



Optimism and emotional intelligence as potential moderators of workplace stress

David Beckett

Supervised by: Professor Nick Braisby

March 2010

## Optimism and emotional intelligence as potential moderators of workplace stress

**ABSTRACT**

Many studies have demonstrated that organisational stress is damaging to health, costly to organisations and is on the increase. This study sets out to examine two proposed moderators of stress that operate at the individual level. These are, attributional style and emotional intelligence (EI). Participants were a non-clinical population of 60 corporate employees who completed three self-report questionnaires, ASSET, measuring individual stress, the Attributional Style Questionnaire, measuring attributional style and the Individual Effectiveness Questionnaire, measuring emotional intelligence. Correlation and multiple regression analyses showed that whilst some aspects of attributional style were significant and correlated with lower levels of stress in this research attributional style was not a potential moderator. Considering emotional intelligence, 11 of the 16 scales were significant and correlated highly with lower levels of stress. Importantly, emotional resilience was the single predictor of lower levels of stress accounting for most of the variance. It is proposed that EI is changeable and developable; therefore, the potential implications of these findings are that developing emotional resilience at the individual level may be of benefit in protecting individuals from organisational stress.

|                   |                               |               |                          |                             |                  |
|-------------------|-------------------------------|---------------|--------------------------|-----------------------------|------------------|
| <b>KEY WORDS:</b> | <b>EMOTIONAL INTELLIGENCE</b> | <b>STRESS</b> | <b>ATTRIBUTION STYLE</b> | <b>EMOTIONAL RESILIENCE</b> | <b>CORPORATE</b> |
|-------------------|-------------------------------|---------------|--------------------------|-----------------------------|------------------|

## **Introduction**

### **Psychological ill health is costly for individuals, and organisations**

There is evidence of increasing levels of psychological ill health in the work environment with stress frequently described as the black plague of the post industrial era (Zeidner, Matthews & Roberts, 2009). This is despite a year on year reduction in working hours in the decade until 2004 (Bishop, 2004). In the USA approximately 50% of the estimated 550 million work days lost due to absenteeism were some way stress related (Elkin & Rosch, 1990). It is also estimated that the total cost to US industry of all stress related losses exceeds \$300 billion annually (American institute of stress, 2002). In a number of advanced market economies including the USA, Netherlands and the UK there has been a marked increase in compensation claims for stress related problems arising in the work environment (Schaufeli, 2003).

Examining the UK specifically, it has been estimated that more than 9% of gross national product is lost per annum on job related stress accounted for by labour turnover; absenteeism, lost production, recruitment and selection costs as well as direct medical related expenses (Arnold, 2005). In addition, a national survey estimated that 13.5 million working days are lost in the UK as a result of stress, clinical symptoms of which include anxiety, depression, tension and exhaustion (Jones, Huxtable, Hodgson & Price, 2003). Whilst these increases can also be attributed to a number of factors including increased awareness and changing attitudes towards reporting occupational stress, the body of research points to occupational stress as a major contributor to psychological ill health and that it is increasing (Cooper, Dewe & O'Driscoll, 2001; Maslach, 2001).

A number of complex explanations have been offered for why occupational stress is increasing. The most common of which include greater competition, pace of technological change, job mobility, de-layering, globalisation, difficult work relationships and increasing conflict between work and home demands (Burke & Cooper, 2006; Cooper et al. 2001; Sparrow & Knight 2006). This complexity is also exacerbated by the fact that organisational stress is multifactorial, stress factors often occur simultaneously and stress can be viewed both objectively and subjectively (Cooper et al. 2001). This has resulted in some disagreement regarding measurement and operationalisation and so in order to achieve clarity within this research paper it is useful to operationalise stress (Cooper et al. 2001).

### **Operationalisation of stress**

Early stress research was based upon a simple stimulus-response model and ignored the person-environment dimension. This early work was also unable to explain individual differences in stress responses (Cooper et al. 2001). The model subsequently evolved to incorporate person environment as an interaction and more recent thinking has created linkage between elements of the stress process to define stress as relational (Cooper et al. 2001). Viewed through this lens stress is the result of a transaction between individual and environment (Lazarus, 1990).

When considering stress it is also worth examining the term itself, which is an emotive word generally associated with negative connotations. However it seems

self-evident that not all stress is necessarily bad. Selye (1976) emphasised that a certain amount of stress is important for motivation. He proposed that change and development of human potential is dependant upon a certain level of healthy stress, which he labelled eustress. However when the transactional demands of the environment exceed the organism's ability to cope, stress leads to distress and what is now commonly referred to as strain (Cooper et al. 2001). It is excessive strain beyond an individual's ability to cope that is damaging to a person's psychological health. As a working definition the present research adopts this contemporary thinking on stress. Stress is therefore the end-to-end transactional process, stressors are the stimuli encountered and strain is the psychological, physical and behavioural responses to stressors (Cooper et al 2001).

### **Attributional style as a potential moderator of organisational strain**

A number of factors have been proposed that moderate the stressor-strain relationship and enhance personal coping as well as impacting favourably on adaptive outcomes (Zeidner et al.2009). One of the potential moderators is attributional style. Attributional style theory was born from Seligman and Maier's (1967) work on learned helplessness, this describes a condition whereby a human being or an animal learns to behave helplessly, even when the opportunity is restored for it to avoid unpleasant or harmful stressors. Seligman (1975) used the learned helplessness theory as a model for human depression; this was subsequently reformulated into attributional style theory in order to explain variance due to individual differences and internal attributions for failure (Sweeney, Anderson & Bailey, 1986).

Attributional style is a model that examines the way in which people explain good and bad life events. This is explored in three dimensions; personalisation, permanence and pervasiveness (Seligman, 2006). The theory is that people who tend to personalise negative events, believe that such events will continue permanently and believe these events pervade many aspects of their lives, display a pessimistic attributional style. Conversely people who have a tendency to depersonalise negative events, believe them to be impermanent and do not think they are pervasive, display a more optimistic attributional style (Seligman, 2006). There is a body of research linking a pessimistic explanatory style to one of the clinical presenting symptoms of strain, that of depression, as well as psychological ill health in general (Dykema, Bergbower & Peterson 1995; Johnson & Miller, 1990). This research also includes the early meta-analysis by Sweeney et al. (1986) of 104 studies involving 15,000 participants that demonstrated attributional style patterns were linked to depression. The research suggests that attributional style may be a moderator of strain.

### **EI as a potential moderator of organisational strain**

A second proposed moderator of organisational strain is EI. Goleman (1995) signalled the start of what would become a virtual psychological gold rush with the publication of his best selling book Emotional Intelligence (Goleman, 1995). Since its publication EI has become a small industry incorporating testing, consultancy, training and publication (Mayer Salovey & Caruso, 2008). Since the mid 90's EI has been hailed as a solution to virtually every problem that can be related to difficulties in interpersonal relationships, management and control of ones emotions. (Zeidner et al. 2009). A consequence of the rapid expansion of the field is that EI is a term now used to cover an eclectic mix of models and concepts that often blends personality

traits, abilities and competencies covering a very diverse range of variables (Zeidner et al. 2009).

The diversity in the field has also posed difficulties in EI measurement, which has been criticised for failing to differentiate between established personality measures and in particular the Big 5 (Day, 2004; Zeidner, Roberts & Matthews, 2002). Whilst debate is heated regarding the possible overlap, an important differentiation also exists. Personality theorists generally argue that personality traits are relatively fixed and stable over time (Maltby, Day & Macaskill, 2007) whilst many proponents of EI argue that EI is not fixed and alters over time (Maddocks, 2007; Sparrow & Knight, 2006). This is an important point because it establishes a dividing line in the debate, regarding the overlap of personality traits and EI, in so far as EI is considered by many to be attitudinal and therefore changeable and developable (Maddocks, 2007; Slaski & Cartwright, 2003; Sparrow & Knight 2006). This is a point that we will return to later in the discussion.

There are a number of other debates surrounding EI concerning, overly broad definitions, unrealistic claims and misunderstanding of the core concept initially proposed by Salovey and Mayer (1990). It is not intended to explore those debates in more detail here as this has been covered in a considerable number of research papers and publications (Landy, 2005; Locke 2005; Murphy & Sideman 2006; Zeidner et al. 2009). What is important however is that a valid model is used in research. In practice this means meeting the normal required standards of validity and reliability and using an instrument that measures EI as a valid construct. In this regard it seems appropriate to return to the original source of EI as a construct. In a recent paper Mayer, Salovey and Caruso (2008) state their principal claim is that, the way to distinguish a valid EI construct from other models is that it will:

'Include the ability to engage in sophisticated information processing about one's own and others emotions and to use this information as a guide to thinking and behaviour. That is, individuals high in EI pay attention to, use, and manage emotions and these skills serve adaptive functions that potentially benefit themselves and others.'

This seems to be a useful model when considering the theoretical basis of the EI instrument used in the present study. Maddocks and Sparrow, (1998) consider EI not as a sub division of cognitive intelligence but rather the integration of emotion, cognition and behaviour (Maddocks, 2006). They describe EI not as something we have, but something we do.

Maddocks (2006) sums EI up as 'the practice of thinking about feeling and feeling about thinking when deciding what to do'. With regard to the personality debate the authors describe EI not as an aspect of personality but rather the way in which we manage our personality in order to be effective (Maddocks & Sparrow, 1998). The Individual Effectiveness diagnostic tool also highlights the importance of self-regard, described as the cornerstone upon which EI is built (Maddocks, 2007a) and from which two domains of intra and inter personal effectiveness emanate. These descriptors approximate to how one manages oneself and how one manages relationships with others (Sparrow & Knight, 2006). This differentiation is interesting in relation to stress in that stressors in the work environment often come in the form of other people (Cooper et al. 2001) or the interpersonal domain. It would however seem that the intra personal domain could be more important in managing strain, as

managing relationships with others would seem dependant upon the ability to manage oneself (Maddocks, 2007a).

Whilst there is much debate in the field of EI, there is also a growing body of empirical research showing great promise for its potential in adaptive coping, increased performance and reducing strain (Ciarrochi & Scott, 2006). In a recent paper Spielberg and Reheiser (2005) positioned EI as central to effective coping in high stress situations and in an occupational study involving 224 managers Slaski and Cartwright (2002) reported that EI plays an important role in moderating strain and can increase an individual's resilience to the effects of organisational strain.

### **Rationale for the present study**

The prevalence of work related stress and its associated costs are evident and increasingly organisations are investing heavily in preventative and palliative measures to reduce the impact upon employees and their organisations (Cooper, et al. 2001). According to Zeidner et al. (2009) a plausible case has been made that EI in particular may indeed be a moderator of various forms of organisational stress, however the topic is under researched. The present study therefore, aims to measure the scale of organisational stress in a corporate environment and to examine whether attributional style and EI have the potential to moderate strain in a non-clinical population. Given the lack of research in this area and that the EI measure used has not been fully examined in relation to strain, this research also tested the instrument in this application. With this in mind the researcher made certain assumptions based on the face validity of specific scales. The sixteen scales and scale references are:

|     |                                |         |                   |
|-----|--------------------------------|---------|-------------------|
| 1.  | Self regard                    | linear  | (Maddocks, 2007a) |
| 2.  | Regard for others              | linear  | (Maddocks, 2007b) |
| 3.  | Self awareness                 | linear  | (Maddocks, 2007c) |
| 4.  | Awareness of others            | linear  | (Maddocks, 2007d) |
| 5.  | Emotional resilience           | linear  | (Maddocks, 2007e) |
| 6.  | Personal power                 | linear  | (Maddocks, 2007f) |
| 7.  | Goal directedness              | linear  | (Maddocks, 2007g) |
| 8.  | Flexibility                    | linear  | (Maddocks, 2007h) |
| 9.  | Personal connectedness         | linear  | (Maddocks, 2007i) |
| 10. | Invitation to trust            | Bipolar | (Maddocks, 2007j) |
| 11. | Trust                          | Bipolar | (Maddocks, 2007k) |
| 12. | Balanced outlook               | Bipolar | (Maddocks, 2007l) |
| 13. | Emotional expression & control | Bipolar | (Maddocks, 2007m) |
| 14. | Conflict handling              | Bipolar | (Maddocks, 2007n) |
| 15. | Interdependence                | Bipolar | (Maddocks, 2007o) |
| 16. | Reflective learning            | Bipolar | (Maddocks, 2007p) |

Specifically the present study predicted the following:

In line with the research on attributional style it is hypothesised that scores for good events, as pervasive, permanent and personal will correlate with lower organisational strain. Conversely scores for bad events as permanent, pervasive and personal will correlate with high organisational strain.

Secondly it is hypothesised that when considering the face validity of all 16 EI scales that scales relating to the intrapersonal domain will be stronger predictors of lower organisational strain than the interpersonal domain.

Finally, considering the face validity of the EI scales it is hypothesised that the following scales within the EI tool will be highly correlated with lower levels of organisational strain: self regard, emotional resilience, personal power and goal directedness.

## **Method**

### **Participants**

The sample in this research consisted of 60 individuals of which 39 (65%) were males and 21 (35%) were females. Participants were recruited from five corporate companies known to the researcher in the IT sector. Participants represented different organisational disciplines including sales ( $n=25$ ), support ( $n=18$ ), finance ( $n=6$ ) and marketing ( $n=11$ ). The population consisted of 35 managers and 25 non-managers. Age range was 21 to 62 ( $M=37.6$ ).

### **Measures**

#### **Strain**

ASSET is a stress diagnostic tool specifically designed to measure occupational stress (Cartwright & Cooper 2002). For this study basic biographical information was gathered as well as data on stress-induced psychological ill health using 11 questions scored on a 4-point likert scale. Higher scores indicate higher levels of psychological strain. Guttman split half reliability 0.91.

#### **Emotional intelligence**

The Individual Effectiveness Questionnaire from JCA occupational psychologists (Maddocks & Sparrow, 1998) is an online likert questionnaire measuring EI across 16 dimensions utilising 136 questions. Item construction consists of 10 linear scales with 7-9 questions per scale and 6 bipolar scales with 4 questions in three dimensions.  $\alpha = 0.83$ . As this is an online self-report questionnaire a sample of the scale output is included not the questionnaire itself.

#### **Explanatory style**

The Attributional styles questionnaire (ASQ) was taken from Learned Optimism (Seligman, 2006). The test presents 48 hypothetical questions, half with good and half with bad outcomes. It measures scores for explanatory style using three causal dimensions: permanence, pervasiveness, and personalisation. Each of the three dimensions has 16 questions (half good and half bad) giving the total of 48,  $\alpha = 0.72$ .

#### **Procedure**

There were three steps in the process; First participants were assigned a consent form (Appendix 1), which was signed and returned by email. Following the consent return the ASSET and ASQ questionnaires were emailed in word and excel format. Once the participant had completed these two questionnaires they were asked to complete the third stage that involved being registered as an online user of the JCA

IE tool at <http://www.psych-e.com>. Once registered the participant was then automatically mailed an invitation to complete the Individual Effectiveness diagnostic tool. Once all participants had completed the IE tool a debriefing email outlining the study was sent to all participants.

## Results

### Data preparation

Raw data from the ASSET questionnaire were converted to a mean score for psychological strain that was then used as the outcome variable. Raw data from the Attributional Style Questionnaires were converted to mean scores for 6 dimensions of explanatory style used as predictor variables. The EI report generated from the online IE tool produces individual scores as deciles. In order to analyse the data for this research, raw scores were produced in excel form, then for each participant mean scores for each of the 10 linear scales were measured. Each of the 6 bipolar scales consists of three subscales. For each participant and each of the 6 bipolar scales the scores in two dimensions were reversed and added to the third item scale from which a mean score was again calculated. This gave an additional 16-predictor variable for EI. Data was checked for multicollinearity and to ensure it was normally distributed.

### Attributional style and Strain

To examine the results related to the first hypothesis that, attributional style for good events will be positively correlated and for bad events they will be negatively correlated Table 1 shows a correlation matrix with these data. The table shows all 6 predictors and whilst the correlations are all in the expected direction they are generally low and non significant. This is with the exception of the explanatory style for the permanence and pervasiveness of good events ( $r = .36, p < .01$ ) and ( $r = .23, p < .05$ ) respectively.

Table 1. Correlation matrix of ASSET cores and ASQ

|                  | ASSET | 1    | 2    | 3    | 4    | 5   | 6 |
|------------------|-------|------|------|------|------|-----|---|
| DV. ASSET score  | –     |      |      |      |      |     |   |
| 1 Permanent Bad  | -.06  | –    |      |      |      |     |   |
| 2 Permanent Good | .36** | .16  | –    |      |      |     |   |
| 3 Pervasive Bad  | -.15  | -.05 | .22  | –    |      |     |   |
| 4 Pervasive Good | .23*  | -.01 | -.28 | -.17 | –    |     |   |
| 5 Personal Bad   | -.18  | -.02 | -.06 | -.20 | -.08 | –   |   |
| 6 Personal Good  | .03   | .04  | -.09 | -.01 | -.08 | .12 | – |

\*  $P < 0.05$ ; \*\*  $P < .01$ .

A forced entry multiple regression for all six predictors was conducted and the results are displayed in Table 2. Results for the overall model showed that it explained only 10% of the overall variance ( $\text{adj } R^2 = .10$ ;  $F_{(6,53)}=2.14, p = \text{ns}$ ). Within the model only attributional style for permanent good events was significant ( $\beta = 0.30, p < .05$ ).



Table 2. Forced entry multiple regression of ASQ predictors

| Predictor Variable | Unstandardised<br>Coefficient (B) | Standardised<br>Coefficient ( $\beta$ ) | <i>t</i> |
|--------------------|-----------------------------------|-----------------------------------------|----------|
| Permanent Bad      | -.06                              | -.08                                    | -.11     |
| Permanent Good     | 1.17                              | .30                                     | 2.24*    |
| Pervasive Bad      | -.36                              | -.13                                    | -.55     |
| Pervasive Good     | .67                               | .25                                     | 1.32     |
| Personal Bad       | -.74                              | -.26                                    | -1.55    |
| Personal Good      | -.12                              | .02                                     | -.26     |

\*  $P < .05$

### EI and Strain

To examine the results for EI Table 3 shows a correlation matrix for all 16 EI scales. Firstly, eleven of the scales correlate above  $r = .22$  and are significant. Secondly regarding hypothesis 2, four of the six scales in the intrapersonal domain are significant and correlated above  $r = .41$ . The remaining two scales in the intrapersonal domain, personal connectedness and invitation to trust are correlated at  $r = < .14$  and are non significant. Four scales from the interpersonal domain are also highly correlated and significant; interdependence ( $r = .46, p < .001$ ), conflict handling ( $r = .44, p < .001$ ), balanced outlook ( $r = .39, p < .001$ ) and emotional expression and control ( $r = .31, p < .01$ ).

Considering hypothesis 3, as predicted four of the scales correlate above  $r = .4$  and are significant. These are emotional resilience ( $r = .68, p < .001$ ), self-regard ( $r = .54, p < .001$ ), goal directedness ( $r = .43, p < .001$ ) and personal power ( $r = .41, p < .01$ ).

Table 3. Correlation matrix of ASSET scores and EI scales

|                          | ASSET  | 1      | 2       | 3      | 4     | 5      | 6      | 7      | 8      | 9      | 10    | 11    | 12     | 13     | 14     | 15    | 16 |
|--------------------------|--------|--------|---------|--------|-------|--------|--------|--------|--------|--------|-------|-------|--------|--------|--------|-------|----|
| DV. Asset score          | –      |        |         |        |       |        |        |        |        |        |       |       |        |        |        |       |    |
| 1 Self regard            | .54*** | –      |         |        |       |        |        |        |        |        |       |       |        |        |        |       |    |
| 2 Regard for others      | .10    | .09    | –       |        |       |        |        |        |        |        |       |       |        |        |        |       |    |
| 3 Self awareness         | .25*   | .30**  | -.04    | –      |       |        |        |        |        |        |       |       |        |        |        |       |    |
| 4 Awareness of others    | .02    | .18    | -.50*** | .17    | –     |        |        |        |        |        |       |       |        |        |        |       |    |
| 5 Emotional resilience   | .68*** | .61*** | .50     | .39*** | .21   | –      |        |        |        |        |       |       |        |        |        |       |    |
| 6 Personal power         | .41**  | .51*** | .06     | .46*** | .17   | .40**  | –      |        |        |        |       |       |        |        |        |       |    |
| 7 Goal directedness      | .43*** | .51*** | .12     | .49*** | .12   | .43*** | .52*** | –      |        |        |       |       |        |        |        |       |    |
| 8 Flexibility            | .42*** | .33**  | .19     | .31**  | .25*  | .58*** | .23*   | .39**  | –      |        |       |       |        |        |        |       |    |
| 9 Personal connectedness | .10    | .43*** | -.01*** | .38**  | .22*  | .17**  | .37**  | .40**  | .05    | –      |       |       |        |        |        |       |    |
| 10 Invitation to trust   | .14    | .29*   | .11     | .11    | .28*  | .18    | .31**  | .21    | .14    | .07    | –     |       |        |        |        |       |    |
| 11 Trust                 | .06    | .07    | -.09    | .08    | -.37  | .01    | -.02   | .15    | .04    | -.14   | -.01  | –     |        |        |        |       |    |
| 12 Balanced outlook      | .39*** | .54*** | -.12    | .33**  | .33** | .50*** | .28*   | .49*** | .28*   | .24*   | .24*  | .06   | –      |        |        |       |    |
| 13 Emotional expression  | .31**  | .55*** | .20     | .34**  | .23*  | .51**  | .32**  | .45*** | .27*   | .36**  | .24*  | .05   | .46*** | –      |        |       |    |
| 14 Conflict handling     | .44*** | .61*** | .35     | .35**  | .24*  | .62*** | .51*** | .46*** | .39**  | .38**  | .22*  | .01   | .53*** | .60*** | –      |       |    |
| 15 Interdependence       | .46*** | .64*** | .23*    | .40*** | .38** | .53*** | .54*** | .50*** | .53*** | .45*** | .30** | -.04  | .53*** | .40**  | .61*** | –     |    |
| 16 Reflective learning   | .22*   | .24*   | .29*    | .39*** | .34** | .30**  | .31**  | .52*** | .36**  | .13    | .23*  | -.06* | .44*** | .51*** | .41**  | .34** | –  |

\* P &lt; .05; \*\* P &lt; .01; \*\*\*P &lt; .001

A hierarchical multiple regression was performed using the 16 EI predictors in two blocks. Block one contained the four predictors in hypothesis 3 and block two contained the remaining twelve. Results for model 1 showed that it explained 46% of the variance and was significant ( $\text{adj } R^2 = .46$ ;  $F_{(4,55)}=13.77$ ,  $p < .001$ ). Model 2 however and was non significant ( $\text{adj } R^2 = .42$ ;  $F_{(16,43)}= 3.66$ ,  $p < .001$ ;  $\Delta R^2 = .08$   $p = \text{ns}$ ). Examining the individual predictors it can be seen that emotional resilience is the key predictor explaining most of the variance in the model and is significant ( $\beta .53$ ,  $p < .001$ ).

Table 4. Hierarchical multiple regression of EI predictors

| Predictor Variable                                                                  | Unstandardised<br>Coefficient (B) | Standardised<br>Coefficient ( $\beta$ ) | t       |
|-------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------|---------|
| Block 1 ( $\text{adj } R^2 = .46$ , $p < .001$ )                                    |                                   |                                         |         |
| Self regard                                                                         | .14                               | .12                                     | .90     |
| Emotional resilience                                                                | .64                               | .53                                     | 4.37*** |
| Personal power                                                                      | .12                               | .08                                     | .69     |
| Goal directedness                                                                   | .11                               | .09                                     | .75     |
| Block 2 ( $\text{adj } R^2 = .42$ $p < .001$ ; $\Delta R^2 = .08$ $p = \text{ns}$ ) |                                   |                                         |         |
| Self regard                                                                         | .13                               | .12                                     | .69     |
| Emotional resilience                                                                | .71                               | .59                                     | 3.52**  |
| Personal power                                                                      | .14                               | .10                                     | .67     |
| Goal directedness                                                                   | .23                               | .19                                     | 1.19    |
| Regard for others                                                                   | .29                               | .18                                     | 1.36    |
| Self awareness                                                                      | -.03                              | -.03                                    | -.21    |
| Awareness of others                                                                 | -.33                              | -.25                                    | -1.69   |
| Flexibility                                                                         | -.01                              | -.01                                    | -.01    |
| Personal connectedness                                                              | -.12                              | -.11                                    | -.79    |
| Invitation to trust                                                                 | -.01                              | -.01                                    | -.09    |
| Trust                                                                               | -.12                              | -.07                                    | -.62    |
| Balanced outlook                                                                    | .12                               | .10                                     | .66     |
| Emotional expression                                                                | -.08                              | -.09                                    | -.59    |
| Conflict handling                                                                   | -.04                              | -.04                                    | -.25    |
| Interdependence                                                                     | .11                               | -.09                                    | .50     |
| Reflective learning                                                                 | -.18                              | -.12                                    | -.84    |

\*\* P < .01 \*\*\* P <

.001

## Discussion

This research had four primary goals: Firstly to examine if participants' attributional style for good and bad events will correlate with organisational strain. Secondly the research examined overall if the intrapersonal domain correlates with lower organisational strain more than the interpersonal domain. Thirdly it examined whether the specific scales of self-regard, emotional resilience, personal power and goal directedness within the JCA EI model correlate with lower levels of organisational strain. These will now be considered in turn.

### Is attributional style a potential moderator of organisational strain?

The findings in the present study are not in line with the initial hypothesis and earlier research (Cheng & Furnham, 2003; Dykema, Bergbower & Peterson, 1995). The research did find that good events are positively correlated and bad events are negatively correlated, however the correlations are mostly low and non significant. The exception is the findings related to the permanence and pervasiveness of good events. The data suggests that within this population people reporting lower levels of psychological strain view good events as lasting longer and tend to view those good events as more pervasive. In the research by Sweeney, Anderson and Bailey (1986) they found that attributions for negative events were more strongly correlated with psychological ill health than were the attributions made for positive events. In the present research those findings are broadly reversed. From the present research it could not be argued that attributional style is a potential moderator of strain, only that people reporting lower levels of organisational strain seem to attribute good events as being more stable and possibly impacting more of their lives.

### Is EI a potential moderator of organisational strain?

Overall the findings regarding EI are encouraging and suggest a strong relationship between emotional intelligence and organisational strain. The findings do suggest that EI may play a role in moderating the stressor-strain relationship as previously reported by Slaski and Cartwright (2002) and may increase individual resilience to the effects of strain. However, it is accepted that due to the nature of the research design that no conclusions can be drawn regarding causality. These findings will now be unpacked in relation to the second and third hypotheses.

Regarding the second hypothesis, there appears to be no clear dividing line between the importance of the intrapersonal versus interpersonal domain in reported strain. Of the 6 intrapersonal scales 4 are significant with medium to high correlations. Of the 5 interpersonal scales 4 are significant with medium correlations. This suggests that EI aspects of self-management and relationship management both play a part in relationship to strain. This supports the idea that EI is multifaceted and it is the interplay between these separate but related scales that characterise the notion of acting in an emotionally intelligent way (Sparrow & Knight, 2006). The interpersonal scales include conflict handling and emotional expression and control (assertiveness). It does seem intuitive that people able to behave in an assertive way and who are free to express feelings in an appropriate way are likely to experience less strain within an organisational environment (Maddocks, 2007n).

Moving to the third hypothesis, primarily based on scale face validity this stated that four specific scales would be highly correlated with lower levels of organisational strain. These are self-regard, personal power, goal directedness and emotional resilience. All four scales were positively correlated and were significant. Self-regard within the JCA model of emotional intelligence is considered to be the underpinning scale and is fundamental for all aspects of emotional intelligence (Maddocks, 2007a; Sparrow & Knight, 2006).

It is proposed that high self regard enables one to be aware of ones weaknesses and strengths or to be more self aware and as a result to be able to assess feedback objectively and non defensively (Maddocks, 2007a). In this sense it could be expressed as the attitude we hold about ourselves or in transactional analysis terms our sense of how OK we are (Sparrow & Knight, 2006). Considering the organisational environment it seems reasonable that if one could be self aware, receive feedback objectively and hold an attitude that our self concept is OK, that this would be at least helpful in reducing the level of strain experienced (Maddocks, 2007a).

The second scale, personal power could equally be named locus of control as it essentially measures the same construct. Maddocks (2007f) describes this scale as the extent to which one believes that one is in charge of and has responsibility for ones life outcomes. Whilst it is accepted that human beings are not omnipotent, the important aspect here is the underpinning attitude one holds regarding a specific situation or stressor. Personal power is also correlated with self-regard and this may in part be due to the fact that personal power within the JCA model is considered in part to be measuring ones self-efficacy. Personal power has been described as the point at which ones self regard (our sense of being) overlaps with self-confidence (our sense of doing). Maddock's (2007f) considers personal power to be a key attitudinal determinant of overall life effectiveness and is the EI scale that is highly correlated with job performance. It is conceivable that those participants scoring higher in personal power would again appraise a situation in such a way that their positive locus of control translates into choicefulness and action and lower strain is experienced. This may be an area for future research.

Goal directedness measures the degree to which behaviour is directed towards achieving long-term goals (Maddocks, 2007g). There is again a correlation between self-regard and goal directedness as it is considered to be somewhat dependant on feeling OK about oneself and believing that what one wants matters (Maddocks, 2007g). Sparrow and Knight (2006) consider goal directedness to be the element connecting EI with life outcomes generally and it does not seem surprising that this might help not only in moving people towards what they want but also away from what they do not want, strain perhaps being one such thing. A closing point on the goal directedness scale is that Maddocks (2007g) differentiates between being goal driven and goal directedness. Some people are highly goal directed but towards the goals of the boss or organisation rather than those of their own which may be a source of additional strain if those goals are incongruent.

Emotional resilience was the final scale included in block one of the regression model and had the highest correlation of all 16 scales. It was also the only scale within the hierarchical regression model that was a predictor of lower organisational strain. Maddocks (2007e) defines emotional resilience as 'the degree to which you are able to pick yourself up and bounce back when things go badly'. Given the subjective nature of stress outlined in the introduction, it is clear that individuals responses to stressors in the environment can vary according to their subjective assessment of the stressor (Cooper et al. 2001). These results suggest that the underlying attitude that individuals hold regarding their ability to respond positively in difficult situations may be a moderator of strain. These findings support the earlier research by Slaski & Cartwright (2002) and take this one stage further by identifying one specific scale that explains most of the variance. This is possibly the most important finding in the study especially given that EI is purported to be changeable and developable (Maddocks, 2007; Slaski & Cartwright, 2003; Sparrow & Knight, 2006).

There are some limitations with the present study that are worth considering. When examining the population sample, despite the effect size, the reported level of strain within this population was comparatively low. The mean score for the present study was 20.62 (n=60) whereas the mean for the norm group (n=25,352) was 23.15. Therefore this sample was more psychologically healthy than the ASSET norm group. This may be because the ASSET tool is often deployed to investigate organisational strain where this has been identified as an issue and this was not the case for the present study. Additionally inclusion of a personality measure would have enabled a comparison between the EI instrument and standard measures of personality (e.g. The Big 5 NEO) and an assessment of the variance accounted for by EI. This would be a useful comparator in future studies involving the Individual Effectiveness diagnostic, particularly in order to examine the relationship between emotional resilience and neuroticism, which has been reported as a predictor of stress (Zeidner et al. 2009).

## **In conclusion**

The contribution of an optimistic attributional style as a moderator of workplace strain was not supported, however appreciating good events in our lives and perceiving them as pervasive seems to correlate with lower levels of strain. Turning to EI, firstly this is the first research with the Individual Effectiveness diagnostic in relation to strain. This research has tested the model in that regard and found a far-reaching relationship between EI and strain across eleven dimensions of this particular EI model. One construct in particular seems to hold great promise for managing strain, that being emotional resilience. If EI is indeed an attitude we hold that is measurable as well as developable and changeable, then training and development in the area of emotional resilience may be of benefit in reducing workplace strain. When considering the results of this study and the lack of research in this area, a focus on emotional resilience would seem an interesting subject for future research, particularly longitudinal work where aspects of causality could be examined.

## References

- American Institute of Stress. (2002). *Job stress*. New York: American Institute of Stress.
- Arnold, J. (2005). *Work psychology*. Harlow: Pearson Education Limited.
- Bishop, K. (2004). Working time patterns in the UK, France, Denmark and Sweden. *Labour Market Trends*, 113-122.
- Burke, R.J., & Cooper, C. L. (2006). The new world of work and organizations: Implications for human resource management. *Human Resource Management Review* 16, 83-85.
- Cartwright, S., & Cooper, C.L. (2002). *ASSET: An organizational stress screening tool*. London: Robertson Cooper Limited & Cubiks.
- Cheng, H., & Furnham, A. (2003). Attributional style and self-esteem as predictors of psychological well being. *Counselling Psychology Quarterly*, 16 (2), 121-130.
- Ciarrochi, J., & Scott, G. (2006). The link between emotional competence and well-being: A longitudinal study. *British journal of Guidance and Counselling*, 34 (2), 231-243.
- Cooper, C.L., Dewe, P.J. & O'Driscoll, M.P. (2001). *Organizational stress: A review and critique of theory, research and applications*. Thousand Oaks. CA: Sage Publications Inc.
- Day, A.L. (2004). The measurement of emotional intelligence: The good, the bad, and the ugly. In G.Geher, Ed. *Measuring emotional intelligence: Common ground and controversy*. New York: Nova Science Publishers.
- Dykema, J., Bergbower, K., & Peterson, C. (1995). Pessimistic explanatory style, stress and illness. *Journal of Social & Clinical psychology*, 14 (4), 357-371.
- Elkin, A.J., & Rosch, P.J. (1990). Promoting mental health in the workplace: The preventative side of stress management. *Occupational Medicine: State of the Art Review*, 5, 739-54.
- Goleman, D. (1995). *Emotional Intelligence*. London: Bloomsbury.
- Johnson, J.G., & Miller, S.M. (1990). Attributional, life event, and affective predictors of onset of depression, anxiety and negative attributional style. *Cognitive Therapy and Research*, 14, 417-430.
- Jones, J. R., Huxtable, C. S., Hodgson, J. T., & Price, M. J. (2003). *Self-reported work-related illness in 2001/02: Results from a household survey*. London: HSE Books.
- Landy, F.J. (2005). Some historical and scientific issues related to research on emotional intelligence. *Journal of Organisational Behaviour*, 26, 411-424.

Lazarus, R.S. (1990). Theory based stress measurement. *Psychological Inquiry*, 1, 3-13.

Locke, E.A. (2005). Why emotional intelligence is an invalid concept. *Journal of Organizational Behaviour*, 26, 425-431.

Maddocks, J. (2007a). *Scale 1. Self Regard*. JCA.

Maddocks, J. (2007b). *Scale 2. Regard for others*. JCA.

Maddocks, J. (2007c). *Scale 3. Self awareness* .JCA.

Maddocks, J. (2007d). *Scale 4. Awareness of others*. JCA.

Maddocks, J. (2007e). *Scale 5. Emotional Resilience*. JCA.

Maddocks, J. (2007f). *Scale 6. Personal Power*. JCA.

Maddocks, J. (2007g). *Scale 7. Goal Directedness*. JCA.

Maddocks, J. (2007h). *Scale 8. Flexibility*. JCA.

Maddocks, J. (2007j). *Scale 9. Personal connectedness*. JCA.

Maddocks, J. (2007k). *Scale 10. Invitation to trust*. JCA.

Maddocks, J. (2007l). *Scale 11. Trust*. JCA.

Maddocks, J. (2007m). *Scale 12. Balanced outlook*. JCA.

Maddocks, J. (2007n). *Scale 13. Emotional expression and control*. JCA.

Maddocks, J. (2007o). *Scale 14. Conflict handling*. JCA.

Maddocks, J. (2007p). *Scale 15. Interdependence*. JCA.

Maddocks, J. (2007q). *Scale 16. Reflective learning*. JCA.

Maddocks, J. (2006). *How the JCA approach to EI differs from others*. JCA.

Maddocks, J. (2007). Sustaining change through emotional intelligence. *The Coaching Psychologist*, 3, 1, 6-10.

Maddocks, J., & Sparrow, T. (1998). *The Individual Effectiveness Questionnaire*. JCA.

Maltby, J., Day, L., & Macaskill, A. (2007). *Personality, Individual Differences and Intelligence*. Harlow: Pearson Education Limited.

Maslach, C. (2001). What have we learned about burnout and health? *Psychology and Health*, 16, 607-611.



Mayer, J.D., Salovey, P., & Caruso, D.R. (2008). Emotional Intelligence, New ability or eclectic traits? *American Psychologist*, 63, (6), 503-517.

Murphy, K.R., & Sideman, L. (2006). The fadification of emotional intelligence. In K.R. Murphy (Ed.), *A critique of emotional intelligence: What are the problems and how can they be fixed?* (pp.283-299). Mahwah, NJ: Erlbaum.

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

Schaufeli, W. B. (2003). Past performance and future perspectives of burnout research. *South African Journal of Industrial and Organisational Psychology*, 29, 1-15.

Seligman, M.E.P. (1975). *Helplessness: On depression, development, and death*. San Francisco: W.H. Freeman.

Seligman, M.E.P. (2006). *Learned optimism*. New York: Random House Inc.

Seligman, M.E.P. & Maier, S.F. (1967). Failure to escape traumatic shock. *Journal of Experimental Psychology*, 74, 1–9.

Seyle, H. (1976). *Stress in health and disease*. Oxford: Butterworths.

Slaski, M., & Cartwright, S. (2002). Health performance and emotional intelligence: an exploratory study of retail managers. *Stress and Health*, 18, 63-68.

Slaski, M., & Cartwright, S. (2003). Emotional intelligence training and its implications for stress, health and performance. *Stress and Health*, 19, 233-239.

Sparrow, T., & Knight, A. (2006) *Applied EI*. Chichester: Jossey-Bass.

Speilberger, C.D., & Reheiser, E.C. (2005). Occupational stress and health. In A.G. Antoniou & C.L. Cooper, (Eds.), *New Perspectives in Occupational Health Psychology*. Cheltenham: Edward Elgar.

Sweeney, P. D., Anderson, K., & Bailey, S. (1986). Attributional style in depression a meta-analytic review. *Journal of Personality and Social Psychology*, 50, 974–91.

Zeidner, M., Mathews, G., & Roberts, R.D. (2009). *What we know about Emotional Intelligence*. Cambridge: MIT Press.

Zeidner, M., Roberts, R.D., & Mathews, G. (2002). Can emotional intelligence be schooled? A critical review. *Educational Psychologist*, 37, 215-231.