EVALUATING THE DISCRIMINANT VALIDITY OF THE METAPHORS TEST

Abstract

The Metaphors Test (Barchard, Hersley, Anderson, & Walker, 2013) is a new test of emotion perception in which test takers indicate the extent to which various emotions are conveyed by metaphors. In order for the Metaphors Test to be considered a valid test of emotion perception, it must have discriminant validity. The Five-Factor Model (McCrae & John, 1992), also known as the Big Five Model, is one of the most well-known frameworks for personality. Based upon theory and previous research, the Metaphors Test should have low correlations with the Big Five. Conscientiousness had a moderate correlation with the Metaphors Test. Agreeableness had a moderate-to-high correlation with the Metaphors Test. This might suggest that the proportion consensus scoring (of any attribute) is influenced by the tendency to care about what other people think. Future research on emotion perception might benefit from focusing on tests with veridical scoring keys, such as the new Measure of Emotional Connotations (Barchard, Kirsch, Anderson, Grob, & Anderson, 2012).

INTRODUCTION AND PURPOSE OF THE STUDY

The Big Five (Five Factor Model) was developed as a means to establish a list of personality traits and the Metaphors Test was designed to measure a cognitive ability. For the Metaphors Test to be considered a valid test, it needs to have discriminant validity. Discriminant validity is achieved when measurements between different constructs have low correlations (Reitman, Schepers, & Jansen, 2007). Given that cognitive abilities and personality usually have low to moderate correlations, the Metaphors Test should have low to moderate correlations with the Big Five in order to have discriminant validity.

LITERATURE REVIEW

Verbal Emotion Perception Tests

Emotional Accuracy Research Scale (EARS)

The Emotional Accuracy Research Scale uses thought samples (descriptions of specific situations) from eight individuals. Test takers read the thought sample, and from each pair they chose the response that indicates how they would feel in the given situation. The Emotional Accuracy Research Scale allows researchers to calculate both target and consensus scores (Mayer & Geher, 1998).

Stories Task

The Stories task is one of the Multifactor Emotional Intelligence Scale (Mayer et al., 2000). The stimuli used were carefully designed so that the correct answers were known for each item, regardless of the responses of the norm group. A study of the relationship of the MEC to personality (Hersley, Grob, & Barchard, 2012) found significant but small correlations with openness (r = .28 p < .01) and agreeableness (r = .28 p < .01).

Expected Discriminant Validity

The ability to perceive emotions is one aspect of emotional intelligence. To demonstrate that emotional intelligence is a new and useful construct, it is important that it is distinct from well-known constructs such as the Big Five personality traits (Joseph & Newman, 2010). The Big Five traits are Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (McCrae & John, 1992). The Metaphors Test is expected to have low to moderate correlations with each of these dimensions because it should be measuring different constructs.

METHODLOGY

Participants

A total of 181 individuals participated in this study through mTurk. Participants were paid 10 cents. Participants ranged in age from 20 to 65. Of those, 44.8% were female and 55.2% were male. Participants lived in the following countries: 86.2% India, 9.9% United States, 6% Russia, and 3.5% other. Participants had a variety of first language: 29.3% Tamil, 27.1% English, 22.7% Malayalam, 8.5% Hindi, and 12.7% other. Ethnically, participants identified themselves as follows: 78.8% Asian, 17.5% White, 6.5% Indian, 3.4% American Indian or Alaskan Native, and 2.8% other.

Procedures

The study was completed online and took approximately 15 minutes to complete. Measures

The Metaphors Test

The Metaphors Test (Barchard et al., 2011) was designed to measure the ability to perceive emotion in written language. The test contains ten metaphors, with three emotions each, for a total of 30 items. Participants are instructed to indicate the extent to which each metaphor conveys the given emotions. An example item is given in Figure 1. The test is scored using proportion consensus scoring.

International Personality Item Pool

The International Personality Item Pool (IPIP) was developed as a measure of personality that could be accessed at no cost (Ehrhart, Roese, Ehrhart, & Kilian, 2008). The IPIP is a 50-item personality inventory with the potential to be used for a variety of purposes. The test contains each item for each of the Big Five traits. Participants respond to each item using a five-point scale (1 = Very Inaccurate, 5 = Very Accurate).

RESULTS

The Metaphors Test correlated significantly with four of the five scales of the Five Factor Test. The only exception was extraversion. The results are shown in Table 1. Most of these correlations are small to moderate. However, the correlation with agreeableness (r = .58 p < .01) might be interpreted as large.

REFERENCES


具有的特质与成绩相关性（0.58 p < 0.01）可能比原研究的结果要高。也许这归因于当前研究中的自变量的多样性。未来的研究应该确保所有参与者都认真阅读研究材料。此外，Metaphors Test 与agreeableness 有显著但不强的相关性（r = .28 p < .01）。

结论

原研究中，Metaphors Test 表明它具有良好的相关性，与每个大五维度的变项都有。两个维度有显著但不强的相关性。然而，其他两个变项的相关性也比研究中已有的相关性低。限制于上述的学生样本可能对相关的大小有不同的看法。这种差异在后续的研究中应该被区分开来，以讨论在不同维度的相关性。

综上所述，这种差异应当作为预期的结果，并且不需要额外的干预措施。未来的研究应该关注这些相关的差异，并进一步探讨相关性可能的来源。