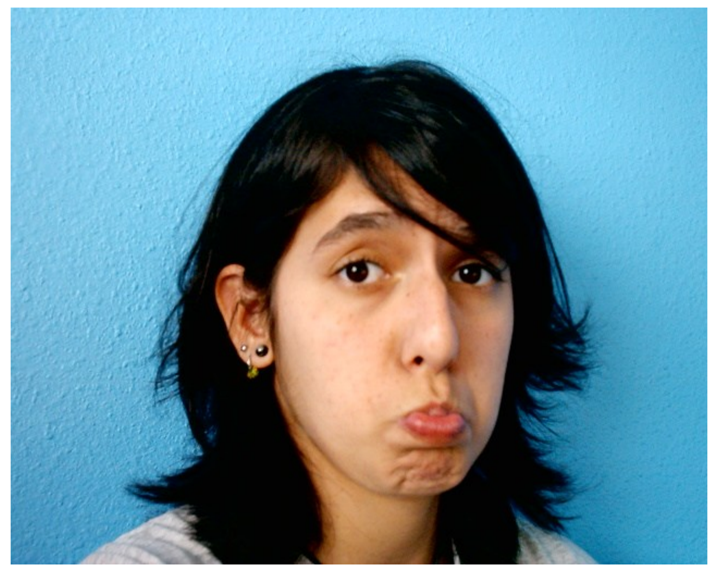
Women Use a Greater Number and Variety of Emotion Words

Kimberly A. Barchard[a], Caleb J. Picker[a], and Duncan Ermini Leaf[b]
[a]University of Nevada, Las Vegas [b]University of Southern California

Abstract



Your lover just broke up with you. How would you feel? How would your lover feel? Women give more detailed answers to open-ended items like this, indicating that they have greater emotional awareness (Feldman Barrett, Lane, Sechrest, & Schwartz, 2000). The most commonly used measure of emotional awareness is the Levels of Emotional Awareness Scale (LEAS; Lane, Quinlan, Schwartz, Walker, &, Zeitlin, 1990), which has 20 such items. However, LEAS scores measure at least four subcomponents of emotional awareness: emotional precision (the tendency to use more precise emotion words; Lane & Schwartz, 1987), complexity (the tendency to feel multiple emotions simultaneously), granularity (the ability to distinguish among similar emotional states; Barrett, 2004), and perspective taking (the ability to recognize that other people feel differently from the self; Batson, Early, & Salvarani, 1997). The purpose of this study was to determine if women have higher scores on all of these components or just some of them.

As part of a larger study, 481 undergraduates completed the LEAS on the computer in exchange for course credit. We calculated separate scores for emotional precision, complexity, granularity, and perspective taking using Program for Open-Ended Scoring (POES; Leaf & Barchard, 2010). POES is a freely distributed computer program that was developed to score the LEAS quickly and easily.

Women had significantly higher emotional granularity (d = .48), complexity (d = .44), and perspective taking (d = .24). The lack of significant differences for emotional precision might be due to how we operationalized precision: the average precision score for the emotions attributed to the self. Future research should examine other ways to operationalize emotional precision, such as the maximum precision score.

Our data join recent research demonstrating that POES can produce scores that are more valid than hand-scores (Barchard, Bajgar, Leaf, & Lane, 2010; Barchard & Picker, 2015), positioning POES as a practical, reliable, and valid tool for better understanding sex differences in emotional awareness and for investigating other research questions regarding emotional awareness and its subcomponents.

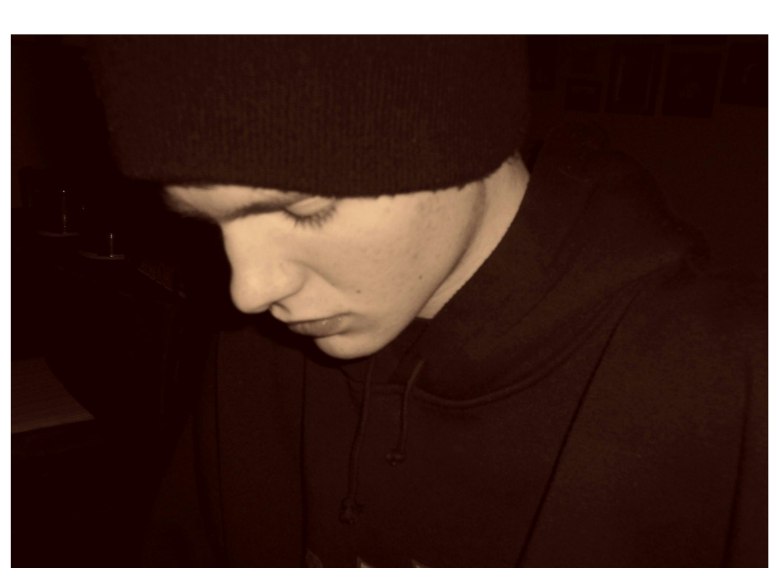
Introduction

Women are more emotionally aware than men. When asked to describe how they and others would feel in hypothetical situations, women provide more detailed responses, on average (Barrett, Lane, Sechrest, & Schwartz, 2000). Emotional awareness is defined as the overall ability to recognize and describe emotional experiences in oneself and other people (Lane & Schwartz, 1987). However, emotional awareness can be divided into multiple subcomponents. The purpose of this study is to determine if women score higher on all subcomponents or only some of them.

> **Jill**: If Jack left me, I'd be devastated. I'd feel anguish about what we had lost and scared about the future.
>
> **Jack**: If Jill left me, I'd feel pretty bad. I'd probably get drunk.

> **Jill**: If I lost my job, I'd be shocked at first. What did I do wrong? After a while, I'd feel angry. Later, if I had trouble getting a new job, I'd become dispirited. I'd lose confidence in myself.
>
> **Jack**: If I lost my job, I'd feel pretty bad. I'd probably get drunk.

The Levels of Emotional Awareness Scale (LEAS; Lane, Quinlan, Walker, & Zeitlin, 1990) is an objective measure of emotional awareness. It contains 20 emotionally-evocative scenarios involving oneself and another person. Responses are scored based upon the number and type of words that respondents use to describe the emotions. For example, in Jill's response above, the word scores were as follows: If Jack left me, I'd be devastated (2). I'd feel anguish (3) about what we had lost (2) and scared (3) about the future. In Jack's response, the emotion words were: If Jill left me, I'd feel pretty bad (2). I'd probably get drunk. These word scores are combined to create total scores.



At least four constructs influence scores on the LEAS. *Emotional precision* is the tendency to use precise emotion words rather than vague words. Jill would receive a higher score on the LEAS because she used precise emotion words (I'd feel anguish), whereas Jack used vague emotion words (I'd feel pretty bad).

Emotional complexity is the tendency to use multiple distinct words to describe a single emotional response. Jill would receive higher LEAS scores because she used multiple distinct emotion words (I'd feel anguish and scared) to describe a single emotional response.

Emotional granularity (Barrett, 2004) is the tendency to use different emotions words for different situations. Jill says she would feel differently if she lost her job than if Jack broke up with her. Jack knows he would feel bad in both situations, but he can't say how those emotional experiences would be different.

Finally, *perspective taking* (Batson, Early, & Salvarani, 1997) is the ability to recognize that other people feel differently from the self.

The purpose of this study is to compare men and women in terms of their emotional precision, emotional complexity, emotional granularity, and perspective taking, when these are measured using the LEAS.

> **Jill**: If I lost my job, Jack would be very supportive. He'd feel a lot of empathy for me, but then he'd calm me down. He'd encourage me to pursue my dreams. He's always so optimistic.
>
> **Jack**: If I lost my job, Jill would feel bad, too. She'd probably get upset.

Method

Participants

A total of 481 undergraduates (279 female, 202 male) participated in return for course credit. They ranged in age from 18 to 50 years (mean 19.82, SD 3.22). They identified themselves as follows: 57.8% Caucasian, 12.9% Hispanic, 11.4% Asian, 7.3% African American, 6.0% Pacific Islander, and 4.2% other.

Materials

LEAS

The LEAS (Lane et al., 1990) presents participants with 20 emotionally evocative scenarios involving the self and another person. Respondents are asked for their responses to two open-ended questions: How would you feel? and How would the other person feel? Items 1 to 4 were designed to evoke level 1 responses. Items 5 to 8 were designed to evoke level 2 responses. Items 9 to 12 were designed to evoke level 3 responses. Items 13 to 16 were designed to evoke level 4 responses. Finally, items 17 to 20 were designed to evoke level 5 responses. In this study, the LEAS was administered on the computer, so participants typed their responses into two separate text boxes, using as much space as needed.

Scoring

Scores for emotional precision, complexity, granularity, and perspective taking were calculated using POES version 2.0.1 (Leaf & Barchard, 2013) and LEAS Wordlist 2.5 (Barchard, 2013).

Emotional Precision

The emotional precision score for each item was calculated as the average word score for all emotion words in the self response. If a response contained no emotion words, emotional precision was set to 0. When calculating emotional precision for each item, we used the responses to only the first question, which asked how the participant would feel.

Emotional Complexity

To calculate emotional complexity, we again used the responses to only the question that asks how the self would feel. For each item, emotional complexity was calculated as the number of unique emotion words for the self-response. After calculating scores for each of the 20 items, these item scores were summed to obtain an overall score for emotional complexity.

Emotional Granularity

To calculate emotional granularity, we again used the responses to only the question that asked how the participant would feel. However, unlike the previous two scores, we calculated a single overall score for emotional granularity for the entire test. Specifically, we counted the unique emotion words across the entire set of 20 items

Perspective Taking

For each item, perspective taking was calculated as the number of unique emotion words that occur in the other response that are not present in the self response. Specifically, we calculated the difference between the total number of unique emotion words for an item and the number of unique emotion words in the self response. After calculating scores for each of the 20 items, these item scores were summed to obtain an overall score for perspective taking.

Results

The means and standard deviations for the four variables are given in Table 1. Hotelling's T-squared showed there are differences between men and women (Hotellings's T-squared (4, 476) = 78.43, p <.001). Independent samples t-tests showed women obtained higher scores than men on three of the four variables: emotional complexity, granularity, and perspective taking.

Table 1
Sex Differences in Subcomponents of Emotional Awareness

Variable	Women Mean	Women SD	Men Mean	Men SD	t-test	Effect size	95% CI for the mean difference
Precision	48.15	5.77	47.11	5.93	$t(479) = 1.93, p = .055$	.18	[0.02, 2.10]
Complexity	101.01	35.30	85.75	34.26	$t(479) = 4.74, p < .001$	.44	[8.93, 21.59]
Granularity	29.08	9.23	24.65	9.25	$t(479) = 5.19, p < .001$	.48	[2.75, 6.11]
Perspective taking	26.64	9.61	24.37	9.54	$t(479) = 2.57, p = .010$	.24	[0.54, 4.01]

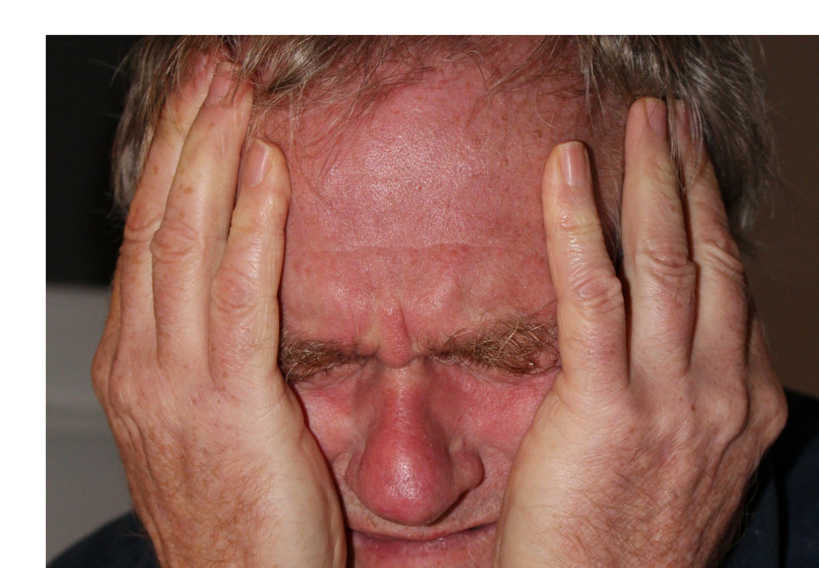
Note. Effect size was calculated using Cohen's d.

Discussion

Previous research has shown that women have higher overall emotional awareness than men, on average (Feldman Barrett et al., 2000). This paper has demonstrated that women score higher on three specific subcomponents of emotional awareness. Women give more complex emotional responses, indicating that they feel a greater number of emotions simultaneously. Women also differentiate their emotional responses more across different situations. Finally, women to a greater extent than men acknowledge that other people feel different things than they do.

We found no significant differences between men and women on our measure of emotional precision. It could be that the method we used to operationalize emotional precision is not optimal. Ours is the first study to create a separate measure of emotional precision. We operationalized precision as the average word score of the emotion words attributed to the self. In retrospect, this may not be the ideal way to measure emotional precision. For example, if someone indicated that they would feel jealous (3) and would try to manipulate the other person by crying (2), they would receive a lower score than someone who just said they felt jealous (3). Thus, more complex responses are likely to obtain lower precision scores. Future research should calculate emotional precision as the highest word score, rather than the average word score.

The current study would not have been feasible without the use of POES. This program calculated complex scores quickly, easily, and accurately. Our results join previous research demonstrating that POES can produce scores that are more valid than hand scores (Barchard, Bajgar, Leaf, & Lane, 2010; Barchard & Picker, 2015). This research demonstrates that POES is a practical, reliable, and valid tool for investigating emotional awareness and its subcomponents.



Correction to Barchard, Picker, & Leaf (2016)

In the poster and handout, "Women use a greater number and variety of emotion words" by Kimberly A. Barchard, Caleb Picker, and Duncan Ermini Leaf (*Western Psychological Association convention,* April 2017, Sacramento, CA), the Method section is missing one in-text citation, and the References section is missing the corresponding reference.

In the Method Section of both the handout and poster, the second paragraph of the "Scoring" section should read:

> ***Emotional Precision***
>
> The emotional precision score for each item was calculated as the average word score for all emotion words in the self response (Barchard & Picker, 2016). If a response contained no emotion words, emotional precision was set to 0. After calculating scores for each of the 20 items, these item scores were summed to obtain an overall score for emotional precision. When calculating emotional precision for each item, we used the responses to only the first question, which asked how the participant would feel.

The References section of the handout should include

> Barchard, K. A., & Picker, C. J. (2016, Feb). Women use more precise emotion words. Poster presented at the American Association of Behavioral and Social Sciences, Las Vegas, NV.

In the poster, there should be a section stating

> **References**
>
> The references are given in the handout.