Affective Forecasting Ability: Individual Differences in Emotional Intelligence and Prosocial Behaviour.

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Abstract

Affective forecasting is the process of predicting how future events will influence our future emotional state, studies demonstrate we are not effective in this process. Recently research has begun to examine individual differences in Affective Forecasting. The aim of the current study was to make a theoretical contribution to this emerging literature by examining the role of Prosocial Personality and Emotional Intelligence in Affective Forecasting while accounting for the individual differences in relation to gender. 150 participants took part in an online survey where a mixed quasi-experimental correlational design was employed. Emotional Intelligence and Prosocial Personality were hypothesised to be associated with affective forecasting accuracy on an affective forecasting task involving negative emotionally-evocative pictures. Results failed to support this hypothesis, however a significant relationship was found between Prosocial Personality and Emotional Intelligence which supports previous research. No gender differences were observed in relation to any of the variables.
1. Introduction to the Literature

An abundance of research demonstrates that social cognition is strongly influenced by affective states. For instance, our current mood can influence the judgments of others (Baron & Branscombe, 2012). It would be advantageous if people had the ability to make decisions and choices, based on rational judgments, which were certain to lead to desirable outcomes. However, research suggests that people are often inaccurate in making predictions about the valence of their future feelings, the specific emotions that will be experienced, the duration and intensity of their emotions (Wilson & Gilbert, 2003). People base important life decisions on affective forecasts, such as who to marry or what career to pursue. Data suggests that differences in affective forecasting accuracy may exist within distinct groups, such as men and women. Individual differences in the constructs of Prosocial Personality and Emotional Intelligence may also be relevant (Hoerger, Chapman, Epstein, & Duberstein, 2012; Dunn, Brackett, Ashton-James, Schneiderman, & Salovey, 2007). Evidence suggests that individuals higher in emotional intelligence are more likely to engage in helpful coping behaviours in response to stressors (Jena, Bhattacharyya, Hati, Ghosh, & Panda, 2014). The current study aims to provide an in-depth examination of the relationships between emotional intelligence, prosocial personality and affective forecasting accuracy, while accounting for gender differences. The current study hopes to contribute to the limited body of literature which relates all these variables together.

1.1 Affective Forecasting

1.1.1 Affective forecasting understanding the concept.

When making important life decisions, people often wish they could foresee how their choices will impact upon their future emotional state. Expectations about emotional reactions
to future events can often guide decisions in a variety of instances, such as relationships, career goals and health-related decisions (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998; Halpern & Arnold, 2008; Tomlinson, Carmichael, Reis, & Aron, 2010). Affective forecasting examines the accuracy of anticipated emotional reactions (Gilbert et al., 1998). This is a relatively new psychological construct. Research in this area has extensively explored the relationship between people's predicted and actual reactions to a variety emotionally-evocative events (sexual harassment, pregnancy test) and stimuli (images, prize money) (Woodzicka & LaFrance, 2001; Mellers & McGraw, 2001; Hoerger et al., 2012; Wilson et al., 2003). Individuals often wrongly predict how they will experience emotions in future situations. Woodzicka et al., (2001) asked women how they would feel if they were asked sexually harassing questions during a job interview. The women predicted that their main emotional reaction would be anger and wouldn’t experience a larger degree of fear. However, when women were actually interviewed for a job and asked the harassing questions, their main emotional reaction was fear and few reported anger. These type of findings demonstrate that biases are present in the understanding of emotions which can result in reduced affective forecasting accuracy and the discrepancies in expected versus actual reactions to a situation are apparent (Dunn et al., 2007; Halpern et al., 2008; Tomlinson et al., 2010). The necessity to improve affective forecasting is apparent in a variety of societal contexts and domains such as healthcare, finance and education (Elwyn, Stiel, Durand, & Boivin, 2011; Wilson, Wheatley, Mayers, Gilbert, & Axsom, 2000).

1.1.2 Affective forecasting and gender differences.

Research which explores individual differences in affective forecasting potentially can explain several sources of error which are essential to identify in order to improve forecasting (Tomlinson et al., 2010; Gilbert Killingsworth, Eyre, & Wilson, 2009). Data suggests that forecasting errors are stronger in men than in women (Wilson, Wheatley, Kurtz, Dunn, &
Dunn et al., (2007) observed no significant difference in affective forecasting accuracy between males and females, however, they did report that females displayed increased accuracy in comparison to males. Wilson et al., (2004) also reported similar finding whereby females were increasingly accurate but no significance was observed. Despite these findings numerous affective forecasting studies fail to examine basic differences in the individual such as gender, the current study aims to contribute to this limited body of research by specifically utilising gender as a variable. Initial studies have explored various individual difference constructs which could potentially be associated with affective forecasting, for instance personality traits and emotional management (Dunn et al., 2007; Tomlinson et al., 2010).

1.2 Emotional Intelligence

1.2.1 Emotional intelligence understanding the concept.

Emotional Intelligence (EI) is a relatively new psychological construct that utilises the central concepts of the psychology of individual differences: Personality, Intelligence and Emotions (Cooper, 2010). Salovey and Mayer (1990) were the first to provide a definition of EI as “a subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate them and to use this information to guide one’s thinking and actions”. Salovey and Mayer posit that EI connects the mental processing of emotional information and its integration with cognitive information. This idea is consistent with the early proposal of a ‘cognitive loop’ linking mood and judgement, whereby good mood leads to positive thoughts and vice versa (Isen, Shalker, Clark & Karp, 1978). Research suggests, those who are effective in regulating their emotions are more likely to cope with a potential threat in an adaptive manner (Cooper & Cartwright, 1997).
EI is a concept which is still debated, Locke (2005) argues EI is not a valid form of intelligence as it is too vague because it is broadly defined and extensively inclusive. However, contrary to this argument according to Daus and Ashkanasy (2005) EI has been demonstrated as an intelligence by meeting the following criteria: the set of abilities have the capacity to be operationalized, these abilities are inter-correlated and relate to already existing intelligences while also demonstrating unique variance, the intelligence shows developmental effects with age. Despite this criticism of lack of validity EI continues to be a popular topic to research which has produced a large quantity of empirical research. This current study assumed the validity of EI as suggested by Daus et al., (2005) and aimed to explore EI as a concept in relation to prosocial personality and affective forecasting.

Petrides and Furnham (2001) proposed a fundamental distinction in measuring EI, which acknowledged a difference between trait EI and ability EI. Trait EI focuses on behavioural dispositions and self-perceived abilities, it is usually measured through self-reports. Ability EI concerns actual emotion-related abilities and is measured through performance based tests. Trait EI should be investigated in relation to personality hierarchies, while ability EI should be investigated in reference to cognitive ability hierarchies (Petrides & Furnham, 2003). It should be emphasised that trait EI and ability EI are two distinctly different constructs conceptually, empirically and methodologically. Petrides et al., (2001) devised the Trait Emotional Intelligence Questionnaire Short Form (TEIQue-SF) which was designed to assess a four factor model of EI consisting of: Wellbeing, Sociability, Self-control and Emotionality. The current study utilises Petrides and Furnham’s (2001) trait EI measure as it has received substantial empirical support (Mikolajczak, Luminet, Leroy, & Roy, 2007; Petrides, 2009). Also there is a limited body of research conducted on trait EI in relation to prosocial behaviour and affective forecasting.
1.2.2 Emotional intelligence and gender differences.

In society it is widely believed that women experience and express their emotions more effectively than men (Grossman & Wood, 1993). In the Western World women are expected to be more emotionally aware than men (Brody & Hall, 2010). Norms governing appropriate gender behaviours are vastly contrasting and emotions are altered to align with social expectations. Expressing emotions that violate social norms can lead to aversive social consequences (Frijda & Mesquita, 1994). Learning to regulate emotions is an adaptive feature which both genders develop and continuously enhance.

Mandell and Pherwani (2003), used a sample of managers and found that females display higher EI scores than males. Women scored high on specific elements such as empathy and social skills and low on other components such as motivation and self-regulation. Goleman’s (1995) older perspective suggests there is little difference between genders in the characteristics typical of a high scoring individual. Men who score highly characteristically are socially confident, optimistic and usually do not often display fear or experience worry, in comparison to lower scoring men. They display sympathy and care in their relationships. Emotionally intelligent females, similar to males, are outgoing, sociable and express their feelings in a socially-appropriate manner. In comparison to low scoring females highly emotionally intelligent females demonstrate assertiveness and express their feelings directly. Brody (1997) posits that gender stereotypes in relation to emotional expression can be inaccurate and misleading as they do not account for situational, individual and cultural variations. She asserts that when gender differences are displayed they are a consequence of social processes, such as distinctions in gender roles, status and power. Brody also notes boys and girls are taught different methods by their parents with which to handle
their emotions. Mothers speak and display a wider range of feelings to their daughters in comparison their sons. Mothers use increased facial expressions which facilitate daughters to develop enhanced skills at recognising emotions (Morris, Silk, Steinberg, Myers, & Robinson, 2007).

Research examining gender in relation to EI have yielded mixed results. Petrides and Furnham, (2000) found males display higher EI scores compared to females. Salman and Nasreen, (2012) utilised Petrides’ trait EI measure and also found that males displayed higher EI scores compared to females. However, this conflicts with Mandell and Pherwani’s (2003) research that has found that women score higher in EI. Indeed, previous literature has found a significant relationship between gender and EI. However, on balance of the literature reviewed the nature of this association warrants further investigation. For this reason, gender is a large variable in the current study.

EI has significant and diverse implications, which may feature, for instance, in academic achievement, work performance and in social contexts (Brackett, Rivers, Shiffman, Lerner, Salovey, 2006). Preliminary findings suggest that lower EI is related to self-destructive behaviours such as cigarette smoking, alcohol consumption and deviant behaviours (Trinidad, & Johnson, 2002; Petrides, Frederickson, & Furnham, 2004). Whereas higher EI scores are related to positive engagements such as prosocial behaviour and positive peer and family relations (Carmeli, 2003). Examining social competence, evidence indicates that trait EI is negatively associated with antisocial behaviours - such as disruption and aggression - and positively related to prosocial behaviours - for instance, co-operation and leadership (Sosik & Megerinan, 1999).

1.3 Prosocial Behaviour

1.3.1 Prosocial behaviour understanding the concept.
Evolutionarily, humans have been shown to be the most prosocial of all species. Being a social species helps maintain an existence (Simpson & Willer, 2008). Baron and Branscombe (2012) defined prosocial behaviour by saying “actions by an individual that help others (often, with no immediate benefit to the helper) - are a very common part of social life” (p. 314). People engage in many prosocially classified behaviours such as voting, volunteering, helping strangers, giving to charitable organizations, donating blood and sometimes may even risk their own life to help strangers. McDougall (1908) posits that prosocial behaviour is the result of “tender emotions” manifested by the parental instinct. Much of the research in prosocial behaviour, specifically from the mid-1960s until the early 1980s, focused on when people would decide to help, rather than why, which was considered only in later research. Prosocial behaviour has been demonstrated to be influenced by both situational and personality dispositions. In making a choice as to engage in prosocial behaviour the answer to whether someone will act lies in the biological differences and contrasting experiences. More recently developments in this field have expanded the scope of this perspective to examine individual differences on prosocial behaviour. The current research aims to contribute to this emerging literature, by examining the individual differences in the constructs: Prosocial Personality and EI.

Penner and colleagues (1995) devised the Prosocial Personality Battery (PSP) to assess the personality variables involved in helpful behaviour. Factor analyses suggests that there are two dimensions to the prosocial personality. The first one looks at prosocial thoughts and feelings, recognised as other oriented empathy. In view of this dimension Zeidner, Matthews and Roberts, (2009) found effective empathic abilities are characteristic of those high in EI. The second factor is the helpfulness dimension which is the behavioural aspect of helping, research has found individuals higher in EI will engage in more helpful behaviours (Fabes, Eisenberg, Miller, 1990). This link between prosocial personality and EI
has been established both directly (Jenna et al., 2014) and indirectly from various studies (Charbonneau & Nicol, 2002; Davila & Finkelstein; 2013). The PSP was selected for this study as it was considered to be the most appropriate measure due to its previously established correlations with trait EI (Jenna et al., 2014). The PSP primarily has been used with samples consisting of undergraduate students which is limiting, the current study will address this by using an online survey to create a diverse sample base.

1.3.2 Prosocial personality and gender differences.

In the last three decades, research has examined gender differences in prosocial and helping behaviours. Several feminist scholars have argued that women follow “a different voice” in moral thinking (Gilligan, 1982), placing more importance on relationships and helping than on reasoning or governing rules. Social norms in society encourage women to take on helping roles within the family context (Tobio, 2001). Research suggests that women are more motivated to help than men, however men’s greater social and financial resources alter the impact they make in society, resulting a statistical difference when comparing men and women’s prosocial behaviours (Einolf, 2011). Einolf (2011), posits women are more prosocially motivated overall and that men have a small advantage in resources and capital when it comes to volunteering and charity. Men seem to require increased incentive to attract them to volunteer and give to charity, suggesting that men do not engage in such prosocial behaviours to the same extent as the opposite sex. It seems that men are not as intrinsically motivated as women to volunteer. However, Eagly (2009) examined gender differences in prosocial behaviour and found that both men and women engaged in similar levels of prosocial behaviour. Typical gender roles in society have an influence on the specific forms of prosocial behaviour. On balance of the literature reviewed the exact nature of this association demands further investigation.
1.3.3 Prosocial behaviour and affective forecasting.

Prosocial behaviour has been researched extensively in relation to a variety of constructs including EI and gender differences. Indeed, previous research has demonstrated a significant relationship between these variables. However, prosocial personality warrants further research specifically in the area of affective forecasting as currently only a limited number of studies have examined this relationship. Therefore, this is a major aim of the current study.

Research on affective forecasting has found that individuals demonstrate limited insight into their future emotional states (Wilson et al., 2003). Therefore, if emotions are important for actions and decisions (Zeelenberg, Nelissen, Breugelmans, & Pieters, 2008), it can be inferred then that individuals may not be able to accurately predict their behaviour. The hot–cold empathy gap (Van Boven, & Loewenstein, 2003) suggests individuals fail to acknowledge the extent to which affective experiences, such as embarrassment or cravings, influence their behaviours (Sayette, Loewenstein, Griffin, & Black, 2008; Van Boven, Loewenstein, & Dunning, 2005). Robinson (2012) examined prosocial behaviour in the context of affective forecasting while looking at the population of consumers. It was found that everyday helping behaviours frequently are overestimated; when thinking about the act of helping individuals overestimated their positive affective response but when they actually helped, a discrepancy was apparent in their forecast. This overestimation is attributed to the individual’s perception that their actions will produce a great benefit to others. When attention is moved from outcome oriented terms to more process oriented terms, errors in affective forecasting occur. Robinson (2012) used consumers as his sample of interest. This,
however, only represents individuals in a specific context. An increasingly diverse sample can broaden the applicability of these findings.

### 1.4 Linking the concepts

#### 1.4.1 Emotional intelligence and affective forecasting.

Several studies provide an indirect link between EI and affective forecasting skills. For instance, previous research has demonstrated that affective forecasting accuracy is influenced by individual differences in mindful awareness (Emanuel, Updegraff, Kalmbach, & Ciesl, 2010) and attention to emotional processes (Hoerger & Quirk, 2010).

Inaccuracies in affective forecasting often occur when people fail to acknowledge the influence of their own personality or coping strategies when considering emotional reactions (Hoerger et al., 2010; Tomlinson et al., 2010). It has been found that lapses in insight occur with less intensity and/or frequency among individuals who maintain a higher level of emotional intelligence (Hoerger et al., 2012; Dunn et al., 2007). Awareness of ‘acceptable’ emotional reactions (Gilbert et al., 2009) and the capacity to learn from emotional experience (Wilson, Meyers, & Gilbert, 2001) are crucial in order to improve affective forecasting skills. Only two published studies have been identified in the literature (Dunn et al., 2007; Hoerger et al., 2012) specifically examining the association between EI and affective forecasting. Dunn et al., (2007) directly linked EI to affective forecasting accuracy and reported high correlations between these two variables, however, they maintained their focus on ability based EI utilising the MSCEIT (Caruso, Mayer, & Salovey, 2002). However, Hoeger et al., (2012) used a variety of measures including the TEIQ-ue and found there was a relationship between affective forecasts and EI. Hoeger used a large sample of 430 undergraduate psychology students. Although a significant relationship was demonstrated between trait EI
and accurate affective forecasts the nature of this relationship warrants further investigation, due to the sample base being isolated to just undergraduate students.

1.4.2 Prosocial personality and emotional intelligence.

Previous studies have attempted to illustrate the association between EI and prosocial behaviour from the approach of using these constructs as abilities or capacities. The present study emphasises EI and prosocial behaviour in terms of traits, in contrast to other research emphasising abilities solely.

Studies like those conducted by Austin, Evans, Goldwater and Potter, (2005); Fabes et al., (1990) and Jenna et al., (2014) illustrate significant relationships between EI and prosocial behaviour. Austin et al., (2005) in a sample of medical students found that physician empathy was significantly related high EI, while Fabes et al., (1990) found that emotional responsiveness was significantly related to helpfulness in a sample of children. In relation to the sub factors of EI various research has indirectly linked these concepts with the sub factors of prosocial personality (Hojat, Mangione, Nasca, Gonnella, & Magee, 2005; Eisenberg, Shepard, Fabes, Murphy, & Guthrie, 1998; Thomas, Dyrbye, Huntington, Lawson, Novotny, Sloan, & Shanafelt, 2007; Hart, Fujiki, Brinton & Hart, 2004; Eisenberg, Shepard, Fabes, Murphy, & Guthrie, 1998; Aknin, Barrington-Leigh, Dunn, Helliwell, Burns, Biswas-Diener,... & Norton, 2013). However, Jenna et al., (2014) appears to be the only study to explicitly link trait EI and prosocial personality using the measures (TEIQue –SF and PSP) which will be employed in the current study. Jenna et al.,(2014) found the self-control sub factor within trait EI not to be significantly related to either of the prosocial personality factors. This finding conflicts with previous research (Tangney, Baumeister, & Boone, 2004;
Mead, Baumeister, Gino, Schweitzer, & Ariely, (2009) therefore, this relationship warrants further investigation.

1.5 Present Study

The present study aims to examine the relationship between Prosocial Personality, Emotional Intelligence and Affective Forecasting accuracy, while accounting for gender differences. The primary rationale for conducting this research has stemmed from the minimal number of studies relating these specific variables together, in particular, the relationship between prosocial personality and affective forecasting. This is a largely under-researched area and substantial benefits can be extracted from these results. Indeed, from a review of the literature, there is no known research which includes and utilises all the aforementioned variables. As mentioned, an issue with previous literature in relation to EI has been the emphasis on ability EI whereas less investigation has taken place in relation to trait EI. The areas under investigation will be assessed using an online survey questionnaire under a mixed quasi-experimental correlational design. Thus the aim for this study is to investigate the relationship of these variables to one another and to find if gender acts as a contributing factor and, if so, to what extent.

1.6 Formulation of the Hypotheses

The main research hypotheses for this study were guided by previous research in this area and are listed below:

Hypothesis 1
There will be a significant relationship between Affective Forecasts and Prosocial Behaviour.

**Hypothesis 2**

There will be a significant relationship between Affective Forecasts and Emotional Intelligence.

**Hypothesis 3**

There will be a significant difference in Affective Forecasting accuracy between males and females.

**Hypothesis 4**

There will be a significant relationship between Prosocial Behaviour and Emotional Intelligence.

**Hypothesis 5**

Females will display significantly more Prosocial Behaviours than males in relation to the Prosocial Personality Battery.

**Hypothesis 6**

Females will display significantly more Emotional Intelligence levels than males in relation to the Trait Emotional Intelligence Questionnaire (short form).
2. Methods

2.1 Participants

A total of 203 participants took part in this study, out of this sample 150 were used for analysis. Those that were excluded either did not meet the criteria of age, failed to complete the survey, did not follow the instructions and/or failed to provide consent. Participants were selected by means of non-random convenience sampling. Respondents gained access to an online link via e-mail or social media. The aim was to obtain a diverse, representative sample. There were 97 females (N=97, 64.7 %) and 53 males (N=53, 35.3%). Participants ages ranged from 18 to 80 (M=29.87, SD=14.92). Participation was on a voluntary basis understanding that no incentives would be offered. The study received approval from the Dublin Business School Psychology Research Ethics Committee and all ethical principles in the Code of Professional ethics were adhered to.

2.2 Design

This was a Mixed Quasi-Experimental Correlational Design. The Quasi-Experimental component is gender. Emotional Intelligence, Prosocial Personality and Affective Forecasting Accuracy make up the Correlational aspect of the study. In the Quasi-Experimental aspect, gender is the independent variable and Emotional Intelligence and Prosocial Personality are considered the dependent variables. Prosocial Personality and Emotional Intelligence are the
predictor variables in the correlational condition, while Affective Forecasting Accuracy is the criterion variable. It is a within-subjects design because measurement of an individual’s score was obtained in two instances: predicted emotional intensity and actual emotional intensity. It is also between-subjects design as it examines differences between individuals in EI, Prosocial Personality and gender.

2.3 Materials
The online survey tool qualtrics.com was used to construct the survey. A demographic section gathered information on age and gender. An information, debrief, and consent section were also included. Four images were taken from free stock photo galleries. See appendix A for pictures. These were piloted previously to avoid ceiling/floor effect (see appendix B for results of pilot study). The images were approximately 415 pixels by 396 pixels, all were negative in nature. The Trait Emotional Intelligence Questionnaire (TEIQue-SF; Petrides & Furnham, 2006), the Prosocial Personality Battery (PSP; Penner, et al., 1995), and a self-report measurement of Affective Forecasts were utilised.

Measures
2.3.1 Trait emotional intelligence questionnaire short form.

The Trait Emotional Intelligence Questionnaire, Short Form (Petrides et al., 2006) was utilised as it seemed the most appropriate instrument to measure emotional intelligence based on a review of the literature and the instruments available. This 30-item form includes two items from each of the 15 facets of the original TEIQue (e.g., “I usually find it difficult to regulate my emotions”). Items were selected for the short version based on their correlations with the corresponding total facet scores.
Participants were asked to rate on a 7-point Likert scale to what extent did they agree or disagree with the given statements, e.g. 1 = completely disagree and 7 = completely agree for items 1-30. Fifteen items were then reverse coded and subscales were calculated into four scale variables: well-being, self-control, emotionality and sociability. These factors were then totalled to provide a composite variable, Global Emotional Intelligence. See appendix B for questionnaire and full scoring instructions. Reliability for the TEIQue-SF is acceptable to good with a Cronbach’s alpha reported for the four factors: Emotional stability .59, Self-control .74, Sociability .71, Wellbeing .86 and Global trait EI .78 (Petrides, 2009).

2.3.2 The Prosocial Personality Battery.

The Prosocial Personality Battery (Penner et al., 1995) was employed to measure prosocial behaviour levels. The battery consists of 30 items, which are divided into 7 individual subscales; Social Responsibility, Empathic Concern, Perspective Taking, Personal Distress, Other-Oriented Moral Reasoning, Mutual Concerns moral reasoning and Self-reported altruism.

These subscales were further factor-analysed by Penner et al, (1995) leading to the subscales being condensed into two factors: ‘other-oriented empathy’ - the thoughts and feelings directed towards others (e.g., “I choose a course of action that maximizes the help other people receive”) - and ‘helpfulness’ - the behavioural aspect of prosocial behaviour (e.g., “I have offered to help a handicapped or elderly stranger across a street”). The measure includes items that relate to individuals’ altruistic behaviours - such as “I have helped carry a stranger’s belongings” - items concerning participants empathic concerns - for instance ”I am often quite touched by thing that I see happen” - and statements relating to social responsibility - “I would feel less bothered about leaving litter in a dirty park than in a clean one”. Participants were asked to rate on a 5-point Likert scale to what extent did they agree or disagree with the statements, e.g. 1= strongly disagree and 5= strongly agree for items 1-25.
For items 26-30 participants were asked about the frequency to which they engage in prosocial behaviours on a 5-point scale 1=Never and 5=Very Often was used. Ten items were then recoded and sections were calculated into two scale variables, helpfulness and other-oriented empathy, providing a single score for each. See appendix D for full questionnaire and scoring instructions. The alpha coefficients for the two factors helpfulness and orientated empathy have been reported as .85 and .77, respectively (Penner et al., 1995).

2.3.3 Accurate Affective Forecast Measure.

Affective forecasting has been examined in the context of numerous different emotional stimuli and events (elections, money, and food). Hoerger et al., (2012) note that there is no single task or stimulus that can be viewed as the “gold-standard”. The current study examined affective forecasting for emotionally-evocative images. Various basic emotion research utilises images (Robinson & Clore, 2002; Urry, 2010), including studies applicable to affective forecasting (Robinson & Clore, 2001). Dunn et al., (2007) posits that affective forecasting research has primarily focused on a single event or stimulus, which limits measurement reliability. Hoerger et al., (2012) assessed affective forecasting accuracy across multiple images. The current study uses this method of assessment as an example.

In the present study participants were asked to estimate how they think they would feel and then report their actual feelings in response to emotionally-evocative negative images. Consistent with previous research (Hoerger et al, 2012; Dunn et al., 2007), a 10-point Likert scale was used to measure the predicted and actual ratings.

The majority of studies in the area of affective forecasting use self-report scales. These scales repeatedly demonstrate reliability and validity. The predicted and actual ratings on the same scales allows for close comparison (Hoerger et al., 2012; Dunn et al., 2007). Guided by previous research, this type of measure was selected for this study as it was
considered to be the most appropriate measure due to the established association between affective forecasting and EI whereby images were utilised as stimuli (Hoerger et al., 2012).

2.4 Procedure

Ethical approval was gained from the college’s ethics committee prior to the collection of data. A pilot study was carried out to select the images for inclusion. Ten participants rated on a 10-point Likert scale the intensity of their emotional reaction for each of the ten images. From these ratings four images were selected on the basis that they were rated highly emotionally intensive and because there wasn’t a large variance within these ratings.

For the main study all procedures were administered online via qualtrics.com. Participants followed a link and were brought to the cover sheet (see appendix E) which outlined information relating to anonymity, confidentiality and consent. Participants were informed that they would be viewing negative images and they could stop answering the survey at any time and their data would be excluded from the study.

In order to prevent a priming effect participants were given instructions to make a prediction at the beginning of the study. The instructions were:

“Later in the study you will see a series of negative images. On the scale below please rate how you think you will react to these images emotionally. This rating is your prediction of the emotional intensity of your response (1 being low to no emotional intensity and 10 being very high emotional intensity)”.

Next, participants filled out two standardised questionnaires to measure Prosocial Personality and Emotional Intelligence levels. Four images were then presented in a random order and participants rated their actual reactions to the emotionally-evocative images using a 10-point rating scale, ranging from low-to-no emotional intensity to high emotional intensity.
The questionnaire took on average 15 to 20 minutes to complete. On completion, participants were directed to a page which consisted of a full debrief (See appendix F) and contact details. An option was also presented if participants wished for their data to be excluded from analysis. Details for support services were provided. The data was stored and analysed using SPSS version 22 on a password protected HP laptop. The hard copies of the responses will be securely retained for one year.

2.5 Data Analysis

To conduct the analysis an average for actual reactions to the four images was calculated. Prediction error scores were calculated as the deviation between predicted and actual reactions (Dunn et al., 2007; Hoerger et al., 2012). These error scores were then reverse coded to indicate prediction accuracy. Then the individual difference constructs of emotional intelligence and prosocial personality were used in analysis to examine any association with affective forecasting accuracy.
3. Results

A number of statistical analyses were carried out using SPSS version 22. The research findings are outlined in two sections, descriptive and inferential findings. Descriptive indicators of the research will summarise the data, while the inferential tests examine the relationship between the variables. All of these tests were two tailed.

3.1 Descriptive Statistics

Descriptive statistics were run on demographic variables. The sample consisted of 53 male (35.3%) and 97 female (64.7%) participants, where the age ranged from 18-80 (M=29.87, SD= 14.92). Table 1 contains the descriptive statistics of all the psychological measures.

Table 1 Descriptive Statistics of Psychological Measures

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<tr>
<th>Mean</th>
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<th>Max</th>
<th>Variance</th>
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<td>Well Being</td>
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<td>Helpfulness</td>
<td>25.29</td>
<td>5.06</td>
<td>11</td>
<td>40</td>
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</tbody>
</table>

Figure 1 illustrates the gender split between the psychological variables; Other Orientated Empathy, Helpfulness and Global Emotional Intelligence.
Participants made prediction errors that involved a mix of overestimating (N=92) and underestimating (N=52) emotional reactions, while few were accurate in their affective forecasting (N=6). The average discrepancy between predicted and actual ratings was $M = -0.52$ ($SD = 1.97$). The average for predicted ratings for the images was $M = 4.82$ ($SD = 2.01$) and actual ratings were $M = 5.34$ ($SD = 2.07$).

Assumptions for parametric tests were undertaken before running inferential analyses. Shapiro–Wilks revealed that the psychological measures, Global Emotional Intelligence,
Other Orientated Empathy and Helpfulness were normally distributed, however Affective Forecasting Accuracy was not normally distributed.

3.2 Inferential Statistics

3.2.1 Hypothesis 1:

There will be a significant relationship between Accurate Affective Forecasts and Prosocial Personality (Other Oriented Empathy and Helpfulness).

The Accurate Affective Forecasting variable failed to meet the assumption of having a normal distribution therefore non-paramedic tests were run.

A Spearman’s Rho was employed to examine a possible association between Helpfulness and Accurate Affective Forecasting. Contrary to the prediction, there was no significant relationship between Helpfulness and Accurate Affective Forecasting (rs (150)= -.14, p=.093). Therefore the null hypothesis cannot be rejected.

A Spearman’s Rho correlation found that there was no significant relationship between Other Oriented Empathy and Accurate Affective Forecasts (rs (150)= -.09, p=.272). Therefore the null hypothesis cannot be rejected.

3.2.2 Hypothesis 2:

There will be a significant relationship between Accurate Affective Forecasts and Emotional Intelligence.
A Spearman’s Rho correlation found that there was no significant relationship between Emotional Intelligence and Accurate Affective Forecasts (\(rs(150)=-.08, p=.341\)). Therefore the null hypothesis cannot be rejected.

3.2.3 Hypothesis 3:

There will be a significant difference in Affective Forecasting Accuracy between males and females.

A Mann-Whitney U test revealed that males (Mean Rank = 82.52) and females (Mean Rank = 71.66) did not differ significantly in Affective Forecasting Accuracy (\(z=-1.47, p=0.142\)). Therefore the null cannot be rejected.

3.2.4 Hypothesis 4:

There will be a significant relationship between Prosocial Personality (Other Oriented Empathy and Helpfulness) and Emotional Intelligence.

The Prosocial Personality and Global Emotional Intelligence variables succeeded in meeting the assumption normality therefore parametric tests were carried out.

A Pearson’s correlation coefficient found that there was a moderate positive significant relationship between Helpfulness (M=25.29, SD=5.06) and Global Emotional Intelligence (M=131.05, SD=13.63) (\(r(148)=0.40, p<0.001\)). Therefore the null hypothesis is rejected. This relationship can account for 16% of variation in scores. Figure 2 demonstrates that an increase in Helpfulness relates to higher Global Emotional Intelligence scores.
A Pearson’s correlation coefficient found that there was a moderate positive significant relationship between Other Oriented Empathy (M=78.89, SD=9.61) and Global Emotional Intelligence (M=131.05, SD=13.63) ($r(148)=0.32$, $p<0.001$). Therefore the null hypothesis is rejected. This relationship can account for 10.24% of variation in scores. Figure 3 demonstrates that an increase in Other Oriented Empathy relates to higher Global Emotional Intelligence scores.

Figure 2: *Pearson Correlation for Global Emotional Intelligence and Helpfulness*
Further analysis was carried out to examine the sub factors of Global Emotional Intelligence: Emotionality, Wellbeing, Self-control and Sociability. Emotionality succeeded in meeting the requirement for normal distribution, however the remaining factors were not normally distributed therefore non-parametric tests were carried out.

A Pearson’s correlation coefficient found that there was a moderate positive significant relationship between Emotionality (M=34.18, SD=5.72) and other oriented

Figure 3: Pearson Correlation for Global Emotional Intelligence and Other Oriented Empathy
empathy (M=78.89, SD=9.61) (r(148)=0.40, p<0.001). However, emotionality was not significantly related to helpfulness (M=25.29, SD=5.06) (r(148)=-0.00, p<0.992).

A Spearman’s Rho correlation found that there was a significant relationship between self-control (M=26.39, SD=5.47) and other oriented empathy (rs(150)=.29, p=0.003). Self-control was also significantly related to helpfulness (rs(150)=.37, p<0.001).

A Spearman’s Rho correlation found that there was a significant relationship between sociability (M=22.63, SD=3.30) and other oriented empathy (rs(150)=-.27, p=.001). However, sociability was not significantly related to helpfulness (rs(150)=.12, p=.144).

No relationship was observed in the Well-being facet in relation to helpfulness (rs(150)=.15, p=.067) or other oriented empathy (rs(150)=.14, p=.099).

3.2.5 Hypothesis 5:

Females will display significantly more prosocial behaviours than males in relation to the prosocial personality battery.

An independent samples t-test found that there was not a statistically significant difference in Helpfulness levels between males (M=26.13, SD=4.82) and females (M=24.82, SD=5.16) (t(148)=1.52, p=0.131, CI(95%)-0.39-3.01). Therefore the null cannot be rejected.

An independent samples t-test found that there was not a statistically significant difference in Other Oriented Empathy levels between males (M=76.81, SD=9.68) and females (M=80.02, SD=9.43) (t(148)=-1.97, p=0.050, CI(95%)-6.42-0.00). Therefore the null cannot be rejected.
3.2.6 Hypothesis 6:

Females will be significantly more emotionally intelligent than males in relation to the TEIQue–SF.

An independent samples t test found that there was not a statistically significant difference in Global Emotional Intelligence levels between males (M=128.53, SD= 13.10) and females (M= 132.43, SD=13.78) (t(148)= -1.69, p=0.094, CI(95%) -8.48-0.67). Therefore the null cannot be rejected.

3.3 Further Analysis

Post hoc tests were carried out where age as a variable was examined. A series of Pearson correlations were conducted to further analyse age in relation to the variables prosocial personality and emotional intelligence.

A weak, positive significant relationship was found between helpfulness and age(r(148) = .29, p<0.000). Therefore in this case the null is rejected.

A weak, positive significant relationship was found between other oriented empathy and Age(r(148) = .20, p=.012). Therefore the null is rejected.

A moderate, positive significant relationship was found between global emotional intelligence and age(r(148) = .33, p<0.000). Therefore in this case the null is rejected.

A Spearman’s Rho correlation found that there was no significant relationship between age and accurate affective forecasts (rs(150)= - .12, p= .117). However, a slight downward slope after age 40 was observed (See figure 4), suggesting that accuracy decreases as age increases.
Figure 4: Relationship between age and affective forecasting accuracy
4. Discussion

The main purpose underlying the current research was to ascertain whether the psychological variables Prosocial Personality and Emotional Intelligence were significantly related to Accurate Affective Forecasting while also accounting for gender differences. The main idea surrounding this research was that being effective in EI and prosocial behaviour will predict accurate affective forecasting. While emotional intelligence has been directly linked to making more accurate affective forecasts, these results were not found in the present study. Prosocial personality was not found to be significantly related to accurate affective forecasts. However, consistent with previous research Prosocial Personality and EI were found to be significantly related. No significance was observed in gender in relation to any of the variables, this finding contributes to the controversial findings in the literature. In previous years much research has been conducted on these concepts individually. The rationale for this research stems from the gap in the literature linking together all these variables. Results from this study are mixed in relation to previous literature, and will be discussed further.

4.1 Findings and Previous Research

Findings from the present study were mixed regarding the hypotheses. If people's inaccuracy to predict how a situation will influence their behaviour - for instance, whether they assume they will help a person in need but in fact do not - their predictions about how they will feel in these situations will be inaccurate. Although social psychology has documented numerous situations in which people underestimate the power of a social situation and consequently make incorrect behavioural predictions (Milgram, 1974; Darley & Latané, 1968), a Spearman’s Rho correlation revealed that Prosocial Personality and Affective Forecasting Accuracy were not significantly related in the current study, therefore the null cannot be rejected. This finding is inconsistent with findings from Robinson (2012),
Sayette et al. (2008) and Zeelenberg et al., (2008). However, these studies failed to directly ask individuals to make affective forecasts and the current study addressed this issue. Despite the lack of significance found in the present study, future research should aim to further examine this relationship in the context of affective forecasting specifically.

It was hypothesised that there would be a significant relationship between accurate affective forecasting and EI. Previous research found EI was associated with increased affective forecasting accuracy (Dunn et al., 2007; Hoerger et al., 2012). However, in the current study no significant relationship was observed between these variables. Therefore the null hypothesis is accepted. This may have been due to the low reliability of the trait EI measure (.16), the authors suggest that a Cronbach’s alpha coefficient of .69 is sufficient.

The lack of statistical significance may alternatively be attributed to the relatively small sample size. As mentioned previously, Hoerger et al., (2012) used a large sample of 430 undergraduate psychology students and observed high correlations between trait EI and accurate affective forecasting. The current study did not limit its sample to a specific population but perhaps a large sample would have enabled a comparison with the aforementioned study. As this study appears to be the second study to specifically examine trait EI and affective forecasting, a broader research base would have to be established before any concrete conclusions can be drawn from the specific role of EI in accurate affective forecasting. Future studies should consider both trait and ability based approaches when examining EI in relation to affective forecasting in order to identify if there are differences between these distinctions.

The third hypothesis predicted that there would be a relationship between affective forecasting accuracy and gender, however no significant relationship was observed, therefore the null hypothesis is accepted. This finding is consistent with previous research (Dunn et al.,
In the current study, males exhibited slightly greater inaccuracy (M=18.58) in comparison to females (M=16.94). This result is consistent with previous research, whereby Dunn et al., (2007) females displayed increased accuracy in comparison to males, however significance was not observed.

Many studies examining errors in affective forecasting rely solely on between-subjects designs (making a comparison between the predictions of one group of participants to the reported experiences of another group) rather than within-subjects designs (comparing the predictions and experiences of the same group of people). Arguably, these studies are comparing different things, which is a potential limitation of their results. Despite this data from between-subjects designs have reported significant results. Perhaps a methodological limitation of the present study is that the forecast made shortly before the experience may have "contaminated" the participants’ actual experience or distorted their reporting of that experience. Mellers et al., (2001) study suggests that this is not an issue; women made predictions just ten minutes before they received pregnancy test results. Consistently they overestimated the displeasure of unfavourable outcomes. The women who received bad news from their pregnancy tests actually felt better than they expected. Further research examining individual differences in affective forecasting should examine the efficacy of various research designs and further explore possible priming effects where individuals are asked to make predictions.

The findings for trait EI and Prosocial Personality were partially consistent with the literature. In lieu to the prediction in hypothesis four, a significant relationship was found between Global EI and both of the factors making up Prosocial Personality (other orientated empathy and helpfulness). In relation to other oriented empathy this significant relationship is consistent with previous research. Zeidner, et al., (2009) posit that empathic ability is characteristic of those high in emotional intelligence. The present study also observed a
relationship between global trait EI and helpfulness. Research suggests that individuals high in EI will generally engage in behaviours to benefit others. Fabes et al., (1990) found that emotional responsiveness correlates significantly with prosocial behaviour specifically with helpful acts.

Upon further analyses of the subscales, mixed results in relation to the literature were obtained. The results found that other oriented empathy was significantly associated with Emotionality, Self-control and Sociability. Even though positive association was observed with Wellbeing, the relationship was non-significant. Empathy has been found to correlate strongly with sociability (Hojat et al., 2005). The relationship between emotionality and other oriented empathy conflicts with Jenna et al., (2014) however, as they note previous research has established an association between these two variables (Eisenberg et al., 1998). Thomas et al., (2007) found in a sample of medical students that wellbeing positively correlates with empathy, the current study conflicts with these findings. Self-control was found to be significantly related to other oriented empathy, which conflicts with Jenna et al., (2014), however, Tangney et al., (2004) found those high in self-control demonstrate more effective interpersonal empathy.

Helpfulness was not significantly associated with sociability or emotionality. This conflicts with previous research. Hart et al., (2004) found that children with less extensive specific language impairment (SLI) demonstrate higher levels of efficacy in sociable behaviour in comparison to those with a more extensive impairment. Miller, Eisenberg, Fabes, and Shell, (1996) used a sample of children and found that those who had a helpful disposition demonstrated increased appropriate social behaviour and low negative emotionality. A positive significant relationship was observed between helpfulness and wellbeing. Research relating these two variables is limited, however evidence demonstrates that prosocial spending (spending to benefit others) increases levels of happiness levels
subjective wellbeing (Aknin et al., 2013). Self-control was found to be significantly related to helpfulness which is consistent with previous findings (Mead et al., 2009). However, this conflicts with Jenna et al., (2014) study which found no significant association between these two variables using these specific scales. In summary given the mix of findings further research needs to be carried out before certain conclusions can be made about the exact nature of associations between prosocial personality and trait EI.

The fifth hypothesis predicted that females display significantly greater levels of prosocial personality. An independent samples t-test revealed no significant difference, therefore the null can be accepted. However result showed that females (M=80.02) scored higher in other oriented empathy in comparison to males (M=76.81). Whereas, females (m=24.82) scored lower in the helpfulness facet in comparison to males (M=26.13). These results are partially consistent with older research positing that females engage in more prosocial behaviour than males (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992). However, Eagly (2009) notes that there are similarities between men and women engaging in prosocial behaviour and that the differences lie in the type of prosocial behaviours displayed, which is demonstrated in this case where males showed increased engagement in helpfulness and females in other oriented empathy. Given that previous research has been conflicting as regards this relationship further analysis on this relationship must be conducted before drawing any final conclusions.

The sixth and final hypothesis predicted that females would have higher scores on levels of EI. Women obtained higher scores (M= 132.43) in comparison to men (M=128.53), however significant results were not found in the current study, which is consistent with previous research (Dunn et al., 2007). As mentioned previously, Brody (1997) posits that gender stereotypes in relation to expression tend not to be accurate as they fail to acknowledge cultural, situational and individual variations. Wolf (2000) carried out an
analysis of emoticon use in online groups which found that the distance between female and male emotional expression gets smaller when either sex moves to a mixed sex group. This research is consistent with Brody’s earlier suggestion, whereby cultural, situational and individual variations influence emotional expression. Further research needs to be carried out in relation to this relatively new concept to establish a wider research base, only then can substantial conclusions can be drawn.

4.2 Post Hoc Findings

Interesting yet un-hypothesised findings include the significant relationships between Prosocial Personality, Emotional Intelligence and Affective Forecasting Accuracy in relation to age. A Pearson’s correlation revealed a moderately strong positive association between EI and age. Derksen, Kramer, & Katzko, (2002) used a sample of 873 subjects ranging in age from 19 to 84 years old. It was found that EI peaked in the 35-44 age interval, and subsequently decreased in older age (illustrating an inverted-U relationship). In our study, the relationship between EI and age did not appear to follow an inverted-U curve. However, there was a moderately strong positive linear relationship between these two variables.

Also age was positively associated with both of the two factors making up Prosocial Personality. This finding is consistent with previous research. Sze, Gyurak Goodkind and Levenson, (2012) used a sample size with a large age range and found that prosocial behaviours increased with age. Eisenberg and colleagues’ (1998) concluded from a metanalysis of 179 studies that older children engage in more prosocial behaviours and emotional empathy in comparison to younger children.

Although affective forecasting accuracy was not found to be significantly related to age, a negative correlation was observed, whereby participants beyond the age of 40 made less accurate affective forecasts. Wilson, Gilbert, and Salthouse (2001) (as cited by Wilson et
al., 2003) in a sample where age ranged from 20-91, a relationship was observed between age and the prediction of the duration of emotional impact to an emotionally-evocative event. Those above 60 said it would take them a little amount of time to recover from emotion-evocative events. Wilson et al., (2003) suggest the downward slope after age 60 is attributed to their knowledge of having less time to live or that life experience has taught them effective methods to handle their reaction to major life events. Although this was an un-hypothesised finding, further research in relation to all the aforementioned variables should be carried to further explore the individual differences across the lifespan.

4.3 Limitations

There are several limitations to the current study. Firstly, all of the measures used were self-report. Few significant associations were observed between the variables and the use of self-report measures may have contributed to this result. Although self-report measures are commonly used in all areas of psychological research, various academics have highlighted their concerns over their use. Specifically, using self-report measures in studies examining EI and prosocial personality may result in social desirability bias.

Secondly, most studies in the area of affective forecasting utilise self-report scales. These measures have demonstrated good psychometric properties (Wilson et al., 2003). Some researchers have gained highly significant results using more extensive measures such as the "Satisfaction with Life Scale"; (Diener, Emmons, Larsen, & Griffin, 1985); the "Affectometer" (Kammann & Flett, 1983), or the Positive and Negative Affect Schedules (PANAS; Watson, Clark, & Tellegen, 1988). Wilson et al., (2003) notes that these self-report scales demonstrate consistent reliability and validity, they also allow for close comparison between predicted and actual ratings on the same scales. Wilson et al., (2003) argue these self-report scales are not subject to bias. Research has found that often people report feeling
less positive than they predicted. If people were trying to present themselves in a positive light, bias fails to explain why they would admit to feeling negatively, more than they had predicted. Wilson et al., (2004) used a standard mood scale for prediction and actual experience and yielded significant results. On replication, perhaps using a mood scale such as in this study would be a more effective method of measurement.

Finally perhaps the online survey was too long for people to voluntarily participate. When reviewing the data a large drop-out rate was observed. Feedback from various participants confirmed this as an issue. This may have had a negative effect on participant’s attention filling in the survey which consequently may have had a negative influence on the validity of the results obtained.

4.4 Strengths

Despite these limitations, there are also various strengths to this research. Firstly, significant results were found between Emotional Intelligence and Prosocial Personality scores. The current study supports the findings of Jenna et al., (2014) which has been identified as the only study that has utilised both the trait EI questionnaire and the prosocial personality battery.

This was the first study of its kind to examine prosocial personality and EI in relation to affective forecasting, involving images as stimuli. The mixed research design allowed for close comparison between predicted and actual experiences, while also accounting for differences between males and females. Although significant results were not observed, this study has contributed to the limited number of studies of its kind in this area.

4.5 Implications and Future Research

There are many important implications for future research. Although the present study conflicts with previous research in relation to accurate affective forecasting, the ability to
make repeated accurate affective forecasts is important for salespeople, health professionals and those whose livelihood depends on successful interaction with other people. As already alluded to, further research is necessary to establish an effective method of measuring this concept.

The various sub factors of EI and prosocial personality, should be explored more extensively, as there’s mixed findings in relation to previous research (Jenna et al., 2014). EI has been studied largely at an individual level, further research could examine EI in relation to its influence in group dynamics.

As mentioned, post-hoc analysis revealed a relationship between EI and age. Gaining further insight into this relationship may pinpoint specific age intervals in which individuals peak in their emotional intelligence. This information would be valuable in an organisational setting where EI can aid managers when hiring, as well as in training programmes for employees.

4.6 Conclusion

Notwithstanding the aforementioned methodological flaws, the current study provided an in-depth examination of the relationships between emotional intelligence, prosocial personality and affective forecasting, while accounting for gender differences. Although no significance was observed between prosocial personality and EI in relation to accurate affective forecasting, the current study contributes conflicting results to the recent body of literature which states that individuals are not effective in their ability to predict changes in how they themselves will feel in response to a future event(s). A significant relationship between global trait EI and prosocial personality was found. Numerous studies have established empirical evidence for EI and prosocial behaviour in isolation, however research linking these variables together has been limited. It is hoped that the current study will
encourage further research examining the relationships between these variables. In conclusion, the results of this study, though mixed in expectations, have identified certain areas and points of interest upon which further research can be carried out.
References


Appendices

Appendix A: Images included in the pilot study; images 2, 5, 8, 9 were selected to be included for the main study.

Please rate each image based on the extent to which it affects you emotionally.

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1...........2........3...........4........5........6...........7
Not at all                                           Highly emotionally Evoking
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1) Poverty by Jan Truter, retrieved from https://www.flickr.com/photos/jantruter/8505340830/in/photolist-dXA6vq-4SmyNK-xpxru-7dUh01-xpxwq-77EwQo-dtGaaf-duAWBJ-6dwcYS-4ZbHzi-7fAhJT-5Dwai1-6hQFQx-6jbonj-6hgVRG-xpxsB-6i fyFS-6hwpFp-6iaJcw-xpxqF-6hufaQ-5VcQke-42eLu-51CBcs-a2PYG3-nu4MLX-5YNcBU-xpxsQ-bF4vGI-3S4a9-6jbo6y-bGvrrK-nLoiC1-dJ4qRY-21n5qF-6QJSdh-5Xs7I-DGUAIn- we65C-dGFZdq-64gotj-6j7dH4-Da3Gi-nNm6eB-6eVTHa-8c93RU-KbppyQ-8m3BLj-8ASfYm-u4qyt2, used under Creative Commons Attribution- Non Commercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/).
2) Kenya Child by Zoriah, retrieved from https://www.flickr.com/photos/zoriah/3423475454/ used under Creative Commons Attribution- Non Commercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/).

3) Revenge of School holiday by Akarkayu, retrieved from https://www.flickr.com/photos/akarkayu_d5000/4213808282/in/photolist-7qmSoW-fPM2mf-G8mQ9-xjb54-3j79ku-7vhMcF-87Pwsq-9EEqDr-aQzVtp-34QfJH-2PFxQQ-fn7Twt-2leLGQ-9fAH9T-6TU95Q-nb996C-31XUZX-kNvEna-epM3ST-epM2Ez-31Wmqz-yff1za-fPutkx-34Pte6-6jqhjv-5CJuxR-px1U6U-67jv7a-2KkcNH-5BwaSn-67jppr-8x04b1-9uKfoV-7ieniB-6geMwX-3o2oMy-6kEwTU-36m9b6-1TeLm-7iempt-4X2AnW-3j78EJ-3nWXj-7ihVbN-9QK9H-7ievjp-9Ccipp-kVTEXi-3nWZGB-6rHPuV used under Creative Commons Attribution Commercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/).
4) Rotting Peach Moldy by Steven Depolo, retrieved from
https://www.flickr.com/photos/stevendepolo/6112312369/in/photolist-aj8cw2-8UF94k-NKrPa-NJZ9o-dKiNKB-dKziXh-dKiPMT-dKiPva-dKzeRo-dKzkKA-8nWZkn-nuFUZy-dKiSR8-dKziNW-8iF5ns-nkRFae-3nKQCA-ajaYbU-dKtP6M-dKiXXz-9862Ae-dKtRja-7gBkuu-9qeVEq-9erah2-7sSXuZ-nMbuXr-tqXQe-7K7hYF-6JX4RV-dawHPE-poy2xJ-6knq5P-9RLat-ccQ1F5-8Ps4yx-d7mmB-69odQ8-tTFrE-ajaYo3-9YRUop-8Ps5Cx-c7Wj69-8mmLn6-9YRUEe2-e3wMHE-4Xfkz2-9pE9jT-kr9fo-9RJe2 used under Creative Commons Attribution Commercial 2.0 Generic (https://creativecommons.org/licenses/by-nd/2.0/)

5) Cemetery of Silves by Remon Rijper, retrieved from https://www.flickr.com/photos/remonrijper/4903897972/ used under Creative Commons Attribution- NonCommercial- NoDerivs 2.0 Generic (https://creativecommons.org/licenses/by-nc-nd/2.0/)
6) Town of pollution by Shlnobu Suglyama, retrieved from https://www.flickr.com/photos/sgym662114114/5395345796/ used under Creative Commons Attribution-NonCommercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/).

7) Pollution by Special, retrieved from https://www.flickr.com/photos/special/1033449/ used under Creative Commons Attribution-NonCommercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/)
8) Seal trapped in plastic pollution by Nels Israelson, retrieved from https://www.flickr.com/photos/tedxgp2/5143679378/ used under Creative Commons Attribution-NonCommercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/)

9) Depression by Victor, retrieved from https://www.flickr.com/photos/v1ctor/8325573561/ used under Creative Commons Attribution 2.0 Generic (https://creativecommons.org/licenses/by/2.0/)
A Dimple of Disappointment by Mirsasha, retrieved from https://www.flickr.com/photos/mirsasha/5692494936/ used under Creative Commons Attribution- Non Commercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/).

Ukraine Conflict by Steve Evans, retrieved from https://www.flickr.com/photos/babasteve/15752515639/ used under Creative Commons Attribution- Non Commercial 2.0 Generic (https://creativecommons.org/licenses/by-nc/2.0/)
Appendix B: Results for the pilot test, images 2, 5, 8, 9 were selected for inclusion in the main study as these images displayed the most emotionally evoking responses and were not subject to a large degree of variance.

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This is a 30-item Likert type questionnaire which uses a 7 point scale. It is designed to measure global trait emotional intelligence. It’s based on the long form of the TEIQue (Petrides, 2001). Two items from each of the 15 subscales of the TEIQue were chosen to be included; well-being, self-control, emotionality and sociability.

Questionnaire:

TEIQue-SF

Instructions: Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. Do not think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from ‘Completely Disagree’ (number 1) to ‘Completely Agree’ (number 7).

1. Expressing my emotions with words is not a problem for me.
2. I often find it difficult to see things from another person’s viewpoint.
3. On the whole, I’m a highly motivated person.
4. I usually find it difficult to regulate my emotions.
5. I generally don’t find life enjoyable.
6. I can deal effectively with people.
7. I tend to change my mind frequently.
8. Many times, I can’t figure out what emotion I’m feeling.
9. I feel that I have a number of good qualities.
10. I often find it difficult to stand up for my rights.
11. I’m usually able to influence the way other people feel.
12. On the whole, I have a gloomy perspective on most things.
13. Those close to me often complain that I don’t treat them right.
14. I often find it difficult to adjust my life according to the circumstances.
15. On the whole, I’m able to deal with stress.
16. I often find it difficult to show my affection to those close to me.
17. I’m normally able to “get into someone’s shoes” and experience their emotions.
18. I normally find it difficult to keep myself motivated. 
19. I’m usually able to find ways to control my emotions when I want to. 
20. On the whole, I’m pleased with my life. 
21. I would describe myself as a good negotiator. 
22. I tend to get involved in things I later wish I could get out of. 
23. I often pause and think about my feelings. 
24. I believe I’m full of personal strengths. 
25. I tend to “back down” even if I know I’m right. 
26. I don’t seem to have any power at all over other people’s feelings. 
27. I generally believe that things will work out fine in my life. 
28. I find it difficult to bond well even with those close to me. 
29. Generally, I’m able to adapt to new environments. 
30. Others admire me for being relaxed.

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Scoring instructions:

Reverse-score the following items and then sum up all responses to get the Global Emotional Intelligence score.

I often find it difficult to show my affection to those close to me. (R) 16
I often find it difficult to see things from another person's viewpoint. (R) 2
I normally find it difficult to keep myself motivated. (R) 18
I usually find it difficult to regulate my emotions. (R) 4
I generally don't find life enjoyable. (R) 5
I tend to change my mind frequently. (R) 7
I tend to get involved in things I later wish I could get out of. (R) 22
Many times, I can't figure out what emotion I'm feeling. (R) 8
I normally find it difficult to stand up for my rights. (R) 10
I tend to “back down” even if I know I'm right. (R) 25
I don't seem to have any power at all over other people's feelings. (R) 26
On the whole, I have a gloomy perspective on most things. (R) 12
Those close to me often complain that I don't treat them right. (R) 13
I find it difficult to bond well even with those close to me. (R) 28
I often find it difficult to adjust my life according to the circumstances. (R) 14

For Wellbeing total the following items: 5, 20, 9, 24, 12, 27
For Self-control total the following items: 4, 19, 7, 22, 15, 30
For Emotionality total the following items: 1, 16, 2, 17, 8, 23, 13, 28
For Sociability total the following items: 6, 21, 10, 25, 11, 26

Appendix D: Prosocial Personality Battery
This measure is made up of two factors: other-oriented empathy; the tendency to feel empathy and concern for others and helpfulness; tendency to perform helpful acts. This measure is designed to capture these tendencies. This scale consists of a total of 56 items where a Likert 5 point scale is used.

Questionnaire:
Rate on the following scale
1=Strongly Disagree
2=Disagree
3=Uncertain
4=Agree
5=Strongly Disagree Agree

Social Responsibility
1. When people are nasty to me, I feel very little responsibility to treat them well. (R)
2. I would feel less bothered about leaving litter in a dirty park than in a clean one. (R)
3. No matter what a person has done to us, there is no excuse for taking advantage of them.
4. With the pressure for grades and the widespread cheating in school nowadays, the individual who cheats occasionally is not really as much at fault. (R)
5. It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable. (R)
6. If I broke a machine through mishandling, I would feel less guilty if it was already damaged before I used it. (R)
7. When you have a job to do, it is impossible to look out for everybody's best interest. (R)
Rate on the following scale
1=Strongly Disagree
2=Disagree
3=Uncertain
4=Agree
5=Strongly Disagree

EMPATHY SCALE
8. I sometimes find it difficult to see things from the "other person's" point of view. PT (R)
9. When I see someone being taken advantage of, I feel kind of protective towards them. EC
10. I sometimes try to understand my friends better by imagining how things look from their perspective. PT
11. Other people's misfortunes do not usually disturb me a great deal. EC (R)
12. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. PT (R)
13. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. EC (R)
14. I am usually pretty effective in dealing with emergencies. PD (R)
15. I am often quite touched by things that I see happen. EC
16. I believe that there are two sides to every question and try to look at them both. PT
17. I tend to lose control during emergencies. PD
18. When I'm upset at someone, I usually try to "put myself in their shoes" for a while. PT
19. When I see someone who badly needs help in an emergency, I go to pieces. PD

PART 2: Below are a set of statements, which may or may not describe how you make decisions when you have to choose between two courses of action or alternatives when there is no clear right way or wrong way to act. Some examples of such situations are: being asked to lend something to a close friend who often forgets to return things; deciding whether you should keep something you have won for yourself or share it with a friend; and choosing between studying for an important exam and visiting a sick relative. Read each statement and blacken in the space on your answer sheet that corresponds to the choices presented below.

Rate on the following scale
1=Strongly Disagree
2=Disagree
3=Uncertain
4=Agree
5=Strongly Disagree Agree

MORAL REASONING

20. My decisions are usually based on my concern for other people. O
21. My decisions are usually based on what is the most fair and just way to act. M
22. I choose alternatives that are intended to meet everybody's needs. M
23. I choose a course of action that maximizes the help other people receive. O
24. I choose a course of action that considers the rights of all people involved. M
25. My decisions are usually based on concern for the welfare of others. O Below are several different actions in which people sometimes engage.

Read each of them and decide how frequently you have carried it out in the past. Blacken in the space on your answer sheet which best describes your past behavior.

Use the scale presented below.
1= Never
2=Once
3=More than Once
4=Often
5=Very Often

SELF-REPORTED ALTRUISM

26. I have helped carry a stranger's belongings (e.g., books, parcels, etc.).
27. I have allowed someone to go ahead of me in a line (e.g., supermarket, copying machine, etc.)
28. I have let a neighbor whom I didn't know too well borrow an item of some value (e.g., tools, a dish, etc.).
29. I have, before being asked, voluntarily looked after a neighbor's pets or children without being paid for it.
30. I have offered to help a handicapped or elderly stranger across a street

Scoring Instructions:

Reverse Items with an R Compute scores for 7 individual scales:
Social Responsibility (SR)
Empathic Concern (EC)
Perspective Taking (PT)
Personal Distress (PD)
Other-Oriented Moral Reasoning (O)
Mutual Concerns moral reasoning (M)
Self-reported altruism (SRA)

Factor 1, Other-oriented empathy, = sum of scores on SR, EC, PT, O, M. Factor 2, Helpfulness, = sum of PD (total reversed*) and SRA.

*After you have reversed the one PD item with an “R” after it, sum the PD items and subtract the total score on PD from 18. This makes the meaning of a high score on the Helpfulness factor clearer, because now high scores on the two scales both represent prosocial tendencies.

Appendix E: Information and consent sheet

You are being asked to volunteer to take part in a study on emotional awareness. My name is Maeve Burke, as part of my final year in Dublin Business School I am carrying out the following research. This project has been approved by the Psychology Research Ethics Committee.

Participants must be over 18. Once you move on to the next page consent is being given to take part in this study but you are still free to stop and withdraw at any time and your data will be destroyed.

This study is of minimal risk to participants. Participation in this study involves completion of some standardized tests, routinely used in various psychology studies and participants will be asked to rate their emotional response to some images. The study typically takes 7-10 minutes to complete.

Data collected will not contain any personal information apart from age and gender. No one will link the data you provide to the identifying information you supplied. The data collected may be used if presenting at conferences or if considered for future publication. In this event individual participants will continue to remain unidentifiable.

For Further Information
Please contact Maeve Burke the researcher. Information will happily be provided. Contact can be made at X@mydbs.ie or supervisor Jonathan Murphy at X@dbs.ie

If you want to find out about the final results of this study, you should not hesitate to contact the researcher at the e-mail provided above.
Appendix F: Debrief Form

Thank you for your participation in this study. This study was examining the individual differences in emotional intelligence and prosocial personality when predicting future affective states.

Previous studies have found a relationship between those with high emotional intelligence and accurate affective forecasts and also those high in pro-social domains making accurate affective forecasts. It would be advantageous if people had the ability to make decisions and choices, based on rational judgments, which were certain to lead to desirable outcomes. However, many everyday judgments can be systematically biased.

How was this tested? In this study, you were asked to make an affective forecast on your future affective state. Following this emotional intelligence and pro-social behavior levels were measured. Exposure to stimuli measured affective states. The true nature of the study was not disclosed fully at the beginning in order to prevent a priming effect.

Why is this important to study? The necessity to improve affective forecasting is seen in a variety of societal contexts and domains; healthcare, finance and education. Authorities, companies, and managers cannot assume that people are capable of making accurate predictions about their future affective states. Companies can utilize tools to assess individuals and place them in settings which are appropriate for their disposition.

What if I want to know more? If you are interested in learning more about this study or if you would like to receive a summary report of this research when it is complete please contact Maeve Burke at X@mydbs.ie

If you are feeling adverse consequences from this study please look for support at: Aware (01) 661 7211

Thank you again for your participation.