Trait Emotional Intelligence and Children’s Peer Relations at School

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Abstract

Trait emotional intelligence (‘trait EI’ or ‘trait emotional self-efficacy’) is a constellation of emotion-related self-perceptions and dispositions comprising the affective aspects of personality. The present study investigated the role of trait EI in children’s peer relations at school. One hundred and sixty pupils (83 girls; mean age = 10.8 years) were administered the trait emotional intelligence questionnaire and were subsequently asked to nominate all classmates who fitted each of seven distinct behavioural descriptions (‘co-operative’, ‘disruptive’, ‘shy’, ‘aggressive’, ‘dependent’, ‘leader’ and ‘intimidating’). The teachers were also asked to nominate all pupils who fitted the seven descriptions. Pupils with high trait EI scores received more nominations for ‘co-operation’ and ‘leadership’ and fewer nominations for ‘disruption’, ‘aggression’ and ‘dependence’. Factor analysis of teacher nominations revealed two orthogonal factors encompassing pro social and antisocial descriptions, respectively. High trait EI pupils scored higher on the pro social factor and lower on the antisocial factor. The discussion focuses on the construct validity of trait EI and its implications for children’s peer relations at school.

Keywords: trait emotional self-efficacy; children’s peer relations; peer assessment; TEIQue

A growing number of researchers in the field of emotional intelligence (EI) believe that the choice of measurement method (maximum performance as in IQ tests vs self-report as in personality tests) has a defining impact on the operationalization of the construct (e.g., Austin, 2004; Austin, Saklofske, Huang & McKenney, 2004; Petrides & Furnham, 2001; Van der Zee & Wabeke, 2004; Warwick & Nettelbeck, 2004). Petrides and Furnham (2000, 2001, 2003) proposed a relevant distinction between two EI constructs, viz., trait EI (or ‘trait emotional self-efficacy’) and ability EI (or ‘cognitive–emotional ability’). The former concerns a constellation of emotion-related self-perceived abilities and dispositions measured via self-report whereas the latter concerns a constellation of emotion-related cognitive abilities measured via maximum-performance tests. We have been arguing that the subjective nature of emotional experience (Robinson & Clore, 2002) undermines the quest for developing a comprehensive range of ability EI items.
that can be scored according to truly objective criteria. For example, it would be very difficult to argue cogently that there exist ‘correct’ feelings that normal people ought to experience and ‘incorrect’ ones that they should try to suppress.

In contrast to ability EI, the operationalization of trait EI is straightforward because it explicitly recognizes the inherent subjectivity of emotions. Petrides and Furnham (2001) derived the first sampling domain of trait EI by means of a content analysis of salient EI models. Table 1 presents the constituent elements of this sampling domain. Factor analytic research led to the empirical definition of trait EI as a constellation of emotion-related dispositions and self-perceived abilities representing a distinct composite construct at the lower levels of hierarchical personality structures (Petrides & Furnham, 2001). The incremental validity of the construct vis-à-vis both the Giant Three and the Big Five has been demonstrated in several independent studies (e.g., Petrides, Frederickson & Furnham, 2004; Saklofske, Austin & Minski, 2003; Van der Zee & Wabeke, 2004). Overall, trait EI appears to have significant predictive and explanatory utility in many different contexts.

The present study explores whether individual differences in trait EI are related to how schoolchildren are perceived by their classmates. Research has consistently demonstrated the significant impact of peer relations on important developmental outcomes, such as criminality and dropping out of school (Parker & Asher, 1987). As Parker, Rubin, Price, and DeRosier (1995, p. 96) noted: ‘children who are successful with peers are on track for adaptive and psychologically healthy outcomes, whereas those who fail to adapt to peer milieu are at risk for maladaptive outcomes’.

Coie, Lochman, Terry, and Hyman (1992) conducted a three-year prospective longitudinal study of African–American children as they graduated from primary school and entered into secondary school. The secondary school teachers of children who had

Table 1. The Adult Sampling Domain of Trait Emotional Intelligence

<table>
<thead>
<tr>
<th>Facets</th>
<th>High Scorers Perceive Themselves as . . .</th>
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<tbody>
<tr>
<td>Adaptability</td>
<td>flexible and willing to adapt to new conditions.</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>forthright, frank, and willing to stand up for their rights.</td>
</tr>
<tr>
<td>Emotion perception (self and others)</td>
<td>clear about their own and other people’s feelings.</td>
</tr>
<tr>
<td>Emotion expression</td>
<td>capable of communicating their feelings to others.</td>
</tr>
<tr>
<td>Emotion management (others)</td>
<td>capable of influencing other people’s feelings.</td>
</tr>
<tr>
<td>Emotion regulation</td>
<td>capable of controlling their emotions.</td>
</tr>
<tr>
<td>Impulsiveness (low)</td>
<td>reflective and less likely to give in to their urges.</td>
</tr>
<tr>
<td>Relationships</td>
<td>capable of maintaining fulfilling personal relationships.</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>successful and self-confident.</td>
</tr>
<tr>
<td>Self-motivation</td>
<td>driven and unlikely to give up in the face of adversity.</td>
</tr>
<tr>
<td>Social awareness</td>
<td>accomplished networkers with superior social skills.</td>
</tr>
<tr>
<td>Stress management</td>
<td>capable of withstanding pressure and regulating stress.</td>
</tr>
<tr>
<td>Trait empathy</td>
<td>capable of taking someone else’s perspective.</td>
</tr>
<tr>
<td>Trait happiness</td>
<td>cheerful and satisfied with their lives.</td>
</tr>
<tr>
<td>Trait optimism</td>
<td>confident and likely to ‘look on the bright side’ of life.</td>
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</tbody>
</table>
been peer-rejected at primary school reported that many of them were aggressive, physically uncontrolled and had short attention spans. Although aggression is a major determinant of peer rejection, it has been shown that peer rejection contributes incrementally over aggression, to adolescent disorder (Coie et al., 1992). It has also been shown that social status among peers is a consistent predictor of internalized disorders (‘anxiety disorder’, ‘dysthymia’, ‘obsessive-compulsive disorder’ and ‘agoraphobia’), especially in less aggressive adolescents (Coie et al., 1992).

In another prospective study, Ollendick, Weist, Borden, and Greene (1992) found that 25 per cent of children who had been rejected by their peers subsequently dropped out of school, compared to only 8 per cent of children who had not experienced rejection. Related research has shown that peer-rejected children experience problems that extend beyond the classroom into other important domains of everyday life. Such problems include substance abuse, psychological disturbances and delinquent acts leading to arrests (Kupersmidt & Coie, 1990; Ollendick et al., 1992). Thus, ‘rejected-aggressive’ children are more likely to come into contact with law enforcement agencies and to spend time in a psychiatric ward (Ladd & Burgess, 1999; Rubin, Bukowski & Parker, 1998) whereas ‘rejected–non-aggressive’ children tend to have negative self-perceptions and to view themselves as less competent and less worthy than popular children (Verschueren & Marcoen, 2002).

The present research examines the extent to which individual differences in trait emotional self-efficacy influence children’s relationships with their peers. It has already been demonstrated that trait EI affects the behaviour of adolescent pupils at school. For example, Petrides et al. (2004) showed that high trait EI is negatively related both to unauthorized absences and to exclusions from school whereas Reiff, Hatzes, Bramel, and Gibbon (2001) found that students with learning disabilities had lower trait EI scores than their non-disabled peers. This study looks at the relationship between trait EI and seven distinct pro social and antisocial behavioural descriptions (‘co-operation’, ‘disruption’, ‘shyness’, ‘aggression’, ‘dependence’, ‘leadership’ and ‘intimidation’).

The main hypotheses were as follows:

1. Children with high trait EI scores would receive more nominations for being co-operative;
2. Children with high trait EI scores would receive fewer nominations for being disruptive; and
3. Children with high trait EI scores would receive fewer nominations for being aggressive.

More generally, it was expected that high trait EI would facilitate pro social behaviour and inhibit antisocial behaviour. These hypotheses are based on our view that the emotion-related self-perceptions that trait EI encompasses affect behaviour, which should lead to positive associations between global trait EI scores and behavioural ratings by observers. This is also the reason why we would expect positive correlations between self and other ratings of trait EI. Of course, these global associations may well mask differential relationships across the various trait EI factors and facets. However, it is not especially meaningful to explore lower level associations in the absence of data at the global level (see Petrides & Furnham, 2001). The present study focuses explicitly on global trait EI scores and seeks, among other objectives, to provide an empirical basis for a more detailed exploration of the role of trait EI in late childhood and adolescence.
Method

Participants

One hundred and sixty (83 girls and 77 boys) year six pupils from state primary schools participated in the study. The mean age for the sample was 10.8 years (SD = 0.43 years). The sample was ethnically diverse, with 55 per cent of participants being White, 20.7 per cent Black, 18 per cent Asian and 6.3 per cent of mixed race. English was the home language for 73.8 per cent of participants.

Measures

Trait Emotional Intelligence Questionnaire—Adolescent Short Form (TEIQue-ASF). We used a simplified version, in terms of wording and syntactic complexity, of the adult short form of the TEIQue. The ASF version comprises 30 short statements, two for each of the 15 facets in Table 1, designed to measure global trait EI. Example items include ‘I can control my anger when I want to’, ‘I feel good about myself’ and ‘I’m good at getting along with my classmates’. The internal consistency reliability of the scale on this sample was .84.

‘Guess Who’ Peer Assessment Technique. An adaptation of Coie and Dodge’s (1988) peer assessment paradigm based on unlimited nominations and proportion scores was used (Frederickson & Graham, 1999). The children were asked to nominate all classmates who fitted the behavioural descriptions in Table 2. The teachers were also asked to provide nominations for each student in their class. The children’s responses were processed to show the proportion of classmates nominating each pupil as fitting each description. With respect to the temporal stability of proportion scores in the Guess Who paradigm, Frederickson and Graham (1999) reported coefficients ranging from 0.58 to 0.86 for children aged between nine and 12 years. Validity studies have shown

<table>
<thead>
<tr>
<th>Description</th>
<th>Guess Who in Your Classroom Might Be . . .</th>
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<tbody>
<tr>
<td>1. Co-operative</td>
<td>‘good to have as part of your group because they are nice and co-operate, they join in, share and give everyone a turn’.</td>
</tr>
<tr>
<td>2. Disruptive</td>
<td>‘have a way of upsetting everything when they get in a group. They don’t share and try to get everyone to do things their way’.</td>
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<tr>
<td>3. Shy</td>
<td>‘very shy with other children. They always seem to play or work by themselves and it’s hard to get to know them’.</td>
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<tr>
<td>4. Aggressive</td>
<td>‘start fights. They say mean things to other children or push them or hit them’.</td>
</tr>
<tr>
<td>5. Dependent</td>
<td>‘always looking for help. They ask for help even before they’ve tried very hard’.</td>
</tr>
<tr>
<td>6. A leader</td>
<td>‘get chosen by the others as the leader. Other classmates like to have them in charge’.</td>
</tr>
<tr>
<td>7. Intimidating</td>
<td>‘are very funny, but sometimes in a scary kind of way’.</td>
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</table>
that this paradigm differentiates between popular, average and rejected groups of children (Frederickson & Furnham, 1998).

Procedure

A letter explaining the aims and logistics of the research was sent to the head-teachers of a number of different schools in Greater London. The children were given oral and written instructions describing the procedure and were asked to work on their own. Testing took place exclusively in class. No time constraints were imposed and the children were assured that they could withdraw from the study at any point, if they so wished. Following the recommendation of Parkhurst and Asher (1992), unlimited nominations were allowed to avoid linking the probability of nominating a pupil to the number of nominations already made. The classroom teachers were asked to complete the assessment form on their own time for each student in their class.

Results

The hypotheses that high trait EI would be positively associated with the pro social behavioural descriptions and negatively associated with the antisocial behavioural descriptions were tested via Pearson product-moment correlations. A MANOVA, followed by seven ANOVAs, was conducted to investigate the effects of trait EI in the presence of gender as well as possible interactions between the two factors. The latter analysis was not linked to any specific hypothesis, although we generally expected high trait EI pupils to receive more nominations on pro social behaviour and fewer nominations on antisocial behaviour compared to their low trait EI peers. With respect to teacher nominations, we initially carried out a chi-square test for each behavioural description and subsequently factor-analysed the data, correlating the resultant factor scores with trait EI. In this case too, we generally expected positive associations with pro social factor scores and negative associations with antisocial factor scores.

Peer nominations were expressed in terms of proportions (number of nominations divided by the total number of pupils in the class). Table 3 shows the Pearson correlations between trait EI scores and nomination proportions for each of the seven behavioural descriptions. As can be seen, high trait EI pupils received more nominations for co-operation and leadership and fewer nominations for aggression and dependence than their low trait EI counterparts. These results support hypotheses 1 and 3. After the removal of four outliers (standardized residuals $> 3.5$ SD), the correlation between trait EI and disruption also reached significance, thus supporting hypothesis 2. There were no gender differences in trait EI scores, $t_{(158)} = .40, p = .69$.

Next, a MANOVA was performed, with the seven behavioural descriptions as the dependent variables and gender and trait EI (high vs low; mean split) as the independent variables. Both gender, $F_{(7,150)} = 6.44, p < .01$, and trait EI, $F_{(7,150)} = 2.67, p < .05$, had statistically significant multivariate main effects. Their interaction did not reach significance levels, $F_{(7,150)} = 1.52, p = .16$. The follow-up ANOVAs (see Table 4 for means and standard deviations) indicated that, compared to their low trait EI peers, high trait EI pupils received more nominations for co-operation, $F_{(1,156)} = 6.77, p = .01$; $M_{high} = .40, M_{low} = .32$, and fewer nominations for aggression, $F_{(1,156)} = 4.27, p = .05$; $M_{high} = .17, M_{low} = .10$, and dependence, $F_{(1,156)} = 12.29, p < .01$; $M_{high} = .15, M_{low} = .09$. Girls received more nominations for being co-operative, $F_{(1,156)} = 6.38, p < .05$; $M_{boys} = .32, M_{girls} = .40$, and fewer nominations for being disruptive,
Table 3. Intercorrelation Matrix of Trait EI Scores and Nomination Proportions for the Seven Behavioural Descriptions

<table>
<thead>
<tr>
<th></th>
<th>Trait EI</th>
<th>Co-operation</th>
<th>Disruption</th>
<th>Shyness</th>
<th>Aggression</th>
<th>Dependence</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait EI</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-operation</td>
<td>.29***</td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disruption</td>
<td>−.20** a</td>
<td>−.61***</td>
<td>−.26***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shyness</td>
<td>−.09</td>
<td>.08</td>
<td>−.26***</td>
<td>.81***</td>
<td>−.19**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>−.15*</td>
<td>−.54***</td>
<td>−.49***</td>
<td>.37***</td>
<td>.10</td>
<td>.37***</td>
<td>−.25***</td>
</tr>
<tr>
<td>Dependence</td>
<td>−.35***</td>
<td>−.49***</td>
<td>−.01</td>
<td>−.23***</td>
<td>.00</td>
<td>−.25***</td>
<td>.00</td>
</tr>
<tr>
<td>Leadership</td>
<td>.15*</td>
<td>.37***</td>
<td>−.25***</td>
<td>.49***</td>
<td>.00</td>
<td>.35***</td>
<td></td>
</tr>
<tr>
<td>Intimidation</td>
<td>−.03</td>
<td>−.06</td>
<td>.37***</td>
<td>−.25***</td>
<td>.49***</td>
<td>.00</td>
<td>.35***</td>
</tr>
</tbody>
</table>

* Four outliers (standardized residuals > 3.5 SD) were removed from this analysis.

Trait EI = trait emotional intelligence.

* p < .10, ** p < .05, *** p < .01
Due to the dichotomous nature of the data, teacher nominations were initially analysed through a series of chi-square tests. Teachers rated high trait EI pupils as more co-operative, $\chi^2(1) = 3.09$, $p < .05$ (one-tailed) and less aggressive, $\chi^2(1) = 6.92$, $p < .01$, than low trait EI pupils. Subsequently, a principal axis factor analysis was performed in order to group the nominations into a smaller number of variables to analyse parametrically. Two factors were extracted and rotated via the OBLIMIN algorithm. The first factor mainly comprised antisocial behavioural descriptions (‘aggression’, ‘intimidation’, ‘disruption’, and ‘co-operation’ [negative loading]), while the second factor mainly comprised pro social behavioural descriptions (‘leadership’, ‘shyness’ [negative loading] and ‘co-operation’). Trait EI scores correlated positively with the pro social factor, $r(160) = .17$, $p < .05$ and negatively with the antisocial factor, $r(160) = -.13$, $p < .05$ (one-tailed). The results on teacher nominations are generally in line with our expectations, although the correlations were clearly low.

Discussion

The study suggests that the emotion-related self-perceptions and dispositions that trait EI encompasses influence children’s peer relations at school. Compared to their low trait EI counterparts, pupils with high trait EI scores were more likely to be seen as having leadership qualities and being co-operative and less likely to be seen as disruptive, aggressive and dependent. Furthermore, high trait EI pupils had higher scores than low trait EI pupils on the pro social factor of teacher nominations and lower scores on the antisocial factor.
Specifically with respect to teacher nominations, the correlations obtained, while statistically significant in the predicted direction, were low. It is unclear whether the low values are the result of weak associations between the constructs themselves, namely, social behaviour and trait EI or of limitations in their respective operationalizations, namely, dichotomous nominations and the TEIQue-ASF. Further research is necessary to clarify this issue. Such research will require substantial psychometric improvements in the operationalization of pupil behaviour, which should preferably be based on ratings from multiple teachers.

Girls received more nominations than boys on co-operation and fewer nominations on disruption, aggression, dependence and intimidation. It should be noted that peer difficulties have been linked to subsequent antisocial behaviour (Warr, 1993), which is more prevalent in boys than in girls (Steffensmeier & Allan, 1996). Although gender differences in antisocial behaviour can often be accounted for by gender differences in personality traits that are associated with disorderly conduct (Moffitt, Caspi, Rutter & Silva, 2001), our results suggest that trait emotional self-efficacy has a direct incremental impact on peer relations, over and above the impact of gender.

Children who perceive themselves as emotionally adept are more desirable as friends than children who perceive themselves as emotionally cold and withdrawn. This early social advantage can facilitate the development of social support networks that promote achievement behaviour and, consequently, it may have adaptive value. For example, low IQ pupils with high trait EI scores may perform considerably better at school than their low trait EI peers because of their high stress tolerance and the support they enjoy from their classmates (Petrides et al., 2004).

The results of this study implicate trait EI in friendship and social network formation from early on in life. Peer difficulties in childhood, including peer rejection, aggression and withdrawal, have detrimental consequences for later personal adjustment (Parker & Asher, 1987; Pellegrini & Blatchford, 2000). The vital importance of friends as an information source and an emotional resource (Blatchford, 1996; Newcomb & Bagwell, 1995) necessitates a careful examination of the factors that could facilitate or impede socially adaptive behaviour in school and outside. Low trait emotional self-efficacy may be a key risk factor, alienating children from their peers and leading to antisocial conduct and delinquency later on in life.

An interesting question is whether the emotion-related self-perceptions that trait EI encompasses are reflected in observable behaviour. Essentially, the question in the present context was whether children who perceive themselves as emotionally adjusted, with good social skills and self-control, are rated by their peers as more co-operative and less disruptive. The data showed this to be the case, which suggests that trait EI self-perceptions are, at least to some extent, accurate (for a detailed discussion of the issue of accuracy, see Petrides and Furnham (2003). Nevertheless, it is important to remember that self-perceptions have a strong influence on cognition, behaviour and mental health, irrespective of whether they are accurate (e.g., Beyer & Bowden, 1997; Taylor & Brown, 1988). Thus, the answer to the question of accuracy is important primarily from a theoretical, not a practical, perspective.

There is a pressing need for the development of measures that are specifically designed to measure personality, including trait EI, in children and adolescents. At present, the few measures that exist are adaptations of the respective long forms of the various inventories. This was also the case with the measure used in this study. However, it is quite possible, indeed; likely, that the elements (facets) that a particular construct encompasses are subject to some degree of change over the life span. In other
words, whether the sampling domain of a construct is developmentally invariant must be demonstrated empirically, rather than simply assumed. An important task for future research, then, is to provide a robust operational definition of trait EI for children and young adolescents.

Trait EI is a multidimensional construct comprising several broad sub-domains, including well-being, self-control, emotionality and sociability. The use of global trait EI scores can mask considerable differences in the explanatory utility of the sub-domains of the construct. It is often the case that the various trait EI facets are differentially relevant in different contexts, which leads to an underestimation of the true strength of effects and also complicates the design and implementation of intervention programmes, as it is unclear which specific facets are related to a particular behaviour. Because certain sub-domains may be more strongly associated with a criterion than the global construct itself, it is always useful to follow-up exploratory studies of global constructs with in-depth investigations of their constituent sub-domains. The present study is a first step towards a better understanding of the processes linking trait emotional self-efficacy to pro social and antisocial behaviour.

These results do not provide insights into whether trait EI is the cause or consequence of pro social and antisocial behaviour. Neither can they be directly generalized to other ages. An obvious starting point to extend this research would be to replicate the findings in different age groups and subsequently integrate them through longitudinal studies. It would also be of interest to incorporate in the analyses individual differences at the raters’ end (e.g., does gender or trait EI influence how pupils rate their classmates on the various behavioural descriptions?) as well as the multi-level structure of the data (students nested within classes within schools). We believe that the present findings are promising and justify the research extensions to address such questions.

Given the central role of emotions in everyday life, it is not surprising to find that trait emotional self-efficacy influences how children are perceived by their classmates. It is worth noting that, because trait EI comprises self-perceptions, it may be more amenable to change than basic personality dimensions with strong genetic components’ (e.g., extraversion) (Loehlin, 1992). For example, there is evidence that negative life events predict changes in self-perceived competence, which, in turn, predicts changes in depressive symptoms (Tram & Cole, 2000). The present results reinforce earlier empirical findings showing that trait EI is implicated in academic performance and behaviour at school, with effects that are especially relevant to vulnerable pupils (Petrides et al., 2004; Reiff et al., 2001). All this research suggests that measures of trait EI would be a valuable addition to psychological assessment batteries aiming to identify children and adolescents at risk of antisocial behaviour.

References


Notes

1. The distinction between trait EI and ability EI is based on the method used to measure the construct and not on the elements (facets) that the various models are hypothesized to encompass. It is, therefore, unrelated to the distinction between ‘mixed’ and ‘ability’ models of EI (Mayer, Salovey & Caruso, 2000), which is based on whether a theoretical model ‘mixes’ cognitive abilities and personality traits. Mayer et al.’s (2000) distinction is at odds both with psychometric theory, because it ignores the importance of measurement, and with the data, which clearly show that measures of trait EI intercorrelate strongly, irrespective of whether they are based on ‘mixed’ or ‘ability’ models.

2. All TEIQue forms and translations are available from the first author, free of charge, for research purposes.

3. The mean and median trait EI scores were effectively equal (mean = 141.47, SD = 1.99; median = 141.07).

4. For cross-validation purposes, we briefly looked at the intercorrelations between teacher and pupil nominations. These were as follows: co-operation ($r = .48$), disruption ($r = .39$), shyness ($r = .55$), aggression ($r = .57$), dependence ($r = .40$), leadership ($r = .54$), and intimidation ($r = .40$). All correlations were significant at $p < .01$. 

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