

# EXAMINATIONS OF MEASUREMENTS OF EMOTIONAL INTELLIGENCE

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## ABSTRACT

This study examines effects of different measurement methods on Emotional Intelligence (EI) and psychometric differences of the emotional perception from other branches. Subjects include 594 undergraduate students. The self-report EI measures and objective EI measures, which were based on the same conceptualization, showed differences in psychometric properties on the dimension of cognitive ability and personality. Results also showed that Emotional Perception measured with objective format is the only dimension significantly related to cognitive ability and emotional facilitation, understanding, and regulation are neither related to cognitive ability nor related to personality. Insights concerning the conceptualization of emotional intelligence as neither cognitive ability nor personality, measurements of EI and applications of EI in personnel selection were discussed.

## INTRODUCTION

Emotional Intelligence (EI) has generated a great deal of interest in the popular press, the field of social psychology, and more recently in the field of Industrial/Organizational Psychology (see Ashkanasy, 2001; Bachman, Stein, & Sitarenios, 2000; Barrett, 2001; Cho, 2001; Finlinson, Chen, Haeggberg, & Hanley, 2001; Janovics & Christianson, 2001; Johnson & Indvik, 1999; Newsome, Day, & Catano, 2000; Page, 2000; Zeng & Miller, 2002). Based on a competence model profile (Goleman, 1998), Goleman found that 67% of abilities regarded as essential for effective performance were emotional competencies, and EI accounts almost twice as much as IQ and expertise (Goleman, 1998). Watkin (2000) reported findings concerning financial benefits of including EI measure in the selection battery. Based on the data collected in a global consumer firm, selection based on EI measures led to turnover rate decreased from 50% to 6% (Watkin, 2000). According to Watkin (2000), the average real cost for unwanted turnover is 1 year's pay, excluding the hidden pay from finding and training the replacement, impact on customer satisfaction, retention and efficiency, and the search cost for replacement for 50% of all division presidents within two years of hiring was 2 millions. In spite of the much interest in EI and the potential contributions of EI to work place, EI remains elusive. There are Different conceptualizations of EI, and

these differences in underlying theory lead to differences in the psychometric properties of measures to the point that one might conclude that the measures are really measuring different constructs (Davies, Stankov, & Roberts, 1998). Besides, differences in measurement methods, such as self-report measures and objective maximum performance measures, are used to measure emotional intelligence, which may add to the differences in the psychometric properties of the EI construct. Of the two issues, more research has been done on the former one. The purpose of this study is to examine how measurement formats affect the psychometric property of EI construct. Psychometric properties are usually characterized by how the measure is related to existing construct (Stankov, 2000), and the lack of significant correlations of EI with existing cognitive abilities are the basis for the debate whether EI has appropriate convergent validity to be considered as a cognitive ability (e.g. Stankov, 2000; Sternberg, 1999). Therefore, this study tries to focus on examining how the self-report EI and the objective performance EI are related to personality factors and cognitive abilities respectively when they are based on the same theoretical conceptualization.

The examinations of self-report measure of EI could be found in EI literature (e.g. Petrides & Furnham, 2001). Petrides and Furnham (2001) considered that the EI measure in self-report format should be

labeled trait EI to be differentiated from ability EI (Petrides & Furnham, 2001). However, the self-report EI measured referred to in the literature (e. g. Petrides & Furnham, 2001) was the Emotional Quotient Inventory (EQ-I; Bar-On, 1007)), which was supposed to tap factors including behaviors and personalities included in the theoretical conceptualization of EI by Bar-on (1997). The theoretical EI model by Bar-On (1997) includes factors other than cognitive abilities, and it would not be surprising that the EQ-I (Bar-On, 1997) was significantly related to personality factors, and tapped 'trait EI' (Petrides & Furnham, 2001). We are interested in the cognitive perspective of EI, and this study is to examine how the self-report EI based on the cognitive EI model is related to personality factors and cognitive abilities. We intend to examine whether the self-report EI measures and objective performance EI measures based on the same theoretical conceptualization are different in their correlations with cognitive ability and personality, and whether emotional perception is different from other three branches of emotional intelligence in the correlations with cognitive ability and personality. This paper attempts to put the findings of this study in context by discussing differences in measures of EI and the components measured, which might be important to I/O researchers.

The following explains for the choice of the EI model the measures are based on in this study. There are different conceptualizations of EI. Although the different EI definitions were considered complementary rather than contradictory (Ciarrochi, Chan & Caputi, 2000), current theories have not agreed how to define EI. The EI models most commonly referred to in literature are definitions by Goleman (1995), Bar-On (1997) and Mayer and Salovey (1997).

Daniel Goleman is largely responsible for populating the concept of emotional intelligence. According to Goleman (1995), emotional intelligence refers to the ability to motivate oneself and to persist in the face of frustration, the ability to control impulses and delay gratification, the ability to regulate one's moods and keep distress from hampering the ability to think, to empathize, the ability to recognize one's own feelings and those of others, and the ability to manage emotions well within oneself and one's relationships. His definition is broad, including components other than intelligence itself, such as personality traits, motivation and behaviors. Similarly, Bar-On's definition might also be considered broad. Specifically, the definition includes emotional self-awareness, assertiveness, self-regard, self-actualization, independence, empathy, interpersonal relationship, social

responsibility, problem solving, reality testing, flexibility, stress tolerance, impulse control, happiness and optimism (Bar-On, 1997). Some researchers have criticized the conceptualizations for being overly broad and have labeled them 'mixed model' (Mayer, Salovey & Caruso, 2000). The 'mixed model' covers broadly non-cognitive variables representing personality traits, motivation and behaviors desired in various aspects of social life and work situations, and lack of internal consistency and difficult to be evaluated (Mayer, Salovey and Caruso, 2000), and it may not be appropriate to be labeled as a construct.

Different from the definitions of Goleman and Bar-On, Mayer and Salovey's definition is the representative of a narrower model focusing on cognitive ability of processing emotional information (Mayer & Salovey, 1993). According to Mayer, Salovey and Caruso (2000), emotional intelligence represents individual differences in these capacities: appraising and expressing emotion in oneself and others, assimilating emotional experience into cognition, recognizing, understanding and reasoning about emotions and regulating emotions in oneself and in others (Mayer, Salovey & Caruso, 2000). According to Mayer et al. (2000), emotional intelligence is consistent with traditional theories of intelligence, focusing on cognitive ability involved in processing emotional information, ranging from basic psychological processes of emotional perception to more integrated processes of emotional regulation. The conceptualization of emotional intelligence by Mayer and Salovey has been summarized as four-branch model of emotional intelligence (Mayer & Salovey, 1997). Branch 1, Emotional Perception refers to the capacity in perceiving emotional information in oneself, in others and in objects. Branch 2, Emotional Facilitation, refers to the capacity in generating, using and feeling emotion as necessary for communication and other mental activities. Branch 3, Emotional Understanding, refers to the capacity in understanding affective messages and reasoning about emotional meanings. Branch 4, Emotional Regulation, refers to the capacity in managing affective information and promoting personal understanding and growth. The conceptualization seems more clearly independent of other existing construct. However, it remains unclear whether the four branches in the ability model include the appropriate range of emotional declarative knowledge and procedural knowledge, and are the best conceptualization of emotional intelligence (Zeng & Miller, 2002). Within the model of emotional intelligence (Mayor & Salovey, 2000), the four branches have not gained unequivocal empirical supports. For example, an empirical study

showed that only emotional perception emerged as distinctive from personality and cognitive ability (Davies et al., 1998). It seems reasonable that people are different in accuracy, quickness, depth, and breadth in emotional perception, and emotional perception is a type of intelligence rather than personality. It is not very clear what the other three branches tap. Conceptually, Emotional Regulations seems related to both cognitive ability and personality. This study will also examine how emotional perception is different with the other three branches in correlation with cognitive ability and personality and serves intelligence.

Besides the differences in the conceptualization of emotional intelligence, the available tests of emotional intelligence differ widely not only in their theoretical conceptualization but also in their methods of measurements. Both self-report measures and objective formats have been used to measure EI. This has added to the confusion concerning this construct of emotional intelligence. Self-report measures are normally used for assessing personality construct and for those types of responses concerning self-perceptions, personal reactions, preferences, interests, attitudes, and values. They consist of items such as 'I know what others are feeling just by looking at them' (Schutte et al., 1998). For example, the Emotional Intelligence Scale (Schutte et al., 1998) is a self-report measure of emotional intelligence. Objective performance scales measure objective performance with items with correct or incorrect responses. For example, if a particular expression is considered to be expressing happiness, it is assumed that the face does indeed express happiness. People who judge the face to be expressing happiness are considered correct in answering that item, and will have higher score. On the contrary, those who judge the face to be expressing emotions other than happiness are considered incorrect, and will have lower scores on that item. Objective measures are normally used for assessing ability construct. For example, Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT, Mayer, Salovey & Caruso, 2000) is an objective measure of emotional intelligence.

Studies have come to different conclusions concerning the relationship of EI to cognitive ability and personality. Self-report measures of EI seem more strongly related to personality than objective measures, while objective measures appear more strongly related to cognitive ability than personality. For example, empirical studies done by Davies et al. (1998) and Schutte et al (1998) did not show significant correlations between emotional intelligence and cognitive ability. Schutte et al. (1998) employed a self-report measure of emotional

intelligence based on Salovey and Mayer's conceptualization of emotional intelligence in their empirical studies, and revealed that emotional intelligence tended to load on factors along with personality variables such as neuroticism, extraversion, and agreeableness, suggesting emotional intelligence may not be a construct separated clearly from personality. However, empirical studies based on the objective performance measures found some psychometric support that emotional intelligence meet criteria of traditional intelligence (Robert, Zeidner & Mathews, 2001).

It has been argued that in order to be regarded as a separate construct within the framework of cognitive ability, emotional intelligence should have significant but not high correlations with measures of other type of intelligence (Stankov, 2000). However, if the emotional intelligence measure had a strong relationship with traditional intelligence, emotional intelligence might have limited utility to a personnel selection for it adds little incremental variance to personnel selection battery (Zeng & Miller, 2002). Up to now, only a few studies have examined the relationship between emotional intelligence and cognitive ability, and in general, have little to clarify how EI is related to cognitive ability. Schutte et al. (1998) found that a measure of emotional intelligence based on the conceptualization of Salovey and Mayer was unrelated to cognitive ability, as measured by mathematical and verbal scores on SAT. Consistent with the findings of Schutte et al. (1998), Davies et al. (1998) also found in an empirical study that emotional perception emerged as distinctive from personality and cognitive ability, no meaningful relationship between emotional intelligence and crystallized intelligence, and only low loadings of emotional intelligence items on a verbal factor in another study. Besides, the majority of studies that focus on the related concepts, such as social intelligence and practical intelligence (Sternberg, 1995) also failed to show any significant relationships with academic intelligence. However, we found that the measurements of emotional intelligence used in these statistical analyses are based on self-report measures. In this study, we try to employ both self-report measure and objective maximum performance measure, which are based on the same theoretical conceptualization, to examine how emotional intelligence is related to cognitive ability and whether there is any difference between self-report measure and objective performance measure as related to cognitive ability. Besides, we will examine whether Emotional perception is different from emotional regulation in they are related to the cognitive ability. One measure of cognitive ability

with good predictive validity for job performance that has been commonly used in personnel selection context is Wonderlic Personnel Test (WPT; Wonderlic, 1992), which measures the level at which an individual learns, understands instructions and solves problems. We are interested in examining how EI will be related to the cognitive ability measured with WPT. Previous research found that the Emotional Regulation measured with the objective ability measurement format was significantly related to WPT, and the four factors among the five personality factors, Extraversion, Agreeableness, Emotional Stability and Openness as well (Janovics & Christianson, 2001). This study will also employ WPT, and will test the following hypothesis.

Hypothesis 1a: There will be a significant correlation between objective measure of EI perception and cognitive ability while the correlations between self-report EI measure and cognitive ability will be nonsignificant.

Hypothesis 1b: There will be significant correlation between objective measure of Emotional Regulations and cognitive ability and the four personality factors, Extraversion, Agreeableness, Emotional Stability and Openness.

The second focus of this paper is the relationship of EI with personality measures. If an emotional intelligence measure were really measuring personality, then adding the measure to a personnel selection battery would likely have little utility, as the construct would already be captured by the personality measure. The big five model includes Extraversion, Agreeableness, Conscientiousness, Emotional Stability Autonomy and Openness to Experience. Extraversion is defined as the tendency to be outgoing, assertiveness, active and excitement seeking, Agreeableness consists of tendency to be nice, gentle, trusting and warm, Conscientiousness is represented by achievement and dependability, Emotional Adjustment often indicated by its opposite to neuroticism, the tendency to be moody, anxious, fearful, depressed, and Openness is labeled as the tendency to be creative, imaginative and thoughtful (Goldberg, 1999). Study of how the five personality factors were related to job performance showed that Conscientiousness were the only general predictor of job performance, and the other four factors related to more specific aspect of job performance such as service jobs, leadership and in team context (Barrick & Mount, 1991; Mount, Barrick & Stewart, 1998)

Empirical studies showed that the relationship between emotional intelligence and personality is much stronger than the relationship between emotional intelligence and traditional intelligence (Ciarrochi, Chan & Caputi, 2000). Emotional Intelligence has been found to be significantly related to personality variables based on the Big Five model. For example, in the study done by Zeng & Miller (2002), emotional intelligence was found to be significantly correlated with agreeableness, extraversion, and conscientiousness. However, we found that the measurements of emotional intelligence used in these statistical analyses are based on self-report measures. In this study, we try to employ both self-report measure and objective measures to further examine how emotional intelligence is related to personality, and whether there is any difference between self-report measure and objective measure as related to personality. Previous research indicated the significant correlations of self-report EI and personality factors recognized in the Big Five model (e.g. Janovics & Christiansen, 2001; Zeng & Miller, 2002). For example, Zeng & Miller (2002) found that emotional intelligence was found EI with self-report format were significantly correlated with Agreeableness, Extraversion, and Conscientiousness. Janovics and Christiansen (2001) found that EI measured with self-report format Extraversion, Agreeableness, Emotional Stability and Openness were significantly related. This study will test the following hypotheses.

Hypothesis 2: The correlation between the self-report measure of emotional intelligence and personality measure is significant, while the correlation between the objective performance measure of emotional intelligence and personality is not.

Hypothesis 2a: Emotional intelligence measured with self-report measurement format is significantly related to Extraversion.

Hypothesis 2b: Emotional intelligence measured with self-report measurement format is significantly related to Agreeableness.

Hypothesis 2c: Emotional intelligence measured with self-report measurement format is significantly related to Conscientiousness.

Hypothesis 2d: Emotional intelligence measured with self-report measurement format is negatively related to Neuroticism and significantly related to Emotional Adjustment.



Hypothesis 2e: Emotional intelligence measured with self-report measurement format is significantly related to Openness.

## METHOD

### Participants

The sample included five hundred and ninety-four undergraduates from a Midwestern University. All participants were recruited from those in an introductory psychology course, and received extra credit for their Introductory Psychology class for their participation.

### Procedures:

After signing the informed consent to participate in the study, the subjects were administered the following four tests: Schutte Emotional Intelligence Scale (SEIS; Schutte, N.S., Malouff, J. M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., & Dornheim, L., 1998), Trait Meta-mood Scale (TMMS; Salovey, Mayor, Goldman, Turvey & Palfai, 1995), items from the International Personality Item Pool (IPIP; Goldberg, 1999) and the Wonderlic Personnel Test (WPT; Wonderlic, 1992) and Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey & Caruso, 2000).

We did not counter balance the EI measures. However, the self-report EI was administered before the objective EI measure, which is supposed to tap ability objectively and is less likely to be affected by faking or the influence of the self-report measure the subjects took before the objective measure.

### Measures

Trait Meta-mood Scale (TMMS; Salovey, Mayor, Goldman, Turvey & Palfai, 1995). The TMMS is a self-report scale assessing trait-related dimensions of mood, including attention to one's own feelings, clarity of feelings and mood repair (Salovey, Mayor, Goldman, Turvey & Palfai, 1995).

Schutte Emotional Intelligence Scale (SEIS; Schutte, N.S., Malouff, J. M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., & Dornheim, L., 1998) SEIS (Schutte et al, 1998) is a self-report measure of emotional intelligence based on the conceptualization of emotional intelligence by Salovey and Mayer (1990). It contains the perception and appraisal of emotion and reflective regulation of emotions. The scale has a single factor with 33-items that assess the appraisal and

expression of emotion in self and others, regulation of emotion in self and in others, and utilization of emotion in solving problems. Internal consistency ranged from .87 to .90 as measured the Cronbach's alpha, and it has the test retest reliability of .78 (Schutte et al., 1998).

International Personality Item Pool (IPIP; Goldberg, 1999) Items were chosen (Goldberg, 1999) to measure the big five domains, extroversion, agreeableness, conscientiousness, emotional stability and openness. IPIP (Goldman, 1999) includes 100 items. We are only using a selection of items, 10 for each of the five personality traits. The coefficient Alpha ranges from .79 to .87. Its convergent validity with 16 PF ranges from .51 to .77.

Wonderlic Personnel Test (WPT; Wonderlic, 1992) WPT (Wonderlic, 1992) is an objective performance of cognitive ability, measuring the level at which an individual learns, understands instructions and solves problems. The test-retest reliability is .82 - .94, and the internal consistency is .88 - .94. (Wonderlic, 1992). Correlation between WPT (Wonderlic, 1992) and academic achievement are positive (Wonderlic, 1992).

Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey & Caruso, 2000) MSCEIT V2.0 (Mayer, Salovey & Caruso, 2000) is an objective measure of emotional intelligence, measuring emotional perception, emotional understanding, emotional integration and emotional regulation defined by Mayer, Caruso and Salovey (1999) as four branches of emotional intelligence. The Cronbach Alpha ranges from .76 to .93.

## RESULTS

Hypothesis 1a) was supported. The WPT (Wonderlic, 1992) did NOT have significant correlations with SEIS (Shutte et al., 1998) or the TMMS (Salovey et al., 1995) but did have low significant correlations with Branch 1 of the MSCEIT (Mayer, Salovey & Caruso, 2000) (See Table 1). Hypothesis 1b) was not supported. WPT (Wonderlic, 1992) was not significantly related with Emotional Regulation measured with the objective measurement format (See Table 1). The personality factors, Extraversion, Agreeableness, Emotional Stability and Openness, were not related to the Emotional Regulation (See Table 2). Besides, data analyses also showed that EI did not correlate with Emotional Understanding and Emotional Facilitation as well. Thus, traditional intelligence as measured by the WPT only had significant correlations with the

Perception Branch of the MSCEIT (Mayer, Salovey & Caruso, 2000), and did not have significant correlations with the other three branches of the MSCEIT (Mayer, Salovey & Caruso, 2000) and the

other two self-report measure of EI, the SEIS (Schutte et al., 1998) and the TMMS (Salovey et al., 1995).

Table 1:

Means, Standard Deviations, and Correlations of MSCEIT Subscales with Wonderlic Personnel Test

Measure	Mean	SD	Wonderlic Personnel Test
Wonderlic Personnel Test	21.71	6.45	1.00
MSCEIT			
TOTAL	86.40	14.90	.12
<i>Experiential</i>	95.62	15.20	.16 **
Emotional Reasoning	82.57	13.34	.06
<i>Branch 1: Perceiving</i>	98.04	14.56	.21 **
<i>A Faces</i>	91.68	14.13	.17 **
<i>E Pictures</i>	93.92	11.89	.16 **
Branch 2: Using	94.24	15.61	.05
F Sensations	91.68	14.13	.01
B Facilitation	99.91	15.11	.03
Branch 3: Understanding	84.43	13.81	.06
G Blends	85.01	13.30	.02
C Changes	89.34	13.22	.10
Branch 4: Managing	85.49	14.04	.03
D Emotion Management	88.51	13.15	.06
H Social Management	86.37	13.88	.00
SEIS	126.04	14.85	-.05
TMMS	3.47	.33	.00
TMMS A	3.65	.52	-.01

TMMS C	3.53	.63	.03
TMMS R	3.30	.53	-.05

**Note.** SEIS = Schutte Emotional Intelligence Scale; TMMS = Trait Meta-mood Scale; TMMS C = Trait Meta-mood Scale Emotional Clarity; TMMS A = Trait Meta-mood Scale Emotional Attention; TMMS R = Trait Meta-mood Scale Emotional Repair.

\*\* p < .01.

Hypothesis 2 was supported. Hypothesis 2a, Hypothesis 2b, Hypothesis 2c, Hypothesis 2d and Hypothesis 2e were all supported. There were many significant correlations between the Big Five personality measures, IPIP (Goldberg, 1999) and the SEIS (Schutte et al., 1998) and the TMMS (Salovey et al., 1995) (See Table 2). In fact, 21 of 25 potential correlations were significant. Emotional intelligence measured with self-report measurement format, SEIS (Schutte et al., 1998), is significantly related with Extraversion, Agreeableness,

Conscientiousness, Neuroticism and Openness respectively. Emotional intelligence measured with self-report measurement format, TMMS (Salovey et al., 1995), is significantly related to Agreeableness, Conscientiousness, Neuroticism and Openness but not with Extraversion. The two self-report measures, SEIS (Schutte et al., 1998) and TMMS (Salovey et al., 1995) had much higher correlations with Agreeableness, Conscientiousness, Neuroticism and Openness than with Extraversion. And the strength of correlations with Agreeableness, Conscientiousness, Neuroticism and Openness of both of the self-report measures are similar, with SEIS (Schutte et al, 1998) higher. (See Table 2). However, the IPIP Big Five scales (Goldman, 1999) were only significantly correlated with a subscale of the MSCEIT (Mayer, Salovey & Caruso, 2000) in one of 45 potential correlations, and do not have any significant correlations with the perception branch. (See Table 2).

Table 2:

Correlations of Emotional Intelligence Measures with Big Five Personality

Measure	E	A	C	N	O	
SEIS	.08*	.21**	.26 **	-.20 **	.26 **	
TMMS Overall	.04	.21**	.24 **	-.13 **	.23 **	
TMMS C	.02	.10*	.10 *	-.38 **	.14 **	
TMMS A	-.05	.11*	.16 **	.06 *	.12 **	
TMMS R	.08	.18 **	.18 **	-.26 **	.13 **	
MSCEIT						
Total	.00	.00	-.02	.07	.02	
Emotional Experiencing	-.03	-.02	-.03	.02	-.01	
Emotional Reasoning	.03	.02	.00	.09	.03	
Faces Task	-.03	.04	-.05	-.02	.00	

Pictures Task	.03	.04	.02	.06	.05	
Branch 1	-.00	.03	-.03	.02	.03	
Branch 2	-.07	-.07	-.03	.00	-.06	
Branch 3	.05	.01	.01	.11*	.06	
Branch 4	.02	.02	-.01	.05	.00	

Note. SEIS = Schutte Emotional Intelligence Scale; TMMS = Trait Meta-mood Scale; TMMS C = Trait Meta-mood Scale Emotional Clarity; TMMS A = Trait Meta-mood Scale Emotional Attention; TMMS R = Trait Meta-mood Scale Emotional Repair;

E = Extraversion; A = Agreeableness; C = Conscientiousness; N= Neuroticism; O = Openness.

\*\*  $p < .01$ .

## DISCUSSION

Much of the research on EI from the I/O community attempts to answer the question: Is the construct of emotional intelligence related to cognitive ability, personality, both, or neither? This study sheds light on this question as well. These findings demonstrated that all EI measures are not created equal, and different measurement approaches based on the same underlying theoretical construct can have different correlations with intelligence and personality, and thus affect the construct measurement.

Self-report scales of EI are significantly related to personality as evidenced by the substantial correlations with all the factors recognized in the Big Five personality model, Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Openness.

These findings may encourage the theoretical exploration of the relations of the personality factors and self-report EI. Self-report EI may be tapping a self-perception of emotional ability. For example, those with high agreeableness may have higher self-perceived ability in understanding other's feelings, which facilitate one's interactions with others in an empathetic way; those with higher in Conscientiousness may have better self-perceived ability in at regulating their own emotions for achievement motivation; those with higher openness may recognize better that they need to pay attention to their own emotions and consider the relations

between their emotions and thoughts. We are doing research to further investigate the relations between EI the personality factors. Objective maximum performance measure is significantly related to traditional intelligence as supported by the correlations with the cognitive ability measures. The findings showed that among the four branches of the emotional intelligence model, only emotional perception is empirically supported to be consistent with the theoretical conceptualization of the cognitive model of emotional intelligence by Mayor and Salovey (2000), and the other branches are neither of intelligence in the traditional sense nor of personality traits. Further research is needed to examine what the three branches tap, and whether emotional intelligence only includes emotional perception. These findings may indicate that it is better for EI to be seen as a construct independent of traditional cognitive ability and personality, neither of cognitive ability nor of personality, and it may be more appropriate to use another term, Emotionability rather than Emotional Intelligence to refer to abilities of Emotional Understanding, Emotional Facilitation and Emotional Management before the construct is clearer.

The findings have significant practical implications. Although EI has gathered considerable momentum with international attention, research has been slow to define the construct, its measurement, and how it might be related to job performance. This study contributes to the research and application of EI especially in the following two aspects.

Firstly, the findings call attention to the confusion caused by using different measurement approaches to assess the construct of the same name in empirical studies, and urge cautions needed to interpret the empirical findings. The conceptualizations of EI vary widely, ranging from a new ability construct to another personality dimension. The consensus of opinions concerning the construct of EI has not achieved with different conceptualizations having their own empirical evidence to support their arguments. This study shows how measurement formats affect EI psychometric property, and casts light on the understanding of EI construct. Although the differences between self-report measures and objective performance measures have been discussed in general test and measurement literature, confusion exists of assessing the same construct of emotional intelligence with different measurement methods in empirical studies.

Secondly, the findings are useful for personnel selection purpose as well. Emotional intelligence has been considered as a predictor of job performance (Johnson & Indvik, 1999). Zeng and Miller (2002) in their another research suggested that EI can be useful to predict job performance, particularly in jobs that require a proactive persona, or a customer service job, a job that includes a high amount of stress, or one that requires leadership and poise. If a personnel selection researcher or practitioner wanted to take the advice of a growing number of researchers (Johnson & Indvik, 1999; Zeng & Miller, 2002) and include an emotional intelligence test in a battery or conduct research with emotional intelligence they might be intimidated, if not lost in the vast array of choices. This paper attempts to provide some guidance. This study shows that different EI measurement formats actually tap differently. The SEIS (Schutte et al., 1998) or the TMMS (Salovey et al., 1995) might be able to offer incremental validity over a personality measure since they are correlated but in the low range. On the other hand, the MSCEIT (Mayor, Salovey and Caruso, 2000) Emotional Perception subscale probably has incremental validity over a traditional intelligence measure. Although the MSCEIT (Mayor, Salovey and Caruso, 2000) emotional perception is significantly related to cognitive ability, the correlation is in the low rank. The objective emotional perception may tap another kind of cognitive ability, and is able to offer something different from traditional intelligence for personnel selection. However, further studies may be needed concerning how MSCEIT (Mayor, Salovey and Caruso, 2000) is related to job performance and thus predict beyond cognitive ability and personality. Hierarchical regression analysis with actual applicant

sample may provide more information about whether the EI measures add to predictive variance. The lack of correlations with cognitive ability of the Emotional Facilitation, Emotional Understanding and Emotional Regulation may also indicate technical difficulties in measuring EI objectively. Consensus scoring entails possible problem of negative skewed distribution, which may result in practical consequence of discrimination at the top end of scale. New measures of EI may be helpful, and we are working on new EI measures. Further research is helpful on the advantage that MSCEIT (Mayor, Salovey and Caruso, 2000) has over other personality measures concerning fakability. It has been suggested (Barrett, 2001) that when concerned with fakability of a measure, a measure that uses an ability framework such as the MSCEIT (Mayor, Salovey and Caruso, 2000) would likely be more preferable than one, which uses a self-report framework.

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