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An examination of the structural, discriminant, nomological, and incremental predictive validity of the MSCEIT© V2.0 ☆

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Abstract

We examined the structural, discriminant, nomological, and incremental predictive validity of a behavioral measure of emotional intelligence, using data from two undergraduate student samples. Covariance structure modeling indicated that the eight subscales of the MSCEIT© V2.0 were best modeled with a solution consisting of three first-order factors, and supported the existence of one higher-order factor of overall emotional intelligence. Multi-group confirmatory factor analyses indicated that the higher-order factor had discriminant validity from personality and conformity. Contrary to prediction, the higher-order factor was more highly correlated to social desirability than to general mental ability or long term affect. Finally, hierarchical regression results indicated that overall emotional intelligence did not predict incremental variance in either GPA or life satisfaction.

Keywords: Emotional intelligence; Validation

Emotional intelligence (EI)–the ability to read and manage emotions–has attracted considerable attention and generated much controversy among academics, practitioners, and laypersons alike (e.g., Cooper and Sawaf, 1997; Dulewicz, 2000; George, 2000; Goleman, 1998; Law, Wong, and Song, 2004). According to Goleman (1995), it may "matter more than IQ" for such lofty outcomes as individual performance and life success, a claim that has caused others to question both the importance (e.g., Izard, 2001) and validity (e.g., Roberts, Zeidner, & Matthews, 2001) of the construct. The first step to resolving the controversy surrounding

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emotional intelligence is to establish the validity of emotional intelligence measures. Our goal was to assess the structural, discriminant, nomological, and incremental predictive validity of a recently developed measure of emotional intelligence, the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT© V2.0; Mayer, Salovey, & Caruso, 2002). Our study extends previous research regarding the validity of the measure by providing a more comprehensive and conceptually integrated examination of validity, as described below.

1. The mental abilities model of emotional intelligence

Theorists following the "mental abilities" model argue that as a set of abilities, emotional intelligence is most appropriately measured using problem-based (i.e., behavioral) measures. Unlike competing models of emotional intelligence (e.g., Bar-On, 2000; Goleman, 1995), the mental abilities model assumes that emotional intelligence is largely unrelated to personality traits. The leading abilities-based measure of emotional intelligence is the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT© V2.0; Mayer et al., 2002; Mayer, Salovey, Caruso, & Sitarenios, 2003). The MSCEIT© V2.0 includes various subtests that sample the four facets of the construct as defined by Mayer and Salovey (1997): 1) Perceiving Emotions, or the ability to identify emotions in self and others; 2) Facilitating Thought, or the ability to access and generate emotions in order to communicate feelings or to employ them in other cognitive processes; 3) Understanding Emotions, or the ability to comprehend how emotions combine and transition, and to understand the meaning of such combinations and transitions; and 4) Managing Emotions, or the ability to reflectively regulate emotions and emotional relationships. Although some of the subtests were uniquely developed, others borrowed heavily from previous measures of related constructs, such as the Profile of Nonverbal Sensitivity (PONS; Rosenthal, Hall, DiMatteo, Roggers, & Archer, 1979), which used facial recognition and gestures to examine underlying neuropsychological functioning.

The MSCEIT© V2.0 is a revision of the Multi-Factor Emotional Intelligence test (MEIS; Mayer et al., 1999). Major changes included a more comprehensive norming sample for scoring purposes (described below) and shorter measures that reflect recent refinements in the conceptualization of the mental abilities model of emotional intelligence. Initial research has found the MSCEIT© V2.0 to be both reliable (Lopes, Salovey, & Straus, 2003; Mayer et al., 2003) and valid (Brackett and Mayer, 2003; Day and Carroll, 2004; Lopes et al., 2003, 2004; O'Connor and Little, 2003). However, this research has focused on limited types of validity and none has included higher-order factor models, which is notable given the hierarchical structure of Mayer et al.'s (2002) conceptualization of emotional intelligence (described in detail below).

We examined the structural, discriminant, nomological, and incremental predictive validity of the MSCEIT© V2.0 using two large samples (N=412 and 655 respectively) of undergraduate business students. We extended the findings of previous validity studies in three ways. First, we utilized higher-order factor modeling to examine the factor structure of the measures comprising the MSCEIT© V2.0. Second, we tested the discriminant and nomological validity of a higher-order model of emotional intelligence against a broader set of theoretically similar variables (i.e., personality, long term affect, and social desirability) than those included in previous studies. Third, we examined incremental predictive validity against the Wonderlic Personnel Test (Wonderlic Personnel Test and Scholastic Level User's Manual, 2000), a well-established measure of general mental ability, as well as personality and long term affect.

2. Hypotheses

2.1. Structural validity

The mental abilities model originally defined emotional intelligence as a higher-order factor that included four "branches" or sub-factors, as described above (Mayer and Salovey, 1997). The MSCEIT© V2.0 includes two tasks as measures of each branch: Perceiving Emotions (faces and pictures tasks); Facilitating Thought (sensations and facilitation tasks); Understanding Emotions (blends and changes tasks); and Managing Emotions (emotion management and emotional relationships tasks). In terms of factor structure, the eight "tasks" should each load on their respective sub-factors, which in turn should load onto one higher-order factor representing overall emotional intelligence. More recently, Mayer et al. (2002) suggested that the four branches may be further grouped into two emotional intelligence "areas": Experiential Emotional Intelligence (Perceiving Emotions and Facilitating Thought branches) and Strategic Emotional Intelligence (Understanding Emotions and Managing Emotions branches). Thus, from a modeling perspective, the updated conceptual model includes four first-order factors (i.e., EI Branches), two second-order factors (i.e., EI Areas), and one-third order factor (i.e., Overall EI)—all derived from the eight task scores.