

Examining the Construct Validity of the Metaphors Test



Jane C. Park, Kelly E. Grob, Yevgeniya Verenikina, Anne E. Sully, and Kimberly A. Barchard
University of Nevada, Las Vegas

ABSTRACT

Emotional Intelligence is a multi-faceted construct. Existing tests do a good job of measuring some aspects of Emotional Intelligence. The Metaphors Test (Barchard, 2004) was designed to measure the ability to decipher the emotional content of ambiguous sentences. This test may measure a new facet of Emotional Intelligence. The purpose of this research was to examine the construct validity of the Metaphors Test as a measure of Emotional Intelligence. Using a sample of 281 undergraduates, the Metaphors Test was correlated with the four branches of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, & Caruso, 2004): Perceiving Emotions, Using Emotions to Facilitate Thought, Understanding Emotions, and Managing Emotions. The four correlations were all moderate, positive, and statistically significant. These results provide promising evidence of construct validity. Future research should select the items with the highest correlations with the MSCEIT. This will enable researchers to create a revised, shorter version of the Metaphors Test with higher construct validity.

INTRODUCTION

Emotional Intelligence is a broad concept. It includes the ability to perceive, comprehend, and manage emotions, the ability to use emotions to assist thinking, and the ability to reason and problem solve on the basis of emotions (Tsaousis & Nikolaou, 2005). Some authors say Emotional Intelligence includes social skills, emotional awareness, leadership skills, interpersonal intelligence, and many other aspects of emotion and cognition (Dizén, Berenbaum, & Kerns, 2005). To test whether all of these facets are related to each other and how these facets are related to important outcome variables, we need good measures of each aspect of Emotional Intelligence. The goal of the present study is to examine the construct validity of a new test of Emotional Intelligence, the Metaphors Test (Barchard, 2004)

The Metaphors Test (Barchard, 2004) uses a new approach to measuring Emotional Intelligence. For each of 48 emotions, respondents are asked to rate several different emotions. Metaphors may be a useful way of measuring Emotional Intelligence, because metaphors and other types of figurative language are often used to express emotions (Fainsilber & Ortony, 1987; Davitz, 1969). People describing intense emotions use more metaphors than people describing mild emotions, and this is especially true when people describe their actual feeling states (Fainsilber & Ortony, 1987). Perhaps metaphors are useful when describing emotions because emotions are transitory and may be hard to describe literally. Describing inexpressible language is the main reason for using metaphors (Fainsilber & Ortony, 1987). If metaphors are useful for expressing emotions, then one aspect of Emotional Intelligence is the ability to decode the emotional meaning of metaphors.

Emotional Intelligence is associated with important real life outcomes. Emotional Intelligence correlates positively with life satisfaction and well-being, educational achievement, relationship success, and work and leadership success (Tsaousis & Nikolaou, 2005). In addition, Emotional Intelligence correlates negatively with poor physical and psychological health, job related stress (Tsaousis & Nikolaou, 2005), bullying, violence, to-

bacco use, deviance, and drug abuse (Mayer et al., 2004). The demonstrated importance of Emotional Intelligence argues for the importance of measuring all aspects of Emotional Intelligence, so that we can determine which aspects of Emotional Intelligence are most important.

METHOD

Participants

The 231 participants (163 female, 118 male) ranged in age 18 to 50 (mean 19.98, standard deviation 3.52). They identified themselves as 58.2% Caucasian, 12.9% Hispanic, 12.1% Asian, 8.2% African American, 5.4% Pacific Islander, and 3.2% other.

Measures

The Metaphors Test

The Metaphors Test (Barchard, 2004) was designed to measure one aspect of Emotional Intelligence: the ability to decipher the emotional content of ambiguous written information. It includes 48 metaphors. For each metaphor, there are 5 to 9 emotions. The instructions state: "Consider each of the following metaphors. Imagine that someone said this metaphor to you. Try to imagine what they are feeling. Then use the following response to indicate the extent to which the person is feeling each of the emotions given." Respondents rate each emotion using a five-point scale (1 = not at all, 2 = a little, 3 = somewhat, 4 = a lot, 5 = extreme).

Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)

The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2004) includes 141 items, and measures four branches of Emotional Intelligence: perceiving emotions, using emotions to facilitate thought, understanding emotion, and managing emotion (Mayer et al., 2004). There are eight tasks in the MSCEIT; two for each of the four branches. The first branch, Perceiving Emotions, includes the Faces Task, in which respondents identify the emotions in faces, and the Pictures Task, in which respondents identify emotions in landscapes and designs. The second branch, Using Emotion, includes the Sensations Task, in which respondents indicate the connections between emotions and sensory stimuli and the Facilitations Task, in which respondents identify the emotions that would best facilitate a certain action. The third branch, Understanding Emotions, includes the Changes Task, in which respondents indicate the circumstances in which emotional intensity increases or decreases and how one emotion state changes into another; and the Blends Task, in which respondents identify the emotions that are involved in more complex emotional states. The fourth branch, Managing Emotions, includes the Emotion Management Task, in which respondents identify the best way for a person to maintain or change their feelings in hypothetical scenarios, and the Relationships Task, in which respondents identify the best action to obtain a certain relationship objective.

Scoring

Both the Metaphors Test and the MSCEIT use Proportion Consensus Scoring. Proportion Consensus Scoring allots a score to each response according to the proportion of people endorsing that response (MacCann et al., 2004). For example, if 50% of the people choose A, 30% B, and 20% C, then an A response would receive a score of .50, B a score of .30, and C a score of .20.

Procedures

Participants completed all measures online. The measures were divided into two 90 minute testing sessions.

RESULTS

We correlated the Metaphors Test with the four branches of MSCEIT. All four correlations were moderate, positive, and statistically significant. See Table 1.

MSCEIT Branch	Correlation
Perceiving Emotions	.29**
Using Emotions	.38**
Understanding Emotions	.35**
Managing Emotions	.37**

df=279. ** $p < .01$.

DISCUSSION

The purpose of this study was to examine the construct validity of the Metaphors Test (Barchard, 2004). We found moderate, positive, statistically significant correlations between the Metaphors Test and the four branches of the MSCEIT. These correlations are high enough to provide promising evidence of construct validity, without being so high that they would indicate that the Metaphors Test adds nothing new. Emotional Intelligence is a broad multi-faceted construct, and the Metaphors Test appears to be a promising measure of a new facets of this area.

Future research should refine the Metaphors Test. The Metaphors Test currently contains 48 metaphors, each of which has 5 to 9 emotions. There are a total of 335 items. Future research should select the best metaphors and the best emotions for each metaphor, to shorten the test while maintaining construct validity. In addition, future versions of this test could include simpler literary forms, such as similes and declarative factual statements. This might allow the test to be used with respondents who have lower reading skills.

Future research should explore the relationship between the Metaphors Test and important real world outcomes. Other tests of Emotional Intelligence are associated with success at work, school, and in one's personal life (Mayer et al., 2004; Tsaousis & Nikolaou, 2005). Does the Metaphors Test also predict these outcomes? Furthermore, future research should measure verbal ability or the ability to interpret the literal meaning of each metaphor, to determine whether it is knowledge of the emotional content of the metaphors that is critical to success.

REFERENCES

- Barchard, K. A. (2004). *Metaphors Test*. Unpublished psychological test. University of Nevada, Las Vegas. Available from Kimberly A. Barchard, University of Nevada, Las Vegas, Department of Psychology, 4505 Maryland Parkway, PO Box 455030, Las Vegas, NV 89154-5030, barchard@unlv.nevada.edu
- Dizén, M., Berenbaum, H., & Kerns, J. (2005). Emotional awareness and psychological needs. *Cognition and Emotion*, 19(8), 1140-1157. doi:10.1080/02699930500260468
- Fainsilber, L., & Ortony, A. (1987). Metaphorical uses of language in the expression of emotions. *Metaphor & Symbolic Activity*, 2(4), 239-250. doi:10.1207/s15327868ms0204_2
- MacCann, C., Roberts, R., Matthews, G., & Zeidner, M. (2004). Consensus scoring and empirical option weighting of performance-based Emotional Intelligence (EI) tests. *Personality and Individual Differences*, 36(3), 645-662. doi:10.1016/S01918869(03)00123-5
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15(3), 197-215. doi:10.1207/s15327965pii1503_02
- Tsaousis, I., & Nikolaou, I. (2005). Exploring the relationship of emotional intelligence with physical and psychological health functioning. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 21(2), 77-86. doi:10.1002/smi.1042

