

# Effect of Gender and Situational Mood on the Fundamental Attribution Error

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*The fundamental attribution error (FAE) is the tendency for individuals to overestimate the role of dispositional factors and underestimate the role of situational factors when observing others'. Although individuals tend to be less likely to commit the FAE when observing others' in negative situations, the extent to which the FAE is committed when viewing individuals in positive situations is not yet understood. In addition, although individuals tend to commit the FAE when viewing females, the extent to which the FAE is committed when viewing males has not been examined. To test the extent in which subjects committed the FAE when viewing individuals in positive versus negative situations and the degree to which gender impacted these results, undergraduate students (N = 16) rated the degree to which they believed hypothetical characters were situationally responsible. As expected, participants were significantly less likely to commit the FAE when viewing individuals in negative situations as opposed to positive situations,  $p < .05$ . However, no significant difference was found in relation to gender. Implications are discussed as applicable to criminal sentencing.*

**I**ndividuals make attributions about people every day, judging

whether others' are responsible for their actions. Many people perform actions as a result of external factors for which they have

no control, but it is common for observers to view their actions as being purely due to personality traits. The tendency for individuals to overestimate the impact of dispositional factors and underestimate the presence of situational factors is known as the fundamental attribution error (Forgas, 1998). An individual would be committing the fundamental attribution error if, for example, he or she attributed a homeless man's condition to laziness (internal attribution), instead of considering the poor economy (external factor).

It has been well-documented that individuals commit the fundamental attribution error more often when they are in positive moods, as opposed to negative ones (Forgas, 1998). Forgas approached individuals who had just seen happy or sad films and measured the extent to which they committed the FAE by presenting them with a written controversial scenario and asking them to rate the degree to which the author was coerced into writing. The scenario described the author (a Cuban civilian) pledging full support for Fidel Castro, who at the time was arguably one of the most disliked men in the world. The rationale in using coercion as a rating was that individuals who believed the author was coerced into writing should have made more external attributions (believing he had no control), and hence would not commit the FAE. On the other hand, individuals who believed the author was free to write should have made internal attributions (believing the author made the conscious choice), and thus would be committing the FAE. The assumption was that individuals who had seen happy films would be in positive moods and thus more likely to commit the FAE (rating the author as having been free to write), whereas participants who had just seen sad films would be less likely to commit the FAE (making external attributions and believing the author was coerced into writing).

As hypothesized, participants were more likely to make internal attributions towards the author when they were in positive moods

(believing he had freely elected to write). Likewise, participants who were in negative moods were less likely to commit the FAE towards the author (i.e., they were more likely to believe that he had been coerced into writing), which suggests that positive mood states may inhibit one's ability to thoroughly examine the causes of another's actions.

In addition to the mood of the participants, the mood of the situation (situational mood) has also been shown to influence the degree to which individuals commit the fundamental attribution error. Riggio and Garcia (2009) showed that students who watched a documentary film of the Jonestown tragedy (depicting a negative situation) were less likely to commit the fundamental attribution error following the film. Rather than the researchers focusing on mood induction, situation type was manipulated (negative vs. control conditions). After participants watched the film, subjects rated the phrase, "Ron's bad day," on both situational and personality factors. Participants who had just been exposed to the negative situation (tragic film) were much more likely to rate Ron's bad day as being due to situational, rather than dispositional factors, potentially because participants were better able to relate to Ron. The individuals who had not seen the film of the Jonestown tragedy (the control condition) were much more likely to rate Ron's bad day as being due to Ron's personality (internal attributions), which suggests that individuals exposed to negative situations are significantly less likely to commit the FAE. However, since a positive situation was not presented, it is unclear whether the negative situation is truly what caused the FAE commission, as opposed to general stimulation (which the control condition did not receive).

Situational mood is not the only variable that has been shown to affect the degree to which individuals commit the fundamental attribution error. Barrett and Bliss-Moreau (2009) found that individuals were more likely to commit the FAE when observing a

female, as opposed to a male, in a photograph. Barrett and Bliss-Moreau examined how people's judgments may be affected by the gender of the person being observed by presenting subjects with photographs of a character whose gender was manipulated across participants. Accompanying the photograph, a written situation was described and the researchers asked the participants to make a snap-judgment as to whether the individual was "emotional" or "having a bad day," as measured on a dichotomous categorical scale. Participants were significantly more likely to rate the women as being emotional (internal attributions) as opposed to having a bad day (external attributions), suggesting that individuals tend to commit the FAE more frequently against females.

We expected to find results similar to those found by Barrett and Bliss-Moreau (2009), in that viewing females perform a behavior will make people more likely to commit the fundamental attribution error, as opposed to viewing males. However, unlike Barrett and Bliss-Moreau, we will be examining participants' ratings of questions that attempt to measure the FAE by having subjects read a scenario that specifies the gender in words, as opposed to showing subjects' photographs of males or females, which will help determine whether participants have the same gender biases when reading as opposed to visually seeing. We also use an interval-based Likert type scale as opposed to a dichotomous categorical scale, which will yield greater accuracy as a result of being less prone to floor and ceiling effects. As compared to the scale used by Forgas (1998), our scale has greater face validity in that we are directly asking participants the degree to which they feel the character is personally responsible for being in that situation, instead of attempting to use a more hidden and less detectable measure (free or coerced to write). The greater face validity may be a better direct measure of the FAE, whereas the indirect scale used by Forgas may not have measured the FAE with as great of accuracy. In addition, we are not testing an impulsive snap-judgment, as was done by Barrett and Bliss-Moreau. Giving

participants the chance to rationally decide whether the character is responsible allows participants to engage with rational thought as opposed to impulsive conclusions, better representing real-world judgments.

Riggio & Garcia (2009) found that participants, having been exposed to a negative situation, were less likely to commit the FAE. We also expect to find that participants will be less likely to commit the FAE when presented with a negative situation. However, the negative situation in Riggio and Garcia's experiment was presented as a visual stimulus rather than a written scenario. It is not known whether learning of a situation in writing (e.g. reading the newspaper) also causes people to make more internal, as opposed to external, attributions. Situation type may be highly relevant to the FAE stemming from anthropological roots. As humans, our survival has depended on receiving help from others in times of need. Sympathy is elicited when we believe that others, who are in negative situations, had no control over their state, as opposed to seeing individuals who clearly inflicted their own problems (e.g., people may be more likely to help a homeless man knowing he lost his home in a tornado, as opposed to knowing he is lazy and refuses to work). Thus, the survival of our species has flourished from the sympathy elicited from truly believing others had no control over their negative situations. Individuals in positive situations, on the other hand, do not receive the same benefit when we jump in to help them. Thus from an evolutionary point of view, it makes sense that seeing someone in a negative situation tends to trigger a belief that they had no control, because it encourages a sympathetic, help-giving response.

In addition to predicting that individuals will be more likely to commit the FAE when observing females, we also expect that individuals will be more likely to commit the FAE when observing females in positive situations, but not males in positive situations. As Barrett and Bliss-Moreau (2009) found, viewing a female

makes people more likely to commit the FAE. Additionally, Riggio and Garcia (2009) determined that having been exposed to a negative situation makes individuals less likely to commit the FAE. Since people generally attribute males' behavior to situational factors, we are not expecting people to commit the FAE when observing males in positive situations, but are expecting people to commit the FAE when observing females in positive situations.

## **Method**

### **Participants**

Young adults (N = 16, 5 males and 11 females, age range: 19–28) at the University of California, Los Angeles participated in this study for course credit in their Research Methods class (Psychology 100B, discussion section 1B). All students were at the undergraduate level.

### **Design**

The experiment used a two-way within-subjects design. Situational mood and gender of the character in the scenario were manipulated. Gender was manipulated by creating half of the scenarios with female characters and half of the scenarios with male characters. Situational mood was manipulated by creating two levels of situation type (positive and negative situations). A positive situation is operationally defined as an experience or event that typically elicits satisfaction and enjoyment (e.g. getting married, winning money, etc.), whereas a negative situation is one in which most individuals would experience a great amount of discomfort and/or find very unfavorable (e.g. failing a class, getting fired, etc.). Crossing the two levels of each independent variable yielded four total conditions: a female in a positive situation, a female in a negative situation, a male in a positive situation, and a male in a negative situation. All conditions were randomized across subjects. The questions probed the degree to



which individuals committed the FAE by asking subjects to rate the degree in which the character was in the situation because of situational factors or personality factors. To measure the degree to which individuals committed the FAE, a 7-point Likert scale on an interval measure was used with “one” being defined as due to purely situational causes and “seven” being defined as due to purely dispositional causes. “Four” represents a neutral view between situational and dispositional factors, three and five were moderate measures, and two and six were strong feelings of situational or dispositional factors.

### **Materials and Apparatus**

Thirty one-sentence scenarios were shown to each participant on a Power Point presentation. Ten of each set of scenarios were distracter questions. A PowerPoint presentation was viewed by each subject with each presentation consisting of 30 one-sentence scenarios, 10 of which were distracter/control scenarios. Each slide displayed a scenario, each of which corresponded to an interval-based 7-point Likert-type scale question that subjects answered in their provided answer packets. Each question following the scenarios was identical, asking the participant to rate the degree to which they believed the characters situation was due to situational causes (representing a rating of one) or dispositional causes (representing a rating of seven). PowerPoint slides consisting of the various scenarios were randomized across participants to control for order and sequence effects; no two PowerPoint presentations had identical orders of questions, but each participant had the exact same scenarios and distracter questions.

Four conditions were presented: a female in a negative situation, a female in a positive situation, a male in a negative situation, and a male in a positive situation. Each condition had five distinctly different scenarios, which were averaged in efforts to control for bias related to a single scenario. Positive scenarios included marriage, gaining a million dollars in the stock market, etc. The

same situations were used for the negative conditions, but in a negative fashion (divorce instead of marriage, losing one million dollars in the stock market instead of gaining, etc.). Using the same situations in opposition allowed previous experiences that carry biases to be uniformly expressed in both conditions and thus minimize error due to situational bias. In addition, each scenario was presented twice: one with a male and one with a female, allowing different reactions to both genders to be tested in the same situation to minimize situational bias. For instance, a scenario that stated that a female was getting married would also be presented as a male getting married (in the opposition scenario, both the female and male are depicted as getting divorced).

Within the twenty questions used to measure the FAE, ten distracter questions were included in random order. Distracter questions asked the same questions following the scenarios, but had situations in which it was clearly someone's fault (a female got drunk and crashed her car), or clearly situational causes (a male lost his home in an earthquake). The distracter questions were intended to serve as an artificial measure that would make participants believe something else was being measured (e.g. severity of the situation and responsibility judgments), and thus participants would be less likely to figure out what is actually being measured (which could potentially bias the results).

## **Procedure**

Participants were randomly assigned numbers and instructed to open the corresponding PowerPoint presentation (e.g. participant #1 opened PowerPoint #1). The first slide consisted of instructions, which were read orally by the administrator and visually followed by the participants. Paper was distributed to allow participants to write their responses to each question. Participants were also instructed not to talk or discuss any questions with peers until after everyone had submitted their packets. In addition, participants were instructed not to go back to any previous slides. A time limit



was not implemented and participants were encouraged to take their time in responding to questions. The room was kept quiet to limit distractions.

## Results

Figure 1 presents the average degree to which participants attributed the situations of hypothetical characters as being caused by situational factors or dispositional factors, representing the degree to which subjects committed the FAE, and as a function of situational mood and gender of the character. The pattern of results displayed in Figure 1 suggest that the hypothetical characters, in general, were rated as being more personally responsible when the situation was positive as opposed to negative. These apparent effects were tested and analyzed using a two-way within subjects ANOVA, which revealed a significant main effect of situation type, such that participants rated characters situations as being due to situational factors significantly higher when presented with a character in a negative situation ( $M = 5.013$ ,  $SD = .572$ ) as opposed to being presented with a character in a positive situation ( $M=5.331$ , $SD=.416$ ), regardless of the gender in which the character was presented,  $F(1,15)=5.800$ ,  $MSE = 1.626$ ,  $p = .029$ . No significant main effect was found for gender of the hypothetical character, such that participants were not more likely to commit the FAE when presented with a female character ( $M = 5.163$ ,  $SD = .496$ ), as opposed to a male character ( $M =$

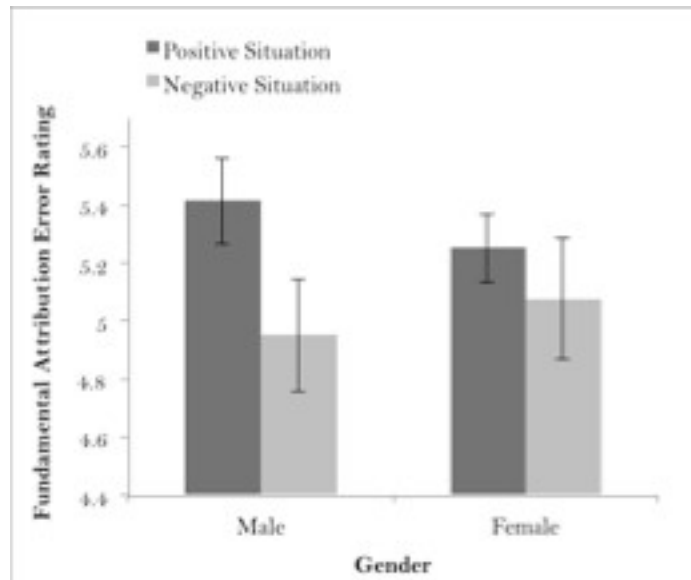


Figure 1. Individuals were rated as being more personally responsible when in positive situations as opposed to negative situations, regardless of gender. No significant interaction was found between gender and situation type. The y-axis represents the 7-point interval-based Likert scale with “seven” representing a rating of an individual being entirely responsible for the situation and “one” representing an individual’s situation being caused entirely by situational factors. Standard errors are depicted by error bars attached to each column.

5.181, SD = .512), regardless of the type of situation presented,  $F(1, 15) = .019$ ,  $MSE = .006$ ,  $p = .892$ . Additionally, as apparent in Figure 1, no significant interaction was found to exist between gender and situation type,  $F(1, 15) = .622$ ,  $MSE = .331$ ,  $p = .443$ .

To compare individual condition means, multiple dependent sample t-tests were conducted, with a Bonferroni correction to maintain the alpha level at .05. When presented as a positive situation, the average degree to which participants committed the FAE was not revealed to be statistically significant when the character was presented as being female ( $M=5.250$ ,  $SD = .459$ ) as opposed to male ( $M = 5.413$ ,  $SD = .586$ ),  $t(15)=1.006$ ,  $p=.330$ . Likewise, when presented as a negative situation, the average degree to which participants committed the FAE was also not found to be significant when presented with a female character ( $M = 5.075$ ,  $SD = .832$ ) as opposed to a male character ( $M = 4.950$ ,  $SD = .764$ ),  $t(15) = -.449$ ,  $p = .660$ . Thus, as illustrated in Figure 1,

the degree to which subjects committed the FAE was not significantly dependent on gender, and gender did not significantly interact with situation type.

Furthermore, when subjects were presented with situations involving male characters, the average degree to which subjects committed the FAE was not found to be significantly different when they were presented as positive situations ( $M = 5.412$ ,  $SD = .586$ ) as opposed to negative situations ( $M = 4.950$ ,  $SD = .764$ ),  $t(15) = 2.063$ ,  $p = .057$ . Likewise, when subjects were presented with situations involving females, the average degree to which subjects committed the FAE was also not found to be significantly different when presented with positive situations ( $M = 5.250$ ,  $SD = .459$ ) as opposed to negative situations ( $M = 5.075$ ,  $SD = .832$ ),  $t(15) = .773$ ,  $p = .452$ .

### **Discussion**

The hypothesis addressed in the present study was that individuals would be significantly more likely to commit the FAE when observing situations involving females as opposed to males, and when observing individuals in positive situations as opposed to negative situations. Our results did not support the former statement, which expected participants to commit the FAE to a significantly greater degree when observing females. Instead, no main effect was found in relation to gender, suggesting that the degree to which individuals committed the FAE was not dependent on whether the observed character was male or female. However, in accordance with situation type, our results did support our proposal that individuals would be more likely to commit the FAE when presented with a positive situation as opposed to a negative situation. In addition, our experiment tested the proposed interaction that individuals would be more likely to commit the FAE when observing a female in a positive situation, but not a male in a positive situation. However, our results did not support this proposal and thus, no interaction was found with respect to

gender and situation type. In simpler terms, subjects attributed characters' situations as being due to situational factors significantly more often when presented with negative situations, regardless of gender.

Our results successfully replicated previous findings that suggest that individuals presented with negative situations are less likely to commit the FAE. Unlike previous studies, we tested positive situations as the second level of our independent variable as opposed to neutral situations and found that individuals in positive situations may be more prone to having the FAE committed against them. We speculated that previous research may have showed lack of FAE commission with control conditions because of lack of overall stimulation, regardless of situation type. To test whether it was truly the negative situation producing the result, we added a positive situation, which would be equally stimulating and thus allow us to rule out stimulation as a cause for the lack of FAE commission. Indeed, our results confirmed that individuals were less likely to commit the FAE when presented with a character in a negative situation, as opposed to a positive one.

Although previous research has found that individuals are more likely to commit the FAE when observing females, our results do not suggest this to be the case. Perhaps we did not replicate previous findings because our sample size was considerably smaller. In addition, the breakdown of our sample reveals a much higher number of female participants ( $n = 11$ ) as opposed to male participants ( $n = 5$ ), which leads us to believe that our sample may be somewhat biased. Perhaps females do not view other females as having as great of responsibility for their situations, whereas males may have entirely different views. Thus, if more males were represented in our sample, perhaps we may have seen similar results to Barrett and Bliss-Moreau. Future researchers may want to consider keeping participant gender levels constant to avoid possible gender bias differences between males and females. In

addition, it may be interesting to collect participant gender data to determine if females view other females as being less responsible for their situations, as opposed to males, and vice versa.

In addition, Barrett and Bliss Moreau use photographs to depict gender instead of text. It is also possible that individuals are more likely to commit the FAE when seeing an individual as opposed to reading about someone. The level of visual processing required when viewing a photograph may cause viewers to actively engage more of their brains when making attributions. Future researchers may want to examine type of processing more carefully to determine if the manner in which a situation is presented may impact attributions. Furthermore, Barrett and Bliss-Moreau asked subjects to make “snap-judgments” about whether the individual in the photograph was emotional (internal attributions) or having a bad day (external attributions). Our study encouraged rational thought and discouraged “snap-judgments.” It is possible that Barrett and Bliss-Moreau found significant results because processing at the impulsive level may cause individuals to be more prone to gender stereotyping, but by thinking more carefully, as we encouraged, individuals may be less likely to engage with impulsive stereotypical thoughts.

Finally, Barrett and Bliss-Moreau used a dichotomous categorical scale to measure participants’ responses. This may have resulted in individuals who did not have a strong opinion to be forced into choosing the maximum rating; hence their results were prone to floor and ceiling effects. Our results used a 7-point Likert scale which allowed individuals to express strong thoughts if they existed, but more importantly allowed subjects to express neutral thoughts. Allowing participants to express indifference to attribution may be why we did not have the same significant results as Barrett and Bliss-Moreau.

Another limitation of our study is that our sample consists of well-educated individuals. Perhaps people who are well-educated may

not commit the FAE to the same degree as individuals from the general population, due to their increased knowledge. Our highly educated sample does not accurately represent the population at large and thus the generalizability of our results is threatened. Future researchers may consider gathering a sample of a variety of individuals. In addition, it would be insightful to examine whether differences occur across cultural backgrounds. Knowing how different cultural groups perceive others' can allow us to be more culturally sensitive and aware. Furthermore, future researchers may want to examine the extent to which early adversity and childhood stress impact FAE commission. If childhood upbringing impacts the degree in which individuals commit the FAE as adults, a stronger case may be made for particular parental practices and environmental constructs in childhood.

Our study has implications in the real world because it can be applied to multiple domains, specifically criminal sentencing and conviction. Since our results replicate previous findings in supporting the notion that people are less likely to attribute individuals in negative situations as being personally responsible for their situation, one may wonder whether imprisoned criminals (who are in negative situations by virtue of being in jail) elicit more sympathy among jurors and judges. In other words, if our findings generalize to legal domains, jurors may be more likely to view the defendant (who is in a negative situation) as less responsible, and thus may be potentially more likely to find him or her not guilty. Perhaps this is why there have been murderers who have been exonerated despite mounds of evidence against them; jurors may inadvertently view the criminal as less personally responsible for his or her crime (i.e. jurors may be more prone to believe that the criminal was acting in "self-defense" as opposed to being an aggressive cold-hearted person). On the same note, judges may also tend to give lighter sentences to criminals in negative situations if our findings generalize to legal and sentencing domains. Future researchers may want to test the fundamental



attribution error in application to our justice and sentencing system. If it is found that our results generalize to legal domains, it may be important to educate lawyers about this potential juror bias and test ways to counteract this effect.