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9

Measuring Trait Emotional Intelligence

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Summary

This chapter provides a brief introduction to the construct of emotional intelligence (EI), focusing on the conceptual distinction between trait EI (or emotional self-efficacy) and ability EI (or cognitive-emotional ability). The former encompasses emotion-related behavioral dispositions and self-perceived abilities measured via self-report, whereas the latter concerns actual emotion-related cognitive abilities and must be measured via maximum-performance tests. Salient measures of both types of EI are succinctly reviewed. It is argued that in terms of measurement most success has been achieved in relation to trait EI rather than ability EI. The overarching message of the chapter is that progress in the field is contingent on recognizing the fundamental differences between the two EI constructs.

9.1   INTRODUCTION

In *Sense and Nonsense in Psychology*, Hans J. Eysenck posed the question whether personality could ever be measured. He noted: "the answer depends on what we mean by personality, what we mean by measurement, and, indeed, one might even maintain that it depends on the meaning of the term 'can' " (Eysenck, 1958, p. 175). Although emotional intelligence (EI) has been the subject of much attention, both at the popular as well as at the academic level, only now are we beginning to provide answers to some of the fundamental questions posed about the construct. This chapter reviews the status of the EI field, with special reference to the distinction between trait EI and ability EI, and focuses specifically on the measurement of the former construct.

9.2   BRIEF HISTORY OF EI

The distal roots of EI can be traced back to Thorndike's (1920) social intelligence, which concerned the ability to understand and manage people and to act wisely in human relations. Its proximal roots lie in Gardner's (1983) work on multiple intelligences and, more specifically, his concepts of intrapersonal and interpersonal intelligence. According to Gardner (1999), "*interpersonal intelligence* denotes a person's capacity to understand the intentions, motivations, and desires of other people and, consequently, to work effectively with others" (p. 43). By contrast, "*intrapersonal intelligence* involves the capacity to understand oneself, to have an effective working model of oneself—including one's own desires, fears, and capacities —and to use such information effectively in regulating one's own life" (p. 43).

As a term, *emotional intelligence* appeared several times in the literature (Greenspan, 1989; Leuner, 1966; Payne, 1986), before the first formal model and definition were introduced by Salovey and Mayer (1990). These researchers also carried out the first relevant empirical studies (Mayer, DiPaolo, & Salovey, 1990). Goleman's (1995) influential book popularized the construct and strongly influenced most subsequent scientific conceptualizations of EI. Thus, following the model proposed by Salovey and Mayer, and especially after Goleman's best-selling book, many models of EI emerged. However, the correspondence between models and data has been weak in the majority of cases, with most models being dissociated from empirical evidence and most studies carried out in a theoretical vacuum.

9.3   TRAIT EI VERSUS ABILITY EI

In the rush to create measures of this emerging construct, researchers and theorists overlooked the fundamental difference between *typical* versus *maximal* performance (e.g., Ackerman & Heggestad, 1997; Cronbach, 1949; Hofstee, 2001. Thus, while some researchers developed and used self-report question-

naires, others embarked on the development of maximum-performance tests of EI. All, however, assumed they were operationalizing the same construct. Unsurprisingly, this led to conceptual confusion and numerous, seemingly conflicting, findings.

The manner in which individual differences variables are measured (self-report versus maximum-performance) has a direct impact on their operationalization. In recognition of this basic fact, Petrides and Furnham (2000a, 2000b, 2001) distinguished between *trait EI* (or emotional self-efficacy) and *ability EI* (or cognitive-emotional ability). It is important to understand that trait EI and ability EI are two *different* constructs. The former is measured through self-report questionnaires, whereas the latter ought to be measured through tests of maximal performance. This measurement distinction has far-reaching theoretical and practical implications. For example, trait EI would not be expected to correlate strongly with measures of general cognitive ability (g) or proxies thereof, whereas ability EI should be unequivocally related to such measures.

9.4   MIXED VERSUS ABILITY MODELS OF EI

The distinction between trait EI and ability EI is predicated on the method used to measure the construct and *not* on the elements (facets) that the various models are hypothesized to encompass. As such, it is unrelated to the distinction between mixed and ability models of EI (Mayer, Salovey, & Caruso, 2000), which is based on whether or not a theoretical model mixes cognitive abilities and personality traits.

Unlike the distinction between trait EI and ability EI, that between mixed and ability models pays no heed to the most crucial aspect of construct operationalization (i.e., the method of measurement) and is perfectly compatible with the idea of assessing cognitive ability variables via self-report (see Mayer et al. 2000; Tapia, 2001). However, it should be clear that cognitive abilities cannot be successfully assessed through self-report procedures. Indeed, correlations between actual and self-estimated scores tend to hover around $r = .30$ (Furnham, 2001; Paulhus, Lysy, & Yik, 1998).

Mayer et al.'s (2000) distinction between mixed versus ability models is at variance both with established psychometric theory, because it neglects the issue of the measurement method, as well as with all available empirical evidence, which clearly shows that self-report measures of EI tend to intercorrelate strongly, irrespective of whether or not they are based on mixed or ability models. All incoming data continue to highlight the need to distinguish between two EI constructs, namely, trait EI and ability EI (O'Connor & Little, 2003; Warwick & Nettelbeck, 2004).

9.5   MEASUREMENT OF ABILITY EI

The most prominent measures of ability EI are the Multifactor Emotional Intelligence Scale (MEIS Mayer, Caruso, & Salovey, 1999) and its successor, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, and Caruso, 2002). However, other measures of this construct are slowly starting to emerge. Table 9.1 presents a summary of ability EI measures, along with basic information about their reliability, validity, and factor structure.

The problem that ability EI tests have to tackle is the inherent subjectivity of emotional experience (e.g., Spain, Eaton, & Funder, 2000; Watson, 2000). Unlike standard cognitive ability tests, tests of ability EI cannot be objectively scored because, in most cases, there are no clear-cut criteria for what constitutes a correct response. Ability EI tests have attempted to bypass this problem by relying on alternative scoring procedures, which had also been used in the past for addressing similar difficulties in the operationalization of social intelligence, but without marked success (see Matthews, Zeidner, & Roberts, 2002). It is perhaps still too early to pass final judgment on the effectiveness of these procedures and it should be noted that some progress has been achieved over the many iterations that the best of these tests have undergone (e.g., Mayer et al., 2002). Indeed, some researchers argue that ability EI tests have improved considerably over the years (Matthews, Zeidner, & Roberts, in press). In our view, the fact that ability EI tests, after over a decade of research and development, continue to grapple with questions about internal consistency and factor structure does not augur well for their future.

9.6   MEASUREMENT OF TRAIT EI

The explosion in the number of trait EI measures may have given the impression that the construction of psychometrically sound questionnaires is an easy business. Anyone cognizant of the basic elements of psychometrics, particularly those relating to the validation process, knows that this is not the case. The fact is that few trait EI measures have been developed within a clear theoretical framework and even fewer have sturdy empirical foundations. Indicative of the confusion in the field is that most self-report questionnaires purport to measure EI as a cognitive ability. Table 9.2 presents a summary of trait EI measures, along with basic information about their reliability, validity, and factor structure. The entries have been organized by year of publication and principal author surnames. Some additional information for each measure is presented in the text.

Table 9.1 Summary of Ability EI Measures

Measure	Authors	α	r_{tt}	Pred. Val.	Incr. Val.	Conv./Discr. Val.	Structure
EARS. Emotional Accuracy Research Scale	Mayer & Geher (1996)	Low (.24 for target scoring and .53 for consensus scoring	?	?	?	Small and unstable correlations with self-report empathy	Unclear (4 factors?)
EISC. Emotional Intelligence Scale for Children	Sullivan (1999)	Low to moderate	?	?	?	?	?
MEIS. Multifactor Emotional Intelligence Scale	Mayer et al. (1999)	Good for global ability EI (.70–.80), but low (.35–.66) for branches 3 & 4 (better for consensus than for expert scoring)	?	Unclear	?	Small to moderate correlations with crystallized intelligence (Gc) Low correlations with the Big Five	Unclear (3 factors?)

table continues

Table 9.1   Summary of Ability EI Measures

Measure	Authors	α	r_{tt}	Pred. Val.	Incr. Val.	Conv./Discr. Val.	Structure
MSCEIT. Mayer-Salovey-Caruso Emotional Intelligence Test	Mayer et al. (2002)	Better for Version 2 than Version 1 (.68–.71)	?	Well-being, verbal SAT scores	Social deviance (over personality and verbal intelligence	Convergence between general consensus and expert consensus scoring. Very low correlations ($<.30$) with trait EI measures	Unclear (4 factors?)
FNEIPT. Freudenthaler & Neubauer Emotional Intelligence Performance Test	Freudenthaler & Neubauer (2003)	Moderate: .69 for "managing own emotions" and .64 for "managing others' emotions"	?	?	?	"Managing own emotions" correlated with self-reported intrapersonal EI (.51), and "managing others' emotions" correlated with self-report interpersonal EI (.25). Both subscales correlated with the Big Five (.18 to −.51)	Unclear (2 factors?)

Note. Information in this table is necessarily succinct and readers are encouraged to consult the original sources for specific details. Entries designated "unclear" do not necessarily indicate conflicting evidence, as they may also refer to lack of adequate data. Question marks indicate that we have been unable to obtain data for the relevant entry.

α = Reliability estimate Cronbach's α, r_{tt} = Test-retest reliability estimate, Pred. Val. = Predictive validity, Incr. Val. = Incremental validity, Conv./Discr. Val. = Convergent/discriminant validity, Structure = Factor structure.

Trait Meta-Mood Scale (TMMS; Salovey et al., 1995)

The first measure of EI, in general, and of trait EI, in particular, the TMMS is loosely based on the original model by Salovey and Mayer (1990). It comprises 30 items, which are responded to on a 5-point Likert scale. The TMMS produces scores on three factors, namely, "attention to emotion", "emotional clarity", and "emotion repair". Contrary to the assumption of many users, the TMMS was not designed to yield a global score, which should be taken into account when analyzing data and interpreting results. Another point to keep in mind is that the TMMS was not designed to cover the entire trait EI sampling domain and, thus, overlooks many core facets of the construct.

BarOn Emotional Quotient Inventory (EQ-i; Bar-On, 1997)

The EQ-i is one of the most widely used measures of trait EI in the literature. Its theoretical background is somewhat vague, having been converted from a well-being inventory to an EI questionnaire. The a-priori structure of the EQ-i is 133 items, 15 subscales, and 5 higher-order factors: "intrapersonal", "interpersonal", "adaptation", "stress management", and "general mood". Empirically, however, there is no evidence for a higher-order structure, as the questionnaire seems to be unifactorial (Petrides & Furnham, 2001). Furthermore, in an item-level factor analysis, Palmer, Manocha, Gignac, and Stough (2003) identified a solution comprising six subscales, instead of the 15 reported in the technical manual of the inventory. Another limitation of the EQ-i is that it includes several irrelevant facets (e.g., "problem solving", "reality testing", "independence") and neglects many relevant ones (e.g., "emotion perception", "emotion expression", "emotion regulation"). The EQ-i covers the sampling domain of trait EI better than many other inventories, as can be seen by a comparison of Tables 1 and 2 in Petrides and Furnham (2001).

Schutte Emotional Intelligence Scale (SEIS Schutte et al., 1998)

The SEIS consists of 33 items responded to on a 5-point Likert scale. Its psychometric properties have been scrutinized in several papers (e.g., Austin, Saklofske, Huang, & McKenney, 2004; Petrides & Furnham, 2000b; Saklofske, Austin, & Minski, 2003) and it has been found to have between three and four factors. The main shortcoming of the SEIS is that it provides incomplete coverage of the trait EI domain, being exclusively based on the three dimensions postulated in the early Salovey and Mayer (1990) model. Nevertheless, it has been used extensively in the literature and can be employed as a short measure of global trait EI (Schutte et al., 2001).

Emotional Competence Inventory (ECI; Boyatzis et al., 1999)

The ECI measures "emotional competencies" broadly related to EI. It has two forms (self-report and 360 degree). Currently, there exist two versions: Version 1 (110 items, 7-point Likert scale) and Version 2 (73 items, 6-point Likert

Table 9.2   Summary of Trait EI Measures

Measure	Authors	α	r_{tt}	Pred. Val.	Incr. Val.	Conv./Discr. Val.	Structure
TMMS. Trait Meta Mood Scale	Salovey, Mayer, Goldman, Turvey, & Palfai (1995)	.70–.85	?	Depression, mood recovery, goal orientation	?	Moderate correlations with the Big Five	3 factors, but no global score
EQ-i. Emotional Quotient Inventory	Bar-On (1997)	Generally good (about .85)	Good	Mental health, coping, work and marital satisfaction	?	Moderate to high correlations with the Big Five	Unclear
SEIS. Schutte Emotional Intelligence Scales	Schutte et al. (1998)	.70–.85	?	Social support, life and marital satisfaction, depression, performance on cognitive tasks	Some evidence vis-à-vis the Big Five	Medium-to-high correlations with the Big Five	Unclear (3 or 4 factors?) global score
ECI. Emotional Competence Inventory	Boyatzis, Goleman, & Hay/McBer (1999)	.70–.85 for global score, > .85 for social skills	Adequate, but based on small samples	Moderate correlations with managerial styles and organizational climate. Low correlations with career success	?	Unclear (small samples); uncorrelated with critical thinking and with analytical reasoning	Unclear (4 factors?)
EI-IPIP. Emotional Intelligence-based IPIP-Scales	Barchard (2001)	.70–.85	?	?	?	?	?

table continues

Table 9.2 Summary of Trait EI Measures

Measure	Authors	α	r_{tt}	Pred. Val.	Incr. Val.	Conv./Discr. Val.	Structure
EISRS. Emotional Intelligence Self-Regulation Scale	Martinez-Pons (2000)	.75–.94	?	Depression, life satisfaction, positive affect	?	Unclear	Unclear (1 factor?)
DHEIQ. Dulewicz & Higgs Emotional Intelligence Questionnaire	Dulewicz & Higgs (2001)	Low to moderate (.54–.71)	?	Organizational level advancement	?	Unclear	Unclear
TEIQue. Trait Emotional Intelligence Questionnaire	For example, Petrides (2001), Petrides, Pérez, & Furnham (2003)	Generally good (about .85)	Good (.50–.82; global score .78; 12-month period)	Mental health (depression, personality disorders, dysfunctional attitudes), adaptive coping styles, job stress, job performance, organizational commitment, deviant behavior at school, sensitivity to mood induction	Good vis-à-vis Giant Three, Big Five, and positive and negative affect	The TEIQue can can be isolated in Giant Three and Five-Factor space (Petrides, 2001)	4 factors, global score

table continues

Table 9.2   Summary of Trait EI Measures

Measure	Authors	α	r_{tt}	Pred. Val.	Incr. Val.	Conv./Discr. Val.	Structure
SPTB. Sjöberg Personality Test Battery (EI Scale)	Sjöberg (2001)	.70–.85	?	Anti-authoritarian attitudes, emotion identification skills, social orientation	?	Moderate correlations with Extraversion (.37) and Neuroticism (−.50)	?
TEII. Tapia Emotional Intelligence Inventory	Tapia (2001)	.70–.85	Good (.60–.70)	?	?	?	4 factors, global score
SUEIT. Swinburne University Emotional Intelligence Test	Palmer & Stough (2002)	Generally good (about .85)	Good (.82–.94, 1-month period)	Well-being, occupational stress	?	Moderate correlations with Neuroticism (−.41), Extraversion (.44), Openness (.27)	?
WEIP-3. Workgroup Emotional Intelligence Profile (Version 3)	Jordan, Ashkanasy, Härtel, & Hooper (2002)	.70–.85	?	Self-Monitoring, empathy	?	Small to moderate correlations with TMMS	Unclear (7 factors?)

table continues

Table 9.2 Summary of trait EI Measures

Measure	Authors	α	r_{tt}	Pred. Val.	Incr. Val.	Conv./Discr. Val.	Structure
EIS. Emotional Intelligence Scales	Van der Zee, Schakel, & Thijs (2002)	Adequate for "other ratings" (.70–.85) Low for self-ratings (< .60)	?	Academic performance, social success	Some evidence vis-à-vis the Big Five	Low correlations with IQ. Moderate to high correlations with the Big Five	Unclear (3 factors?)
WLEIS. Wong & Law Emotional Intelligence Scales	Wong & Law (2002)	.70–.85	?	Job performance and satisfaction. Organizational commitment, turnover intention	?	Small negative correlations with IQ	4 factors, global score
LEIQ. Lioussine Emotional Intelligence Questionnaire	Lioussine (2003)	.70–.85	?	?	?	Moderate correlations with the Big Five	Unclear (7 factors?)

Note. Information in this table is necessarily succinct and readers are encouraged to consult the original sources for specific details. Entries designated "unclear" do not necessarily indicate conflicting evidence, as they may also refer to lack of adequate data. Question marks indicate that we have been unable to obtain data for the relevant entry.

α = Reliability estimate Cronbach's α, r_{tt} = Test-retest reliability estimate, Pred. Val. = Predictive validity, Incr. Val. = Incremental validity, Conv./Discr. Val. = Convergent/discriminant validity, Structure = Factor structure.

scale; Sala, 2002). The ECI consists of 20 dimensions (called competencies) that are organized into four clusters: "self-awareness", "self-management", "social awareness", and "social skills". Although it has proved popular in the field of human resources management, there seems to be little information about its psychometric properties in scientific journals.

Emotional Intelligence IPIP Scales (EI-IPIP; Barchard, 2001)

The EI-IPIP appears in the International Personality Item Pool web site (http://www.ipip.org). It comprises 68 items organized into seven components: "positive expressivity", "negative expressivity", "attending to emotions", "emotion-based decision making", "responsive joy", "responsive distress", and "empathic concern". Barchard (2001) presents gender-specific internal consistency values for each of the seven components, ranging from .59 to .83. To our knowledge, the EI-IPIP has not yet been used in the scientific literature.

Emotional Intelligence Self-Regulation Scale (EISRS; Martinez-Pons, 2000)

This instrument is based on Martinez-Pons's self-regulation model of EI, which attempts to integrate Bandura's social-cognitive theory with the original EI model by Salovey and Mayer (1990). The EISRS consists of 52 items, responded to on a 7-point Likert scale, 10 subscales and four higher-order dimensions: "motivation", "goal setting", "strategy usage", and "self-evaluation of strategy effectiveness and adjustment". Martinez-Pons (2000) presents data based on a sample of 100 adults showing adequate internal consistency reliabilities for the EISRS. To our knowledge, this scale has not yet been used in other studies in the literature.

Dulewicz & Higgs Emotional Intelligence Questionnaire (DHEIQ; Dulewicz & Higgs, 2001; Higgs & Dulewicz, 1999)

The DHEIQ is based on Goleman's (1995, 1998) books and was designed for use in organizational settings. It consists of 69 items organized into seven dimensions: "self-awareness", "influence", "decisiveness", "interpersonal sensitivity", "motivation", "conscientiousness and integrity", and "resilience". The DHEIQ has not been used much in the scientific literature and there is little information about its reliability and validity.

Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2001; Petrides & Furnham, 2003; Petrides et al., 2003)

Over the past six years, the various forms and translations of the TEIQue are being developed, adapted, and validated within the context of an academic

research program,[1] focusing primarily on trait EI (e.g., Furnham & Petrides, 2003; Pérez, 2003; Petrides, Frederickson, & Furnham, 2004). The TEIQue is predicated on the trait EI theory and model, which conceptualizes emotional intelligence as a personality trait, located at the lower levels of personality hierarchies (e.g., Petrides & Furnham, 2000b, 2001, 2003). The latest version of the long form of the TEIQue comprises 153 items, providing scores on 15 subscales, four factors, and global trait EI. The dimensionality of the TEIQue is currently under investigation. Early analyses appear to support a four-factor structure comprising "well-being", "self-control skills", "emotional skills", and "social skills". Empirical studies using various TEIQue forms and versions have been reported in Furnham and Petrides (2003); Petrides and Furnham (2003); Petrides et al. (2004).

Sjöberg Personality Test Battery (SPTB; Sjöberg, 2001)

The SPTB is a large battery measuring many different personality constructs and facets, including trait EI. The complete battery comprises 789 items, responded to on a 4-point Likert scale. In an exploratory factor analysis of the 21 SPTB scales, one of the four factors obtained encompassed seven traits which the author interpreted as dimensions of EI: "introversion", "empathy", "emotional inhibition", "machiavellianism", "alexithymia", "self-actualization", and "external attribution".

Tapia Emotional Intelligence Inventory (TEII; Tapia, 2001)

The TEII epitomizes the theoretical confusion permeating the field, purporting to operationalize the cognitive ability model of Mayer and Salovey (1997) via self-report items. It should be clear that the TEII is a measure of trait EI because its items attempt to operationalize self-perceptions and dispositions, rather than emotion-related cognitive abilities. The TEII consists of 41 items that factor into four dimensions: "empathy", "utilization of feelings", "handling relationships", and "self-control".

Work-Place Swinburne University Emotional Intelligence Test (Work-place SUEIT; Palmer & Stough, 2002)

This is another measure of the construct designed for use in the workplace. The Work-place SUEIT comprises 64 items, responded to on a 5-point Likert scale. It produces a global score as well as scores on five, empirically determined, subscales: "emotional recognition and expression", "understanding emotions", "emotions direct cognition", "emotional management", and "emotional control". The Work-place SUEIT is relatively new and its reliability and validity are currently under investigation.

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[1] All TEIQue forms and translations are available from the second author of this chapter, free of charge, for research purposes only.

Workgroup Emotional Intelligence Profile (WEIP; Jordan et al., 2002)

This measure was designed to profile the EI of individuals in workgroups. It consists of 27 items, responded to on a 7-point Likert scale and measuring seven facets organized into two broad dimensions ("intrapersonal" and "interpersonal"). Early research with the WEIP has shown that work teams comprising high trait EI employees tend to perform better than work teams comprising low trait EI employees (Jordan et al., 2002).

Emotional Intelligence Scale (EIS; Van der Zee et al., 2002)

The EIS comprises 85 items responded to on a 5-point Likert scale and measuring 17 subscales. It appears to have a three-factor structure comprising "empathy", "autonomy", and "emotional control". The internal consistencies for most EIS subscales are relatively low, with several values below the .50 mark. Consistent with the conceptual distinction between trait and ability EI, Van der Zee et al. (2002) found that the EIS is related to personality traits, but not to cognitive ability.

Wong & Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002)

The WLEIS was designed as a short measure of EI for use in organizational research. It comprises 16 items, responded to on a 7-point Likert scale and measuring four dimensions: "self-emotion appraisal", "emotion appraisal of others", "use of emotion", and "regulation of emotion". Wong and Law (2002) report good internal consistency reliabilities for their measure. In terms of validity, they present data showing that scores on the WLEIS are related to job performance and job satisfaction.

Lioussine Emotional Intelligence Questionnaire (LEIQ; Lioussine, 2003)

This is a trait EI questionnaire developed in the Russian language. It consists of 38 items based on a 4-point Likert scale. Its structure includes eight subscales and two broad dimensions ("intrapersonal" and "interpersonal"). The LEIQ is also relatively new and its reliability and validity are currently under investigation.

9.7   GENERAL COMMENTS ON THE MEASUREMENT OF EI

In most cases, the existence of alternative measures for the same construct is a sign of research progress. We suspect the main reason why this is not the case with trait EI is that the field remains stuck in a pre-paradigmatic state in which questionnaires are being developed without adequate reference to underlying theory; psychometric or substantive. Indeed, most authors and users of these instruments are still under the impression that EI is a unitary construct that can be measured via self-report questionnaires or via maximum-performance

tests or via makeshift tasks, without any implications for its conceptualization, or its nomological network, or the interpretation of the resultant findings.

It should be pointed out that not all trait EI measures are open to the foregoing criticisms. However, instead of concentrating on the relative strengths and weaknesses of the various inventories, it would be more profitable briefly to counter a criticism that continues to be levelled against trait EI as a construct. Thus, it is sometimes construed as a serious shortcoming that trait EI is related to the basic personality dimensions and does not always contribute incrementally to the prediction of criterion variance (e.g., MacCann, Matthews, Zeidner, & Roberts, 2004; Salovey, Woolery, & Mayer, 2001). This criticism must be put into perspective by emphasizing once again that the conceptualization of EI as a lower-order personality trait (Petrides & Furnham, 2001) evidently implies that it will be associated with higher-order personality dimensions. Indeed, it would be rather odd if a lower-order personality construct were unrelated to the higher-order personality dimensions that define the factor space it occupies. It is both true and repeatedly noted by researchers (e.g., Petrides et al., 2004) that neither type of EI has effects that are in line with expectations that have been built up in the popular literature (e.g., Cooper & Sawaf, 1997). However, it is also the case that the discriminant and incremental validity of the construct are beyond empirical doubt (Saklofske et al., 2003). In any event, it is important to realize that the issue of incremental validity, as currently discussed, is of limited theoretical significance for the understanding of the construct (see Petrides & Furnham, 2003).

A related issue concerns the sampling domain on which the various EI measures (trait and ability) are based. The first step in the operationalization of a psychological construct entails defining its sampling domain, that is, the facets (elements) that the construct encompasses (e.g., Cattell, 1973). Virtually all EI models, questionnaires, and tests have bypassed this step, providing arbitrarily defined sampling domains. This is evident in Table 9.3, which presents a concise summary of salient EI models, along with the main facets that they encompass.

In the vast majority of cases, the inclusion or exclusion of facets in a model is the result of unstated or arbitrary processes. Also worth noting here is the fact that many facets may sound different, but are operationally the same ("jangle fallacy"; see Block, 1995).

With respect to the elements they encompass, the various models of EI tend to be complementary rather than contradictory (Ciarrochi, Chan, & Caputi, 2000). Moreover, salient EI models tend to share many core facets, even though they also include ones that are prima facie irrelevant to the construct. The commonalities between models provided the basis for the systematic identification of the first sampling domain of trait EI, which included the shared facets, but excluded the peculiar ones (Petrides & Furnham, 2001). The TEIQue is modeled directly on this sampling domain.

As regards the view that trait EI measures are little more than proxies for the Giant Three or the Big Five (e.g., Brackett & Mayer, 2003; Matthews et al., in press), we believe that it is overly pessimistic. There is compelling evidence

Table 9.3   Summary of EI Models

Salovey & Mayer (1990)	Goleman (1995)	Mayer & Salovey (1997)	Bar-On (1997)	Cooper & Sawaf (1997)
– Appraisal and expression of emotion – Utilization of emotion – Regulation of emotion	– Self-awareness – Self-regulation – Self-motivation – Empathy – Handling relationships	– Perception, appraisal, and expression of emotion – Emotional facilitation of thinking – Understanding and analyzing emotions; employing emotional knowledge – Reflective regulation of emotions to promote emotional and intellectual growth	*Intrapersonal* – Emotional self-awareness – Assertiveness – Self-regard – Self-actualization – Independence *Interpersonal* – Empathy – Interpersonal relationship – Social responsibility *Adaptation* – Problem solving – Reality testing – Flexibility *Stress management* – Stress tolerance – Impulse control *General mood* – Happiness – Optimism	– Emotional literacy – Emotional fitness – Emotional depth – Emotional alchemy

table continues

Table 9.3   Summary of EI Models

Goleman (1998)	Weisinger (1998)	Higgs & Dulewicz (1999)	Petrides & Furnham (2001)
Self-awareness – Emotional self-awareness – Accurate self-assessment – Self-confidence	– Self-awareness – Emotional management	*Drivers* – Motivation – Intuitiveness	– Adaptability – Assertiveness
Self-regulation – Self-control – Trust worthiness – Conscientiousness – Adaptability – Innovation	– Self-motivation – Effective communication skills	*Constrainers* – Conscien-tiousness – Emotional resilience	– Emotion appraisal (self & others) – Emotion expression
Self-motivation – Achievement orientation – Commitment – Initiative – Optimism	– Interpersonal expertise – Emotional coaching	*Enablers* – Self-awareness – Interpersonal sensitivity – Influence – Trait	– Emotion management (others) – Emotion regulation
Empathy – Empathy – Organizational awareness – Service orientation – Developing others – Leveraging diversity			– Impulsiveness (low) – Relationship skills – Self-esteem
Social Skills – Leadership – Communication – Influence – Change catalyst – Conflict management – Building bonds – Collaboration and co-operation – Team capabilities			- Self-moti-vation – Social competence – Stress management – Trait empathy – Trait happiness – Trait optimism

Note. This table cannot always include all the elements and relevant information in the various models. Interested readers are encouraged to consult the original sources and other chapters in this book (e.g., Chapter 2 by Neubauer and Freudenthaler).

in support of the discriminant and incremental validity of trait EI, including the isolation of an oblique trait EI factor in Eysenckian as well as Big Five factor space and mounting data showing that several of the measures used to operationalize the construct are able to predict criteria in the presence of the basic personality traits (e.g ., Furnham & Petrides, 2003; Saklofske et al., 2003).

We had three aims in writing this chapter. First, to describe the latest research findings in the EI field, with special reference to the measurement of trait EI. Second, to provide a useful listing of existing EI measures, along with basic information about their structure, reliability, and validity. As regards the first two aims, although some measures are still new, the rationale and theoretical background upon which they are based, in combination with the context within which they have been developed gives a clear indication of their potential for achieving construct validity. Our final aim was to motivate the reader critically to reflect on the extant literature by sifting facts from opinions and speculation. The most basic conclusion to be drawn from such reflection is that the operationalization of EI as a cognitive ability leads to a different construct than its operationalization as a personality trait.

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