

Being Specific about Emotions: Emotional Awareness and its Subcomponents

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Abstract

The purpose of this paper is to determine if emotional awareness is a unitary construct. A total of 341 undergraduates completed the Levels of Emotional Awareness Scale to measure overall emotional awareness and six possible subcomponents: emotional precision, complexity, granularity, perspective taking, breadth, and verbosity. Factor analysis revealed two factors: Emotional Specificity (loading emotional precision and three measures of overall emotional awareness) and Emotional Differentiation (loading the remaining variables). Women scored higher on both factors. Thus, women provide richer and more complex descriptions of emotions, which might explain their higher overall Emotional Intelligence.

Introduction

Emotional awareness is as a cognitive skill that allows an individual to identify emotions in oneself as well as in others (Chhatwal & Lane, 2016). It is linked to numerous clinical disorders, and measurements of emotional awareness are used to help clinicians understand their clients (Barchard et al., 2010; Chhatwal & Lane, 2016; Lane, 2000).

Overall emotional awareness can be measured using the Levels of Emotional Awareness Scale (LEAS; Lane, Quinlan, Schwartz, Walker, & Zeitlin, 1990). However, emotional awareness is a construct that includes at least six subcomponents: emotional precision, complexity, perspective taking, granularity, verbosity, and breadth. Precision is the ability to use specific emotion words to express emotions. Complexity is the ability to use multiple distinct words to describe a single emotional response. Perspective taking is one's ability to recognize that others may feel differently from the self. Granularity is the ability to distinguish between emotions. Verbosity is the tendency to talk at length about emotions. Finally, breadth is the number of different categories (e.g., physical sensations, emotion words) used to describe emotions. The LEAS can also be used to measure these six subcomponents.

The purpose of this study is to determine if emotional awareness is a single construct with many different indicators or if some of these subcomponents form distinct factors.

Method

Participants

A total of 341 (198 females, 143 males) undergraduate students between the ages of 18 and 50 (M 19.86, SD 3.32) completed this study in return for course credit. Participants identified themselves as the following: 58.4% Caucasian, 12.3% Hispanic, 11.4% Asian, 8.5% African American, 5.6% Pacific Islander, and 0.6% Native American and 3.2% other.

Measures

LEAS. The LEAS (Lane, 1991) contains 20 open-ended items. Each item is a short scenario that involves two people: the self and another person. Each item is designed to demonstrate one of four emotions: anger, fear,

Variable	Pattern Matrix Coefficient
Complexity Form B	.91
POES 3345 A	.90
POES 3345 B	.89
Granularity Form B	.90
Complexity Form A	.90
Granularity Form A	.89
Perspective Form A	.83
Verbosity Form B	.83
Verbosity Form A	.82
Perspective Form B	.81
POES 334 A	.81
POES 334 B	.80
Hand scores Form A	.74
Hand scores Form B	.73
Precision Form A	.68
Precision Form B	.66
Breadth Form A	.35
Breadth Form B	.26

Note. Salient factor pattern matrix coefficients are in boldface.

happiness, or sadness. For each item, participants describe how they would feel in the scenario and how the other person would feel. The LEAS is divided into two forms: Form A and Form B.

Overall Emotional Awareness. The LEAS can be scored by hand or with POES to measure overall emotional awareness.

Hand-scoring is done in three stages. First, responses are evaluated and each word is given a score of 0 to 3. Non-emotion words, such as cognitions, are given a score of 0. Physical sensations (e.g., cold) are given a score of 1. Personality traits (e.g., generous), nonspecific emotion words that also have non-emotional meanings (e.g., good), and actions related to emotions (e.g., cry) are given a score of 2. Distinct emotion words (e.g., sadness) are given a score of 3. Most word-level scores can be found in the LEAS glossary; however, some require the scorer to use their best judgment. The second step in hand scoring a response is dividing the scored words and phrases into two groups: *self* responses describes what they would feel, and *other* responses describe what the other person would feel. The self score is calculated as the maximum word-level score for words and phrases attributed to the self. If there are more than one non-identical distinct emotion word that is attributed to the self, then the self-score is 4. The score for other is calculated similarly. The third step is to calculate an item

score. If the self and other scores are both 4, and the words are non-identical, then the item score is 5. If not, the item score is the maximum of the self and other scores. Item scores are summed to create the total score for each of Form A and Form B.

Program for Open-Ended Scoring (POES; Leaf & Barchard, 2010) scores the typed responses with the help of a wordlist. The wordlist contains words and phrases and their associated scores, and is based upon the original LEAS glossary (Lane, 1991). However, there are two important differences between the wordlist and the LEAS glossary. First, in the wordlist, each word or phrase has only a single possible score, whereas the glossary sometimes allows two possible scores for a word or phrase. Second, POES calculates these word-scores automatically, whereas hand-scorers use the glossary as a guide, but also take into account context.

By comparing the typed responses with the wordlist, POES creates a keys list that shows the words and phrases that occurred in the response, along with their associated values from the wordlist. This keys list is then used to calculate overall emotional awareness in two ways: the 334 method and the 3345 method. 334 provides higher scores to responses that use multiple unique emotion words than responses that use the same emotion word repeatedly (Barchard & Picker, 2017). Specifically, the 334 score is equal to the highest word-level score in the keys list, unless there are multiple non-identical words or phrases in the list that have a score of 3; in that case, the 334 score is 4.

Item	Factor		h ²
	1	2	
Precision Form B	.97	-.26	.68
Precision Form A	.84	-.11	.6
POES 334 B	.92	-.05	.78
POES 334 A	.86	.02	.76
POES 3345 B	.78	.19	.84
POES 3345 A	.07	.03	.84
Hand Scores A	.75	.05	.62
Hand Scores B	.75	.05	.61
Verbosity Form A	-.03	.95	.87
Verbosity Form B	-.01	.94	.86
Granularity Form A	.22	.77	.85
Granularity Form B	.31	.69	.85
Complexity Form A	.28	.71	.85
Complexity Form B	.39	.62	.85
Perspective Form A	.26	.67	.73
Perspective Form B	.29	.62	.69
Breadth Form B	-.35	.65	.25
Breadth Form A	-.06	.45	.17
Factor Intercorrelations	1	2	
Factor 1	1	0.65	
Factor 2	0.65	1	

Note. h² = communality. Salient factor pattern matrix coefficients are in boldface.
Factor 1 = Emotional Specificity.
Factor 2 = Emotional Differentiation.

The 3345 scoring method uses the output from the 334 method. The self and other responses are scored separately using the 334 method. The 3345 score is equal to the higher of those two scores, unless both scores are 4, in which case the 3345 score is a 5. The 3345 score is the computerized scoring method that is the most similar to hand scoring. However, 3345 scores are likely to be different from hand scores, because of subjective decisions made while scoring the words and because hand scoring only gives a score of 5 if the words attributed to the self and other are different.

Procedures

The LEAS was administered online as part of a larger study. The measures were divided into two testing sessions, which each took approximately 90 minutes.

Results

The first principal component was extracted to determine if all variables measure the same general construct (see Table 1). One variable, Breadth Form B, had a non-salient loading. All other variables had salient loadings. To determine the number of factors, four methods were used: the Kaiser-Guttman rule, the scree test, parallel analysis, and the minimum average partial test (MAP test; Velicer, 1976). The Kaiser-Guttman rule indicated three factors; however, this test tends to overestimate the number of factors (Cliff, 1988; Velicer, Eaton, & Fava, 2000). The scree test, parallel analysis, and the MAP test all indicated that there are two factors. We concluded there are two factors.

To determine the optimal rotation, we examined several different rotations and selected the one that came closest to the ideal of simple structure. We decided to utilize Promax Kappa 3 because of its low number of complex variables (4) and high number of hyperplanar loadings (7).

As seen in Table 2, 334, 3345, hand-scoring, and precision had salient positive coefficients for factor 1.. Because precision had the highest coefficients, and because overall emotional awareness is strongly influenced by word-level scores (which reflect precision), we labeled Factor 1 Emotional Specificity.

Complexity, perspective-taking, granularity, verbosity, and breadth had salient positive coefficients on Factor 2. All these variables represent the participant’s ability to describe emotions using different emotion words in different circumstances (e.g., different scenarios, different people). Therefore, we labeled Factor 2 Emotional Differentiation.

Using the regression method, we calculated factor scores for the two factors. We compared men and women on these two factors. We found women got higher scores on both factors (see Table 3).

Table 3			
<i>Means (and Standard Deviations) for Men and Women on Each Factor</i>			
Factor	Men	Women	t-test
1	-0.28 (1.03)	0.20 (.93)	$t(339) = 4.46, p < .01$
2	-0.26 (1.02)	0.18 (.95)	$t(339) = 4.10, p < .01$

Note. Factor 1 = Emotional Specificity. Factor 2 = Emotional Differentiation.

Discussion

The purpose of this study was to determine whether the LEAS can measure more than just overall emotional awareness. This was addressed through factor analysis of three measures of overall emotional awareness scores (hand-scores, POES 334, POES 3345) and measures of six subcomponents of emotional awareness. We found two factors: Emotional Specificity, the ability to use precise emotion words, and Emotional Differentiation, the ability to use different emotion words under different circumstances.

Women obtained higher scores on both factors. These findings complement previous research showing that women have higher overall emotional awareness (Barrett, Lane, Sechrest, & Schwartz, 2000), because it shows that women talk about emotions more and use more precisely about emotions. Future research should explore the development and causes of these sex differences. More generally, future research with the LEAS should measure both of these factors, to determine if one of them is more central to the development of emotional intelligence or to symptoms of clinical disorders.

References

- Barchard, K. A., Bajgar, J., Leaf, D. E., & Lane, R. D. (2010). Computer scoring of the levels of emotional awareness scale. *Behavior Research Methods*, 42(2), 586-595. doi:10.3758/BRM.42.2.586
- Barchard, K.A., Contreras, A., & Picker, C. J. (2017, Jan). Sex differences in emotional awareness: More than just words. Poster presented at the American Association of Behavioral and Social Sciences convention, Las Vegas, NV.
- Barchard, K. A., & Picker, C. J. (in press). Computer scoring of emotional awareness in a non-clinical population of young adults. *Emotion Review*.
- Barrett, L., Lane, R., Sechrest, L., & Schwartz, G. (2000). Sex Differences in Emotional Awareness. *Personality and Social Psychology Bulletin*, 26(9), 1027-1035. doi.org/10.1177/01461672002611001
- Chhatwal, J., & Lane, R. D. (2016). A cognitive-developmental model of emotional awareness and its application to the practice of psychotherapy. *Psychodynamic Psychiatry*, 44(2), 305-325.
- Lane, R. D. (1991). *LEAS scoring manual and glossary*. Unpublished manual for the Levels of Emotional Awareness Scale. Available from Richard D. Lane, Department of Psychiatry, University of Arizona, PO Box 245002, Tucson, AZ 85724-5002, lane@email.arizona.edu.
- Leaf, D. E. & Barchard, K. A. (2010, Jan). Program for Open-Ended Scoring [POES] version 1.4.1. Windows-based program that scores open-ended tests according to the criteria given in the selected Wordlist. Available from Kim Barchard, Department of Psychology, University of Nevada, Las Vegas, 4505 Maryland Parkway, Las Vegas, NV, 89154-5030, barchard@unlv.nevada.edu.
- Subic-Wrana, C., Beutel, M. E., Garfield, D. A. S., & Lane, R. D. (2011). Levels of emotional awareness: A model for conceptualizing and measuring emotion-centered structural change. *The International Journal of Psychoanalysis*, 92(2), 289-310. doi:10.1111/j.1745-8315.2011.00392.x
- Veirman, E., Brouwers, S. A., & Fontaine, J. R. J. (2011). The assessment of emotional awareness in children: Validation of the levels of emotional awareness scale for children. *European Journal of Psychological Assessment*, 27(4), 265-273. doi:10.1027/1015-5759/a000073