Can You Accurately Recognize Emotions?

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BEAVER INTERPERSONAL B.I.S.P. SENSITIVITY PROJECT

School of Psychological Science

Research Question

Do existing tests of nonverbal skill predict how well you can read the emotions of a stranger?

Introduction

How valid are Emotional Intelligence tests? In this study, we assessed the ability of two published tests, which both claim to assess how well one can read the emotions of others, to predict how accurately people could assess the emotional experiences (i.e. boredom and anxiety) of people they had just met. If the measures are valid, then people who score high on these tests should also be the most accurate at judging the emotions of strangers we had them meet in the lab.

Hypothesis

High scoring participants on the Profile of Nonverbal Sensitivity and Diagnostic Analysis of Nonverbal Accuracy 2 would be more accurate in judging the emotions of strangers than low scoring participants.

Method

Participants:

Participants were 141 unacquainted Oregon State University students. They were enrolled in a 10 week long research practicum and were arranged in groups of 5-7. Sixty-five were omitted due to missing data, leaving 76 for this analysis (25 male and 51 female).

Procedure:

Participants assessed their group members' and their own emotions at two different time periods: at first meeting and after a five-minute getting-to-know-you interaction (Figure 1). The self-ratings provided the criterion for assessing accuracy.

Figure 1. Participants engaged in the getting-to-know-you conversation.

Assessing Accuracy:

Participants were asked to judge emotions of their group members and to rate themselves at the two time periods (Figure 2).

Emotional State right now . For each of the following scales observe **individual A.** Circle the number that most closely describes how this person seems at this *current moment*.

1.	nervous	0	1	(2)	3	4	5	6	7	8	relaxed
2.	interested	0	1	2	3	(4)	5	6	7	8	bored
3.	focused	0	1	2	3	(4)	5	6	7	8	distracted
4.	engaged	0	1	2	3	(4)	5	6	7	8	blank / vacant
5.	open / frank	0	1	(2)	3	4	5	6	7	8	calculating
6.	stressed	0	1	2	3	4	5	(6)	7	8	calm/collected

Figure 2. Examples of emotions judgement items.

Accuracy Tests:

Participants were asked to complete two published tests of nonverbal accuracy. The first was the Profile of Nonverbal Sensitivity (PONS; Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979), which assesses individual sensitivity to nonverbal cues (Figure 3).

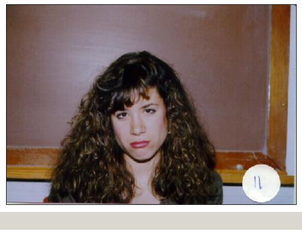
Figure 3. Profile of Nonverbal Sensitivity

Judge the situation:

1. Trying to seduce someone or expressing deep affection?
2. Helping a customer or expressing jealous anger?
3. Ordering food at a restaurant or trying to seduce someone?

The Diagnostic Analysis of Nonverbal Accuracy 2 (DANVA2; Nowicki & Duke, 1994) assesses one's ability to accurately judge voices, postures, and facial expressions (Figure 4).

Figure 4. Diagnostic Analysis of Nonverbal Accuracy



Is this woman:

a. Happy b. Sad

c. Angry d. Fearful

Results

Median splits separated the participants' PONS and DANVA2 scores into two groups: high scorers and low scorers. Results indicated that the PONS was not predictive of emotion reading accuracy scores. The DANVA2, however, significantly predicted emotion reading accuracy across both time periods ($F_{(1,72)} = 7.03$, $p < .01$; Figure 5).

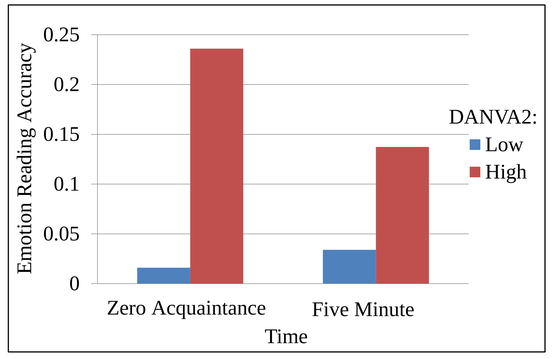


Figure 5. Accuracy Scores by DANVA 2 Group By Time

Interestingly, there was a significant interaction between sex and DANVA2 group across time. This indicated that men's emotion reading accuracy was higher when they were also in the high DANVA2 group, whereas women's emotion reading accuracy was not ($F_{(1,72)} = 5.39$, $p < .05$; Figure 6).

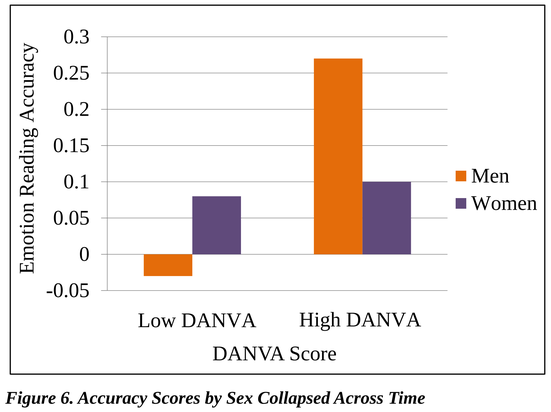


Figure 6. Accuracy Scores by Sex Collapsed Across Time

This result was partially replicated when the PONS was used as a predictor variable. Men's accuracy benefited more from having high PONS scores than women's accuracy ($F_{(1,114)} = 4.31$, $p < .05$). This effect was yielded after the five-minute interaction.

Discussion

We hypothesized that individuals scoring high on measures of emotion recognition accuracy (i.e. the DANVA2 and PONS) would be more accurate at judging the emotions of their group members.

We found that participants scoring high on the Diagnostic Analysis of Nonverbal Accuracy 2 were significantly more accurate at judging the emotional expressions of their group members. This effect was observed to be heightened for men who also scored high on the DANVA2, meaning men were most accurate when they also had high DANVA2 scores. Our results provide evidence for the validity of the DANVA2 as a measure of emotion recognition accuracy.

This research extended previous work in that it required participants to engage in a *live* emotion recognition task at two time periods that are integral to the relationship building process. There are a multitude of other tests that involve emotion recognition tasks (e.g. Matsumoto et al., 2000; Scherer & Scherer, 2011), but few have been compared to live emotion recognition ability. In the future, it would be advisable to test the validity of these other tests in the same manner that the DANVA2 was tested here.

As far as gender differences, it would be prudent to also assess the impact of *social skill* on emotion recognition accuracy. Although accurate men outperformed women, it is possible that socially skilled women would outperform their male counterparts, as women are generally known to be more socially skilled (Hall, 1978).

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