# **Original Article:**

# EXPLANATIONS AND IMPLICATIONS OF THE FUNDAMENTAL ATTRIBUTION ERROR: A REVIEW AND PROPOSAL

Zachariah Berry Bethel University, USA

Faculty Sponsor: Joel Frederickson, Ph.D. Bethel University, USA

#### Abstract

Overestimating elements of an actor's personality while simultaneously underestimating situational factors has been a pervasive problem in Western culture when trying to explain the cause of a behavior or event. This social error is known as the *fundamental attribution error* (FAE). Through an investigation of the literature I seek to understand why the FAE may occur and what consequences may result from its occurrence. I propose an explanation for the FAE's occurrence that unifies current explanations. I also illuminate possible consequences of committing the FAE that have not been clearly articulated in the literature. I argue that this social error may have implications for oppression, victimization, peer stress, and the making of moral judgments. I conclude by proposing that education is needed in order to bring awareness and promote proper training to attenuate the effects of the FAE.

**Keywords:** fundamental attribution error, theory of mind, hyperactive agency detection device, mental stability, social psychology, attribution, attributional complexity

AUTHOR NOTE: Please address all correspondence to Zachariah Berry, 3272 New Brighton Rd., Arden Hills, MN 55112, USA. Email: z-berry@bethel.edu

#### INTRODUCTION

Imagine you are walking alongside the bottom of a hill. All of a sudden, a woman runs past you and quickly ascends the hill. About halfway up the hill she steps into a small hole, causing her to fall and tumble back down to the bottom of the hill. As a spectator, what are your initial thoughts? If you are like most people, you likely formed a negative judgment of the woman, attributing her carelessness and inobservance as the primary cause of the event. These judgments, however, reflect a deviation from the general principles of attributional analysis. That is, behavior of an individual is largely influenced and guided by situational factors and external influences (Gilovich, Keltner, Chen, & Nisbett, 2013). As you watched the woman fall, however, your initial reaction was concerned solely with the event rather than situational factors. This tendency to attribute the behavior of an individual to aspects of her character or personality while omitting situational factors is known in the field of social psychology as the fundamental attribution error (FAE; Ross, 1977). According to the FAE, an observer's judgment becomes clouded, causing them to attribute the reason for a behavior to internal characteristics rather than external factors. Even when an observer is aware that they have caused an individual to behave in a particular way, they may underestimate their own influence when explaining the cause of the actor's behavior (Gilbert & Jones, 1986).

The FAE often distorts an observer's judgment of an individual. Ross, Amabile, and Steinmetz (1977) showed that people are quick to commit the FAE as they attribute too much responsibility to individuals for great accomplishments or terrible mistakes, while failing to give enough responsibility to the particular situation. Their study examined the role of the actor-observer in a laboratory setting where individuals were assigned to be either a questioner or contestant in a game similar to *Jeopardy*. The questioners were asked to think of general knowledge questions that were both challenging and answerable. The contestants were at a disadvantage, as they were unaware of what sorts of questions they would be asked. The questioners, however, had the advantage of thinking up any question for which they already knew the answer to. Everyone watching the game was made aware of the disparate conditions in the game. The setup of the game made a judgment of intelligence for questioners and contestants impossible, as there was a clear advantage for the questioners and disadvantage for the contestants. As predicted, however, those watching the game attributed higher intelligence to the questioners and lower intelligence to the contestants despite knowing that the roles had been randomly assigned.

Further research has also examined the role of the FAE in behavioral judgments. Riggio and Garcia (2009) found that students who read an excerpt of a person's bad day tended to attribute dispositional factors to the cause of the bad day without giving consideration to any situational elements that may have contributed to the person's bad day. Furthermore, Riggio and Garcia examined the effect of priming on a second group of students. The students in the second group watched a video demonstrating the power of social influences and environmental factors on the behavior of individuals. After watching

the video, students were asked to read the same excerpt that was given to the first group. The students who watched the video attributed more situational factors to the cause of the character's bad day than students who did not watch the video. These results indicate that the FAE has implications for the judgments we make of people's behavior and intelligence (Meyers, 2010).

Why does any of this matter? First, we as social scientists need to be aware of the errors that human beings are prone to make. Much of the research that we do (e.g., field studies, survey methods, etc.) examines the components of human social interaction. Within social settings human beings tend to commit a variety of errors. Being aware of these errors enhances the quality of explanations and interpretations of social situations. Therefore, being aware of our tendency to commit the FAE can positively influence the way we read research findings in the social sciences, conduct studies, and explain and interpret theories of social interaction.

Second, committing the FAE may have implications for oppression, victimization, peer stress, and the making of moral judgments. Although many social scientists have critiqued the legitimacy of the FAE as an explanation for behavioral judgments (see Funder, 2001; Gawronski, 2004; Sabini, Siepmann, & Stein, 2001), there may remain situations in which an observer erroneously attributes dispositions to the cause of behavior irrespective of the influence of situational factors. Furthermore, the impact that inaccurate judgments have on relationships and society is too great to leave unaddressed. For instance, underrepresented people may experience prejudice brought about by inaccurate stereotypes constructed from an occurrence of the FAE. Therefore, it is important that we focus our attention towards understanding how to explain these occurrences in order to advance our knowledge of how to mitigate the impact that inaccurate behavioral judgments have upon relationships and society at large.

This paper serves three purposes. First, I will offer an explanation for the cause of the FAE that unifies current explanations. Second, I will articulate three implications that follow from committing the FAE, and respond to each implication respectively. Third, I will explicate one solution that may diminish the effects of the FAE.

# **Explanations of the Fundamental Attribution Error**

Research in the field of social psychology has found several different explanations for why individuals commit the FAE. Currently, research suggests that there are a variety of factors working simultaneously to produce this error (Gilovich et al., 2013). Accordingly, all of the following explanations could occur simultaneously or independently of one another.

# **Explanation #1: People are more salient than their situations**

We are more likely to attribute elements of an environment—such as the cause—to an observed effect rather than an unobserved effect. An observable actor who is present in an event is more salient than the situational factors of the event (Robinson & McArthur, 1982). Taylor and Fiske (1975) demonstrated the importance of salience in attributions through a study in which 50% of participants watched a videotape of a conversation between two individuals through the eyes of one individual, while the other 50% watched the same conversation through the eyes of both individuals. After watching the videotape, participants were asked to assign responsibility to the individual who set the tone of the conversation. Their findings indicated that those who saw the conversation through the eyes of one individual attributed more responsibility to that individual than the group who saw both perspectives.

Further research has shown that judgments of sincerity are determined by whomever people focus on in a conversation. When the focus of a videotape is on the suspect of a crime, the confession appears more genuine to the observers. When the focus of the videotape is on the detective, however, the observers judge the confession as less genuine and more coerced (Lassiter, Diamond, Schmidt, & Elek, 2007). These studies reveal that regardless of the external factors at work, people are more salient than their situations. But, the salience of an actor in an environment does not necessarily explain why an observer would commit the FAE. I believe, then, that there is some underlying cause for why salience tends to trigger a judgment of an action that overestimates the actors' character traits and underestimates situational factors.

### **Explanation #2: Comfort and attribution**

Studies have found that people tend to be more comfortable when attributing an actor's behavior to their character traits rather than situational influences (Gilovich et al., 2013). When an event occurs that deviates from the expected normality of everyday life (e.g., a qualified job candidate loses their opportunity to a mediocre candidate, a young child is kidnapped, etc.), we become concerned that these things may happen to us. This concern produces a threat and creates anxiety for us. In an attempt to minimize the perceived threat, we attribute the cause of the event to elements of the individual's personality while overlooking the potential situational factors—a theory known as the justworld hypothesis (Walster, 1966). This hypothesis states that we tend to act as though people "get what they deserve," or that "what goes around comes around." Minimizing the potential threat causes the anxiety to dissipate, as we no longer believe that what occurred could happen to us (Burger, 1981). According to the just-world hypothesis, then, we commit the FAE in an attempt to minimize the potential threat and hence feel relieved.

However, the just-world hypothesis does not seem to explain the swift judgment that the observer makes. The just-world hypothesis best explains deliberative judgments, not automatic judgments. Deliberation is typically required in order to conclude that

someone "got what they deserved." For example, if you witnessed a person drive into a tree, your initial response would not be, "they got what they deserved." Believing that the driver "got what they deserved" would require you to know more about the driver which, after coming to such knowledge, may or may not lead you to conclude that they got what they deserved (e.g., the car brakes might not have been working, or the driver may have been drunk). Therefore, I believe that there is a more fundamental explanation for our tendency to commit the FAE that better explains the automatic judgments we make.

#### **Explanation #3: How people make judgments in situations**

Further research has attempted to explain the cause of the FAE by illuminating how we make judgments of situations. Gilbert (2002) has shown that rather than simultaneously weighing the behavior and the context, we observe, identify, and automatically characterize a particular behavior. For example, when we see a person in another person's arms, we must decide whether they are being carried, supported, or kidnapped (Vallacher & Wegner, 1985). Upon identifying the behavior, we automatically make a characterization of the person (Newman, 1993). After this automatic judgment, we are able to make adjustments through effortful consideration of the context. This explanation, however, does not seem to fully capture all that occurs when we commit the FAE. Nor does this explanation necessarily account for why it is that we commit the FAE. Therefore, I believe that there is an underlying explanation that will better explain the occurrence of the FAE.

# A need for a different approach to understanding the FAE

Langdridge and Butt (2004) believe that a review of the literature reveals a need for a different approach in explaining the cause of the FAE. They have concluded that explaining the occurrence of the FAE through multiple simultaneously occurring factors suggests the need for a unifying approach. I believe that Langdridge and Butt are correct; there is at least one explanation underlying the current explanations of the FAE that unifies them. Therefore, I will put forward an explanation that I believe may underlie and unite current explanations for why we commit the FAE. I do not offer this explanation in an attempt to negate current explanations of the FAE; rather, my aim is to offer an explanation that illuminates a potential cause underlying current explanations of the FAE.

## **Agency Detectors and the FAE**

We are always looking for a cause or causes of the events we observe. Research in the field of cognitive science suggests that there may be agency detectors within the mind that evolved to increase chances of survival within our environment. These detectors overestimate the presence of human-like agency, causing us to attribute events to other people or human-like beings. The hypersensitive agency detection device (HADD) is the cognitive system that is responsible for detecting intentional agency (Barrett, 2000). The HADD is

extremely sensitive and will detect agency in most instances of movement (Barrett, 2007). When agency is detected by the HADD, the Theory of Mind (ToM) constructs a theoretical model that tests whether or not the HADD detected an actual agent exercising will and intentional movements. For example, if a person hears a bang outside of a closed door, the HADD may attribute the noise to a ghost or some other human-like being if there are no observable agents present in the area. On the other hand, if someone observes a tornado smash through a house, the HADD may attribute the cause of the tornado to an agent who caused the tornado to spin—prior to the observer's observation of the tornado—and hence create destruction. In both cases, the Theory of Mind will create a theoretical model assessing the validity of the detection. There may be variability in the amount of time it takes for the Theory of Mind to conclude that there is or is not an agent present in the environment (Barrett, 2004). The HADD is constantly detecting agency, even when the existence of an agent in a particular environment seems implausible (e.g., there is nobody by my bedroom door, therefore a ghost must have made that knocking sound).

Although the HADD and the Theory of Mind are hypothetical mechanisms, research has demonstrated the tendency for people to attribute agency to objects that possess no agency. Michotte (1946) was the earliest researcher to demonstrate the human tendency to attribute agency to instances of movement. Michotte exposed participants to a variety of visual displays in which a small object 'A' moves towards another item 'B' through a series of successive motions. Once object 'A' is adjacent to item 'B' it stops, at which point item 'B' begins to move away from object 'A'. Perceptual reports provided by the participants indicated a strong illusion of causality: the participants believed that object 'A' caused item 'B' to move away from object 'A'. Some researchers have put forward critiques of Michotte's original work that question the validity of his studies and hence the reliability of his conclusion (Scholl & Tremoulet, 2000). However, many researchers have conducted follow-up studies to Michotte's work that successfully verify and extend his findings (Morris & Peng, 1994; Rimé, Boulanger, Laubin, Richir, & Stroobants, 1985; White & Milne, 1997).

So how might agency detectors offer a unifying explanation for the occurrence of the FAE? I believe that our HADD is the underlying cause for occurrences of the FAE. When we observe an actor in an event, the HADD immediately responds to the situation. The HADD's detection of agency causes the actor in the situation to stand out amongst the various situational factors, which causes us to attribute the cause of the event to the actor rather than situational or external factors. The HADD's response is validated in a case involving a human agent, because the theoretical model the Theory of Mind constructs to assess the validity of the detection will always return valid when assessing an event involving a human agent. In light of this, I propose that our HADD is the underlying cause for the overestimation of an actor's dispositions and the underestimation of the situational or external factors involved.

When observing an actor in an event, regardless of the actual cause of the event, our automatic judgment attributing cause and responsibility to the actor can be explained by the HADD. For example, when watching a person who in attempting to jump over a hurdle hits the hurdle and falls, the observer automatically attributes the cause of the event to elements of the actor's personality rather than the shoe that came undone or the small hole that she stepped in. Although the HADD might detect agency in the environment and in the human agent, the ToM's assessment finds the evaluation of the human agent superior to the evaluation of situational factors. The model constructed for the human agent satisfies the ToM's assessment with greater satisfaction and ease than the model constructed for situational factors. It is therefore more likely for an observer's automatic judgment to attribute cause to the actor in an event rather than situational factors.

There is no empirical basis for the existence of agency detectors within the human brain. In order to validate the role that agency detectors play when a person commits the FAE, future research must discover whether or not the human brain does contain agency detectors. Research should also examine whether or not people who commit the FAE also attribute agency to inanimate objects. Finding a connection between committing the FAE and attributing agency to inanimate objects is a necessary step towards empirically validating agency detectors as the underlying explanation for why people may commit the FAE.

# Implications of committing the FAE

We tend to commit the FAE many times per day. Although discussions about the FAE have focused on the negative outcomes it produces, there may be instances where the FAE produces a positive or neutral outcome. A person may commit the FAE by attributing positive characteristics to an actor's behavior. For example, we expected the actor to fail—when they didn't fail we attributed their success to their personality. Furthermore, there may be instances when a person commits the FAE but is actually correct in the judgment they make. For example, an observer may judge the person who fell down the hill as a clumsy person, when the person really is clumsy.

The question, then, is to what degree is the FAE actually negative? Although some may think that the impact of the FAE is weakened by the amount of positive or neutral outcomes produced by it, the negative impact that may result from committing the FAE requires attention. Simply because a positive outcome results more frequently than a negative outcome is not sufficient to render the negative outcomes unimportant. For example, just because the medical community implements a medication that generally produces a positive outcome, researchers likely won't stop thinking about how it is that they can further reduce the negative outcomes.

The negative outcomes produced by the FAE can be serious and far-reaching, as when they may lead a member of one group to incorrectly stereotype members of an out-

group, which may eventually lead to discrimination. The negative impact, then, suggests a need to examine the nature of the FAE in order to attenuate the negative consequences, despite the positive or neutral outcomes that may result from committing the FAE.

The FAE can have large implications both in the short-term and long-term (Gilovich et al., 2013). For example, when assessing a candidate for a job opening, employers tend to rely heavily on the 30-minute interview. This reliance stems from a faulty assumption that an individual is able to understand a lot about another person's traits and abilities, when they are only able to understand the individual's apparent traits and abilities for a single situation (Hunter & Hunter, 1984). The judgment made of the candidate based solely on the interview is an error that could have long-term consequences for the company and short-term consequences for the candidate.

Relatively little has been said in the literature concerning the implications of committing the FAE. Although the FAE may impact various facets of life (e.g., how one forms ways of thinking about another person), I will focus on a three components of social navigation that may be negatively impacted as a result of the occurrence of the FAE. I will address the impact that the FAE may have on the treatment of members from various groups, and how it may impact relationships and moral judgments respectively.

### **Implication #1: The FAE influences treatment of others**

Committing the FAE may negatively impact underrepresented people in the West. For example, take two different ethnic groups—one is Caucasian and the other is African-American—that are working separately on a task intended to measure intelligence. If the Caucasian group outperforms the African-American group and finishes the task at a quicker rate, outside observers may commit the FAE; they might attribute the African-American students' poor performance to their inferior intelligence. Even if the task contains a low degree of measurement error or cultural biases in its construction, viewing African-Americans as less intelligent than Caucasians when explaining the results of the study would be a faulty conclusion, and an instance of the FAE. Even if the study indicated that the African-Americans were less intelligent than the Caucasians, the results of one test would not be sufficient to think of all African-Americans in this way. Adjusting one's view of African-Americans to correspond with the findings in this study may cause stereotyping that influences attitudes towards African-American people in future encounters, which may lead to discrimination (Steele & Aronson, 1995).

Committing the FAE in scenarios involving underrepresented people might lead to negative stereotyping that consequently produces prejudice, and even discrimination. This has negative implications on the growth of society and social relations in general. Therefore, understanding why the FAE occurs is vital in order to address the potential negative treatment of underrepresented people in Western society.

#### **Implication #2: The FAE affects relationships**

We tend to see an individual in a different light when overestimating the role of their dispositions in an explanation of their behavior. For example, if I watch someone slip and fall, committing the FAE will cause me to believe that the actor is primarily responsible for the event. Attributing responsibility to the actor's dispositions may cause me to make the judgment that the actor is not a careful or observant person. This judgment of character based on an error in attribution can affect relationships as it may elicit peer stress and victimization. The actor that I judged as careless or unobservant due to my view of the observed event may feel anxiety for the way I now think about her. She may become stressed because people are making a judgment of her character based on an event that occurred out of her control, which does not illuminate actual elements of her personality. When a false judgment is made of a person, the mental and emotional stability of the one being judged may become compromised.

Making a judgment of a person based on an error in attribution may also lead to victimization. One way to test this would be to sample the response of middle school children before and after educating them on a medical condition that they may make fun of or laugh at prior to education due to their immaturity. For example, by thoroughly educating a group of children on a medical condition that renders a person incapable of controlling their bowel movements, the children should develop a more mature understanding of the implications that such a medical condition has on a person. After educating the children, we would expect them to respond to people with this medical condition in a more mature way. If they responded in the same way they did prior to being educated, they would be committing the FAE because they are aware of the non-dispositional factors causing the bowel movement. This response would indicate the possibility of victimization between peers. Future research should focus on the link between victimization and peer stress that may stem from the judgment of an individual following an error in attribution. This research is required in order to further the position that proper training is needed to diminish the effects of the FAE.

### **Implication #3: The FAE affects moral development**

From the workings of our brain emerge beliefs and desires that influence our actions. We have developed adaptive capacities to learn from others, make choices, and pursue goals. These capacities allow us to be shaped by our environment and culture, which supplement the brain's beliefs and desires as implemented by natural selection. Research suggests that we are born with the capacity to make moral judgments, empathize and show compassion, and to maintain a rudimentary sense of fairness and justice (Bloom, 2013; Wynn & Bloom, 2014). We tend to rely first on our intuitions when making a judgment of a situation. Following an intuition, we engage in post hoc moral reasoning to modify and further the intuition in working towards a moral judgment (Haidt, 2001).

The information received regarding an event, however, may be corrupt when committing the FAE. In situations where the behavior observed requires a moral judgment, committing the FAE may cause us to form moral judgments using inaccurate information received from inaccurate observations. When we observe an actor, the information that feeds our intuitions may be incorrect as we overestimate the responsibility of dispositions while underestimating the influence of situational factors (Ross, 1977).

The FAE may negatively affect human intuitions about behavior and events, which may cause a person to make inaccurate judgments of situations and engage in post hoc moral reasoning using inaccurate information. Future research should examine whether information acquired from an instance of the FAE affects moral judgment formation.

# Potential solution for committing the FAE

So what can be done to mitigate the implications of the FAE? Research suggests that people have the ability to modify the way that they think about new information. Fletcher, Danilovics, Fernandez, Peterson, and Reeder (1986) introduced the concept of attributional complexity to explain the differences in how people judge and explain human behavior. Attributional complexity refers to the capability of a person to modify judgments of social behavior in working towards an accurate understanding of observed behavior. According to Fletcher et al. (1986), an attributionally complex person is typically more motivated to explain human behavior, to use complex explanations when explaining human behavior, and is more aware of the power of situational factors on human behavior. Research on attributional complexity has found that attributionally complex people tend to be less prone to make errors in attribution (e.g., overestimating dispositions while underestimating situational factors) than are attributionally simple people (Devine, 1989; Fletcher, Reeder, & Bull, 1990; Fletcher, Rosanowski, Rhodes, & Lange, 1992). For example, research findings indicate that attributionally complex people are better at detecting instances of subtle racism than are attributionally simple people (Reid & Foels, 2010).

Research suggests that a complex attributional schema can be developed through education and training that promotes attributional complexity (Townsend, Da Silva, Mueller, Curtin, & Tetrick, 2002). Recent research has found that leaders who undergo training focused on social judgment and perception develop attributional complexity (Sun & Anderson, 2012). Additional research has found that individuals who participate in a brief training program develop the ability to modify behavioral judgments (Johnco, Wuthrich, & Rapee, 2013). These findings suggest that individuals who have developed a complex attributional schema can alter their behavioral judgments despite their initial judgments. Developing a more complex attributional schema, then, will increase the likelihood of explaining behavior accurately.

It is unclear whether developing attributional complexity will dispel occurrences of the FAE. However, research does indicate that attributionally complex people will not make judgments of observed behavior based solely on their immediate judgments (Johnco et al., 2013). In light of these findings, it is important to promote educational programs designed to develop attributional complexity. I believe that developing such complexity will at least mitigate the implications that stem from committing the FAE, as attributionally complex people will likely tailor their initial judgments of observed behavior in working to arrive at an accurate explanation for the behavior. Future research should investigate whether attributionally complex people commit the FAE less than attributionally simple people in seeking to examine the range impact attributional complexity has on the FAE.

#### **CONCLUSION**

We tend to believe that we are seldom susceptible to making attributional errors (Pronin, 2008). Yet we make these errors in attribution on a daily basis. Given the implications of committing the FAE, we ought to focus our attention on learning how best to explain the error in order to understand how to attenuate its effects. I believe that human agency detectors could be the explanation that unifies current explanations of the FAE. If agency detectors are able to explain the occurrence of the FAE, we would have a better understanding of how the FAE functions, which gives rise to possible ways to obviate the effects of the FAE. I believe that our current knowledge of the FAE is sufficient to conclude that we should promote education aimed at developing attributional complexity. Future research ought to investigate the existence of agency detectors and their relation to attribution as the truth of this relationship gives rise to a host of ways to attenuate the effects

#### **Acknowledgments:**

Special thanks to Dr. Joel Frederickson for his feedback and mentorship during the writing process. Special thanks also to Dr. Adam Johnson for the conversations that motivated the authorship of this paper. And special thanks to Michael Hands, William Travis, Lucille Travis and others for their encouragement and editing.

#### REFERENCES

- Barrett, J. (2000). Exploring the natural foundations of religion. *Trends in Cognitive Sciences*, 4(1), 29-34.
- Barrett, J. (2004). Why would anyone believe in god? United Kingdom: Altamira Press.
- Barrett, J. (2007). Cognitive science of religion: What is it and why is it? *Religion Compass*, 1(6), 773-774.
- Bloom, P. (2013). *Just babies: The origins of good and evil*. New York, NY: Crown Publishers/Random House.
- Burger, J. M. (1981). Motivational biases in the attribution of responsibility for an accident: A meta-analysis of the defensive-attribution hypothesis. *Psychological Bulletin*, 90(3), 496–512.
- Devine, P. G. (1989). Overattribution effect: The role of confidence and attributional complexity. *Social Psychology Quarterly*, 52(2), 149–158.
- Fletcher, G. J. O., Danilovics, P., Fernandez, G., Peterson, D., & Reeder, G. D. (1986). Attributional complexity: An individual differences measure. *Journal of Personality and Social Psychology*, *51*(4), 875–884.
- Fletcher, G. J. O., Reeder, G. D., & Bull, V. (1990). Bias and accuracy in attitude attribution: The role of attributional complexity. *Journal of Experimental Social Psychology*, 26, 275–288.
- Fletcher, G. J. O., Rosanowski, J., Rhodes, G., & Lange, C. (1992). Accuracy and speed of causal processing: Experts versus novices in social judgment. *Journal of Experimental Social Psychology*, 28, 320–338.
- Gilbert, D. T. (2002). Inferential correction. In T. Gilovich, D. Griffin, D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 167–184). New York, NY: Cambridge University Press.
- Gilbert, D. T., & Jones, E. E. (1986). Perceiver-induced constraint: Interpretations of self-generated reality. *Journal of Personality and Social Psychology*, *50*(2), 269–280.
- Gilovich, T., Keltner, D., Chen, S., & Nisbett, R. (2013). *Social psychology* (3rd ed.). New York, NY: W. W. Norton & Company.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108(4), 814.
- Hunter, J. E., & Hunter, R. F. (1984). Validity and utility of alternative predictors of job performance. *Psychological Bulletin*, *96*(1), 72–98.
- Johnco, C., Wuthrich, V. M., & Rapee, R. M. (2013). The role of cognitive flexibility in cognitive restructuring skill acquisition among older adults. *Journal of Anxiety Disorders*, 27(6), 576–584.

- Langdridge, D., & Butt, T. (2004). The fundamental attribution error: A phenomenological critique. *British Journal of Social Psychology*, 43(3), 357–369.
- Lassiter, G. D., Diamond, S. S., Schmidt, H. C., & Elek, J. K. (2007). Evaluating videotaped confessions: Expertise provides no defense against the camera-perspective effect. *Psychological Science*, 18(3), 224–226.
- Meyers, D. G. (2010). Social beliefs and judgments. *Social psychology* (Tenth ed., pp. 80). New York, NY: McGraw-Hill.
- Michotte, A. (1963). The Perception of Causality. Oxford, England: Basic Books.
- Morris, M.W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for Social and physical events. *Journal of Personality and Social Psychology*, 67, 949–971.
- Newman, L. S. (1993). How individualists interpret behavior: Idiocentrism and spontaneous trait inference. *Social Cognition*, 11(2), 243–269.
- Pronin, E. (2008). How we see ourselves and how we see others. *Science*, 320(5880), 1177–1180.
- Reid, L. D., Foels, R. (2010). Cognitive complexity and the perception of subtle racism. *Basic and Applied Social Psychology*, *32*(4), 291–301.
- Riggio, H. R., & Garcia, A. L. (2009). The power of situations: Jonestown and the fundamental attribution error. *Teaching of Psychology*, *36*(2), 108–112.
- Rimé, B., Boulanger, B., Laubin, P., Richir, M., & Stroobants, K. (1985). The perception of interpersonal emotions originated by patterns of movement. *Motivation and Emotion*, *9*, 241–260.
- Robinson, J., & McArthur, L. Z. (1982). Impact of salient vocal qualities on causal attribution for a speaker's behavior. *Journal of Personality and Social Psychology*, 43, 236–247.
- Ross, L. (1977). The intuitive psychologist and his shortcomings. *Advances in Experimental Social Psychology*, 10, 173–220.
- Ross, L. D., Amabile, T. M., & Steinmetz, J. L. (1977). Social roles, social control, and biases in social-perception processes. *Journal of Personality and Social Psychology*, 35(7), 485–494.
- Sabini, J., Siepmann, M., & Stein, J. (2001). The really fundamental attribution error in social psychological research. *Psychological Inquiry*, *12*(1), 1–15.
- Scholl, B. J., & Tremoulet, P.D. (2000). Perceptual causality and animacy. *Trends in Cognitive Sciences*, 4(8), 299–309.
- Steele, C. M., & Aronson, J. (1995). Stereotype Threat and the Intellectual Test-Performance of African-Americans. *Journal of Personality and Social Psychology*, 69(5), 797–811.

- Sun, P. Y. T., & Anderson, M. H. (2012). The importance of attributional complexity for transformational leadership studies. *Journal of Management Studies*, 49(6), 1001–1022.
- Taylor, S. E., & Fiske, S. T. (1975). Point of view and perceptions of causality. *Journal of Personality and Social Psychology*, 32(3), 439–445.
- Townsend, J. C., Da Silva, N., Mueller, L., Curtin, P., & Tetrick, L. E. (2002). Attributional complexity: a link between training, job complexity, decision latitude, leader-member exchange, and performance. *Journal of Applied Social Psychology*, *32*, 207–221.
- Vallacher, R. R., & Wegner, D. M. (2012). Action identification theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology* (pp. 327–348). Thousand Oaks, CA: Sage Publications Ltd.
- Walster, E. (1966). Assignment of responsibility for an accident. *Journal of Personality and Social Psychology*, *3*(1), 73–79.
- White, P.A., & Milne, A. (1997). Phenomenal causality: impressions of pulling in the visual perception of objects in motion. *American Journal of Psychology*, 110, 573–602.
- Wynn, K., & Bloom, P. (2014). The moral baby. In M. Killen, J. G. Smetana, M. Killen, J. G. Smetana (Eds.), *Handbook of moral development (2nd ed.)* (pp. 435-453). New York, NY: Psychology Press.

#### **AUTHOR INFORMATION:**

**Zachariah Berry** is an undergraduate at Bethel University studying both psychology and philosophy. His interest to study the fundamental attribution error stemmed from conversations with a faculty member concerning the ways human beings perceive others' actions. As a result of these conversations, he specifically became interested in the perceptual errors that human beings make when assessing others' behavior. He is currently working on a project looking at the way human beings think when they think about human origins. Address: Zachariah Berry, 3272 New Brighton Rd. Arden Hills, MN 55112, USA. Email: z-berry@bethel.edu

**Joel D. Frederickson, Ph.D.**, is professor and department chair of the psychology department and associate dean of institutional assessment at Bethel University. His areas of interest include examining the impact of apologies, assessing changes in student dogmatism over the course of 4-years of college, and the impact of study abroad experiences on student dogmatism and anti-intellectual attitudes. Address: Dr. Joel Frederickson, MSC 2301, Bethel University, 3900 Bethel Dr., St. Paul, MN 55112, USA. Email: <a href="mailto:frejoe@bethel.edu">frejoe@bethel.edu</a>