Judgmental Attributions on Romantic Infidelity: The Influence of Beliefs in Free Will Rebecca Diehl

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#### Abstract

Research has shown that when people are primed with a deterministic view, they are less likely to consciously control their actions and more likely to cheat on a test (Vohs & Schooler, 2008). The current study extended this previous finding by investigating the effects of individuals' beliefs in free will on their judgments of blame and forgiveness toward emotional and sexual infidelity in a vignette discussing a fictitious couple. It was hypothesized that an individual's belief in high or neutral free will would affect their likelihood to attribute blame and forgiveness to a fictitious cheater by influencing their perceptions on the cheater's level of control. The results were mixed; individuals' beliefs in free will and their sex affected the way participants attributed blame ratings toward the cheater, while the type of infidelity within the vignette affected forgiveness ratings from the participants.

Judgmental Attributions on Romantic Infidelity: The Influence of Beliefs on Free Will

In general, people tend to perceive themselves to be in control of their own fate and
outcomes of their actions (Baumeister, 2008). This perception is referred to as a belief in free
will; a belief that all behaviors and events that happen in one's life are due to the personal free
choice of the rational, decision-making individual (Baumeister, 2008). In contrast, scientists
tend to favor a belief in determinism, believing that behavior is the result of biological and
environmental factors (Vohs & Schooler, 2008). Determinism is essentially a belief that there
are forces outside of our conscious awareness that determine our actions and choices. Personal
beliefs in either free will or determinism have the potential to influence the way individuals
make judgments toward people and situations they encounter, especially in judging the level of
responsibility in a given situation (Baumeister, 2008).

Beginning centuries ago, in the early days of Greek philosophy, there were concepts developing about causation (Dennett, 2002). With the early philosopher Plato, society started to see some of the original developments on free will. Plato spoke of passions within humans saying that this was what separated us from animals. He believed that humans have a rational part of their soul that is assumed to rule over our passions; it is a way to manage them without letting them take complete control of our soul (Cary, 2007). This self-control humans possess is what makes us different from animals and it is this "rational self-control" that then allows humans to make judgments of responsibility (Cary, 2007).

### **Early History on Free Will**

While Plato laid the groundwork for discussing the idea of free will, it was the philosopher, Epicurus, who first raised the problem of free will and determinism together (Cary, 2007). The proper term used for determinism during the time of Epicurus was *fate*. The

question of fate centered on whether any of our personal choices are really and truly our own. Epicureans were atomists who believed that the physical world of all living things consisted of tiny particles moving around in an empty space (Cary, 2007). They did not agree with the belief of "predestined choice" (Dennett, 2002). The Epicureans believed that the movement of the atoms was determined by forces of weight and the impact of collisions between the atoms (Cary, 2007). Interestingly, the Epicureans also believed that at times, atoms would swerve and randomly deviate even the tiniest amount from its current course (Cary, 2007). The arguments put forth by the Epicureans set the foundation for the free will-determinism debate, showing that ancient philosophers believed the world to be guided by external forces as well as the personal free choice of humans.

While the Epicureans were focused on the physical aspect of determinism, a second school of philosophy known as the Stoics focused more on deterministic fate as being compatible with human freedom and responsibility (Cary, 2007). They described a "cause and effect" explanation of deterministic fate, in that within a sequence of events, everything that has happened is linked together and can be explained by a prior cause (Cary, 2007). Specifically, they believed that a "divine Reason" or God determined the nature of this chain of events, so their fate was always rational (Cary, 2007). According to the Stoics, human freedom is compatible with fate, because the wisest human choices are also rational and rational choices complement the "divine Reason" that essentially controls the universe and future (Cary, 2007).

These early philosophers exhibited the idea that our "fate" may not necessarily be within humans before they are born (Dennett, 2002). They believed it was important to demonstrate that humans are not puppets within the universe acting out their destinies fate gives them but are conscious individuals choosing their own course in life, making their own decisions and not

having decisions simply occur within them (Dennett, 2002). This was a huge revelation for the time period, considering ancient beliefs were that a person could not easily change their "destinies" and that each individual has their own "fate" that is already deep within them at conception. The ancient belief that humans may be able to act on their own accord and have a part in their "destiny" brings us to our modern research on beliefs in free will and determinism.

### **Modern Views on Free Will**

Western society has largely adopted and tends to place a higher importance on a strong belief in free will. Humans' conscious experience of life typically gives us a sense that we do in fact possess free will. Humans have general feelings as though our own desires and intentions directly influence our behaviors (Pronin & Kugler, 2010). An abundance of social psychological research shows the belief of free will to be a huge motivator for humans to behave in a morally and socially acceptable way (Baumeister, 2008). Specifically, research on the belief in free will has shown that those with stronger personal beliefs in free will tend to help others more often, display less aggression, and will generally put more effort into tasks (Baumeister, Masicampo & Dewall, 2009). Once an individual believes they are responsible for their actions, it will make them more aware of those actions and give them the conscious ability to decide to not act on socially undesirable impulses.

Extending on the general belief that we have control over our lives, we also tend to view others as having less control (Pronin & Kugler, 2010). We tend to assume that those around us have less control of their decisions and successes and believe them to be more fixed by things such as personality dispositions, upbringing (environmental factors) and even genetic makeup (Pronin & Kugler, 2010).

In contrast to free will, a strong deterministic view of the world is one that believes that "everything that happens is the unavoidable product of prior causes (Baumeister, 2008, p. 14)." It is essentially a belief that there are forces outside of our conscious awareness that determine our actions and choices. Once there has been an action by an individual, we know there was some reason for it, and to some extent one should be able to use the cause of the action to predict the future actions of the individual. An important aspect about a belief in determinism is that it does not necessarily force individuals to act in way that is against their own will or to deny them ability to exercise free choice in order to have some control on shaping their future (Baer & Baumeister, 2008). The more recent idea on the free will and determinism debate is one that views the two as compatible rather than strictly mutually exclusive of each other; therefore it is plausible for humans to possess feelings of both free will and determinism (Baer & Baumeister, 2008).

### **Scales and Measurements on Free Will**

Much of the recent interest in free will research is the result of reliable and valid measurement of free will beliefs. There have been many measures of free will throughout the years but the most recently valid and reliable method used in research today is the FAD-Plus (2011) developed by researchers, Paulus and Carey (2011).

The FAD-Plus is a 27-item questionnaire that measures lay beliefs in free will as well as three related constructs (Paulhus & Carey, 2011). The four subscales in this measure include: Free Will, Scientific Determinism, Fatalistic Determinism, and Unpredictability. The Free Will subscale measures one's belief in a person's autonomy in that their actions are their own responsibility (Paulhus & Carey, 2011). Example statements on the FAD-Plus (2011) for the Free Will subscale are, "people have complete control over the decisions they make" and

"people must take full responsibility for any bad choices they make." The Scientific

Determinism subscale measures one's belief that biological and environmental forces effect a
person's actions. Example statements on the FAD-Plus for the Scientific Determinism subscale
are, "people's biological makeup determines their talents and personality" and "your genes
determine your future." The Fatalistic Determinism subscale measures one's belief in the role
fate takes in a person's life and their actions. Example statements on the FAD-Plus (2011) for
the Fatalistic Determinism subscale are, "I believe that the future has already been determined by
fate" and "fate already has a plan for everyone." The Unpredictability subscale measures one's
belief in the role that randomness, luck and general unpredictability plays in a person's life and
their actions. Example statements on the FAD-Plus for the Unpredictability subscale are,
"chance events seem to be the major cause of human history" and "no one can predict what will
happen in this world."

One of the reasons that the FAD-Plus is a popular measure of free will beliefs is because it specifically allows for the beliefs in free will and determinism to be measured separately; a person can believe in both, neither or one or the other; it is a more flexible and accurate measure of individuals actual beliefs (Paulhus & Carey, 2011). An important aspect of the FAD-Plus is that it does not contain typical philosophical or scientific terms in the questions that laypersons may not easily understand (Paulhus & Carey, 2011).

### Free Will and Cheating Behaviors

One area of research that has utilized the recent developments on measurement tools for beliefs in free will is the area of cheating behaviors. For example, in a study by Vohs and Schooler (2008), they investigated whether a belief in free will could influence cheating behaviors by changing individuals' self-perception of control and moral accountability.

In the first study in this experiment, participants were randomly assigned to read either a passage that induced a belief in determinism or a neutral story to serve as the control group. They were then asked to perform a computer-based mental-arithmetic task after their initial priming situation. In this arithmetic task, the participants were instructed to solve each problem themselves even though the correct answer would "accidentally" appear on the computer screen Even though the correct answer would appear, the participants were asked by the researcher to eliminate this occurrence by pressing a key on the keyboard so they would not be tempted to cheat. The researchers found was that those who were primed with a deterministic belief were much less likely to press the key to eliminate the correct answer than those that read the neutral story, showing that these participants passively cheated on the task (Vohs & Schooler, 2008).

In the second study, participants were randomly assigned to read statements that induced beliefs in free will or determinism, as well as statement from a neutral condition. They were then asked to complete their main task of answering a set of 15 questions from different sections of the Graduate Record Examination practice test. Upon completion, those who were induced with deterministic beliefs were to grade their own test without supervision of a researcher and pay themselves one dollar for every correct answer. Participants who were induced with deterministic beliefs and allowed to pay themselves for correct answers ultimately gave themselves more money than the other conditions.

Overall results of these studies found that participants were more likely to both passively and actively cheat in the given situations if they were induced with a belief in determinism. It appears that a belief in determinism can significantly decrease one's perception of control and responsibility in any given situation in thinking that human behavior is predetermined.

Ultimately though, decisions to cheat not only happen in situations involving testing or money but also can also arise in romantic relationships.

## **Cheating Behaviors and Infidelity in Romantic Relationships**

Cheating behaviors and related acts of betrayal have generally been shown to be aversive interpersonal behaviors occurring in any close relationship (Kowalski, Walker, Wilkinson, Queen, & Sharpe, 2003). Along with that, there appears to be a common consensus of negative reactions that persons may exhibit when they become aware of a cheating incident from their partner. These various negative reactions can include the feelings of inadequacy, self-doubt, anger, depression, shock, and confusion (Ciarocco, Echevarria & Lewandowski, 2012).

Though infidelity within a romantic relationship is typically thought of to be a devastating event, it is not uncommon (Drigotas & Barta, 2001). Over half a century ago, the groundbreaking research by Kinsey in the 1950s found that 36% of husbands and 25% of wives reported having been unfaithful within their marriage (Drigotas & Barta, 2001). Recent research on infidelity found 34% of men and 24% of women reported engaging in extramarital sexual encounters (Hackathorn et al., 2011). When discussing both married couples and dating relationships, the prevalence of infidelity is even higher with a range of 30-60% of men and 20-50% of women reporting engaging in some form of sexual or emotional indiscretion (Hackathorn et al., 2001).

In the past, infidelity had been largely defined in terms of sexual behavior with another individual that is not your committed partner (Wilson, Mattingly, Clark & Bequette, 2011). A more recent definition of infidelity is widely defined as the act of engaging in some form of sexual interaction(s) with a person other than one's partner and/or developing deep and

meaningful emotional connections with others outside of your committed relationship (Hackathorn, Mattingly, Clark & Mattingly, 2011).

Particularly, infidelity researchers will separate the construct into two categories; emotional and physical infidelity. Emotional infidelity refers to the extradyadic emotional connection that does not necessarily include sex, whereas sexual infidelity simply refers to sexual behaviors with someone who is not your partner (Wilson et al., 2011). Also, in separating the two types of infidelity, it is interesting to view the potential sex differences that can arise when judging the severity of both emotional and sexual infidelity.

# **Sex Differences in Infidelity**

While researchers find that attitudes toward extramarital sexual relationships are overwhelmingly negative, a mediating factor is the sex of the offender and the sex of the one making the attributions. Sexual encounters outside of a committed relationship are generally not acceptable for either sex. It appears at times though, that sexual infidelity may be more tolerated and in some cases, even expected, of men (Sprecher, Regan & Mckinney, 1998). Men have also traditionally held more permissive attitudes toward sex than women (Wilson, Mattingly, Clark & Bequette, 2011). Also, in line with the sexual double-standard involving men and women, in comparing a man and a woman committing infidelity, the woman would generally be judged more harshly. Women also tend to be perceived as having acted with more intent, and subsequently have more responsibility for the situation than a man would in the same given situation (Mongeau, Hale & Alles, 1994).

In comparing men and women, there have been differences in their reactions to infidelity in general as well as when specifically examining sexual and emotional infidelities separately.

After a cheating incident, men generally exhibit greater feelings of anger and have a greater

inclination toward violence against the other male (Miller & Maner, 2008). This can be explained evolutionarily in that men may view the occurrence of infidelity as a threat to their status or dominance. Their violence and anger is way for them to help offset the dominance threat and regain their status (Miller & Maner, 2008). In examining the reactions to infidelity by women, they tend to exhibit greater feelings of sadness, and may even seek out sources of comfort and social affiliation. It has been posited that, in terms of evolutionary theory, this may be a female's natural reaction due to their need for resources for survival, and she could receive those needed resources from seeking out for social affiliation that she just lost from her partner (Miller & Maner, 2008).

When examining the two types of infidelity separately, men tend to find it more difficult to forgive their partner for sexual infidelity than emotional infidelity. They are also more likely to dissolve a relationship after their partner's sexual infidelity than after an emotional infidelity relative to that of women (Shackelford, Buss & Bennett, 2002). According to evolutionary theory, men may tend to find it more difficult to forgive a partner for sexual infidelity due to possible paternal uncertainty. Men do not want to take the risk of investing their resources into another male's offspring (Wilson, Mattingly, Clark & Bequette, 2011). Also, women may be more likely than men to have difficulty forgiving their partner for emotional infidelity due to the potential risk it poses of losing their long-term commitment and resources from the male that is vital for successful child-rearing and survival (Wilson et al., 2011).

Another possible explanation that argues against the evolutionary explanation is the double-shot hypothesis that views men and women to be more similar than different in their reactions to emotional and sexual infidelity. This view explains that one type of infidelity may be particularly distressing to one of the sexes, but that they may also assume that having their

partner engage in one type of infidelity implies that the other type of infidelity is present as well (Wilson, Mattingly, Clark & Bequette, 2011). This means that women may find emotional infidelity more distressing than sexual infidelity alone, but that it may be because they also believe that if their partner is engaging in emotional infidelity, that sexual infidelity is assumed to be co-occurring as well. The same may be true for men; they may assume that if their female partner is engaging in emotional infidelity, that sexual infidelity is already assumed to be occurring. These sex differences that are sometimes seen in the responses to sexual versus emotional infidelity can again be explained by the evolutionary theory.

# **Self-Control in Infidelity**

Given that infidelity is an aversive behavior, it is common for one to make attributions on the level of control and responsibility the cheater had in a cheating situation. Specifically, an individual's perceived level of control and responsibility in a cheating situation can be explained by the limited resource model of self-regulation theory (Ciarocco, Echevarria & Lewandowski, 2012). The limited resource model of self-regulation proposes that when levels of self-regulation come to be depleted after performing tasks that involve self-control, one's cognitive and emotional abilities can be severely affected (Ciarocco et al., 2012). Self-regulation can be described as the ability for one to overcome their short-term desires; it is a form of impulse control. More specifically, an individual with low self-regulation will have difficulty controlling their impulses.

In a study by Ciarocco, Echevarria and Lewandowski (2012), they applied the limited resource model of self-regulation in testing one's ability to refrain from engaging in infidelity by depleting participants' resources; specifically they restricted participants' food intake. The researchers found that those participants who had depleted levels of self-control were much more

likely to engage in behaviors of emotional infidelity with a confederate, such as disclosing their phone number and even accepting an invitation to a coffee date than those with no depletion of self-control (Ciarocco et al., 2012).

The limited resource model of the self-regulation theory proposes that humans have the ability to act thoughtfully and rationally and can exert self-control but will only use it sometimes; the capacity to be rational is limited (Baumeister, 2008). Overall, the results also exemplify that there could undoubtedly be many different aspects as to why people engage in infidelity and that in terms of making judgments toward a cheater, there could be certain situations that could be less blameworthy than others.

### **Judgmental Attributions**

In examining how individuals make specific attributions of judgment towards others' behaviors, the phenomenon of the actor-observer bias shows that individuals (actors) will attribute their own behaviors and actions to situational factors whereas, those same individuals, when observing others, tend to attribute those same behaviors and actions to stable, personality characteristics (Nisbett, Caputo, Legant & Marecek, 1973). More generally, people tend to observe others' actions as limited by their stable personality traits, but recognize their own actions as deliberate and chosen responses to differentiating situations (Pronin & Kugler, 2010). Another phenomenon observed in the judgments of others is the fundamental attribution error, which shows that individuals have the tendency to provide internal/dispositional factors for the causes and reasons for others' behaviors over that of internal/situational factors (Ogletree & Archer, 2011). The way we attribute responsibility in the form of blame or praise in others is often to attribute to the person themselves rather than to the situation. In viewing how people attribute judgments on others, one specific form of judgment that individuals make whenever

another has particularly wronged them with aversive behaviors, especially with infidelity, is one's level of responsibility or blameworthiness.

#### Blame

An important aspect when attributing on one's level of responsibility is their level of blame, and subsequently whether or not and how much, they should be punished (Ohtsubo, 2007). Level of intentionality of a behavior is generally how people determine level of blame in a given situation, and is also how we describe general behaviors in others and ourselves. An individual who has caused harm unto another will tend to be blamed more when it is easy to envision a more favorable outcome in a given situation (Alicke, Buckingham, Zell, & Davis, 2008). It has also been shown that people may tend to view the factors that arouse the most negative evaluations of a given situation to be the most preventable. The stronger the negative evaluation and arousal, the more preventable the situation is perceived and subsequently the more blame it is also attributed (Alicke et al., 2008).

In a study by Ohtsubo (2007), participants read vignettes that consisted of either negative or positive behaviors. The participants who gave more attribution for intentionality to the negative or positive behavior also rated those behaviors as more blameworthy or praiseworthy. In a second study, the participants were specifically told that the behavior was either out of intention or not. Those that were of intention had an increase in attribution of blameworthiness for the negative behavior, but did not have an increase in attribution of praiseworthiness for a positive behavior (Ohtsubo, 2007). This study exhibited the fact that behaviors tend to elicit more extreme blame/praise when those behaviors are performed with strong intention rather than little or no obvious intention. Once an individual places the attribution of blameworthiness on an individual who has wronged them, they then generally begin the process of forgiveness.

### **Forgiveness**

Forgiveness can essentially be conceptualized as a process in that the victims of the specific transgression of infidelity experiences, specifically changes in the way the victim thinks, feels, and behaves towards the offender (Gunderson & Ferrari, 2008). The victims may cognitively take the offenders' perspective and try to understand why the incident of infidelity occurred (Gunderson & Ferrari, 2008). Forgiveness is deliberate and active in changing the victim's attitude towards the offender in order for them to heal emotionally (Gunderson & Ferrari, 2008). In essence, the process of forgiveness within romantic relationships allows the victim to view themselves as accommodating, view their partners as redeeming and to look upon their relationship as committed and resilient (Gunderson & Ferrari, 2008).

Research on couples counseling have shown how attributions toward transgressions (i.e., level of control/responsibility, blame) subsequently affect forgiveness provided to the victim and resolution or dissolution of a relationship. A victim of a transgression makes attributions toward the unfaithful behavior of their partner. The specific nature of the attributions subsequently influences the way in that they respond to the infidelity behavior (Hall & Fincham, 2006). Specifically, if the victim makes attributions about their partner's infidelity that is internal, global, and stable, it is more likely that the victim will also react negatively toward their partner (i.e., not forgiving, terminating the relationship) (Hall & Fincham, 2006). In contrast, if the victim makes attributions about their partner's infidelity that is external, specific, and unstable, the victim is more likely to react less negatively to their partner (i.e., forgiving, relationship resolution) (Hall & Fincham, 2006).

One study examined judgments of a fictitious partner's blameworthiness and their own willingness to forgive (Boon & Sulsky, 1997). Participants read various profiles that described a

hypothetical transgression and were then asked to imagine the event happening in their own dating relationship. For each specific profile, they indicated the extent to that they would place blame on the partner for the transgression and the likelihood they would forgive that same partner. The same transgression included the partner telling a mutual friend private information about the other partner's past. The only manipulation was the type of background information given. An important finding was that when participants were rating blameworthiness, they weighted the cheater's intent more than the cheater's avoidability and weighted avoidability more than the offense severity. In contrast, when participants rated their willingness to forgive, they weighted intent and offense severity equally significant and much more so than the cheater's avoidability.

### **The Current Study**

The current study sought to examine the effects of a belief in free will has on the attributions of blame and forgiveness towards a fictitious situation of infidelity within a romantic relationship. It further examined whether sex of the participant was related to the way individuals attributed blame and forgiveness to the two different types of infidelity (emotional and sexual). One aspect of this study stems from previous research on free will and cheating that revealed those primed with a belief in free will are less likely to commit academic cheating than those primed with determinism due to their perception that their behaviors are the responsibility of the individual themselves rather than of the situation (Vohs and Schooler, 2008).

The other aspect of the current study stems from previous research in evolutionary psychology revealing the role that sex has in attitudes toward infidelity. For example, men tend to hold more negative opinions of sexual infidelity due to paternal uncertainty and not wanting to raise another male's offspring. Conversely women tend to hold more negative opinions of

emotional infidelity because of the natural fear their male partner will not be emotionally attached to them and subsequently will not provide the necessary resources needed for both their offspring and themselves (Wilson, Mattingly, Clark & Bequette, 2011).

The main hypothesis of this study was that individuals with high or combined (high in both free will and scientific determinism) beliefs as well as their sex should have influenced their likeliness to attribute blame and forgiveness to the fictitious cheater; specifically by influencing their perceptions of the cheater's level of responsibility in both of the cheating situation (sexual, emotional).

In particular, it was predicted that participants with stronger beliefs in free will (high free will) would be more likely to attribute greater levels of blame and less forgiveness towards the cheater for both conditions of cheating than participants with combined beliefs (high free will, high scientific determinism). They should tend to view behaviors as being more the responsibility of the individual and less the responsibility of the situation itself.

With regard to participant sex, I predicted that female participants would attribute significantly greater levels of blame and less forgiveness in the emotional infidelity vignette. In contrast, male participants were predicted to attribute significantly greater levels of blame and less forgiveness in the sexual infidelity vignette.

#### Method

### **Participants**

Participants were 64 undergraduate students in introductory psychology courses. Student ages ranged from 18 to 24 years of age with 92.2% of students being under 21 years of age.

There were 20 male participants (31.3%) and 44 female participants (68.8%). Participants received 1-hour research participation credit for participating in the study.

#### **Materials**

**FAD Plus.** Participants completed the FAD-Plus (Paulhus & Carey, 2011) scale to determine their beliefs in free will and determinism (see Appendix B). The FAD-Plus is a 27item questionnaire that measures lay beliefs in free will as well as three related constructs (Paulhus & Carey, 2011). The four subscales in this measure include: Free Will, Scientific Determinism, Fatalistic Determinism, and Unpredictability. Participant beliefs on all four subscales were used but the only directly applicable subscales in this study were the Free Will and Scientific Determinism scales. Scores on each subscale could range from 0 to 35; participants with raw scores of 21 to 35 on the Free Will subscale received a score of high free will. Since none of the participants provided a score of high in Scientific Determinism and low Free Will, those participants with raw scores ranging between 21 to 35 in both the Free Will and Scientific Determinism subscales were given a "combined belief" score. These participants had high scores in both Free Will and Scientific Determinism; they did not fall into one side of the free will spectrum and so essentially had combined beliefs on both ends of the spectrum. There were 44 participants in the high free will condition and 19 participants in the combined belief condition.

Two vignettes were used exhibiting the two levels of infidelity. The researcher constructed the vignettes. In terms of content, both vignettes were as parallel as possible in that they described the same exact situation with the exception that one was strictly emotional infidelity and the other was strictly sexual infidelity (see Appendix C).

A post-questionnaire given to participants measured the level of blame and forgiveness they would attribute to the cheater in the given cheating vignette (see Appendix D).

Specifically within this questionnaire, there first were multiple questions on the participants' beliefs on infidelity, how much blame to be attributed, and whether or not they could forgive the cheater for their indiscretions. The questionnaire also asked various questions pertaining to present and/or past romantic relationship, their own experience with infidelity and basic demographic questions.

The measure on beliefs toward infidelity specifically included 8 statements examining the participants' general beliefs and reactions toward infidelity from their partner. It also examined their beliefs toward emotional versus sexual infidelity. The 8 statements on infidelity beliefs were measured using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Gudjonsson's Revised Blame Attribution Inventory. The blameworthiness scale used within the post-questionnaire was adapted from *Gudjonsson's Revised Blame Attribution*Inventory (Gudjonsson & Singh, 1989). The revised Gudjonsson's Blame Attribution Inventory is a self-report measure that consists of 42 items, 15 measuring external attributions, 9 measuring mental element attribution, and 18 measuring feelings of guilt from the offender. In the current study, level of blame attributed to the cheater was adapted from the subscale measuring external attributions. The 15 statements on external attributions were measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Scores for the blame rating were achieved by adding the blame statements; items 1, 3, 5, 10, 11, 13, and 15 were blame statements. Scores could range from 0 to 49; participants with raw scores of 36 or higher placed high blame toward the cheater and received the score of 1, participants with raw scores ranging from 28 to 35 placed moderate blame toward the cheater and received the score of 2 and participants with raw scores ranging from 21 to 27 placed low blame toward the cheater and

received the score of 3. Any scores below 21 would have been in the non-blame category but none of the participants had a score below 21 and therefore none did not place blame toward the cheater.

Marital Offence Specific Forgiveness Scale. The forgiveness scale used within the post-questionnaire was the Marital Offence-Specific Forgiveness Scale constructed by Paleari, Regalia and Fincham (2009). The Marital Forgiveness Scale is a 10-item scale that has the participant focus on a particular incident in that they felt the most wronged and hurt by their partner. The 10 statements were measured on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Within this scale, there are three subscales, Avoidance and Retaliation that both reflect the negative aspect of forgiveness and Benevolence that reflects the positive aspect of forgiveness (Paleari et al., 2009). Participants' forgiveness rating was scored using a scale provided with the test. Scores for the forgiveness rating were achieved by adding the items for the resentment-avoidance subscale (non-forgiveness) since all participants ended up providing no forgiveness toward the cheater; items 1, 3, 4, 6, 7, and 8 were non-forgiveness statements. Scores could range from 0 to 36; participants with a raw score of 25 and higher placed high non-forgiveness toward the cheater and were given the score of 1, participants with raw scores ranging from 18 to 24 placed moderate non-forgiveness toward the cheater and were given the score of 2, and participants with scores ranging from 12 to 17 placed low nonforgiveness toward the cheater and were given the score of 3. Any score below 12 would have been in the forgiveness category but none of the participants had a score below 12 and therefore none provided forgiveness toward the cheater.

#### **Procedure**

The researcher provided the participants with a consent form to read and sign if they agreed to participate in the study. The researcher then gave an overview of the study and answered any questions from participants (see Appendix A). Specifically, the participants were told they would be filling out a few questionnaires and reading a short story that included a cheating situation.

Participants then completed the FAD-Plus and were then randomly assigned to read one of two infidelity type conditions: emotional infidelity and sexual infidelity. A post-questionnaire was then given to participants that measured the level of blame and forgiveness they would attribute to the cheater in the given cheating vignette.

At the end of the study, once the participants completed the post-questionnaire the researcher debriefed the participants to alleviate any uncomfortable or uneasy feelings that may have come about due to the potentially sensitive nature of the study. The participants were thanked for their participation and told that if they have any follow-up questions and/or if they would like to see the general results of the study upon completion they may contact the researcher with the provided email address.

### **Results**

The alpha level for analyses was set at 0.05. Participant responses were analyzed using two 2 (free will: high free will, combined) x 2 (sex: female, male) x 2 (infidelity type: emotional, sexual) multifactor between-subjects ANOVAs; one measuring effects on blame ratings and the other on forgiveness ratings. Measure of effect size was also reported as partial  $\eta^2$ , where partial  $\eta^2$  = .01 represents a small effect size, partial  $\eta^2$  = .06 represents a medium effect size, and partial  $\eta^2$  = .14 represents a large effect size (Cohen, 1988).

The *free will* factor refers to whether participants held high free will or combined (high free will, high scientific determinism) beliefs. The *sex* factor refers to what sex the participant making the responses were. The *infidelity type* factor refers to the type of infidelity vignette the participants were asked to read and analyze. The dependent variables were the participants' ratings on both blameworthiness and forgiveness. See Table 1 for the distribution of participants in terms of sex and free will beliefs.

# **Blame Ratings**

It was expected that there would be three significant main effects on blame ratings in that the free will beliefs (high free will, combined), sex of the participant (male, female), and infidelity type (sexual, emotional) would all have different effects on judgments of blame. Using a 2 (free will: high free will, combined) x 2 (sex: female, male) x 2 (infidelity type: emotional, sexual) multifactor between-subjects ANOVA, there was a significant main effect of free will beliefs, F(1, 56) = 16.65, p < .001, partial  $\eta^2 = .23$ . Further examination of the means revealed that, as predicted, beliefs of high free will (M = 1.26, SD = .08) yielded much higher ratings of blame than did combined beliefs (M = 1.85, SD = .13). There was a significant main effect of sex of the participant, F(1, 56) = 9.84, p = .003, partial  $\eta^2 = .15$ . Further examination of the means revealed that men (M = 1.75, SD = .13) placed moderate blame ratings toward the cheater compared to women (M = 1.33, SD = .08) with high blame ratings. There was no significant main effect for infidelity type of vignette, F(1, 56) = .11, p = .738, partial  $\eta^2 = .002$  on blame ratings.

It was also predicted that there would be three two-way interactions in that judgments on blame would change based on free will and the sex of the participant, the sex of the participant and the type of infidelity, and the last being on beliefs of free will and the type of infidelity. The multifactor between-subjects ANOVA revealed a significant interaction between free will beliefs and sex of the participant, F(1, 56) = 8.75, p = .005, partial  $\eta^2 = .14$ . Further examination of the means revealed that men that held combined beliefs (M = 2.67, SD = .29) placed significantly less blame toward the cheater than did women (M = 1.44, SD = .13) that held combined beliefs; see Figure 1 for interaction. There was no significant interaction between sex of the participant and infidelity type of vignette, F(1, 56) = .62, p = .435, partial  $\eta^2 = .01$  (See Figure 1) and no significant interaction between free will beliefs and infidelity type of vignette, F(1, 56) = .02, p = .902, partial  $\eta^2 = .000$ .

The multifactor between subjects ANOVA could not perform a three way interaction on blame ratings due to the fact that there was a lack of participants who were male, who were given the sexual infidelity vignette and had combined beliefs.

### **Forgiveness Ratings**

It was expected that there would be three significant main effects on forgiveness ratings in that the free will beliefs (high free will, combined), sex of the participant (male, female and infidelity type (sexual, emotional) would all have different effects on judgments of forgiveness. Using a 2 (free will: high free will, combined) x 2 (sex: female, male) x 2 (infidelity type: emotional, sexual) multifactor between-subjects ANOVA on forgiveness ratings, there was a significant main effect of infidelity type of vignette, F(1, 56) = 6.11, p = .017, partial  $\eta^2 = .09$ . Further examination revealed that the sexual infidelity vignette (M = 1.58, SD = .13) yielded high non-forgiveness ratings while the emotional infidelity vignette (M = 1.89, SD = .14) yielded moderate non-forgiveness ratings; see Figure 2 for main effect. There were no significant main effects for free will beliefs, F(1, 56) = 1.83, p = .181, partial  $\eta^2 = .03$  or sex of the participant, F(1, 56) = .16, p = .693, partial  $\eta^2 = .003$ .

It was also predicted that there would be three two-way interactions in that judgments on forgiveness would change based on the sex of the participant and the type of infidelity, another on beliefs of free will and the type of infidelity, and the last being on beliefs of free will and the sex of the participant. The multifactor between-subjects ANOVA on forgiveness ratings revealed no significant interaction between sex of the participant and infidelity type of vignette F(1, 56) = .34, p = .564, partial  $\eta^2 = .006$  (See Figure 4), no significant interaction between free will beliefs and infidelity type of vignette, F(1, 56) = 1.06, p = .309, partial  $\eta^2 = .02$ , and no significant interaction between free will beliefs and sex of the participant, F(1, 56) = 2.68, p = .107, partial  $\eta^2 = .05$ .

The multifactor between subjects ANOVA could not perform a three way interaction on forgiveness ratings due to the fact that there was a lack of participants who were male, who were given the sexual infidelity vignette and had combined beliefs.

### Further Analyses

A chi-square test of independence was used as a manipulation check in order to analyze the effect of the infidelity type had in showing whether participants believed both cheating vignettes were strong enough to be considered cheating situations. The chi-square analysis showed a significant result,  $\chi^2(5) = 31.05$ , p < .001. In examining the descriptives, fifty-one participants viewed both vignettes as a cheating situation (80%) while only eleven participants disagreed the vignettes described a cheating situation (17%) and of those eleven participants, ten of those responses in disagreement were for the emotional infidelity vignette (91%).

Another chi-square test of independence was used to examine the relationship between sex and judgments on severity of the two vignettes, specifically responding to whether sexual infidelity or emotional infidelity were considered to be worse. Interestingly, no significant result

was yielded for emotional infidelity being rated worse  $\chi^2(6) = 8.94$ , p = .18, or sexual infidelity being rated worse  $\chi^2(6) = 8.16$ , p = .28, in terms of the two sexes. They were generally both rated negatively. Table 2 shows the average distribution of responses.

A chi-square test of independence was also used to examine the relationship between those participants who have both been in a committed relationship and experienced romantic infidelity for further analysis. The results revealed a significant chi square,  $\chi^2(2) = 27.6$ , p < .001. Further examination showed that fifty-three participants reported having been in a serious relationship in the past (83%) and of those fifty-three participants, about half had additionally experienced infidelity in their relationship. In looking at the distribution of sex and experience with infidelity, it was viewed that six men (3%) reported having experienced infidelity while an overwhelming twenty-six women (59%) reported experiencing infidelity. It was also revealed that four men (20%) and seven women (15%) reported having committed infidelity themselves in a romantic relationship.

### **Discussion**

The current study sought to examine the effects a belief in free will has on judgments of blame and forgiveness on emotional and sexual infidelity within a fictitious relationship. It further examined whether sex of the participant had an effect on the way individuals attributed blame and forgiveness to the two different types of infidelity (emotional and sexual). This study extended on previous research in the area of free will and cheating exhibiting those primed with a belief in free will to be less likely to commit academic cheating than those primed with determinism (Vohs and Schooler, 2008). As well as extending on previous research in evolutionary psychology displaying the role that sex has on attitudes toward infidelity.

The main hypothesis of this study was that individuals with a belief in high free will or high scientific determinism as well as their sex should have influenced their likeliness to attribute blame and forgiveness to the fictitious cheater by influencing their perceptions of the cheater's level of responsibility in both of the cheating situations.

Overall, the hypotheses of this study were generally supported. The independent variables, belief in free will and sex of the participant, had significant individual main effects and a significant interaction on blame ratings while only infidelity type of vignette had a significant main effect on forgiveness ratings.

### **Blame Ratings**

In examining the significant results from free will on blame ratings, it was revealed that those with stronger beliefs in free will placed more blame on the cheater than did those with combined beliefs. This result supported the previous findings that those with strong free will beliefs also view individuals as more in control of their behaviors (Vohs & Schooler, 2008). Research on free will and behaviors have shown that the more in control an individual is in terms of their actions, and the more undesirable the behavior is, the more subsequent responsibility and blame they will be attributed for that action. This also supported the findings on research on blame ratings in showing that the more preventable a situation is perceived to be by an individual, the more blame is subsequently attributed (Alick, Buckinham, Zell, & Davis, 2008).

In examining the significant result of sex of participant on blame ratings, it was viewed that men generally gave moderate blame ratings toward the cheater than did women who provided high blame ratings toward the cheater. This result could possibly be explained by the general findings in previous research that men have not only traditionally held more permissive attitudes toward sex and cheating than women, they also have been found to be more willing to

engage in extradyadic sex than women (Wilson, Mattingly, Clark & Bequette, 2011). Also, in considering the two sexes, seeing as men (over that of women) tend to view sexual infidelity as worse than emotional infidelity, they also may be more likely than women to not consider some situations to be infidelity and may subsequently then place less blame in those extenuating situations.

### **Forgiveness Ratings**

With regard to forgiveness ratings, the only factor to yield a significant finding was the infidelity type of vignette. While none of the participants provided forgiveness to the cheater in either of the cheating situations, they also overwhelmingly placed *high non-forgiveness* toward the sexual infidelity vignette while placing only *moderate non-forgiveness* toward the emotional infidelity vignette. This finding could be explained by a study from Boon and Sulsky (1997) in their finding that when participants rated forgiveness to a cheater, the participants weighted intent and severity of the situation as equally significant and over that of the cheater's avoidability. Also, because the participants not only viewed both cheating situations as negative but also viewed the sexual infidelity vignette as more severe, it may have also been predicted that they would have not forgiven the cheater in either situation and would have additionally given higher ratings of non-forgiveness to the sexual infidelity vignette.

Using a chi-square for further analysis on the infidelity type of vignette, there was no relationship between the two sexes on judging the severity of cheating situation – both sexes viewed both cheating situations as negative and they both viewed sexual infidelity as negative. It was expected from previous evolutionary research that men would view sexual infidelity as worse due to paternal uncertainty and women would view emotional infidelity as worse due to the need for the male to provide resources. Though the expected result was not found, this

outcome can be explained by the double-shot hypothesis, that views men and women to be more similar rather than different in their reactions to both emotional and sexual infidelity. This view explains that one type of infidelity may be particularly distressing to one of the sexes but that they may also assume that if their partner engaged in one type of infidelity, it implies that the other type of infidelity was present as well (Wilson, Mattingly, Clark & Bequette, 2011).

One last interesting finding that reiterates what has been found in previous research on romantic infidelity was the results of the relationship between sex and those who have committed infidelity. As viewed in previous research on romantic infidelity, 20% of men and 15% of women had admitted to committing some form of infidelity in a past relationship. This finding was quite similar to the general findings of romantic infidelity with the average amount of men (30%) and women (20%) committing infidelity (Hackathorn et al., 2011).

It was also likely beneficial that the majority of participants (83%) had been in a committed relationship in the past and had additionally experienced infidelity (50%) in that it should have provided the individual with more realness and a connection to the situation in the vignette when asked to imagine the situation in their own life than if they had either not experienced infidelity or even been in serious romantic relationship.

### Limitations

This study had a few limitations. First, it was apparent that the FAD-Plus measure was not entirely useful to the study as previously hoped for. It can be seen that most individuals do not have strong connections to either side of the free will spectrum (free will or determinism) and tend to fall somewhere more in the middle. It is also apparent that a belief toward the free will end of the spectrum is a cultural universal in Western culture (Tierney, 2011). Priming the participants with a belief in either free will or determinism would have been the ideal situation

for the study in order to specifically elicit the beliefs I wanted to measure. Unfortunately, many studies have not found an appropriately valid priming measure to elicit these free will beliefs.

Another limitation was the total of male participants. There were 31.3% of men to 68.8% of female participants and considering that one of the measures was sex, it would have been more ideal to have a more equal amount of men and women in order to provide stronger results. Also, in terms of participants, a more variant sample of older adults with more life experience (i.e., engaged, married participants) over that of just college students could have yielded more variant results. For example, comparing participants who were single, in a relationship, engaged, and married on the dependent measures of blame and forgiveness ratings in order to see if there were any potential differences between the groups.

### **Future Directions and Conclusions**

Future research is needed to further investigate the direct effects a belief in free will and sex can have on the perceptions of an infidelity situation. As discussed previously, this study could be replicated using a strong priming situation for free will in order to specifically elicit the feelings of free will and determinism to provide a stronger manipulation. Also, in replicating this study, using a photograph or video clip with the vignettes or even simply using just a video clip showing varying infidelity situations could again elicit stronger emotional reactions and subsequently more significant results.

In terms of the participants, it could be interesting to replicate this study using a more diverse population in terms of age and life experience (i.e., engaged and married individuals) than just college students in order to compare various stages of a person's life to their attitudes and judgments toward romantic infidelity.

While this study may not have provided groundbreaking results, it has added to research in the fields of free will and romantic cheating, while also connecting the two where they have not been directly linked before. The current findings and the findings of any similar future studies could contribute to the knowledge of the thought processes, attribution processes, and specific perceptions involved when a couple finds themselves faced with romantic infidelity that could then contribute to the larger field of relationship and marriage counseling.

### References

- Alicke, M, Buckingham, J., Zell, E., & Davis, T. (2008). Culpable control and counterfactual reasoning in the psychology of blame. *Society For Personality and Social Psychology*, 34(10), 1371-1381. doi: 10.1170146167208321594
- Baer, J., Kaufman, J.C., & Baumeister, R.F. (2008). *Are we free? Psychology and free will*. New York, NY: Oxford University Press.
- Baumeister, R.F. (2008). Free will in scientific psychology. *Perspectives on Psychological Science*, *3*(1), 14-19.
- Baumeister, R.F., Masicampo, E.J., & Dewall, C.N. (2009). Prosocial benefits of feeling:

  Disbelief in free will increases aggression and reduces helpfulness. *Personality and Social Psychology Bulletin*, 35(2), 260-268. doi: 10.11770146167208327217
- Boon, S.D., & Sulsky, L.M. (1997). Attributions of blame and forgiveness in romantic relationships: A policy-capturing study. *Journal of Social Behavior and Personality*, 12(1), 19-44.
- Cary, P. (2007). A brief history of the concept of free will: Issues that are and are not germane to legal reasoning. *Behavioral Sciences & the Law*, 25, 165-181. doi: 10.1002/bsl.748
- Ciarocco, N.J., Echevarria, J., & Lewandowski, G.W. (2012). Hunger for love: The influence of self-regulation on infidelity. *The Journal of Social Psychology*, 512(1), 61-74.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Erlbaum.
- Dennett, D.C. (2002). *Elbow room: The varieties of free will worth wanting*. New York, NY: Oxford University Press, Inc.

- Drigotas, S.M., & Barta, W. (2001). The cheating heart: Scientific explorations of infidelity.

  \*Psychological Science\*, 10(5), 177-180. doi: 10.1111/1467-8721.00143
- Gudjonsson, G.H., & Singh, K.K. (1989). The revised gundjonsson blame attribution inventory.

  \*Personality and Individual Differences, 10(1), 67-70. doi: 0191-8869/89
- Gunderson, P.R., & Ferrari, J.R. (2008). Forgiveness of sexual cheating in romantic relationships: Effects of discovery method, frequency of offense, and presence of apology. *North American Journal of Psychology*, 10(1), 1-14.
- Hackathorn, J., Mattingly, B.A., Clark, E.M., & Mattingly, M.J.B. (2011). Practicing what you preach: Infidelity attitudes as a predictor of fidelity. *Current Psychology*, *30*, 299-311. doi: 10.1007/s11244-011-9119-9
- Hall, J.H., Fincham, F.D. (2006). Relationship dissolution following infidelity: The roles of attributions and forgiveness. *Journal of Social and Clinical Psychology*, 25(5), 508-522.
- Kowalski, R.M., Walker, S., Wilkinson, R., Queen, A., & Sharpe, B. (2003). Lying cheating, complaining, and other aversive interpersonal behaviors: A narrative examination of the darker side of relationships. *Journal of Social and Personal Relationships*, 20(4), 471-490. doi: 10.1177/02654075030204003
- Miller, S.L., & Maner, J.K. (2008). Coping with romantic betrayal: Sex differences in responses to partner infidelity. *Evolutionary Psychology*, 6(3), 413-426.
- Mongeau, P.A., Hale, J.L., Alles, M. (1994). An experimental investigation of accounts and attributions following sexual infidelity. *Communication Monographs*, 61, 326-344. doi: 10.1080/03637759409376341
- Nisbett, R.E., Caputo, C., Legant, P., & Marecek, J. (1973). Behavior as seen by the actor and as seen by the observer. *Journal of Personality and Social Psychology*, 27, 154-165.

- Ohtsubo, Y. (2007). Perceived intentionality intensifies blameworthiness of negative behaviors:

  Blame-praise asymmetry in intensification effect. *Japanese Psychological Research*,

  49(2), 100-110. doi: 10.1111/j.1468-5884
- Ogletree, S.M, Archer, R.L. (2011). Interpersonal judgments: Moral responsibility and blame. *Ethics and Behavior*, 21(2), 35-48. doi: 10.1080/10508422
- Paleari, F.G., Regalia, C., Fincham, F.D. (2009). Measuring Offence-Specific Forgiveness in Marriage: The marriage offence-specific forgiveness scale (MOFS). *Psychological Assessment*, 21(2), 194-209. doi: 10.1037/a0016068
- Paulhus, D.L., & Carey, J.M. (2011). The FAD-plus: Measuring lay beliefs regarding free will and related constructs. *Journal of Personality Assessment*, 93(1), 96-104. doi: 10.1080/00223891
  - Pronin, E., & Kugler, M.B. (2010). People believe they have more free will than others.

    \*Psychological and Cognitive Sciences, 107(52), 22469-22474. doi:

    10.1073/pnas.1012046108
- Shackelford, T.K., Buss, D.M., & Bennett, K. (2002). Forgiveness or breakup: Sex differences in responses to a partner's infidelity. *Cognition and Emotion*, 16(2), 299-307. doi: 10.1080/02699930143000202
- Sprecher, S., Regan, P.C., & Mckinney, K. (1998). Beliefs about the outcomes of extramarital sexual relationships as a function of the gender of the "cheating spouse". *Sex Roles*, 38(3/4), 301-311. doi: 0360-0025/98/0200-0301
- Tierney, J. (2011, March 3). Do you have free will? Yes it's the only choice. *The New York Times*. Retrieved from http://www.nytimes.com/2011/03/22/science/22tier.html?pagewanted=all&\_r=0.

- Vohs, K.D., & Schooler, J.W. (2008). The value of believing in free will: Encouraging a belief in determinism increases cheating. *Psychological Science*, *19*(1), 49-54. doi: 10.1111/j.1467-9280.2008.02045
- Wilson, K., Mattingly, B.A., Clark, E.M., Bequette, A.W. (2011). The gray area: Exploring attitudes toward infidelity and the development of the perceptions of dating infidelity scale. *The Journal of Social Psychology*, *151*(1), 63-86. doi: 10.1080/00224540903366750

Table 1

Distribution of Participant Responses on Free Will Beliefs By Sex

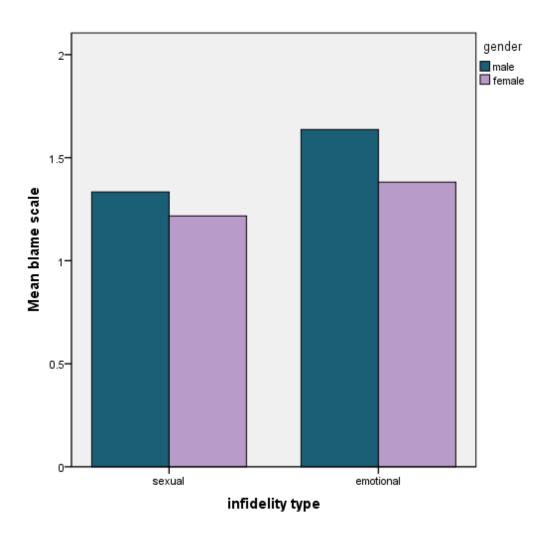
Sex	FAD Beliefs	N
Male	High Free Will	17
	Combined	3
Female	High Free Will	27
	Combined	16

Table 2

Percentages of Participants Rating Severity of Infidelity Types

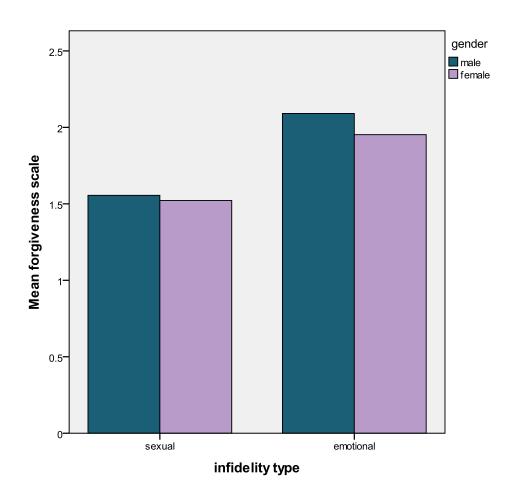
Infidelity Type	Gender	Disagree	Agree	Neutral
Sexual	Male	20	65	15
Sexual	Female	23	63	11
Emotional	Male	60	20	20
	Female	41	34	20

Figure 1. Mean Blame Ratings on Infidelity Type Vignette By Sex



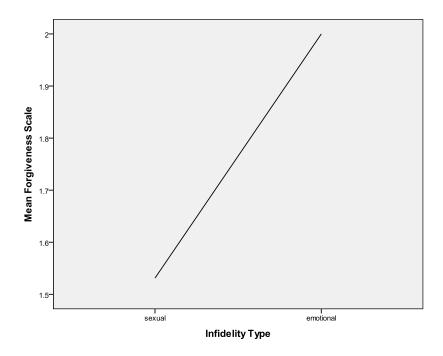
*Note.* Scale initially measured on a 7-point Likert scale where 1 refers to strongly disagree and 7 refers to strong agree. A mean score of 1 on the Blame Scale refers to high blame, whereas 2 refer to medium blame.

Figure 2. Mean Forgiveness Ratings on Infidelity Type Vignette By Sex



*Note*. Scale initially measured on a 6-point Likert scale where 1 refers to strongly disagree and 7 refers to strong agree. A mean score of 1 on the Forgiveness Scale refers to high non-forgiveness, whereas 2 refer to medium non-forgiveness.

Figure 3. Main Effect of Infidelity Type Vignette on Forgiveness Ratings



*Note.* Scale initially measured on a 6-point Likert scale where 1 refers to strongly disagree and 7 refers to strong agree. A mean score of 1 on the Forgiveness Scale refers to high non-forgiveness, whereas 2 refer to medium non-forgiveness.

### Appendix A

### INFORMED CONSENT FOR PARTICIPATION IN PSYCHOLOGY STUDY

**Title of Research:** Judgmental Attributions on Romantic Infidelity

Primary Investigator: Rebecca Diehl; rld003@marietta.edu

### What is the purpose of this research study?

The purpose of this study is to examine individuals' general beliefs and attributions of blameworthiness and forgiveness toward different types of infidelity.

### How many people will take part in this study?

Approximately 90 Marietta College students will participate in this study.

### How long will your part in this study last?

This study should take no longer than 60 minutes. You will receive **1 hour of credit** towards your psychology class research participation requirement. Participants will be debriefed following the conclusion of the study.

### What will happen if you take part in the study?

During the course of this study you will first be asked to complete a short questionnaire. You will then be given a short vignette to read about a couple in a romantic relationship. Following the vignette, you will be given another questionnaire in relation to the previous vignette with various questions including but not limited to your general beliefs toward infidelity, attributions for the level of blameworthiness toward the cheater in the vignette, whether you would forgive the cheater, your own experience with infidelity as well as various demographic questions.

### What are the possible risks and/or benefits from being in this study?

Possible risk of participating in this study may include you to feel uncomfortable or distress disclosing your beliefs and experience with infidelity in your life. Benefits of participation include 1 research credit towards any psychology class requiring research participation and education about psychological research in general and this topic in particular.

## **How will your privacy be protected?**

The researchers will make every effort to protect your privacy. Your name will only appear on this informed consent form and in the records for the Marietta College Participant Pool. Your responses to the questionnaires are only associated with an assigned code number and are completely anonymous. The data will only be accessible to the researcher and faculty advisors and will be stored separately from consent forms. All data collected will be used for research purposes only and all records will be destroyed within one year.

## **Voluntary Participation and Discontinuation of Participation**

Participation is voluntary. Refusal to participate will involve no penalty or loss of benefits or compensation to that the subject is otherwise entitled. The subject may discontinue participation at any time without penalty or loss of benefits.

### **Participant's Agreement:**

I have read the information provided above. I have asked all the questions that I have at this time and I voluntarily agree to participate in this research study. I understand that I may contact researcher *Rebecca Diehl* (<a href="researcher-Rebecca Diehl">researcher Rebecca Diehl</a> (<a href="researcher-Rebecca Diehl">researcher-Rebecca Diehl</a> (<a

Participant's Signature	Printed Name of Participant	Date
ratucipant's Signature	Finited Name of Farticipant	Date
Participant Email Address	Investigator Signature	

## Appendix B

#### FAD-Plus: Free Will and Scientific Determinism

For each statement below, choose a number from 1 to 5 to indicate how much you agree or disagree.

1	2	3	4	5
Totally		Neutral		Totally
Disagree				Agree

- 1. I believe that the future has already been determined by fate.
- 2. People's biological makeup determines their talents and personality.
- 3. Chance events seem to be the major cause of human history.
- 4. People have complete control over the decisions they make.
- 5. No matter how hard you try, you can't change your destiny.
- 6. Psychologists and psychiatrists will eventually figure out all human behavior.
- 7. No one can predict what will happen in this world.
- 8. People must take full responsibility for any bad choices they make.
- 9. Fate already has a plan for everyone.
- 10. Your genes determine your future.
- 11. Life seems unpredictable just like throwing dice or flipping a coin.
- 12. People can overcome any obstacles if they truly want to.
- 13. Whether people like it or not, mysterious forces seem to move their lives.
- 14. Science has shown how your past environment created your current intelligence and personality.
- 15. People are unpredictable.
- 16. Criminals are totally responsible for the bad things they do.

- 17. Whatever will be, will be there's not much you can do about it.
- 18. As with other animals, human behavior always follows the laws of nature.
- 19. Luck plays a big role in people's lives.
- 20. People have complete free will.
- 21. Parents' character will determine the character of their children.
- 22. What happens to people is a matter of chance.
- 23. People are always at fault for their bad behavior.
- 24. Childhood environment will determine your success as an adult.
- 25. Life is hard to predict because it is almost totally random.
- 26. Strength of mind can always overcome the body's desires.
- 27. People's futures cannot be predicted.

*Note*. Adapted from "The FAD-Plus: Measuring Lay Beliefs Regarding Free Will and Related Constructs," by D.L. Paulus, and J.M. Carey, 2011, *Journal of Personality Assessment*, 93(1), pgs. 96-104. Copyright 2011 by the Taylor & Francis Group, LCC.

### Appendix C

Carefully read over and this vignette about a fictitious couple. Take the perspective of the couple in this situation, imagine you are put in this situation and envision how you would personally react to this situation in your own life.

### **Emotional Infidelity Vignette:**

A heterosexual couple had been in a committed romantic relationship for approximately a year and one half. They were very much in love but going through a rough patch in the relationship – fighting but trying to work on their issues to make the relationship work long-term. Partner A begins to innocently talk to another individual of the opposite sex from work. The two individuals begin talking more on a regular basis on topics more than just everyday work discussions - their hopes/dreams and other personal issues that you would share with someone you were intimate with (e.g., family, best friend, romantic partner). While the two co-workers have not been sexual in any way, the other partner in the relationship begins to be suspicious of the co-workers' relationship and whether something more than just a work friendship has emerged. In reality, the co-workers have become quite invested in each other and many around them have questioned their apparent intimate closeness and as to whether it is an appropriate relationship given the fact that they are both in romantic relationships with other people. Partner A has been feeling troubled by the relationship and the issues they have been dealing with so they decide to go out with some friends one night. It just so happens that the same individual from work appears to be at the same establishment to meet up with the group of friends. The two end up talking a little, decide to go home together that then ends up in a long, intimate discussion but with no sexual intercourse. The infidelity would be labeled as strictly emotional in nature with no sexual attachment involved or attraction for each other. Partner B ends up finding out about the incident and asked if it was the first and only time it had happened upon that Partner A explains that it was and that there had not been any subsequent contact between the two coworkers outside of the office. Partner B is devastated by the revelation and feels betrayed and angered by Partner A's feelings and actions but decides that the relationship is too important to give up on. Partner A asks Partner B for forgiveness and promises there will not be another incident. The couple decides to work on the relationship and try to overcome this experience to become a stronger couple.

Carefully read over and this vignette about a fictitious couple. Take the perspective of the couple in this situation, imagine you are put in this situation and envision how you would personally react to this situation in your own life.

### **Sexual Infidelity Vignette:**

A heterosexual couple had been in a committed romantic relationship for approximately a year and one half. They were very much in love but going through a rough patch in the relationship – fighting but trying to work on their issues to make the relationship work long-term. Partner A begins to innocently talk to another individual of the opposite sex from work. The two individuals initially talk casually about work; nothing intimate about their conversations whatsoever. While the two co-workers have not been intimate in any way, the other partner in the relationship begins to be suspicious of the co-workers' relationship and whether something more than just a work friendship has emerged. In reality, the co-workers may have a sexual attraction toward each other and many around them have questioned their apparent attraction and as to whether it is appropriate given the fact that they are both in romantic relationships with other people. Partner A has been feeling troubled by the relationship and the issues they have been dealing with so they decide to go out with some friends one night. It just so happens that the same individual from work appears to be at the same establishment to meet up with the group of friends. After talking for a bit, they decide to get a hotel room and end up having sexual intercourse after that both co-workers return home to their other partners. The infidelity would be labeled as strictly sexual in nature with no intimacy involved in their emotions that they feel for each other. Partner B ends up finding out about the incident and asked if it was the first and only time it had happened upon that Partner A explains that it was and that there had not been any subsequent contact between the two co-workers outside of the office. Partner B is devastated by the revelation and feels betrayed and angered by Partner A's feelings and actions but decides that the relationship is too important to give up on. Partner A asks Partner B for forgiveness and promises there will not be another incident. The couple decides to work on the relationship and try to overcome this experience to become a stronger couple.

### Appendix D

#### **Beliefs Toward Infidelity**

For each statement below, choose a number from 1 to 7 to indicate how much you agree or disagree.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree

- 1. Do you believe that sexual infidelity by your partner is worse than emotional infidelity?
- 2. Do you believe that emotional infidelity by your partner is worse than sexual infidelity?
- 3. Would you be able to forgive your partner for emotional infidelity?
- 4. Would you be able to forgive your partner for sexual infidelity?
- 5. Would emotional infidelity be grounds for terminating an otherwise committed relationship?
- 6. Would sexual infidelity be grounds for terminating an otherwise committed relationship?
- 7. Would you be willing to work with your partner in any given infidelity situation within a committed relationship?
- 8. Would you have been willing to work with the "betraying" partner in the emotional/sexual infidelity vignette?
- 9. In your opinion, would the betrayer's behavior in the vignette be considered cheating?
- 10. In your opinion, the behavior described in the vignette would be justified if the "betraying" partner said:
  - a. "I was just curious and excited and got caught up in the passion. It meant nothing to me."
  - b. "I got caught up in the situation and was just acting on impulses."

- c. "I did it because the other person listens to me and respects me. I feel better about myself when I am around him/her. We can talk about anything."
- d. "I did it because the other person really cares about me. We feel in love and we share an emotional bond."
- e. There is no justification for the behavior described in the vignette.
- 11. Please choose the level of threat to the relationship that the "betraying" partner's behavior may have on the relationship
  - a. It may be helpful to the relationship
  - b. It will have little impact on the relationship
  - c. It will have no impact on the relationship
  - d. It may be detrimental to the relationship
  - e. It may be very detrimental to the relationship
  - f. This relationship may end in divorce or separation as a direct result of the behavior
- 12. Considering the situation described in the vignette, if the gender in the participants were switched, would your understanding and responses to the situation change?

### **Forgiveness**

Imagine that you are the other partner in the relationship with the partner who committed the infidelity incident. For each statement below, choose a number from 1 to 6 to indicate how much you agree or disagree.

1	2	3	4	5	6
Strongly	Disagree	Somewhat	Somewhat	Agree	Strongly
Disagree		Disagree	Agree		Agree

- 1. Since my partner behaved in that way, I would be less willing to talk to them.
- 2. Although my partner hurt me, I definitely could put what happened aside so we could resume our relationship.
- 3. Since my partner behaved that way, I would get annoyed with them more easily.
- 4. I would make my partner feel guilty for what happened.
- 5. Since my partner behaved that way, I would have done my best to restore my relationship with them.
- 6. I would like to behave toward my partner in the same way that they behaved toward me.

- 7. Because of what happened, I would find it difficult to be loving toward them.
- 8. I still hold some grudge against my partner because of what they did.
- 9. I would be able to forgive my partner completely.
- 10. I would soon forgive my partner.

#### **Blameworthiness**

Imagine that you are the other partner in the relationship with the partner who committed the infidelity incident. For each statement below, choose a number from 1 to 7 to indicate how much you agree or disagree.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree

The partner engaging in infidelity in the vignette...

- 1. Is entirely to blame for the cheating incident
- 2. Did not deserve to be caught for the cheating incident
- 3. Is responsible for the cheating incident
- 4. Should not blame themselves for the cheating incident
- 5. Should not blame others for the cheating incident
- 6. Is not to blame, society is partly to blame for the cheating incident
- 7. Should not be punished for what they did
- 8. Is not to blame, the victim is partly to blame for the cheating incident
- 9. Would not have committed infidelity if they were not seriously provoked by the victim
- 10. Deserved to be caught for what they did
- 11. Was in no way provoked into committing infidelity

	12. Is not to blame, other people are to blame for the infidelity incident							
	13. Could have avoided getting into trouble							
	14. Had good reasons for committing infidelity							
	15. Had no excuse for committing infidelity							
De	mog	graphics						
	1.	What is you	ur sex?					
		Male	Female					
	2.	What is you	ur age?					
		18-20	21-24	25 & olde	r			
	3.	What is you	ur current academ	nic standing	?			
		Freshman	Sophomore	Junior	Senior	Gradu	ate Student	
	4.	What is you	ur current relation	nship status	?			
		Single I	n a relationship	"talking"	Enga	ged	Married	Divorced
	5.	Have you b	een in a committe	ed romantic	relationsh	ip in the	past?	
		Yes	No					
	6.	If so, how l	ong has your long	gest relation	ship lasted	1?		
		1-12 month	1-5 ye	ears	Over	5 years		
	7.	Have you e	ver experienced e	emotional o	r sexual in	fidelity i	n a romantic	relationship?
		Yes	No	N/A, neve	er been in a	commi	tted relationsh	nip
	8.	To your kno	owledge, have yo	ou been in a	committed	l relatio	nship where y	our partner

9. If yes to the previous question, did you forgive your partner for the cheating incident?

N/A

No

Yes

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		Yes	No	N/A	
	10.	Did you stay	together with t	hat partner after the ch	eating incident?
		Yes	No	N/A	
	11.	Have you you relationship?	rself ever com	mitted infidelity on a re	omantic partner while in a
		Yes	No	N/A	
	12.	Did you stay t	together with th	nat partner after the che	eating incident?
		Yes	No	N/A	
Th	ose	in a relationsl	hip		
	13.	How long hav A few weeks	•	your relationship? months	A year +
	14.	Do you consid Yes	der yourself to No	be in love with your pa	artner?
	15.	What is the le Weak Neutral Strong	vel of security	you feel in your relatio	onship?
	16.	How do you f Satisfied Somewhat sat Neutral Somewhat dis Dissatisfied		relationship?	
		Never Seldom Everyday Always	nunicate with y		
	18.	Do you feel y	our emotional i	needs are being met?	

Yes No

19. Do you feel as if you will be breaking up anytime soon?

Yes No

*Note*. Forgiveness scale adapted from "Measuring Offence-Specific Forgiveness in Marriage: The Marriage Offence-Specific Forgiveness Scale (MOFS)," by F.G. Paleari, C. Regalia, and F.D. Fincham, 2009, *Psychological Assessment*, 21(2), pgs. 194-209. Copyright 2009 by the American Psychological Association. Blame scale adapted from "The Revised Gudjonsson Blame Attribution Inventory," by G.H. Gudjonsson, and K.K. Singh, 1989, *Personality and Individual Differences*, 10(1), pgs. 67-70. Copyright 1989 by the Pergamon Press.