Emotional intelligence and psychological resilience to negative life events

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Emotional intelligence and psychological resilience to negative life events

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ABSTRACT

This study investigated the relative importance of six emotional intelligence (EI) dimensions in the prediction of psychological resilience to multiple negative life events. The strength of relations between life events and distress varied markedly across three latent classes of participants, reflecting vulnerable, average and resilient profiles. Discriminant function analysis indicated that class membership varied as a function of four EI dimensions, with higher scores predicting membership to the resilient class. Across the 414 participants, Emotional Self-Awareness, Emotional Expression, Emotional Self-Control and particularly Emotional Self-Management appeared central to psychological resilience in the aftermath of multiple negative life events.

1. Introduction

Major life events, including the death of loved-ones, serious illness, or job loss, precede almost all types of mood disorder (Stueve, Dohrenwend, & Skodol, 1998). Emotional intelligence (EI), or the ability to intelligently utilise emotional information, may temper their impact on mental health (Ciarrochi, Forgas, & Mayer, 2001). How EI might buffer the effect of aversive events is the focus of the present study.

Stressful or negative life events have typically been construed as change events that precipitate movement from one set of living conditions to another. The life transitions resulting from such events pose significant adaptational challenges that can strain people's ability to cope to the point of clinical distress, manifest for instance in symptoms of depression, anxiety, and stress. Moreover, the experience of multiple such events can compound distress (Monroe & Simons, 1991). Indeed, one stressful event can impede coping efficacy for additional events, increasing vulnerability to and even the likelihood of further negative events (Kessler, 1997). As well, transitional recovery periods are typically quite long. Research has shown that significant life events often retain their impact over a two-year period (Monroe & Simons, 1991).

While such events are potentially traumatic, people are impacted differently. Some people experience long-term trauma. Others suffer significant short-term impairment. Then there are those who experience only mild, transient perturbations. Such persons are considered resilient (Bonanno, 2004).

Emotional intelligence may well be directly connected to resilience, such that emotionally intelligent behaviour in stressful circumstances is adaptive. Salovey, Bedell, Detweiler, and Mayer (1999) theorize that persons with higher EI cope better with the emotional demands of stressful encounters because they are able to “accurately perceive and appraise their emotions, know how and when to express their feelings, and can effectively regulate their mood states” (p. 161). EI is thus postulated to buffer the effects of aversive events through emotional self-awareness, expression and management.

Researchers investigating these and other health-related links have frequently distinguished between ability-based EI models in which EI is assessed via intelligence-like tests (e.g. the Mayer-Salovey-Caruso Emotional Intelligence Test; Mayer, Salovey, & Caruso, 2000) and trait models in which EI is measured via self-reported emotion-related dispositions, self-perceptions or motivations (e.g. the Trait Emotional Intelligence Questionnaire; Petrides, Pita, & Kokinnaki, 2007). While ability tests purport to measure “maximal performance”, trait-models measure “typical performance” (Petrides et al., 2007). In the current study we focus on typical performance rather than episodes of peak EI performance in coping with event-related distress. Moreover we take the view that emotional intelligence is antecedent to resilience (Matthews, Zeidner, & Roberts, 2002) rather than encompassing resilience (Bar-On, 1997), such that EI functions through its composite dimensions to facilitate resilience.

The evidence linking self-reported EI to health is considerable. A meta analysis of 80 studies involving 20,000 participants found the...
average strength of relationship between EI and mental health to be around \( r = .36 \), \( r = .33 \) for psychosomatic health, and \( r = .27 \) for physical health criteria (Martins, Ramalho, & Morin, 2010). Other studies have shown that self-reported EI can moderate the psychological impact of experimentally induced-stress (Mikolajczak, Petrides, Coumans, & Luminet, 2009), academic exam stress (Mikolajczak, Luminet, & Mendil, 2006) and emotional labour in the workplace (Mikolajczak, Mendil, & Luminet, 2007). Two studies have also examined the buffering hypothesis in the context of multiple stressful life events (Carrochi, Deane, & Anderson, 2002; Day, Therrien, & Carroll, 2005), but despite positive associations between EI and mental health, neither study found substantive evidence of buffering.

In the current study, we examine the relative value of six EI dimensions that constitute the Swinburne University Emotional Intelligence Test (SUEIT; Palmer & Stough, 2002) in moderating the ongoing psychological impact of multiple negative life events that occurred in the preceding 2 years. The SUEIT was chosen for its robust psychometric properties, well-defined scales, rigorous testing history (Gignac, 2005, 2010) and alignment with Salovey et al.’s (1999) theoretical postulate. The six EI dimensions concern: (1) awareness of emotions in self, and (2) others, (3) emotional expression, (4) emotional self-control, (5) emotional management of self, and (6) others. Research in related fields highlights the potential buffering effects of the six EI dimensions.

### 1.1. Emotional self-awareness

Research focused on alexithymia, a condition characterized by poor emotional self-awareness, indicates that persons afflicted typically fail to respond to rising stress levels until distress is fully-blown (Martin & Pihl, 1986). They often experience more severe symptoms and longer periods of recovery in the aftermath of stressful events than more perceptive persons, who deploy personal coping resources earlier and more effectively (Naatanen, Rynnman, & Keltikangas-Jarvinen, 1999).

### 1.2. Emotional awareness of others

Perspective taking is an important tool in developing quality social relationships (Soenens, Duriez, Vansteenkiste, & Goossens, 2007), which are a well established source of psychological support (Kessler, 1997). Propensity to anticipate and account for the feelings of others may therefore play a role in facilitating greater personal psychological resilience.

### 1.3. Emotional expression

Emotional expression through overt channels, such as voice and musculature, has been found to result in attenuation of physiological reactivity and associated psychological symptoms. On the other hand, inhibition results in retention of physiological arousal and psychological agitation, which over time manifests in physical illness (Franz, Schaefer, & Schneider, 2003), and mental health symptoms (Wastell, 2002).

### 1.4. Emotional self-control

Persons with poor emotional control are more likely to respond to personal distress with anti-social behaviours (Roger & Najarian, 1989), driving supportive persons away (Benotsch, Christensen, & Mckelvey, 1997). Moreover, impulsive behaviour often translates into unhealthy coping behaviours such as substance use (Salovey, 2001). Consequently, higher levels of distress are experienced when faced with stressful situations (Roger & Najarian, 1989).

### 1.5. Emotional management of self

Persons able to self-induce positive moods are happier in both positive and negative circumstances (Carrochi, Chan, & Bajgar, 2001). They are more willing to seek help when feeling overwhelmed, and to benefit (Carrochi & Deane, 2001).

Evidently, there are a variety of ways in which EI can potentially buffer individuals against life event distress. Why then did Carrochi et al. (2002), and Day et al. (2005) fail to find substantive support for this position? One possible answer stems from the fact that moderator effects are notoriously difficult to detect in observational field studies, using traditional moderated multiple regression procedures. The measurement error typical of non-experimental variables creates levels of noise that make reliable effects hard to detect. Compounding this, measurement error is exacerbated when independent variables are multiplied together to form moderator variables (McClelland & Judd, 1993). This makes moderator effects even harder to detect.

In light of this, we used a different approach to explore the question of whether persons with higher EI scores are more resilient to the effects of multiple events. We performed a series of latent class regression analyses to determine whether the relationship between the frequency of negative events experienced in the past two years and psychological distress was relatively homogenous across all participants in the study, or, whether the strength of this effect differed across participants to the extent that latent classes of participants better represented the data. (i.e. whether there were distinct clusters of participants who varied according to their event-distress regression scores).

In line with previous research, it was expected that there would be a latent class (i.e. cluster) of participants who would demonstrate a significantly stronger association between life events and distress (a vulnerable group). Conversely, it was expected that there would be at least a second latent class that would demonstrate a non-significant or weaker life events – distress relationship (i.e., a resilient group). Moreover it was expected that EI would discriminate between these two classes in that the vulnerable group would have lower EI scores, whereas the resilient group would have higher EI scores.

### 2. Method

#### 2.1. Participants and procedure

Members from 56, life event focused, online discussion forums (e.g. healingwell.com; widownet.org; joblayoffsupport.com) were invited to complete an online survey. Of 1156 persons who answered the first survey question, 414 (48.5%) completed the survey and were of the age of adult consent. Participants were mostly women (76%), aged between 24 and 58 (\( M = 36.7, SD = 12.4 \)), who had completed a university degree (60%). Most were in paid employment (42% full-time, 17% part-time). A smaller number were full-time students (19%) or performed home duties (10%). Citizens of the USA comprised the largest proportion of participants (45%), fol-
The number of events subsequently expanded to 591. Participants ment or worsening of the situation (e.g. dietary habits worsened). to a change in circumstances were re-itemized to reflect improve-
(e.g. death of a loved one). In the present study, events referring
events range from minor (e.g. change in dietary habits) to major
over 4000 publications (Hobson et al., 1998). As with the original,
original being devised by Holmes and Rahe (1967) and cited in
Rating Scale (SRRS; 43 items; Scully, Tosi, & Banning, 2000), the
subscales. Participants rate the extent to which they had experi-
Anxiety Stress Scale (DASS-21; Lovibond & Lovibond, 1995), which
2.2.2. Psychological distress
2.2.2.1. Emotional intelligence
Emotional intelligence was measured using a revised 44-item
version of the SUEIT. This version was derived from extensive fac-
tor analytic investigation involving data from 1503 participants
(Gignac, 2005). It is the predecessor to the newly published
70-item Genos EI, factorially validated on some 4700 participants
(Gignac, 2010), with which it shares the same dimensional
structure and 44 items (Palmer, Stough, Harmer, & Gignac, 2009).
Participants responded to statements on a five-point Likert scale
from 1 = ‘almost never’ to 5 = ‘almost always’. Scores were calcu-
lated separately for six subscales: (1) Emotional Self-Awareness
and (2) Emotional Awareness of Others concern perceiving and
understanding one’s own and others’ emotions respectively; (3)
Emotional Expression concerns expressing one’s emotions effect-
vively; (4) Emotional Self-Control concerns controlling one’s strong
emotions; (5) Emotional Management of Self and (6) Emotional
Management of Others concern managing one’s own and others’ emo-
tions respectively. A seventh and final subscale concerned with
‘Emotional Reasoning’ in decision-making, was not included in the
current study due to weak factorial validity, an issue common to
all such factors across EI inventories (Gignac, 2010).

2.2.2.2. Psychological distress
Distress was assessed using the short version of the Depression
Anxiety Stress Scale (DASS-21; Lovibond & Lovibond, 1995), which
contains 21 items distributed across depression, anxiety, and stress
subscales. Participants rate the extent to which they had experi-
cenced each of the items over the past month on a 4-point sever-
ity/frequency scale ranging from 0 = ‘did not apply to me at all’
to 3 = ‘applied to me very much’. In the present study, the full scale
score was used.

2.2.2.3. Negative life events
Life events were sampled from a revised Social Readjustment
Rating Scale (SRRS; 43 items; Scully, Tosi, & Banning, 2000), the
original being devised by Holmes and Rahe (1967) and cited in
over 4000 publications (Hobson et al., 1998). As with the original,
events range from minor (e.g. change in dietary habits) to major
(e.g. death of a loved one). In the present study, events referring
to a change in circumstances were re-itemized to reflect improve-
ment or worsening of the situation (e.g. dietary habits worsened).
The number of events subsequently expanded to 591. Participants
indicated whether they had experienced each event within the past
two years and whether the event continued to have a positive or
negative effect on their wellbeing. The frequency of events con-
ining to have a negative effect was summed for a total out of 59 for
each participant.

3. Results
Table 1 presents descriptive statistics and correlations among
the variables. On average, the sample remained negatively affected
by five events that had occurred in the past 2 years, and reported
distress symptoms consistent with mild depression, anxiety and
stress. EI levels were comparable to those reported by Gignac
(2005). All six dimensions were positively interrelated, and most
were negatively related to life events and distress.

3.1. Latent class regression analysis: negative life events and distress
A series of latent class regression (LCR) analyses were per-
formed using Latent Gold (Version 4) to determine whether the ef-
ect of negative life events on distress was homogenous across all
participants, or whether the strength of this effect differed across
participants to the extent that latent classes of participants better
represented the data. Unlike traditional regression techniques,
which assume that a similar regression coefficient holds true for
all cases in a given sample, LCR detects and extracts distinct latent
classes of participants who share similar regression coefficients
on a set of predictor-outcome variables (Magidson & Vermunt, 2004).
As recommended by Vermunt and Magidson (2000), a 1-class
model was initially estimated using maximum likelihood (ML), fol-
owed by additional models which successively incremented the
number of classes by one, until the simplest model with the small-
est Bayesian Information Criterion (BIC) value was found. The de-
fault Latent Gold LCR setting of 10 random starts was retained
for each model.

As shown in Table 2, similar BIC values occurred for the 3 and
4-class models. However, classification error was notably larger
for the 4-class model, and parameters were fewer for the 3-class
model. The 3-class model was thus considered better fitting and more
parsimonious. Eighty percent of variation in distress was explained
by negative life events in the 3-class model.

Latent class regression statistics for the 3-class model are
shown in Table 3. The unstandardized beta values indicate that
for each class, higher numbers of negative life events predicted
higher distress levels. However, Wald statistics for events indicated
that the strength of this relationship was significantly different be-
tween classes.

Regression lines depicting the relationship between accumu-
lated events and distress for each latent class are plotted in

<table>
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<th>Table 1</th>
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<tr>
<td>Inter correlations among EI dimensions, distress and negative life events.</td>
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<tr>
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<tr>
<td>1. Emotional self-awareness</td>
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<td>2. Emotional expression</td>
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<td>3. Emotional awareness of others</td>
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<td>4. Emotional self-control</td>
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<td>5. Emotional self-management</td>
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<td>6. Emotional management of others</td>
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<td>7. Distress</td>
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<td>8. Negative life events</td>
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</tbody>
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N = 414. Cronbach’s alpha’s are located on the diagonal in parentheses.

a $p < 0.05$.  
b $p < 0.01$.  
c $p < 0.001$.

ollowed by Australia (24%), the UK (15%) and Canada (9%). The
remainder were citizens of European, Asian or African countries.

A.R. Armstrong et al. / Personality and Individual Differences 51 (2011) 331–336
333
3.2. Discriminant function analysis: class membership and emotional intelligence

A discriminant function analysis was subsequently modelled to test whether membership to the three classes varied as a function of the six EI variables. Summary statistics for the EI variables by class are presented in Table 4.

The three classes were reliably distinguished by one discriminant function, which comprised five EI variables and explained 35% of the variation in class membership, Wilks = .65, χ²(12) = 174.27, p < .001. The function was very strongly correlated with Emotional Management of Self, r = .90, p < .001, strongly correlated with Emotional Self-Control, r = .51, p < .001, and moderately correlated with Emotional Expression, r = .44, p < .001, and Emotional Awareness, r = .39, p < .001. Centroids for the discriminant function revealed that the Resilient class (.96) had significantly higher EI scores than both other classes, that the Vulnerable class (−.94) had the lowest EI scores, and that the Average class (.04) fell almost precisely in between.

4. Discussion

The current study sought to identify which participants were more and less successful at adapting to the emotional demands of stressful events, and to identify the extent to which individual differences in adaptation could be attributed to respective aspects of emotional intelligence. The study found that the relationship between negative life events and distress varied as a function of four intrapersonal EI dimensions. The life event-distress relationship was weaker for participants with higher levels of Emotional Self-Awareness, Emotional Expression, Emotional Self-Control and particularly, Emotional Self-Management.

4.1. The nature of relations between stressful life events and distress

Ninety-five percent of participants reported that one or more stressful events continued to exert a negative influence on their wellbeing up to 2 years later. On average, participants remained negatively affected by around five events, while event distribution data indicated that the number of such events typically ranged from a low one or two, to a high eight events. A greater accumulation of such events predicted heightened symptoms of psychological distress in the preceding month.

Yet, while pervasive, the life event-distress relationship was not uniform across the sample. Instead, three latent classes with distinct life event-distress profiles were identified. These classes were subsequently labelled Vulnerable, Average and Resilient.

Fig. 1. Anchors for negative life events comprise the mean and one standard deviation above and below. Anchors for distress comprise percentile ranks and ranges sourced from Lovibond and Lovibond (1995). Figure 1 illustrates a pattern of graduated life event distress class profiles. Class 2 were most distressed by higher numbers of life events, Class 3 were least distressed, while Class 1 fell in between. Classes 2, 1 and 3 were thus labelled Vulnerable, Average and Resilient.

4.2. Emotional intelligence and psychological resilience to life event distress

EI was negatively associated with events and distress. Most persons with higher EI scores reported that fewer stressful events
The small benefit of Emotional Self-Awareness in predicting resilience is consistent with alexithymia research (e.g. Naatanen et al., 1999), in which afflicted persons typically fail to detect stress or deploy coping mechanisms until a stressor exerts its full impact. The moderate benefit of Emotional Expression accords with research in which overt expression has been shown to provide a stress release (e.g. Wastell, 2002). The moderate benefit of Emotional Self-Control concur with research linking this construct to impulse control in times of stress (Salovey, 2001). The considerable benefit of Emotional Self-Management is consistent with research in which afflicted persons typically fail to detect stress or deploy coping mechanisms until a stressor exerts its full impact.

It is notable that the two interpersonal EI dimensions, Emotional Awareness of Others and Emotional Management of Others, did not discriminate between more and less resilient persons in the presence of the four intrapersonal dimensions. The current findings suggest that when coping with multiple life events, the benefits of intrapersonal EI outweigh the benefits of interpersonal EI.

4.2.1. Methodological and future considerations

Ours is the first study to find empirical support for the value of EI as a psychological buffer in the context of multiple life events, and to illustrate the relative importance of four intrapersonal EI dimensions. The findings emphasise the value of examining the relationship between aggregated life events and psychological symptoms using latent class regression rather than traditional regression techniques. Otherwise, the resilience of the majority is likely to be blurred with the vulnerability of a sizable minority. Furthermore, the importance of distinguishing between the respective contributions of EI dimensions in the prediction of psychological resilience, rather than treating EI as unitary construct, is emphasized.

There were several study limitations. A self-selected rather than representative sample was used. EI and distress levels were self-reported rather than clinician-rated. The EI, life event, distress associations may be an artifact of self-report mono-method bias whereby mood congruent or dispositional response patterns may be responsible for observed relations. A single point in time, cross-sectional design was employed, limiting causal argument. These are issues that future research may wish to address. Similar future research would also benefit by identifying and controlling for pre-event symptoms, and investigating the longitudinal stability of latent class membership. Extending such research to samples undergoing extremely stressful life transitions such as learning to live with cancer or HIV, and to those who vary more widely in EI traits, would further clarify the buffering effects of EI.

References


