Volume 2, Number 2, November 2010 pp 30-47 www.enseceurope.org/journal

The role of Trait Emotional Intelligence and social and emotional skills in students' emotional and behavioural strengths and difficulties: A study of Greek adolescents' perceptions

Maria S. Poulou¹
University of Patras, Greece

The emergence of the Trait Emotional Intelligence construct shifted the interest in personality research to the investigation of the effect of global personality characteristics on behaviour. A second body of research in applied settings, the Social and Emotional Learning movement, emphasized the cultivation of emotional and social skills for positive relationships in a school environment. In this paper we investigate the role of both personality traits and social and emotional skills, in the occurrence of emotional and behavioural strengths and difficulties, according to adolescent students' self-perceptions. Five hundred and fifty-nine students from state secondary schools in Greece, aged 12-14 years old, completed The Trait Emotional Intelligence Questionnaire-Adolescent Short Form, The Matson Evaluation of Social Skills with Youngsters, and The Strengths and Difficulties Questionnaire. It was found that students with higher Trait Emotional Intelligence and stronger social and emotional skills were less likely to present emotional, conduct, hyperactivity and peer difficulties and more likely to present prosocial behaviour. Gender was a significant factor for emotional difficulties and grade for peer difficulties. The paper describes the underlying mechanisms of students' emotional and behavioural strengths and difficulties, and provides practical implications for educators to improve the quality of students' lives in schools.

Keywords: Trait emotional intelligence, Social and emotional competence, Social, emotional and behavioural difficulties, Adolescents

Introduction

The concept of Emotional Intelligence (EI) has generated a great deal of interest, but also much controversy in the academic literature. Its roots stem from Thorndike's (1920) concept of "social intelligence" and its ramification in Gardner's (1983) distinction between interpersonal and intrapersonal intelligence. Emotional Intelligence still represents a vague concept, lacking a theoretical framework, valid assessment procedures, and long term implementation outcomes (Matthews, Zeidner and Roberts 2002; Matthews and

¹ Address for correspondence: <u>mariapoulou@yahoo.com</u>

Zeidner 2003). In fact, there are two dominant approaches found in the literature that conceptualize Emotional Intelligence dimensions: the first one, *ability Emotional Intelligence*, refers to cognitive abilities or skills and is measured by performance measurements, while the second one, *trait Emotional Intelligence*, refers to behavioural dispositions and self-perceptions concerning one's ability to recognize, process and utilize emotion-laden information, and is measured with self-report measurements (Goleman 1995, 1998; Bar-On 1997, 2000; Mayer, Caruso and Salovey 2000; Mayer, Salovey and Caruso 2000; Petrides and Furnham 2001). In this paper, we adopt the construct of Trait Emotional Intelligence, which provides a comprehensive coverage of emotion-related personality facets, and we focus on traits, namely "the individual differences in the tendency to behave, think and feel in certain consistent ways" (Caspi 1998, p. 312).

Many professionals have equated Emotional Intelligence with the Social and Emotional Learning (SEL) movement in applied settings, which involves delineating the social and emotional skills which are deemed essential for positive relationships and functioning and developing programmes to increase and bolster such skills (Elias 1997; Saarni 1997, 1999; Zins et al. 2001). In fact, one of the most significant applications of SEL in schools refers to the enhancement of students' healthy skills to counterbalance the negative ones (Roeser, 2001), and the prevention of emotional and behavioural difficulties. In this paper we investigated the contributing role of both Trait Emotional Intelligence, referring to relatively stable personality facets, and the more situation-specific social and emotional skills, in the interpretation of students' emotional and behavioural strengths and difficulties.

Trait Emotional Intelligence and emotional and behavioural strengths and difficulties

A fundamental assumption guiding the study of personality development is that early emerging personality differences shape the course of development. Eisenberg et al. (2000) suggested that dispositional characteristics may have causal effects on adjustment, while Caspi (2000) supported the premise that early temperamental differences have an enduring influence on life-course development, with adolescence as the peak risk period for the development of mental health problems. Caspi's empirical demonstration of the links between personality qualities and children's behaviour problems at home, at school and their interpersonal relationships, was found to underscore the importance of early intervention efforts.

The emergence of Trait Emotional Intelligence construct and the constellation of global personality characteristics, shifted the interest in personality research from the study of the relationships between specific personality characteristics and dimensions of externalizing or internalizing behaviour (Cohen and Strayer 1996; Eisenberg 2000; Hastings et al. 2000; Pakaslahti et al. 2002; Knyazev and Wilson 2004; Ciarrochi and Scott 2006; Zhou et al. 2009), to the exploration of the effect that broader personality constructs have on behaviour. Reiff et al. (2001) studied a set of personality dimensions (interpersonal and intrapersonal skills, stress management, adaptability and general mood) in relation to students' learning difficulties (LD), and concluded that there were significant differences between college students with LD and students without LD,

on stress management and adaptability. Idiosyncratic dimensions such as personality traits, have a strong influence on students' both academic performance and antisocial behaviour in school (Petrides et al. 2005), their adaptive coping strategies, depressive thoughts and somatic complaints (Mavroveli et al. 2007) and relationships with peers (Petrides et al. 2006). The role of personality traits was also highlighted in Miller et al.'s (2008) study which revealed a link between ADHD and the degree to which symptoms persist into adolescence and personality structure, suggesting that in many individuals, personality traits may be more highly related to psychosocial functioning than the presence of an underlying psychiatric condition.

The importance of investigating children's personality characteristics in an effort to improve their well-being and adaptability is well stated in literature. This question becomes even crucial with regards to the period of adolescence, which signifies the transition to adulthood and is the peak risk period for the development of behaviour difficulties. According to Petrides (2007a) the emphasis on global personality scores instead of individual personality characteristics, appears to be beneficial for two reasons: first because it retains the research focus on the nomological background of the construct instead of the factor structure of the construct, and secondly as the use of global scores helps sustain a common research database, because they are less sensitive to sampling variability than factor scores. The role of Trait Emotional Intelligence on students' academic performance has already been well-studied (Eysenck 1997; Dennis 2004; Petrides et al. 2004; Slobodskaya et al. 2005), while its significance to students' emotional and behavioural difficulties still remains to be answered. At the same time, research emphasis on students' impairment underscores the effect of Trait Emotional Intelligence on children's and young people's prosocial skills and positive behaviour. Based on these assumptions, the current study attempts to investigate the relationship between students' global personality traits and both emotional and behavioural difficulties and prosocial strengths in the years of early adolescence. This proposed relationship represents a new way of thinking about personality processes and provides an important new perspective on how we might predict students' behaviour.

Situation-specific social and emotional skills and emotional and behavioural strengths and difficulties

The possession of social skills is an important determinant of children's and adolescent's healthy psychological development and adequate psychological adjustment across the lifespan (Elias 1997). In the literature there is one body of research exploring the links between particular social and emotional skills and children's psychological adjustment (Pakaslahti et al. 2002; Petrides et al. 2004). A second body of research explores the link between a set of social and emotional skills and children's psychological adjustment. Riggio et al. (1993) argued that there are obvious links between social skills and difficulties in psychological adjustment, manifesting themselves as feelings of loneliness, shyness or social anxiety. Their study explored the relationships between a standardized self-report measure of social skills and self-report measures of psychosocial adjustment in a group of college students, and yielded partial support for the hypotheses that possession of social skills/competences is directly linked to psychosocial adjustment in college students. For

children and young people with emotional and behavioural difficulties in particular, Ogden (2001) advocated that socially competent students are less engaged in problem behaviour, are better at making friends, have more effective ways of dealing with authority and are more able in conflict resolution and problem solving than their more disruptive peers. The current study attempts to further explore this link between social and emotional competence and emotional and behavioural strengths and difficulties, by employing a situation specific, self-report instrument devised to measure a set of social and emotional skills with young people, and determine the potential predictors of both emotional and behavioural difficulties and prosocial behaviour.

Trait Emotional Intelligence, social and emotional skills and emotional and behavioural strengths and difficulties

There are various studies which explored the relationships between certain personality dimensions and social skills with behavioural adjustment (Mendelson et al. 1994; Hoffenaar and Hoeksma 2002; Thuen and Bru 2004). Nonetheless, there seems to be an overlap between interpersonal cognitions including processing and interpretation of emotional information, and integration of this information with responses and skills (Qualter et al. 2007). In addition, although many studies explicitly refer to emotional intelligence as their "research base", it is not always made clear what aspects of emotional intelligence are being used (Hoffman 2009). As Cherniss et al. (2006) pointed out "there has been some confusion between the underlying core abilities and the many social and emotional competences that are built on those core abilities" (p. 240). The current study attempts to clarify the individual contribution of personality dispositions and situational specific skills to adaptive behaviour. It does not seek to address the underlying processes of socioemotional development., but it concentrates on ascertaining the constituent components of adaptive behaviour in adolescence on the basis of self-perceptions.

Moreover, research based mainly on teachers' ratings, acknowledges the importance of prosocial behaviour in schools (Bear and Rys 1994; Pearson and Lachar 1994). However, Wardern et al. (2003) stated that what is missing from the literature is a measure that assesses both prosocial and antisocial behaviour in children and entails clearly structured components of these two forms of behaviour. The current study aims to add to the literature by assessing both prosocial and behaviour problems, based on students' self-ratings.

Current study

Adolescence represents a crucial phase in the development of the individual, full of complex developmental demands that move the young person from childhood to young adulthood. Most young people adapt successfully, whereas some experience behavioural difficulties. Promoting prosocial behaviour and positive peer relationships while diminishing conduct or social anxiety difficulties are among the issues of increasing concern for educators and educational researchers. A key to finding solutions to these concerns is the disclosure of the underlying factors of students' adjustment difficulties. This information is particularly

valid when it emanates from the students' own perceptions, because the types of behaviour which young people experience may be qualitatively different to those which teachers admit. The current study aims to address the underlying factors of students' prosocial and difficult behaviour, based on students' own self-perceptions. It is argued that, for secondary education students this is often based on the composite judgment of all the students in the class, and since they encounter many different situations and contexts, they have a more complete picture and provide ratings that are sufficiently stable, reliable and valid (den Brok et al. 2004a).

Research has not yet reached consensus on gender differences between personality traits and adjustment (Reiff et al. 2001). Although personality factors have been associated with the presence of acting-out behaviours, specifically among boys (Bear and Rys 1994), gender was not significantly related to emotional problems (Slobodskaya et al. 2005). Aggression and overt inappropriate social behaviours were higher among boys, while boys with emotional problems tend to display their problems more frequently on these types of behaviours than girls (Matson et al. 1983). Although boys are certainly more prone to exhibit overtly aggressive behaviours, girls tend towards relational aggression (Warden et al. 2003). While girls show more concern than do boys from the second year of life through adolescence (Hastings et al. 2000; Pakaslahti et al. 2002), research findings do not support a general tendency that girls are more likely both to behave prosocially and to exhibit relational prosocial behaviours such as caring, comforting and inclusion (Warden et al. 2003). Thus, further research is needed to clarify the role of gender in personality, social skills and behaviour.

The current study attempts to investigate the contribution of Trait EI and social and emotional skills, and devise a heuristic model which could interpret students' emotional and behavioural difficulties and prosocial strengths (Figure 1). Specifically, it explores:

- the contribution of Trait EI and social and emotional skills to emotional and behavioural strengths and difficulties
- the role of students' gender in the relation of Trait EI, social and emotional skills to behavioural strengths and difficulties
- the role of students' grade in the relation of global personality traits, social and emotional skills to behavioural strengths and difficulties.

It was hypothesized that higher scores in Trait EI and in social and emotional skills would be related to lower ratings on emotional and behavioural difficulties, and higher ratings on prosocial behaviour.

Method

Participants

Five hundred and fifty nine students (294 boys (52.6%) and 265 girls (47.4%)) from state secondary schools of central and south Greece participated in the study. One hundred and eighty-four students (33.1%)

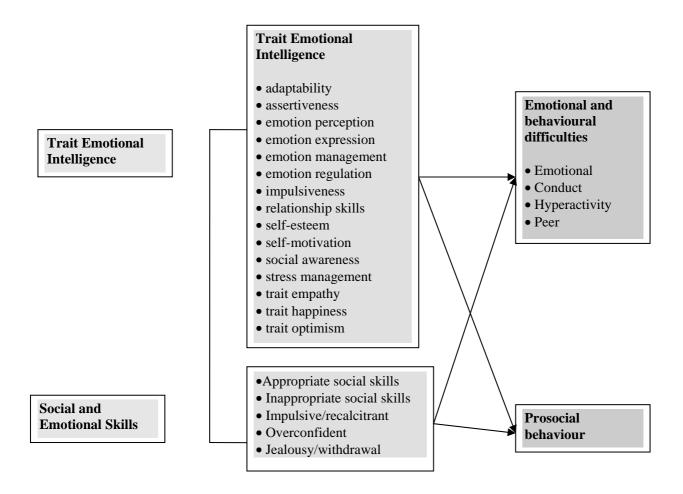


Figure 1: Hypothesized model exploring the relationships between Trait Emotional Intelligence and social and emotional skills with emotional and behavioural strengths and difficulties

attended the first grade of secondary school, 225 (40.5%) the second grade, and 147 (26.4%) the third grade. The age range of the students in secondary schools is 12-14 years old.

Measurement instruments

Trait Emotional Intelligence Questionnaire-Adolescent Short Form (TEIQue-ASF)

Students' self-perceptions of Trait Emotional Intelligence was measured by the Trait Emotional Intelligence (Trait EI) Questionnaire-Adolescent Short Form (TEIQue-ASF). TEIQue-ASF is a simplified version of the adult form of the TEIQue, designed to measure global trait-emotional intelligence (Petrides and Furnham 2001). All 30 items of TEIQue-ASF are sampled from the 15 subscales of the adult trait EI sampling

domain (two items per subscale): adaptability, assertiveness, emotion perception, emotion expression, emotion management (others), emotion regulation, impulsiveness, relationship skills, self-esteem, self-motivation, social awareness, stress management, trait empathy, trait happiness and trait optimism. Responses are given on a 7-point Likert scale, with 1 strongly disagree and 7 strongly agree. Higher scores on the TEIQue-ASF indicate higher levels of trait Emotional Intelligence. Evidence of the TEIQue-ASF criterion and incremental validity comes from its administration in British, New Zealand and Spanish populations (Petrides and Furnham 2001; Petrides and Furnham 2003; Petrides et al. 2007a). TEIQue has been translated into Greek, with internal consistency of global trait Emotional Intelligence being 0.89 (Petrides et al. 2007b).

The Matson Evaluation of Social Skills with Youngsters (MESSY)

Students' self-reports on the possession of social and emotional skills were examined with the Matson Evaluation of Social Skills with Youngsters (MESSY), developed by Matson et al (1983). The self-report scales included 62 items, structured into 6 factors: Factor I, 'Appropriate Social Skills' consisting of 23 items (e.g. I look at people when I talk to them, I have many friends), Factor II, 'Inappropriate Assertiveness', 16 items, (eg. I threaten people or act like a bully, I take or use things that are not mine without permission), Factor III, "Impulsive/Recalcitrant', 5 items (e.g. I become angry easily, I am bossy), Factor IV, 'Overconfident', 5 items (eg. I brag about myself, I think I know it all), Factor V, 'Jealousy/Withdrawal', 4 items (e.g. I feel angry or jealous when someone else does well, I think people are picking on me when they are not) and Factor VI, 'Miscellaneous Items', 9 items (I make other people laugh, I always want to be first). Each item is rated on a 5-point Likert-type scale of 1 (not all corresponding) to 5 (corresponding perfectly). With the exception of the appropriate social skills subscale, higher scores indicate more inappropriate skills. The self-report version of MESSY can be completed by children and young people from 4 to 18 years of age. A number of studies have empirically validated the MESSY instrument (Matson et al. 1985; Chou 1997; Teodoro et al. 2005). The English version of the MESSY scale has been translated into Greek by this author.

An effort was made to ensure that the original meaning of each item was retained in the Greek translation. In order to examine its translation validity, linguistic parallelism was checked by independent back-translation.

The Strengths and Difficulties Questionnaire (SDQ)

SDQ is a community-wide screening inventory used for the detection and treatment of child behavioural problems (Goodman 1999). The self-report version of SDQ can be completed by teenagers aged 11-16 years. SDQ is a brief behavioural questionnaire, comprising of 25 items, divided into five scales of 5 items each, generating scores for both behaviour problems and prosocial behaviour: 'Hyperactivity Scale' (eg. I am restless, I cannot stay still for long), 'Emotional Symptoms Scale' (eg. I get a lot of headaches, stomachaches or sickness; I worry a lot), 'Conduct problems Scale' (eg. I get very angry and often lose my temper; I

fight a lot), 'Peer Problems Scale' (eg. I generally play alone or keep to myself; I have one good friend or more), and 'Prosocial Scale' (I try to be nice to other people. I care about their feelings). Each item can be marked 0 ("not true"), 1 ("somewhat true"), or 2 ("certainly true"). With the exception of the prosocial scale, higher scores indicate more difficulties. The SDQ has been used in studies with different populations (Goodman et al. 1998; Goodman et al. 2000; Goodman, Renfrew, and Mullick 2000; Goodman et al. 2003; Goodman et al. 2004). The Greek self report versions has been translated and validated by Mavroveli and his colleagues (2008).

Results

Trait EI, social and emotional skills and emotional and behavioural strengths and difficulties

According to the ratings on the TEI-Que-ASF, the students possess high scores in global personality traits (M=4.72, sd= 0.28). They also reported high scores in social skills as measured by MESSY, especially "appropriate social skills". They gave high scores in "impulsive/recalcitrant behaviour", whereas they also admitted to inappropriate assertiveness, overconfidence and jealousy/withdrawal, though to a lower degree. The factor 'Miscellaneous items' was removed from the final analysis, due to a low alpha coefficient. The administration of the SDQ with rating scores ranging from 0-2, further revealed that students reported high levels of prosocial behaviour; hyperactivity, emotional and conduct difficulties were also present, but to a lower degree (Table 1).

The relationship between Trait EI and students' emotional and behavioural strengths and difficulties indicates that global personality traits are significantly correlated with behaviour, in such a way that lower scores in personality traits relate to higher scores in emotional, conduct, hyperactivity and peer problems, while higher scores in personality traits are related to higher scores in prosocial behaviour (see Table 2).

In terms of social and emotional skills and students' emotional and behavioural strengths and difficulties, all the MESSY subscales except two were significantly correlated to emotional and behavioural strengths and difficulties. Inappropriate assertiveness, impulsive/recalcitrant, overconfident and jealousy/withdrawal were positively related to emotional, conduct, hyperactivity and peer problems and negatively related to prosocial behaviour. Appropriate social skills were negatively related to conduct, hyperactivity and peer problems and positively related to prosocial behaviour. The two exceptions were between appropriate social skills and emotional symptoms, and impulsive/recalcitrant and peer problems, which were low and insignificant.

Table 1: Means, standard deviations and internal consistency reliability coefficients of Trait EI, MESSY and SDQ scores (n=559

	Mean	SD	alpha					
Trait EI (TEI-Que)	4.72	0.28	0.76					
Social and Emotional skills (MESSY)								
Appropriate social skill	3.96	0.50	0.81					
Inappropriate assertiveness	1.90	0.62	0.84					
Impulsive/recalcitrant	2.34	0.70	0.57					
Overconfident	1.87	0.68	0.60					
Jealousy/withdrawal	1.87	0.73	0.53					
Emotional and Behavioural Difficulties and Strengths (SDQ)								
Emotional symptoms scale	0.64	0.44	0.60					
Conduct problems scale	0.60	0.36	0.48					
Hyperactivity scale	0.70	0.45	0.61					
Peer problem scale	0.49	0.38	0.51					
Prosocial scale	1.50	0.41	0.66					

Table 2: Intercorrelation matrix of Trait EI, MESSY and SDQ scores

		Social and emotional skills (MESSY)				Emotional and Behavioural Difficulties and Strengths (SDQ)				
	Trait EI	Appro priate social skill	Inappr opriate asserti veness	Impuls ive/ Recalci trant	Overco nfident	Jealou sy/with drawal	Emotio nal sympto ms	Conduct problems	Hyperac tivity scale	Peer proble ms
Social and emotional s	kills (ME	ESSY)								
Appropriate social skill	0.32**									
Inappropriate assertiveness	0.27**	-0.20**								
Impulsive/recalcitrant	- 0.20**	0.02	0.53**							
Overconfident	- 0.17**	-0.07	0.56**	0.41**						
Jealousy/withdrawal	- 0.39**	-0.09*	0.34**	0.40**	0.36**					
Emotional and Behavi	oural Dif	ficulties ar	nd Strengt	hs (SDQ)						
Emotional symptoms	0.43**	0.06	0.10*	0.26**	0.13**	0.37**				
Conduct problems	- 0.32**	-0.19**	0.55**	0.43**	0.29**	0.26**	0.17**			
Hyperactivity scale	- 0.34**	-0.15**	0.41**	0.36**	0.20**	0.33**	0.22**	0.42**		
Peer problem scale	- 0.35**	-0.24**	0.15**	0.09	0.12**	0.27**	0.26**	0.23**	0.24**	
Prosocial scale	0.31**	0.60**	-0.36**	-0.12**	-0.21**	-0.11*	-0.00	-0.42**	-0.27**	-0.27**

In addition, significant correlations were found between personality traits and social and emotional skills, in a direction such that trait Emotional Intelligence was positively related to appropriate social skills and negatively related to inappropriate assertiveness, impulsive/recalcitrant, overconfident and jealousy/withdrawal (Table 2).

Trait EI, social and emotional skills, emotional and behavioural strengths and difficulties and gender

One-way ANOVA showed no significant differences between gender and Trait EI. In contrast, there were significant differences in social and emotional skills and emotional and behavioural difficulties, with females reporting higher scores on appropriate social skills (mean male=3.83, sd male=0.54, mean female=4.07, sd female=0.43, F=26.90, p<0.001) than males. Males reported higher scores on inappropriate assertiveness (mean male=2.07, sd male=0.65, mean female=1.70, sd female=0.52, F=46.86, p<0.001), and overconfidence (mean male=2.01, sd male=0.69, mean female=1.71, sd female=0.60, F=26.77, p<0.001) than females. In addition, females reported higher scores on emotional difficulties (mean male=0.50, sd male=0.39, mean female=0.78, sd female=0.44, F=58.36, p<0.001), and prosocial behaviour (mean male=1.39, sd male=0.44, mean female=1.61, sd female=0.35, F=37.15, p<0.001), than males. On the other hand, males reported higher scores on conduct (mean male=0.64, sd male=0.37, mean female=0.55, sd female=0.35, F=9.24, p<0.001), and peer problems (mean male=0.54, sd male=0.38, mean female=0.44, sd female=0.37, F=8.29, p<0.001), than females. Exceptions were found in impulsive/recalcitrant, jealousy/withdrawal, and hyperactivity scales, where no gender differences were found.

Trait EI, social and emotional skills, emotional and behavioural strengths and difficulties and grade

Similarly to gender, there were no significant differences between grade and Trait EI. Significant differences were found between grade and social and emotional skills, with a gradual increase in the mean scores across grades: inappropriate assertiveness (mean first grade=1.73, sd=0.57, mean second grade=1.89, sd=0.62, mean third grade=2.06, sd=0.62, F=10.00, p<0.001), impulsive/recalcitrant (mean first grade=2.25, sd=0.69, mean second grade=2.25, sd=0.68, mean third grade=2.54, sd=0.70, F=8.75, p<0.001), and jealousy/withdrawal (mean first grade=1.77, sd=0.68, mean second grade=1.88, sd=0.77, mean third grade=1.97, sd=0.67, F=3.07, p<0.001). Significant differences were also found between grades and emotional and behavioural strengths and difficulties, again with a gradual increase in the mean scores from the first to the third grade: emotional (mean first grade=0.57, sd=0.42, mean second grade=0.64, sd=0.44, mean third grade=0.72, sd=0.45, F=4.53, p<0.001), conduct (mean first grade=0.53, sd=0.36, mean second grade=0.59, sd=0.34, mean third grade=0.68, sd=0.38, F=6.84, p<0.001), and hyperactivity problems (mean first grade=0.64, sd=0.44, mean second grade=0.67, sd=0.44, mean third grade=0.83, sd=0.44, F=8.13, p<0.001). These findings indicate that students' transition to higher grades is accompanied by an increase in antisocial behaviour and emotional and behavioural difficulties.

Regression analysis

Hierarchical regression analyses with gender, grade, Trait EI, social and emotional skills, as independent factors were run with each of the five scales of the SDQ as the outcome measures (Table 3). In general, Trait EI was the only significant predictor for all the emotional and behavioural strengths and difficulties, denoting that an increase in Trait EI scores is accompanied with a decrease in emotional and behavioural difficulties and increase in prosocial behaviour. Specifically, emotional difficulties were predicted by appropriate social skills and jealousy/withdrawal in a positive direction, and conduct difficulties were predicted by inappropriate assertiveness and impulsive/recalcitrant behaviour, in an analogous direction. Hyperactivity was also predicted by inappropriate assertiveness and impulsive/recalcitrant behaviour as well as jealousy/withdrawal, in a way that increase in antisocial skills increases hyperactivity. Peer difficulties were negatively predicted by the acquisition of appropriate social skills, and positively predicted by feelings of jealousy/withdrawal. Finally, prosocial behaviour was positively predicted by appropriate social skills and jealousy/withdrawal and negatively predicted by inappropriate assertiveness. Overconfidence turned out to have no significant effect on behaviour difficulties and strengths. Finally, gender was found to be a significant predictor for the emotional difficulties, while grade was a significant predictor for peer difficulties.

Table 3: Hierarchical regression analysis

Independent variables	Outcome measures (SDQ)									
	Emotional		Conduct		Hyperactivity		Peer		Prosocial	
	Estimate	t (p)	Estimate	t (p)	Estimate	t (p)	Estimate	t (p)	Estimate	t (p)
	(b)		(b)		(b)		(b)		(b)	
Trait EI	-0.37	-7.99	-0.16	-3.49	-0.12	-2.51	-0.23	-4.54	0.14	3.32
		(0.00)		(0.00)		(0.01)		(0.00)		(0.00)
Social and emotion	Social and emotional skills (MESSY)									
Appropriate	0.09	2.05	-0.07	-1.70	-0.02	-0.55	-0.13	-2.55	0.49	11.30
social skill		(0.04)		(0.08)		(0.58)		(0.01)		(0.00)
Inappropriate	0.05	0.87	0.40	6.26	0.31	4.63	0.02	0.32	-0.17	-2.93
assertiveness		(0.38)		(0.00)		(0.00)		(0.74)		(0.00)
Impulsive/recalcit	0.01	0.25	0.17	3.17	0.11	1.90	-0.10	-1.66	-0.02	-0.39
rant		(0.79)		(0.00)		(0.05)		(0.09)		(0.69)
Overconfident	0.04	0.90	-0.02	-0.48	-0.08	-1.55	-0.03	-0.63	-0.05	-1.01
		(0.36)		(0.62)		(0.12)		(0.52)		(0.30)
Jealousy/withdra	0.17	3.50	-0.04	-0.92	0.14	2.60	0.21	3.77	0.12	2.53
wal		(0.00)		(0.35)		(0.01)		(0.00)		(0.01)
Gender	0.33	6.99	0.00	0.16	0.04	0.80	-0.05	-1.03	0.06	1.44
		(0.00)		(0.87)		(0.42)		(0.30)		(0.14)
Grade	0.07	1.65	0.03	0.80	0.06	1.28	0.13	2.75	-0.02	-0.57
		(0.09)		(0.42)		(0.20)		(0.00)		(0.56)
Adjusted R	0.36		0.31		0.23		0.17		0.40	

Discussion

The current study consists of an initial step in the investigation of potential factors contributing to students' emotional and behavioural strengths and difficulties. Driven by the shift in personality research towards the study of the effects of broader personality characteristics on behaviour on the one hand, and the postulations of Social and Emotional Learning movement about the essential role of social and emotional skills in the prevention of emotional and behavioural difficulties on the other, we attempted to define the degree to which broader personality dispositions and more situated social and emotional skills are related to students' adaptive behaviour in schools. We initially hypothesized that students with higher scores on Trait EI and social and emotional skills would manifest less behavioural difficulties and more prosocial behaviour, when compared with peer of having lower levels of Trait EI and social and emotional skills. The administration of self-report questionnaires to students supported our hypotheses. It was found that the emotion-related self-perceptions and dispositions included in Trait EI inventory predicted adolescents' emotional and behavioural strengths and difficulties. Compared to their low Trait EI counterparts, students with high Trait EI scores, were less likely to present emotional, conduct, hyperactivity and peer problems, and more likely to report prosocial behaviour. This finding is in agreement with conclusions from the literature that traits play an important role in the etiology and stability of childhood disorders (de Pauw et al. 2009). It is also consistent with a growing body of literature that emotion and its regulation play a fundamental role in the development of high quality behaviour and social adaptation (Eisenberg et al. 2000). Specifically, Trait EI turned out to be the most important predictor of emotional and peer difficulties, while social and emotional skills mainly influenced externalized difficulties, such as conduct and hyperactivity as well as prosocial behaviour.

Regression analysis revealed that emotional difficulties stem from the acquisition of appropriate social skills. This rather unexpected finding reconfirms Harter and Monsour's (1992) argument that adolescents experience opposing self-attributions between present behavioural self and the desired self, which generates conflicting attributes that are increasingly differentiated over the course of adolescence. Thus, according to the authors, during early adolescence, students perceive opposite self-attributes, which results in experienced conflict. During middle adolescence, the opposite attributes begin to provoke conflict and distress, while in late adolescence the conflict declines. Harter and Monsour attributed these conflicts to the cognitive changes in middle adolescents that enable young people to elaborate distinct information about self. Emotional difficulties were additionally predicted by feelings of jealousy/withdrawal, and externalizing difficulties such as conduct, hyperactivity and peer difficulties were predicted by lack of social and emotional skills, consistent with our expectations. Hyperactivity was also predicted by feelings of jealousy/withdrawal, implying that negative feelings can evoke distress and nervousness. This is further confirmed by the finding that feelings of jealousy/withdrawal were also found to evoke peer difficulties. Prosocial behaviour was explained by the possession of appropriate social skills and the elimination of inappropriate assertiveness.

Feelings of jealousy/withdrawal positively predicted prosocial behaviour, suggesting that the experience of negative feelings could probably motivate students towards the cultivation of positive interactions. In general, the ambivalent responses extracted from the adolescents in our study, might reflect an attitude of avoiding negative responses that are uncomfortable or shameful. Another possible source of students' mixed self-perceptions could be their development of greater conceptual complexity and the social comparative basis of self-judgments (Festinger 1954). There is evidence that young people use different reference groups as the basis of self-comparisons, which can lead to conflicting self-judgments.

Our results supported the hypothesis that in conjunction with social and emotional situation-specific skills, Trait EI could consist of meaningful explanatory variables of students' behaviour at school. Perhaps the main outcome of the study is its verification of the independent contribution of both personality dispositions and the acquisition of social and emotional skills to our understanding of emotional and behavioural strengths and difficulties. It suggests that adaptive behaviour is synthesized by a set of global, individual and rather stable personality components along with a set of certain skills and competences, determined by the specific context. The global personality traits, mainly referring to the intrapersonal aspects of emotional intelligence included in TEI-Que measurement, and the wide range of situation-specific social and skills, mainly referring to the interpersonal effectiveness included in MESSY measurement, provide information about the potential sources of students' emotional and behavioural strengths and difficulties. Nevertheless, they also reveal the complexity of the interactive nature of emotional and behavioural difficulties phenomenon. In our study, the overall amount of variance of behaviour explained ranged from 17% to 40%, suggesting that additional factors need to be explored if students' behaviour is to be adequately explained. Future research could combine personality dispositions with cognitive abilities or skills, measured with performance tests.

In our study, gender was found to be a significant factor on emotional difficulties. With the exception of Slobodskaya et al.'s (2005) study, in which gender was not a significant factor on emotional problems, our findings supported the general tendency in the literature that males are more likely to possess inappropriate assertiveness and overconfidence and display externalizing difficulties, such as conduct and peer, while females are more likely to possess appropriate social skills and display emotional difficulties and prosocial strengths. Similarly, although there was a decrease of social and emotional skills manifestation and an increase of emotional and behavioural difficulties from grade 1 to grade 3, grade turned out to be a significant factor on peer difficulties.

When interpreting the results of the present study, we should bear several caveats in mind. First, the results were uniquely based on students' perceptions. While valuable, we have no data as to whether similar structures could be found for teachers' or parents' perceptions. Further research needs to be conducted with teachers and also include qualitative information such as interview data or observations at school. Nevertheless, self-perceptions have a strong influence on behaviour, irrespective of their accuracy (Bandura 1997), and students' perceptions are an important aspect of their psychological adjustment. Second, Trait EI is

a construct comprising broad, not sufficiently defined sub-domains, which were partly related to the social and emotional skills entailed in MESSY instrument. The use of Trait EI could therefore mask the explanatory power of MESSY sub-scales. At the same time, although MESSY was devised to assess social skills, it also entailed emotion-related self-perceptions, thus raising doubts on its construct validity.

The results of our analyses illustrate the manner in which Trait E.I., social and emotional skills and emotional and behavioural strengths and difficulties are related, and highlight the direction in which these constructs interact with each other. In theoretical terms, the current study begins to describe the way in which both dispositional characteristics and skills' acquisition influence adolescents' behaviour and relationships at school, and provides an heuristic model of students' adaptive behaviour at school. Moreover, taking into consideration Goleman's (1995; 1998) assertion that emotional intelligence is an alterable variable that can be taught and learned, and previous studies which suggest that effective coping skills can be taught and have a positive effect on adjustment (Thuen and Bru 2004), the current study provides practical implications for teachers and school administrators. It provides support of the hypothesis that increased positive personality traits and social competences are associated with increased prosocial behaviour and decreased emotional and behavioural difficulties. This is a promising finding. Through social intervention programs in school settings, teachers could enhance perceptions of positive qualities towards behavioural adjustment. Researchers, educators and parents are increasingly concerned about children's social adjustment, especially in the critical developmental phase of early adolescence. This study takes a first step to better understand the underlying mechanisms of students' emotional and behavioural strengths and difficulties, with the belief that such an approach would improve the quality of students' lives in schools.

References

- Bandura, A. 1997. Self-Efficacy: The Exercise of Control. New York: W. H. Freeman.
- Bar-On, R. 1997. *The Emotional Intelligence Inventory (EQ-i): Technical Manual.* Toronto: Multi-Health Systems.
- Bar-On, R. 2000. Emotional and social intelligence: Insights from the Emotional Quotient Inventory. In R.Bar-On and J. D. A. Parker (Eds.), *The Handbook of Emotional Intelligence* (pp363-388). San Francisco: Jossey-Bass.
- Bear. G.G. and Rys. G.S. 1994. Moral reasoning. classroom behavior. and sociometric status among elementary school children. *Developmental Psychology*. 30 (5). 633-638.
- Caspi. A. 1998. Personality development across the life course. In W. Damon (Series Ed.) and N. Eisenberg (Vol. Ed.), Handbook of child psychology: vol.3, Social, emotional and personality development (pp. 311-388). N. York: Wiley.
- Caspi. A. 2000. The child is father of the man: personality continuities from childhood to adulthood. *Journal of Personality and Social Psychology*. 78 (1). 158-172.

- Cherniss, C., Extein, M., Goleman, D., and Weissberg, R.P. 2006. Emotional Intelligence: What does the research really indicate? *Educational Psychologist*, 41 (4), 239-245.
- Chou. K.L. 1997. The Matson Evaluation of Social Skills with Youngsters: Reliability and Validity of a Chinese Translation. *Personality and Individual Differences*. 22 (1). 123-125.
- Ciarrochi. J. and Scott. G. 2006. The Link Between Emotional Competence and Well-Being: A Longitudinal Study. *British Journal of Guidance and Counselling*. 34 (2). 231-243.
- Cohen. D. and Strayer. J. 1996. Empathy in Conduct-Disordered and Comparison Youth. *Developmental Psychology*. 32 (6). 988-998.
- Dennis, C. 2004. Psychology and the Teacher. London: Continuum.
- De Pauw, S.W, Mervielde, I., and van Leeuwen, K.G. 2009. How are traits related to problem behaviour in preschoolers? Similarities and contrasts between temperament and personality. *Journal of Abnormal Child Psychology*, 37, 309-325.
- den Brok. P.. Brekelmans. M. and Wubbels. T. 2004a. Interpersonal Teacher Behaviour and Student Outcomes. *School Effectiveness and School Improvement*. 15 (3-4), 407-442.
- den Brok. P.. Bergen. T.. Stahl. R.J. and Brekelmans. M. 2004b. Students' Perceptions of Teacher Control Behaviours. *Learning and Instruction*. 14, 425-443.
- Eisenberg. N. 2000. Emotion. Regulation and Moral Development. *Annual Review of Psychology*. 51. 665-697.
- Eisenberg, N., Fabes, R. A., Guthrie, I. K., and Reiser, M. 2000. Dispositional emotionality and regulation: their role in predicting quality of social functioning. *Journal of Personality and Social Psychology*, 78 (1), 136-157.
- Elias, M. 1997. The Missing Piece: Making the Case for Greater Attention to Social and Emotional Learning in the Schools. *Education Week*, 17 (5), 36-38.
- Eysenck, H.J. 1997. Personality and experimental psychology: the unification of psychology and the possibility of a paradigm. *Journal of Personality and Social Psychology*, 73, 1224-1237.
- Festinger, L. 1954. A Theory of Social Comparison Process. *Human Relations*, 7, 117-140.
- Gardner, H. 1983. Frames of Mind: The Theory of Multiple Intelligences. London: Fontana Press.
- Goleman, D. 1995. Emotional Intelligence. New York: Bantam.
- Goleman, D. 1998. Working with Emotional Intelligence. New York: Bantam Books.
- Goodman. R. 1999. The Extended Version of the Strengths and Difficulties Questionnaire as a Guide to Child Psychiatric Caseness and Consequent Burden. *Journal of Child Psychology and Psychiatry*. 40 (5), 791-799.
- Goodman. R.. Meltzer. H. and Bailey. V. 1998. The Strengths and Difficulties Questionnaire: A Pilot Study on the Validity of the Self-Report Version. *European Child and Adolescent Psychiatry*. 7 (3), 125-130.

- Goodman. R.. Ford. T.. Corbin. T. and Meltzer. H. 2004. Using the Strengths and Difficulties Questionnaire (SDQ) multi-informant algorithm to screen looked-after children for psychiatric disorders. *European Child and Adolescent Psychiatry*. 13. (suppl. 2), 25-31.
- Goodman. R., Ford. T., Simmons. H., Gatward. R. and Meltzer. H. 2000. Using the Strengths and Difficulties Questionnaire (SDQ) to Screen for Child Psychiatric Disorders in a Community Sample. *British Journal of Psychiatry*. 177, 534-539.
- Goodman. R., Ford. T., Simmons. H., Gatward. R. and Meltzer. H. 2003. Using the Strengths and Difficulties Questionnaire (SDQ) to Screen for Child Psychiatric Disorders in a Community Sample.

 InternationalReview of Psychiatry. 15, 166-172.
- Goodman. R.. Renfrew. D. and Mullick. M. 2000. Predicting Type of Psychiatric Disorder from Strengths and Difficulties Questionnaire (SDQ) scores in child mental health clinics in London and Dhaka. European Child and Adolescent Psychiatry. 9 (2), 129-134.
- Harter, S. and Monsour, A. 1992. Developmental analysis of conflict caused by opposing attributes in the adolescent self-portrait. *Developmental Psychology*, 28 (2), 251-260.
- Hastings. P.D.. Zahn-Waxler. C.. Robinson. J.. Usher. B. and Bridges. D. 2000. The development of concern for others in children with behavior problems. *Developmental Psychology*. 36 (5), 531-546.
- Hoffman, D. 2009. Reflecting on Social Emotional Learning: A critical perspective on trends in the United States. *Review of Educational Research*, 79 (2), 533-556.
- Hoffenaar, P.J. and Hoeksma, J.B. 2002. The structure of oppositionality: response dispositions and situational aspects. *Journal of Child Psychology and Psychiatry*, 43 (3), 375-385.
- Knyazev. G.G. and Wilson. G.D. 2004. The Role of Personality in the Co-occurrence of Emotional and Conduct Problems in Adolescents: A Confirmation of Corr's "Joint Subsystems" Hypothesis. *Personality and Individual Differences.* 37, 43-63.
- Matthews, G., and Zeidner, M. 2003 Negative appraisals of Positive Psychology: A mixed-valence endorsement of Lazarus. *Psychological Inquiry*, *14*, 2, 137-143.
- Matthews, G., Zeidner, M., and Roberts, R. D. 2002. *Emotional intelligence: Science and myth*. Cambridge, MA: The MIT Press.
- Matson. J.L.. Macklin. G.F. and Helsel. W.J. 1985. Psychometric Properties of the Matson Evaluation of Social Skills with Youngsters (MESSY) with Emotional Problems and Self Concept in Deaf Children. *Journal of Behavioral Therapy and Experimental Psychiatry*. 16 (2), 117-123.
- Matson. J.L.. Rotatori. A.F. and Helsel. W.J. 1983. Development of A Rating Scale to Measure Social Skills in Children: the Matson Evaluation of Social Skills with Youngsters (MESSY). *Behavioral Research Therapy.* 21 (4), 335-340.
- Mavroveli, S., Petrides, K.V., Rieffe, C. and Bakker, F. 2007. Trait emotional intelligence, psychological well-being and peer-rated social competence in adolescence. *British Journal of Developmental*

- Psychology, 25, 263-275.
- Mavroveli, S., Petrides, K.V., Shove, C. and Whitehead, A. 2008. Investigation of the construct of trait emotional intelligence in children. *European Child and Adolescent Psychiatry*. Published online: 18/06/2008 (DOI 10.1007/s00787-008-0696-6).
- Mayer, J.D., Caruso, D. R., and Salovey, P. 2000. Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27, 267-298.
- Mayer, J. D., Salovey, P., and Caruso, D. R. 2000. Emotional intelligence as zeitgeist, as personality, and as a mental ability. In Reuven Bar-On and James D.A. Parker (Eds). *The handbook of emotional intelligence*. San Francisco: Jossey-Bass.
- Mendelson, M. J., Aboud, F.E. and Lanthier, R.P. 1994. *Journal of Applied Developmental Psychology*, 15, 413-435.
- Miller, C.J., Miller, S.R., Newcorn, J.H. and Halperin, J.M. 2008. Personality characteristics associated with persistent ADHD in late adolescence. *Journal of Abnormal Child Psychology*, 36, 165-173.
- Ogden. T. 2001. The Prevention and Management of Behaviour Difficulties in School. Research and Practice. In J. Visser. H. Daniels and T. Cole (Eds.). *Emotional and Behavioural Difficulties in Mainstream Schools* (pp.75-89). Oxford: Elsevier Science.
- Pakaslahti. L.. Karjalainen. A. and Keltikangas-Jarvinen. L. 2002. Relationships between adolescent prosocial problem-solving strategies. prosocial behaviour and social acceptance. *International Journal of Behavioural Development.* 26 (2), 137-144.
- Pearson. D.A. and Lachar. D. 1994. Using Behavioural Questionnaires to Identify Adaptive Deficits in Elementary School Children. *Journal of School Psychology*. 32 (1), 33-52.
- Petrides. K.V. and Furnham. A. 2001 Trait Emotional Intelligence: Psychometric Investigation with Reference to Established Trait Taxonomies. *European Journal of Personality*. 15, 425-448.
- Petrides. K.V. and Furnham. A. 2003. Trait Emotional Intelligence: Behavioural Validation in Two Studies of Emotion Recognition and Reactivity to Mood Induction. *European Journal of Personality*. 17, 39-57.
- Petrides. K.V..Chamorro-Premuzic. T.. Frederickson. N. and Furnham. A. 2005. Explaining Individual Differences in Scholastic Behaviour and Achievement. *British Journal of Educational Psychology*. 75, 239-255.
- Petrides. K.V., Frederickson. N. and Furnham. A. 2004. The Role of Trait Emotional Intelligence in Academic Performance and Deviant Behaviour at School. *Personality and Individual Differences*. 36, 277-293.
- Petrides, K.V., Perez-Gonzalez, J.C. and Furnham, A. 2007a. On the criterion and incremental validity of trait emotional intelligence. *Cognition and Emotion*, 21 (1), 26-55.
- Petrides. K.V., Pita, R. and Kokkinaki, F. 2007b. The location of trait emotional intelligence in personality factor space. *British Journal of Psychology*, 98, 273-289.

- Petrides, K.V., Sangareau, Y., Furnham, A. and Frederickson, N. 2006. Trait Emotional Intelligence and children's peer relations at school. *Social Development*, 15 (3), 537-547.
- Qualter, P., Gardner, K.J., and Whiteley, H.E. 2007. Emotional Intelligence: Review of research and educational implications. *Pastoral Care*, 11-20.
- Reiff. H.B.. Hatzes. N.M.. Bramel. M.H. and Gibbon. T. 2001. The Relation of LD and Gender with Emotional Intelligence in College Students. *Journal of Learning Disabilities*. 34 (1), 66-78.
- Riggio. R.E.. Watring. K.P. and Throckmorton. B. 1993. Social skills. social support. and psychosocial adjustment. *Personality and Individual Differences*. 15 (3), 275-280.
- Roeser, R. 2001. To Cultivate the Positive... Introduction to the Special Issue on Schooling and Mental Health Issues. *Journal of School Psychology*, *39*(2), 99-110.
- Saarni, C. 1997. Emotional competence and self-regulation in childhood. In P. Salovey & D. J. Sluyster (eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 35-69). New York: Basic Books.
- Saarni, C. 1999. The development of emotional competence. New York: Guildford Press.
- Slobodskaya, H. R., Safronova, M., V. and Windle, M 2005. Personality, temperament and adolescent adjustment in modern Russia. *Personality and Individual Differences*, 39, 167-178.
- Teodoro. M.L.M.. Kappler. K.C.. Rodrigues. J.L.. de Freitas. P.M. and Haase. V.G. 2005. The Matson Evaluation of Social Skills with Youngsters (MESSY) and its Adaptation for Brazilian Children and Adolescents. *Interamerican Journal of Psychology*. 39 (2), 239-246.
- Thorndike, E.L. 1920. Intelligence and its Use. *Harper's Magazine*, 140, 227-235.
- Thuen. E. and Bru. E. 2004. Coping styles and emotional and behavioural problems among Norwegian grade 9 students. *Scandinavian Journal of Educational Research*. 48 (5), 493-510.
- Warden. D., Cheyne. B., Christie. D., Fitzpatrick. H. and Reid. K. 2003. Assessing children's perceptions of prosocial and antisocial peer behaviour. *Educational Psychology*. 23 (5), 547-567.
- Zhou, Q., Lengua, L.J. and Wang, Y. 2009. The relations of temperament reactivity and effortful control to children's adjustment problems in China and the United States. *Developmental Psychology*, 45 (3), 724-739.
- Zins, J., Weissberg, R., Wang, M. and Walberg, H. 2001. *Social-Emotional Learning and School Success.*Maximizing Children's Potential by Integrating Thinking, Feeling, Behavior. The CEIC Review, 10,
 6.Last retrieved on 15th October 2010 http://www.temple.edu/lss/pdf/ceicreviews/CEICVol10No6.pdf