The Effects of Female Emotional Modeling on the Sexes

Sarah Bregman

Follow this and additional works at: https://ir.lib.uwo.ca/hucjlm

Part of the Psychology Commons

Recommended Citation
Available at: https://ir.lib.uwo.ca/hucjlm/vol46/iss1/2

This Article is brought to you for free and open access by the Psychology at Scholarship@Western. It has been accepted for inclusion in The Huron University College Journal of Learning and Motivation by an authorized editor of Scholarship@Western. For more information, please contact tadam@uwo.ca, wlswadmin@uwo.ca.
The Effects of Female Emotional Modeling on the Sexes

Sarah Bregman
Huron College

The following study was conducted to investigate the influence of female emotional modeling on state anxiety. Sixteen males and 16 female participants were asked to watch a video detailing the instructions for the study. One video conveyed positive emotions and the other acted as a control and conveyed no emotion. Subjects completed the state portion of the State Trait Anxiety Inventory (Gorsuch, Luschene & Spielberger, 1970). A 2X2 between-subjects ANOVA design was used. Results from this study were inconclusive and neither a main effect nor an interaction effect were found.

Throughout our day-to-day lives, we often come across situations in which we do not know how to act. We commonly turn to others in order to see what sort of reaction is necessary. After observing others’ emotions in a particular situation, we are likely to react similarly if we find ourselves in that same situation. Emotional modeling, or observational learning is the way in which our emotions are learned through the observation of others (Bandura, 1971). We are sensitive to other people’s vocal, postural and facial indications of emotion and in turn, they affect us. Modeled emotions affect our internal state, and anxiety is one such emotion that can be evoked by watching others in a stressful situation. State anxiety reflects a human emotional condition where feelings of tension and apprehension are heightened. State anxiety can vary in intensity and fluctuate over time (Gorsuch, Lushene & Spielberger, 1970).

Infants have had little life experience and a have a shallow understanding of the world. Therefore they must look to their parents as models for how to perceive things. Gerull and Rapee (2002) looked at the influence of parental emotional modeling of fear.
and the acquisition of fear towards novel stimuli in toddlers. Mothers were asked to either react positively or negatively towards a rubber snake or a rubber spider while her child was watching. Afterwards, the child was shown the same stimulus. A significant main effect was found with the mother's facial expression and after the infants observed their mothers making a negative facial expression, greater avoidance towards the object was shown. It was also found that male and female infants did not differ significantly on positive trials, however females showed greater avoidance on negative trials. These findings show that emotional modeling through facial expression can greatly affect how a child perceives a situation. It also shows that female children are more susceptible to emotional modeling than male children.

The way in which emotions are modeled can vary across situations. One might make a face in disgust, while another might vocally express their fear by screaming. Mumme and Fernald (1996) looked at whether or not facial or vocal expressions alone were sufficient enough to influence an infant's behavior towards novel stimuli and if positive and negative emotional signals were equally effective in influencing an infant's behavior. 12-month old infants were randomly assigned to a facial expression condition or a vocal expression condition and were measured on positive or negative affect towards the toy and the amount of exploration with the toy. Results from this study found that negative vocal emotional signals had a larger influence on infant behavior than positive emotional signals. After infants heard their mothers vocally express fear, they decreased their toy exploration and tended to show negative affect towards the toy. However, infants who heard their mothers express happiness did not increase toy exploration nor show positive affect towards the toy. Contrastingly, in the fearful facial expression
condition, infants did not decrease in proximity to the toy or show an increase in negative affect. Results also found that there were few significant differences between the infants’ reactions to the facial expression of happiness or fearfulness.

Past research has also found that after pairing a neutral stimulus with a modeled situation of distress, the neutral stimulus will also stimulate distress. Observational fear conditioning has been widely used to investigate phobias and anxiety disorders. Vicarious learning of fear involves observing a model react to an event or object, which increases the likelihood that the observer will come to fear that same object or event (Mineka & Cook, 1993). Consistent with this view, one might develop fear to bodily cues, environmental cues or situations that are present when watching someone experience a panic attack. Kelly and Forsyth (2006) displayed how a modeled panic attack can serve as an unconditioned stimulus in an observational fear conditioning procedure when paired with a letter string, the conditioned stimulus. Participants were randomly assigned to either watching a female or a male model the panic attack. Results from this study found that after experiencing the observational fear conditioning procedure, subjects responded to the conditioned stimulus with distress and fear. Also, women reported greater amounts of distress towards the conditioned stimulus, especially when the model they watched was female.

Forsyth and Eifart (1998) looked at the difference between male and female responses to a fear conditioning procedure in which inhalations of 13% oxygen enriched air and 20% oxygen enriched air as an unconditioned stimulus were compared. There were three types of conditioned stimuli; a video of a snake, a video of a human beating heart and a video of daisies in a field. During the acquisition stage of this study, the
Inhalations of either type of oxygen were paired with one of the three conditioned stimuli. Evaluative ratings found that women reported more distress and negative thoughts towards all three conditioned stimuli in the in both the 20% and 13% oxygen conditions. Females also reported more panic symptoms and that their symptoms were more severe than males. These results prove that females are more prone to fear conditioning than males.

The following study will examine whether female emotional modeling will have an effect on levels of anxiety. It was hypothesized that after viewing a positive emotional model, anxiety levels, measured by the state portion of the State-Trait Anxiety Inventory, will be lower than after viewing a neutral emotional model. It can also be predicted that the emotional models will have a greater effect on anxiety levels in females than males.

**Method**

**Subject**

Prior to the actual study, a pre-study was conducted in which there were 10 participants in the sample, five males and five females. All of the subjects were undergraduate students from Huron University College at the University of Western Ontario.

Thirty-two participants were selected haphazardly for the current study. The sample was comprised of 16 male subjects and 16 female subjects, all of whom were undergraduate students. The subjects were either in first, second, third or fourth year at the University of Western Ontario or any of the institutions affiliate colleges. The participants needed no special characteristics in order to participate in this study, such as
race, religion of major of study. However, because the study involved a visual component, those who were visually impaired were ineligible to participate.

Materials

Prior to the study, participants were given a letter of information, which detailed what they would be asked to do, gave a statement of confidentiality and provided contact information. Afterwards, they were given a consent form to sign deeming them eligible to participate.

After agreeing to participate, subjects were asked to view an approximately 30 second long video, in which the instructions for the study were given. The video either expressed positive emotions or had neutral emotional content. In order to support the claim that one of the videos was positive and the other was neutral, a pilot study was done. All participants in the study were in agreement that the positive video reflected positive emotion and the neutral video reflected no emotion. The instructions asked participants to fill out the state anxiety portion of Spielberger’s (1970) State-Trait Anxiety Inventory (STAI). This questionnaire consisted of 20 questions rated on a four point scale, where one meant that the items were not at all how the subject was feeling and four meant that the item was highly related to the way the subject was feeling at that time. The inventory has high internal consistency reliability where Cronbach’s alpha ranged from (α=.83) to (α=.92). The inventory was tested for stability over time, although test-retest reliability was rather low for state anxiety and the correlation coefficient was (r=.16, p<0.05). This was expected however, as state anxiety is transitory. After the questionnaire was completed, participants were given a debriefing form, which
discussed the nature and purpose of the study and some background information about the variables. The debriefing form also included a suggestion for further reading.

Procedure

The subjects were first given a letter of information. Participants were then asked to sign a consent form indicating that they agreed to take part in this study. Afterwards, a short video was played which described the instructions for the study. After viewing the video, the STAI (state scale) was then given to each participant and they were to complete it. Following the completion of the questionnaire, the subjects were given a debriefing form. When all of the data from the 32 participants was collected, the data was analyzed.

Results

The STAI (state scale) was used to measure state anxiety and was scored on a 4-point scale where high scores reflected high state anxiety and low scores were representative of low state anxiety. The scores from the STAI (state scale) ranged from 27 to 66. A 2X2 between-subjects ANOVA was done in order to examine the relationship between sex, emotional modeling and state anxiety. The ANOVA summary table can be found in Appendix A, Table 1. Contrary to the hypothesis, there was no main effect for sex or emotional modeling, nor was there an interaction effect.

Figure 1 indicates that while females who viewed the video with positive emotional content were found to have, on average, lower state anxiety scores than females who viewed the neutral video, the mean scores were not significantly different from one another. Similar to females, male subjects who watched the positive emotional content video were found to have lower state anxiety on average than males who watched
Figure 1. Mean scores on the STAI (state scale) for the four experimental groups.
the neutral emotional content video, however, the mean scores did not differ significantly. The means and standard deviations for each subject group can be found in Appendix B, Table 2. While Figure 1 depicts an apparent interaction between sex and emotional modeling, the ANOVA revealed that it was not significant.

Discussion

The objective of this study was to examine the effect that female emotional modeling had on anxiety as a function of sex. Contrary to the hypothesis, participants in the positive emotional modeling condition did not have lower state anxiety scores than those in the neutral condition, nor were female subjects affected more by the emotional model than the males. These findings were inconsistent with previous research, which suggests that emotional modeling should have an effect on state anxiety and that females generally respond more to emotional modeling than males do.

There are many possible explanations for why this study provided no conclusive evidence for the effect that female emotional modeling has on state anxiety, and why there was not a significant difference between the sexes. One major reason might be that females respond more to other females than males do. Kelly and Forsyth (2006) looked at the fluctuation of anxiety levels in males and females in response to a modeled panic attack. Interestingly, their results found that women who watched a female model experienced significantly more panic symptoms than men who watched the same female model. Having only a female emotional model might account for why the male scores did not differ significantly on positive and neutral trials. Had there been a male model, the effect of emotional modeling may have been significant.
One might be more susceptible to the effects of emotional modeling when a family member models emotions. Gerull and Rapee (2002) looked at the effects of mothers’ emotional modeling on their children. Results from their study found that mothers do have an impact on their children’s beliefs about an object depending on their mothers’ emotional reaction to that same object. In this study, not only was the model not a family member, she had little relation to most of the subjects. Moreover, many of them had met for the first time during the testing situation. In a future study, it would be ideal to use emotional models who are of greater relation to the participant.

While a pilot study was done to confirm that the positive video did indeed convey positive emotions and the neutral video conveyed no emotions, participants were unable to compare one with the other. In a study by Mumme and Fernald (1996) infants had to first watch their mother react with no expression to an object and afterwards, were exposed to their mothers’ expressing negative affect towards that same object. It was found that the children had no positive or negative feelings towards the object after it had been paired with neutral emotional modeling. However, they showed great amounts of fear towards the object after it had been paired with negative emotional modeling. If the participants had to watch the neutral video prior to watching the positive video, their anxiety levels would probably have been lowered.

Perhaps the results would have been significant if negative emotion was conveyed rather than positive emotion. The absence of the portrayal of negative emotion may have played a role in flattening out the predicted main effect for emotional modeling. Consistent with the views of evolution and the idea of “survival of the fittest”, one might be more perceptive to negative emotions and stimuli. This ability to pick up emotions
relating to say, fear, can be used as a survival mechanism. Fear causes concern for almost all organisms, and in turn, they react with the “fight or flight” response (Cannon, 1929), which is the body’s internal, automatic response that causes the organism to fight or flee from perceived threat. When ones’ body does not automatically engage in the fight or flight response to these cues, it may result in harm or death. Had a negative emotion been conveyed, such as fear, it is likely that a greater amount of state anxiety would have been evoked.

A major limitation to the study was the small size of the sample. The results would have been more accurate had there been a larger sample that included a larger variety of people. All of the subjects were representative of the University of Western Ontario and its’ affiliate colleges, however, they were not a direct representation of the rest of the population of London, Ontario. It can also be inferred that most of the participants involved in this study live a somewhat comfortable lifestyle where hardships such as being homeless or sick, are not common. Participants may have come into the testing situation with relatively low anxiety levels and therefore it would be tough to decrease them further.

It is difficult to say whether or not anxiety levels actually were affected by the emotional content of the videos because there was no measure of anxiety prior to watching the video. In a future study of this nature, it would be ideal to measure the state of anxiety that is present when the subject enters the testing situation. This way, after the emotional modeling videos are viewed, the levels of state anxiety can be compared, and a main effect may be seen.
The present study attempted to demonstrate that the way in which we feel about certain situations or objects may be in large part due to the way we once saw someone react towards that same situation or object. While we are often unaware of it, we are greatly affected by our peers, especially our family members. Although the results were inconclusive, this study might act as a catalyst for a future research concerning how effective emotional modeling is and its' effect on state anxiety.
References


Table 1. ANOVA summary table for STAI (state scale) as a function of Emotional modeling and Sex.

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>26.28</td>
<td>1</td>
<td>26.28</td>
<td>0.28</td>
<td>0.60</td>
</tr>
<tr>
<td>Emotional Modeling</td>
<td>185.28</td>
<td>1</td>
<td>185.28</td>
<td>1.94</td>
<td>0.18</td>
</tr>
<tr>
<td>Sex X Emotional Modeling</td>
<td>47.53</td>
<td>1</td>
<td>47.53</td>
<td>0.50</td>
<td>0.48</td>
</tr>
<tr>
<td>Error</td>
<td>2672.88</td>
<td>28</td>
<td>95.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52781.00</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Means and Standard Deviations of state anxiety scores for the four experimental groups.

<table>
<thead>
<tr>
<th>State Anxiety Score</th>
<th>Females</th>
<th></th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Neutral</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>(n₁=8)</td>
<td>(n₂=8)</td>
<td>(n₃=8)</td>
</tr>
<tr>
<td>$M$</td>
<td>37.38</td>
<td>39.75</td>
<td>36.75</td>
</tr>
<tr>
<td>$SD$</td>
<td>12.61</td>
<td>8.22</td>
<td>7.52</td>
</tr>
</tbody>
</table>