Theory and Applications of Trait Emotional Intelligence

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What is trait emotional intelligence?

Trait emotional intelligence (trait EI) is a constellation of emotional perceptions assessed through questionnaires and rating scales (Petrides, Pita, & Kokkinaki, 2007). Simply put, trait EI concerns people’s beliefs about their emotions. The label of the construct reflects the fact that the various models that have been discussed in the literature under the terms “emotional intelligence” or “EQ” (Bar-On, 1997; Goleman, 1995; Salovey & Mayer, 1990) almost invariably describe personality traits. Consequently, a literature has emerged where all sorts of personality traits are routinely mislabelled and, more importantly, misinterpreted as “emotional intelligence”, “emotional competencies”, “emotional abilities”, etc. Trait EI theory offers the possibility of redefining these models in order to connect them (and the measures based on them) to scientific theories of psychology. An alternative label to describe the construct, which emphasizes its links to the self-efficacy literature (Bandura, 1997) is trait emotional self-efficacy.

Emotional intelligence as a cognitive ability

Trait EI should be clearly distinguished from the notion of EI as a cognitive ability (ability EI). The fundamental problem with the latter is that emotional experience is inherently subjective (e.g., Matthews, Zeidner, & Roberts, 2007). Consequently, it is not amenable to genuine maximum-performance measurement, which is a key requirement for the assessment of cognitive ability (Jensen, 1998). Current tests of ability EI (notably, the Mayer-Salovey-Caruso Emotional Intelligence Test; MSCEIT), rely on unorthodox scoring procedures.
like “consensus” and “expert” scoring. These procedures yield scores that are not only foreign to cognitive ability, but also psychologically ambiguous, since it is unclear whether they reflect or are unduly influenced by vocabulary size (Wilhelm, 2005), or conformity to social norms (Matthews, Emo, Roberts, & Zeidner, 2006), or theoretical knowledge about emotions (Brody, 2004), or stereotypical judgments (O’Sullivan, 2007), or some unknown combination of these factors.

The chief difficulty with the MSCEIT is not that it does not measure cognitive ability as it claims, but that the scores it yields are psychologically uninterpretable. This is why it may be scientifically fruitless to persist in efforts to improve its psychometric properties, for even if these were to reach acceptable standards someday, the resultant scores would still be uninterpretable due to the nature of the underlying scoring system (Brody, 2004; Fiori et al., 2014; Matthews et al., 2006; Maul, 2012). The main reason we believe emotional intelligence should be operationalized via self- and observer-reports is because its sampling domain mainly comprises personality traits that have been relabelled as cognitive abilities.

The sampling domain of trait EI

Table 1 presents the sampling domain of trait EI (i.e., its constituent elements or facets). It was derived from a content analysis of early models of EI and cognate constructs, such as alexithymia, affective communication, emotional expression, and empathy (Petrides, 2001). The rationale was to include core elements common to more than a single model, but exclude peripheral elements appearing in only one conceptualization. This is analogous to procedures used in classical psychomet-
ric scale development, whereby the commonalities (shared core) of the various items comprising a scale are carried over into a total (internally consistent) score, with their random or unique components (noise) being cancelled out in the process.

**Trait EI theory as a general interpretative framework**

Self-report measures of EI and related variables operationalize a construct that is generally unrelated to cognitive abilities, competencies, and skills (for a comprehensive review and evaluation of EI measures, see Siegling, Saklofkse, & Petrides, 2015). Rather, as argued in Petrides and Furnham (2001), these questionnaires provide coverage, of variable quality and adequacy, of a collection of emotion-related perceptions. In other words, we view these questionnaires as measures of trait EI, in contrast to their developers who claim that they assess abilities, competencies, or skills. Trait EI theory is general and provides a platform for the correct interpretation of data from any EI questionnaire that would otherwise be interpreted through the homespun “EQ is good for you” accounts underpinning many EI models. However, we emphasize that EI-related questionnaires can be considered measures of trait EI only in so far as their results are interpreted through the lens of trait EI theory.

**Trait Emotional Intelligence Questionnaire (TEIQue)**

Development of the TEIQue began towards the end of 1998 as part of the first author’s doctoral dissertation (Petrides, 2001). Items were written to cover each of the 15 facets in the construct’s sampling domain (Table 1) with each item assigned to a single facet only. The latest version of the long form of the TEIQue comprises 153 items, providing scores on 15 facets, four factors, and global trait EI (see Figure 1). Hitherto, the inventory has been translated into more than twenty languages.

The TEIQue has three important advantages: first, it offers a direct route to the underlying theory of trait emotional intelligence; second, it provides comprehensive coverage of the trait EI sampling domain; and third, it has superior predictive validity (Andrei, Siegling, Aloe, Baldaro, & Petrides, 2016; Gardner & Qualter, 2010; Martins, Ramalho, & Morin, 2010). The instrument is based on a combination of the construct-oriented and inductive approaches to scale construction (Hough & Paullin, 1994). It was designed to be factor analyzed at the facet level in order to avoid the problems associated with item-level factor analysis (Bernstein & Teng, 1989). Its higher-order structure is explicitly hypothesized as oblique, in line with conceptions of multifaceted constructs. Consequently, factor overlap as well as cross-loadings are to be expected and indeed provide the justification for aggregating factor scores into global trait EI. According to the hierarchical structure of the TEIQue, the facets are narrower than the factors which, in turn, are narrower than global trait EI.

Detailed psychometric analyses of the full form of the TEIQue are presented in Freudenthaler et al. (2008; German adaptation), Jolić-Marianjović, & Altaras-Dimitrijević (2014; Serbian adaptation); Martskvishvili, Arutinov, and Mestvirishvili (2013; Georgian adaptation). Mikolajczak, Luminet, Leroy, and Roy (2007; French adaptation), and Petrides (2009; English original). In addition to the full form, there are other TEIQue instruments, which we list below, along with standard brief descriptions.

**TEIQue-SF.** This 30-item form is based on the full form and includes two items from each of the 15 facets of the trait EI sampling domain (Table 1). Items were selected primarily on the basis of their correlations with the corresponding total facet scores, which enabled broad coverage of the sampling domain of the construct. The TEIQue-SF can be used in research designs with limited experimental time or wherein trait EI is a peripheral variable. Although it is possible to derive scores on the four trait EI factors (Well-being, Self-control, Emotionality, and Sociability), in addition to the global score, these tend to have lower internal consistencies (about .69) than in the full form. An Item Response Theory analysis of the short form of
the inventory is presented in Cooper and Petrides (2010), while Stamatopoulou, Galanis, and Prezerakos (2016) scrutinize the psychometric properties of the Greek adaptation.

**TEIQue 360°, TEIQue 360°-FB, and TEIQue 360°-FB.** These forms are used for the collection of observer-ratings and are available for both the full- and the short-forms of the TEIQue. In addition, there is a facet-based 360° form (TEIQue 360°-FB), which collects direct ratings on the 15 facets of the trait EI sampling domain (Table 1). These forms are especially useful for contrasting self versus observer trait EI scores. Two applications of the TEIQue 360-FB are presented in Clarke et al. (2011) and Petrides, Niven, and Mouskounti (2006; Study 1).

**TEIQue-AFF.** The –AFF is modeled on the full form of the TEIQue and is intended to yield scores on the same 15 facets and 4 factors. The main target audience is adolescents between 13 and 17 years. Its internal consistencies are strong at the facet, factor, and global level, although somewhat lower than the corresponding values of the full form.

**TEIQue-ASF.** This is a simplified version, in terms of wording and syntactic complexity, of the adult short form of the TEIQue. The –ASF comprises 30 short statements, two for each of the 15 facets in Table 1, designed to measure global trait EI. In addition to the global score, it is possible to derive scores on the four trait EI factors, however, these tend to have lower internal consistencies than in the adolescent full form. The main target
audience is adolescents between 13 and 17 years, however, the –ASF has been successfully used with children as young as 11 years. An application of the –ASF is presented in Mavroveli, Petrides, Rieffe, and Bakker (2007).

**TEIQue-CF.** The main aim of the –CF is to assess the emotion-related facets of child personality. Rather than a simple adaptation of the adult form, it is based on a sampling domain that has been specifically developed for children aged between 8 and 12 years. This sampling domain is presented, along with brief descriptions of the facets, in Table 2. It comprises 75 items responded to on a 5-point Likert scale and measures nine distinct facets (see Mavroveli, Petrides, Shove, & Whitehead, 2008).

**TEIQue-CSF.** The child short form of the TEIQue comprises 36 items, responded to on 5-point and yielding a global trait EI score. Hitherto, the child forms of the TEIQue have been translated into more than 15 languages.

<table>
<thead>
<tr>
<th>Facets</th>
<th>Brief description of facets</th>
<th>Example items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>concerns children’s self-perceptions of how well they adapt to new situations and people.</td>
<td>“I find it hard to get used to a new school year.”</td>
</tr>
<tr>
<td>Affective disposition</td>
<td>concerns children’s self-perceptions of the frequency and intensity with which they experience emotions.</td>
<td>“I’m a very happy kid.”</td>
</tr>
<tr>
<td>Emotion expression</td>
<td>concerns children’s self-perceptions of how effectively they can express their emotions.</td>
<td>“I always find the words to show how I feel.”</td>
</tr>
<tr>
<td>Emotion perception</td>
<td>concerns children’s self-perceptions of how accurately they identify their own and others’ emotions.</td>
<td>“It’s easy for me to understand how I feel.”</td>
</tr>
<tr>
<td>Emotion regulation</td>
<td>concerns children’s self-perceptions of how well they can control their emotions.</td>
<td>“I can control my anger.”</td>
</tr>
<tr>
<td>Low impulsivity</td>
<td>concerns children’s self-perceptions of how effectively they can control themselves.</td>
<td>“I don’t like waiting to get what I want.”</td>
</tr>
<tr>
<td>Peer relations</td>
<td>concerns children’s self-perceptions of the quality of their relationships with their classmates.</td>
<td>“I listen to other children’s problems.”</td>
</tr>
<tr>
<td>Self-motivation</td>
<td>concerns children’s self-perceptions of their drive and motivation.</td>
<td>“I always try to become better at school.”</td>
</tr>
</tbody>
</table>

Table 2
The Sampling Domain of Trait EI in Children
Location of trait EI in personality factor space

Petrides, Pita, et al. (2007) carried out studies in order to locate trait EI in Eysenckian (Giant Three) and Big Five factor space. Locating trait EI in personality space is important, not least because it can connect the construct to the mainstream literature on personality. The proposal of new individual differences constructs ought to be accompanied with a demonstration of how these constructs relate to extant knowledge in the field. This has been a major objective in our definition and development of trait EI. Furthermore, establishing the location of trait EI within existing taxonomies can provide empirical support for the construct’s discriminant validity vis-à-vis the higher-order traits. If a distinct trait EI factor can be isolated in personality space, it means that a sufficient number of trait EI facets share enough common variance to define a separate factor in joint analyses with the Giant Three or the Big Five, which constitutes strong evidence of discriminant validity.

The factor location analyses in Petrides, Pita, et al. (2007) demonstrate that trait EI is a distinct (because it can be isolated in personality space) and compound (because it is partially determined by several higher-order personality dimensions) construct that lies at the lower levels of personality hierarchies (because the trait EI factor is oblique, rather than orthogonal to the Giant Three and the Big Five).

The conclusion above enables us to connect the trait EI conceptualization to the established literature on differential psychology. It constitutes an important advantage for trait EI theory because it integrates the construct with mainstream models of personality. Moreover, this conceptualization appears to be consistent, not only with hierarchical, but also with circumplex models of personality. For example, De Raad (2005) located trait EI within the Abridged Big Five circumplex and found that it comprises scattered aspects of the Big Five domain and correlates with at least four of the five higher-order traits, conclusions that are fully in line with trait EI theory.

Applications of trait emotional intelligence

Trait EI research has expanded significantly during the last few years (see Petrides et al., 2016 for an overview of latest developments). Studies with children, adolescent, and adult samples, show that trait EI scores predict teacher- and peer-ratings of prosocial and antisocial behavior (Frederickson, Petrides, & Simmonds, 2012; Mavroveli et al., 2007; Petrides, Frederickson, & Furnham, 2004), adaptive coping and depressive affect (Mavroveli et al., 2007), leadership (Villanueva & Sanchez, 2007), happiness (Chamorro-Premuzic, Bennet, & Furnham, 2007), emotion regulation (Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008), and affective decision-making (Sevdalis, Petrides, & Harvey, 2007). A growing number of studies have revealed incremental trait EI effects over and above higher-order personality traits (e.g., Kluemper, 2008; Petrides, Pita, et al., 2007; Van Der Zee & Wabeke, 2004) and other emotion-related variables, such as alexithymia, optimism, and mood (Mikolajczak, Luminet, & Menil, 2006; Petrides, Perez-Gonzalez, & Furnham, 2007). For a systematic review and meta-analysis of the incremental validity of trait EI, see Andrei et al. (2016).

Recent research has also looked at the behavioral genetics of trait EI, revealing that about 40% of the construct’s phenotypic variance can be directly attributed to genetic factors (Vernon, Petrides, Bratko, & Schermer, 2008) and that the phenotypic correlations between trait EI and the higher-order personality dimensions (Big Five) are attributable, primarily, to correlated genetic factors.
and, secondarily, to correlated non-shared environmental factors (Vernon, Villani, Schermer, & Petrides, 2008). These findings are fully in line with the conceptualization of emotional intelligence as a personality trait.

In the sections that follow, we briefly discuss example applications of trait EI theory in clinical, educational, and organizational settings.

### Clinical applications

#### Personality disorders

Trait EI, especially as operationalized by the TEIQue, is a strong predictor of clinical variables (for a meta-analysis, see Martins et al., 2010). Petrides, Pérez-González, et al. (2007) examined the possibility that very low trait EI levels may have psychopathological consequences. They conducted a study with reference to the personality disorders (PDs) in the Tenth Revision of the International Classification of Diseases (ICD-10; WHO, 1992).

Their results suggested that trait EI may have an important diagnostic role to play in relation to virtually all PDs included in the two major classification systems (ICD-10 and DSM-IV; see Leible & Snell, 2004 for related results with other trait EI measures). As expected, trait EI scores were negatively related to most disorders. More important, the negative associations held up even after partialling out individual differences in dispositional mood (positive and negative affect), which are known to underlie psychopathology (Watson, 2000). In related research, Andrei and Petrides (2013) showed that trait EI predicted somatic complaints (e.g., headache, stomach ache, and tiredness) over and above dispositional mood, while Sinclair and Feigenbaum (2012) reported a strong negative association between trait EI and Borderline Personality Disorder.

#### Self-harm

Mikolajczak, Petrides, and Hurry (2009) investigated the relationship between trait EI and self-harm in adolescence. Adolescents who deliberately self-harm have become the focus of research because of their greatly increased risk of suicide (e.g., Hawton & Zahl, 2003; Owens, Horrocks, & House, 2002), but also because of the association between self-harm and a range of psychological disorders (Hurry, 2000). In Europe, the term “deliberate self-harm” (DSH) has been used to cover self-harming behaviour, irrespective of suicidal intent (Evans, Hawton & Rodham, 2005), and typically includes self-poisoning and self-injury, the latter being by far the most common in community samples. Although self-harm may sometimes consist of a single episode, it most often involves repetitive episodes occurring over several years (e.g., Pattison & Kahan, 1983). Self-harm typically begins in adolescence and has a low level of lethality, but constitutes a strong risk factor for future suicide.

The correlation between trait EI and self-harm in Mikolajczak et al.’s (2009) sample was highly significant ($r = -.31$, $p < .01$). Accordingly, the mean trait EI score of those having deliberately harmed themselves (4.13) was significantly lower than the mean score of their peers (4.62). Among self-harmers, the mean trait EI score of those who did so with the intention to die (3.77) was significantly lower than that of those who harmed themselves with no such intention (4.20). A probit regression analysis indicated that the likelihood of an adolescent self-harming is 75% if their TEIQue score is below 2.47, 50% if their TEIQue score is above 3.47, and only 25% if their TEIQue score is above 4.50.

### Educational applications

Trait EI affects, directly or indirectly, a wide range of variables in educational contexts. For example, high trait EI pupils tend to have fewer unauthorized absences and are less likely to have been expelled from school due to rule violations, compared to their low trait EI peers (Mavroveli et al., 2008; Petrides et al., 2004). Trait EI also influences children’s peer relations at school (Petrides et al., 2006) and decreases the likelihood of aggressive and delinquent behavior (Santesso, Reker, Schmidt, & Segalowitz, 2006).
**Academic performance**

Trait EI theory posits that the construct should not show direct and strong associations with cognitive ability or its close proxies, such as academic performance. Indeed, Petrides et al. (2004) did not find a significant relationship between trait EI and academic performance in a large sample of British adolescents. They did, however, uncover a moderating effect according to which trait EI was positively associated with performance in low IQ pupils, but not in average or high IQ pupils. Based on this, they suggested that such effects as trait EI might have on academic performance are likely to assume prominence when the demands of a situation outweigh a pupil’s intellectual resources. In contrast to their high IQ counterparts, low IQ pupils are more likely to be forced to draw on resources other than their cognitive ability in order to cope with the demands of their examinations, which is why high trait EI may be an important asset for them.

Parker and colleagues (Parker et al., 2004; Parker, Summerfeldt, Hogan, & Majeski, 2004) reported modest correlations (e.g., \( r = .20, p < .05 \)) between trait EI and academic performance in high-school and university samples, raising the possibility that the effects of trait EI may vary across educational levels, across operationalizations of academic achievement, and across subjects, like the effects of other personality traits (e.g., Ackerman, Chamorro-Premuzic, & Furnham, 2011; Heaven, Ciarrochi, & Vialle, 2007; Mavroveli & Sánchez-Ruiz, 2011; Petrides, Chamorro-Premuzic, Frederickson, & Furnham, 2005). For example, Laidra, Pullmann, and Allik (2007) found that Agreeableness was an important predictor of academic performance (GPA) in primary, but not secondary, schoolchildren. In contrast, Neuroticism predicted academic performance in secondary, but not primary, schoolchildren.

A recent meta-analysis revealed that high trait EI may confer a performance advantage, of variable strength, in primary, secondary, and tertiary education (Perera & DiGiacomo, 2013; see also Sanchez-Ruiz, Mavroveli, & Poullis 2013). Overall, the emerging picture suggests that the construct’s direct impact on academic achievement is modest and likely to be more relevant to specific groups of children.

**Peer relations**

Petrides et al. (2006) found that high trait EI facilitated prosocial behavior and prevented antisocial behavior in primary-aged children. They also reported that pupils with high scores received more nominations from their classmates for being co-operative and for having leadership qualities and fewer nominations for being disruptive, aggressive, and dependent. Similar results have been obtained in samples from different countries and age groups (Mavroveli et al., 2007; Mavroveli, Petrides, Sangareau, & Furnham, 2009; Mavroveli & Sánchez-Ruiz, 2011).

**Organizational applications**

Trait EI predicts important outcomes in the workplace. Perhaps the most robust evidence comes from meta-analyses confirming its strong positive effects on job performance (e.g., O’Boyle, Humphrey, Pollack, Hawver, & Story, 2011). In a sample of employed adults, Petrides and Furnham (2006) showed that high trait EI was associated with lower levels of stress and higher levels of perceived job control, satisfaction, and commitment. Using multi-group structural equation modeling, significant paths from trait EI into perceived job control and stress demonstrated that high trait EI individuals see themselves as flexible, easily adaptable to their environment, and in firm control of their emotional reactions.

That study also revealed a positive link between trait EI and organizational commitment (OC). However, that association was not direct, but mediated through the effects of trait EI on other variables that themselves bear on OC (e.g., perceived job control). In fact, the relationship between trait EI and perceived job control was particularly strong, indicating that perceived control over one’s feelings is closely related to a perceived sense of con-
control in the workplace. This link should be further explored because it could be indicative of a more generalized sense of control of high trait EI individuals that permeates a variety of contexts (interpersonal, occupational, etc.). More generally, further research is necessary to establish the veracity of the full spectrum of claims in the popular literature (e.g., Goleman, 1998) about the importance of EI at work.

**Extending the theory of trait emotional intelligence**

The theory of trait emotional intelligence demonstrates how the various EI models, where they are meaningful, mainly refer to established personality traits. It can be extended to cover other faux cognitive abilities, including, in the first instance, intrapersonal, interpersonal, and social (e.g., Petrides, Mason, & Sevdalis, 2011). Focusing on personality traits relating to emotions yields trait emotional intelligence, focusing on traits relating to social behavior yields trait social intelligence, etc. Through this strategy, the faux cognitive abilities can be integrated into existing personality taxonomies, which is where they belong conceptually.

In addition to linking faux cognitive abilities to mainstream differential psychology, the trait intelligences framework offers concrete predictive and, especially, explanatory advantages. Carving up personality variance across specific content domains helps contextualize it, thus increasing its explanatory power. Instead of trying to explain findings based on five broad and orthogonal personality dimensions, one relies on domain-specific, content-coherent constructs.

The trait intelligences label emphasizes the aim of integrating faux cognitive abilities into mainstream personality hierarchies, while the alternative, and in some respects preferable, labels of trait self-efficacies and trait self-concepts emphasizes the aim of integrating the social-cognitive (Bandura, 2001) and self-concept literatures (Marsh, Trautwein, Ludtke, Koller, & Baumert, 2006) into the said hierarchies. Hitherto, much of our research has focused predominantly on the former aim, even though the integration of the latter two literatures is of equal interest due to their scientific origins and wider scope.

**References**


Θεωρία και εφαρμογές της Χαρακτηριολογικής 
Συναισθηματικής Νοημοσύνης (Trait EI) 

ΚΩΝΣΤΑΝΤΙΝΟΣ Β. ΠΕΤΡΙΔΗΣ 1
ΣΤΕΛΛΑ ΜΑΥΡΟΒΕΛΗ2

ΠΕΡΙΛΗΨΗ
Η εργασία συνοψίζει τη θεωρία της Χαρακτηριολογικής Συναισθηματικής Νοημοσύνης (ΧΣΝ ή συναισθηματική αυτοαποτελεσματικότητα ως γνώρισμα) με επεξηγηματικές εφαρμογές από τους τομείς της κλινικής, της εκπαιδευτικής και της οργανωτικής ψυχολογίας. Επίσης, συζητούνται εν συντομία οι βασικοί περιορισμοί του εννοιολογικού προσδιορισμού της ΣΝ ως γνωστικής ικανότητας. Η ΧΣΝ προτείνεται ως προτιμούμενη εναλλακτική και εξηγείται η σχέση της με άλλα μοντέλα συναισθηματικής νοημοσύνης που χρησιμοποιούν μετρήσεις αυτοαναφοράς, αλλά στερούνται υφιστάμενης θεωρητικής τεκμηρίωσης. Παρουσιάζονται οι διάφορες μορφές του Ερωτευματολογίου Χαρακτηριολογικής Συναισθηματικής Νοημοσύνης (TEIQue) καθώς και το δειγματολογικό πεδίο (sampling domain) της ΧΣΝ σε παιδιά. Η εργασία ολοκληρώνεται με συζήτηση των θεωρητικών προεκτάσεων της θεωρίας ΧΣΝ.

Λέξεις κλειδί: Χαρακτηριολογική Συναισθηματική Νοημοσύνη, συναισθηματική αυτοαποτελεσματικότητα ως γνώρισμα, εφαρμογές, TEIQue

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