Evaluating the Convergent Validity of the Measure of Emotional Connotations

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ABSTRACT
The Measure of Emotional Connotations (MEC; Barchard, Kirsch, Anderson, Grob, & Anderson, 2012) is a new test that has been developed to measure the ability to perceive the emotional connotations of written language. To examine its convergent validity, the MEC will be correlated with the two emotion perception tasks on the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, Caruso, & Sitarenios, 2003). These MECST tasks are valid tests of emotion perception; thus, strong correlations would provide support for the MEC as a valid test of emotion perception.

INTRODUCTION
Emotion perception is the ability to identify and interpret emotional stimuli, which alters an individual’s emotional state in response to the stimuli (Phillips, Drevets, Rauch, & Lane, 2003). There are two types of tests that examine emotion perception: non-verbal and verbal. Tests using non-stimuli, such as the Mayer-Salovey-Caruso Emotional Intelligence Test (MECST) (Mayer, Salovey, Caruso, & Sitarenios, 2003) or the Diagnostic Analysis of Nonverbal Accuracy (Nowicki & Duke, 1994), use a variety of stimuli to measure emotion perception. There are two types of tests that examine emotion perception using non-stimuli: verbal tests, such as the Metaphors Test and Gregory’s Test (Gregory & Wegener, 1996), ask respondents to identify the emotions conveyed in written language. The MEC, was developed to measure the ability to perceive the emotional connotations of written language. The test contains no metaphors and no explicit emotion words, and thus MEC provides an unambiguous measure of the ability to perceive the emotional connotations of written language.

LITERATURE REVIEW
There are two types of tests that examine emotion perception: non-verbal and verbal. Non-Verbal Tests of Emotion Perception
MECST
The MECST (Mayer et al., 2003) is designed to measure four branches of emotional intelligence. One of those branches is Emotion Perception. This branch is measured with two tasks: Faces and Pictures. The MECST is scored using proportion consensus scoring.

Diagnostic Analysis of Nonverbal Accuracy
The Diagnostic Analysis of Nonverbal Accuracy (Nowicki & Duke, 1994) measures the ability to perceive emotions: happiness, sadness, anger, and fear. Diagnostic Analysis of Nonverbal Accuracy contains four tests of how well individuals perceive emotions (facial expressions, posture, gestures, and tones of voice) and three tests of how well individuals express emotions (facial expressions, gestures, and tone of voice).

Verbal Tests of Emotion Perception
Emotional Accuracy Research Scale
The Emotional Accuracy Research Scale uses thought samples (descriptions of specific situations) from eight individuals. Test takers read the thought sample, and from each paragraph the response that indicates how the individual feels. The Emotional Accuracy Research Scale allows researchers to calculate both target and consensus scores (Mayer & Gable, 1996).

Multifaceted Emotional Intelligence Scale
The Stories Task includes six stories that were created by having fifteen people report on situations or thoughts affecting their mood. Respondents were then asked to record their moods on a 30-item mood adjective checklist using a five-point scale (Mayer & Salovey, 1999).

Gregory’s Test
Participants read 12 short (metaphors) sentences, selected one of two emotions that described the sentence, and then explained why they selected that emotion. The test was scaled using a form of consensus scoring called “Mode Consensus Scoring” (Barchard & Russell, 2006) in which the correct answer to a test item is the most commonly selected answer.

Metaphors Test
The Metaphors Test (Barchard, Anderson, Hensley, & Walker, 2011) was designed to measure the ability to perceive the emotional connotations of written language. Respondents are presented with a metaphor followed by three emotion words. The test is scored using proportion consensus scoring.

Measure of Emotional Intelligence (MEC)
MEC contains five types of verbal stimuli. See Table 1. The first three items have similar to the items from Gregory and Wegener (2008). The MEC stories are different in three ways. First, verbal stimuli are based upon previous research on conceptual metaphors for the four emotions. Second, the MEC does not use explicit emotion words, such as happy or joyful in the stimuli themselves, the way the other two tests do. Finally, the MEC includes four stories for each scenario: the content is the same, the only difference is the phrasing of the ideas in order to convey the different emotions.

METHODOLOGY
Participants
A total of 800 undergraduates from the UNLV subject pool (200 in each group) will participate in this study for 3 credits towards their psychology course. The study will take approximately 3 hours (45 minutes for MSCEIT and 2 hours and 15 minutes for the MEC). Previous research from this subject pool has shown that most participants are between 18 and 22, with slightly more women than men.

MECST
The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2003) is a test of emotional intelligence. Individuals are given a picture and use a five-point scale to indicate to what extent an emotion is being expressed by the face, landscape, or abstract photo. The MECST is scored using proportion consensus scoring.

MEC
Eight hundred participants will use the forced choice or rating scales format for all MEC items. They will be randomly assigned to one of three groups: “two word phrases,” “imagine you are,” or “a person feels like they are.” Within that group, the participant will receive all of their 10 phrases per emotion (anger, fear, sadness, and happiness) for forced choice, or 10 or 40 rating scales (thus the first part will total 120 or 40 items respectively). The next task for these participants is the Sentences task. Each participant will be assigned 10 sentences for each emotion, totaling 40 items. Finally, participants will complete the Stories task. The participant will be randomly assigned one of the four paragraphs (anger, happiness, sadness, or fear) for each of the scenarios (such as “The plane is leaving” and “I am going shopping today”), totaling 4 items. All MEC items will be scored using proportion consensus scoring and then scored using verbal scoring.

Procedures
Participants will be recruited through the UNLV Psychology Subject Pool. The study will be advertised using Sona Systems, which will direct interested students to the online materials for the study. Participants will first complete the demographics questionnaire and MECST. Then they will be directed to the MECST website. The participants will be sent a debriefing email as soon as they begin the study, so that they will receive the debriefing regardless of whether they complete all parts of the study.

DATA ANALYSIS
We will correlate the two MECST scores (Faces and Pictures) with the 20 MEC scores (5 tasks, with 2 response scales, with 2 scoring methods). Table 2 shows an example of how these correlations might look.

CONCLUSION
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The MEC (Barchard et al., 2012) is measures participants’ ability to perceive the emotional connotations of written language. MECST correlates measure MECST emotion perception tasks, this suggests MEC is a valid tool for emotion perception. If some of the MECST tasks, scoring methods, or response options have lower correlations, then this means that the ones with higher correlations are more valid for testing emotion perception. This could be critical for companies who wish to recruit employees who will be dealing with emotionally sensitive topics in an online environment.

Table 1
Measure of Emotional Connotations Stimuli
Stimuli Type Example Forced Choice Item
Two word phrases Select the feeling that is expressed by each of the following phrases: Flattening butterfly
Imagine yourself as Imagine yourself as a flattening butterfly. How do you feel?
A person feels like A person feels like a flattening butterfly. How does that person feel?
Sentences Select the feeling that is conveyed by each of the following sentences: The snow paralyzed the icy landscape.

Example Rating Scale Item
How much is each feeling expressed by each of the following descriptions: “I am going shopping today.” How much of each feeling is expressed by each of the following descriptions?

Table 2
Correlations between the MEC and MSCEIT for Proportion Consensus Scoring

REFERENCE

UNLV
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Response Format
MEC Item
Forced Choice
Two word phrases
Imagine yourself as
A person feels like
A person feels like

Rating Scales
Two word phrases
A person feels like
A person feels like

Sentences

Stories

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