Inter-Rater Reliability of the Levels of Emotional Awareness Scale
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Abstract
The Levels of Emotional Awareness Scale (LEAS; Lane & Schwartz, 1987) is an open-ended test of one aspect of Emotional Intelligence. Unlike other measures of Emotional Intelligence, though, the LEAS uses defined structural criteria to determine respondents' scores: items are scored according to the structure of the response, not the specific content. The LEAS therefore represents a novel approach to the measurement of Emotional Intelligence. However, the inter-rater reliability of the scores is also an issue.

The LEAS consists of 20 items, and takes a long time to complete and to score. The purpose of this research was to examine the inter-rater reliability of total scores on the LEAS and of the individual items on the LEAS, to determine if a short form of the LEAS can be created that will have adequate psychometric properties.

A total of 66 participants completed the LEAS. Each LEAS was scored separately by two experienced LEAS scorers. Neither scorer was aware of the scores given by the other person, when they were doing the scoring. Overall, inter-rater reliability was excellent, as was the inter-rater reliability of most individual items. Five items had lower inter-rater reliability, and should probably be eliminated when creating a short-form of the LEAS.

Introduction
Most measures of Emotional Intelligence use closed-ended questions such as Likert-type rating scales. However, closed-ended questions are not ideal. First, these item types may fail to capture the complexity of cognitions related to emotions (Lane, Quinlan, Schwartz, Walker, and Zeitlin, 1990). Second, creating scoring keys for these types of items is difficult, because emotional experiences are subjective and so it is hard to know what the right answers would be for any particular question (Barchard & Russell, in press). Finally, perception of emotions may vary across cultures (Elfenbein, Mandal, & Ambady, 2004).

An alternative to using closed-ended questions is to use open-ended questions that are scored based upon the structure of the response rather than the content. One measure of Emotional Intelligence, the Levels of Emotional Awareness Scale (LEAS), does this. The use of open-ended questions may make this measure better at capturing the complexity of emotional thought and less susceptible to cultural differences. Because open-ended questions are used, however, scoring is subjective. Therefore, the inter-rater reliability of the overall test and the individual items is of concern.

The purpose of this research was to examine the inter-rater reliability of the LEAS and the individual items on the LEAS, to determine if a short form of the LEAS can be created that will have adequate psychometric properties.

Method
Participants
A total of 66 participants (41 female, 26 male) participated in this study in return for course credit. They ranged in age from 18 to 48 (mean 21.1, standard deviation 6.2). Most participants identified themselves as White (58.2%), Asian (13.4%), Black (11.9%), or Hispanic (10.4%). All participants either spoke English as their first language or had been speaking English for at least ten years and were very comfortable reading and writing in English.

Measure
The Levels of Emotional Awareness Scale (LEAS; Lane & Swartz, 1987; Lane, Quinlan, Schwartz, Walker, and Zeitlin, 1990) consists of 20 open-ended questions. Each question contains an emotionally-evocative situation. Respondents are asked to describe how they and the other person mentioned in the situation would feel. Responses are scored according to the scoring manual.

Procedure
Participants completed the LEAS as part of a larger study. That study consisted of two group testing sessions, held one week apart. The LEAS was administered at the end of the first session.

Scoring

The LEAS was scored twice by undergraduate research assistants who are experienced LEAS scorers. Neither scorer was aware of the scores given by the other person, when they were doing the scoring.

Results

The inter-rater reliability of total scores on the LEAS was excellent ($r = .974$, $p < .001$). As well, most of the individual items on the LEAS had excellent inter-rater reliability (see Table 1). There were five exceptions. These were items 2, 3, 5, 7, and 9. When the inter-rater reliability was recalculated with those five items removed, it remained excellent ($r = .978$, $p < .001$). The reader should keep in mind that this inter-rater reliability probably over-estimates the true inter-rater reliability of a 15-item form, however, because the same data was used for selection onto the short form and to assess the reliability of the short form. None-the-less, this provides us with some evidence that high inter-rater reliability for a 15-item short form could be expected.

Conclusions

The purpose of this study was to examine the inter-rater reliability of the Levels of Emotional Awareness Scale (LEAS). When experienced scorers are used, the inter-rater reliability of the LEAS is excellent. Most individual items also had very high inter-rater reliabilities, but five items could be eliminated with little loss to the reliability of this scale. Before making final decisions about the items to include on a short-form, however, information about the reliability and validity of individual items should be considered.

References

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Table 1
Inter- rater Reliability of LEAS Items

LEAS Item	Inter-rater reliability correlation
1	.99**
2	.79**
3	.84**
4	.95**
5	.86**
6	.90**
7	.83**
8	.95**
9	.83**
10	.94**
11	.92**
12	.95**
13	.94**
14	.91**
15	.96**
16	.97**
17	.90**
18	.94**
19	.97**
20	.95**

** $p < 0.01$.
Note. The inter-rater reliability of total scores was .974 ($p < .001$).