | | | |
|---|---|---|---|---|---|---|---|
| | | Direct | | Indirect | | Total | |
| Hypothesis | Description | β | t | β | t | β | t |
| H1 | Attention → Clarity | 0.57** | 7.86 | | | | |
| H2 | Attention → Repair | -0.15* | -2.15 | 0.33** | 5.06 | 0.18 | 1.6 |
| H3 | Attention → Negative affect | 0.33** | 4.64 | -0.18** | -3.53 | 0.15 | 1.483 |
| | Attention → Satisfaction | -0,02 | -3.25 | 0.21** | 3.21 | 0.18 | 1.724 |
| H4 | Clarity → Repair | 0.58** | 7.83 | | | | |
| H5 | Clarity → Positive affect | 0.29** | 4.20 | 0.27** | 5.35 | 0.57** | 8.724 |
| H6 | Clarity → Negative affect | -0.30** | -3.71 | -0.01 | -0.35 | -0.32** | -4.53 |
| H7 | Clarity → Satisfaction | 0.16* | 2.06 | 0.33** | 6.44 | 0.49** | 6.459 |
| H8 | Clarity → Self-efficacy | 0.27** | 3.98 | 0.24** | 5.33 | 0.51** | 6.904 |
| H9 | Repair → Positive affect | 0.24** | 3.52 | 0.10** | 3.23 | 0.34** | 4.994 |
| H10 | Repair → Negative affect | -0.02 | -0.35 | | | | |
| H11 | Repair → Satisfaction | 0.001 | 0.02 | 0.21** | 4.67 | 0.22** | 3.058 |
| H12 | Repair → Self-efficacy | 0.42** | 6.53 | | | | |
| H13 | Positive affect → Satisfaction | 0.25** | 3.40 | | | | |
| H14 | Negative affect → Satisfaction | -0.13** | -2.62 | | | | |
| H15 | Self-efficacy → Positive affect | 0.24** | 3.73 | | | | |
| H16 | Self-efficacy → Satisfaction | 0.30** | 3.94 | 0.059** | 2.663 | 0.359** | 3.941 |