HOW DO WE FORGIVE?: AN EMPIRICAL FRAMEWORK FOR THE UNDERLYING
PROCESSES OF OVERCOMING INTERPERSONAL BETRAYAL

A Thesis
By
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Abstract

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PROCESSES OF OVERCOMING INTERPERSONAL BETRAYAL

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Few studies have empirically examined the underlying processes of forgiveness.

Perspective-taking has been depicted as an important precursor to forgiveness, specifically by

means of empathic responding toward the offender (e.g., McCullough, Worthington, &

Rachal, 1997). By contrast, Takaku (2001) proposed that forgiveness is merely a means of

reducing cognitive dissonance that results from perspective-taking. The ultimate goal of this

study was to test the dissonance model of forgiveness in an experimental design. Tesser and

Cornell's (1991) self-affirmation method of dissonance reduction was included to capture

evidence of dissonance indirectly. A series of two-way ANOVAs was conducted to examine

3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-

Affirmation: Self-Affirmation; Summer Vacation Control) interactions for self-reported

feelings of dissonance, forgiveness, positive and negative emotional reactions, and

unforgiveness. The proposed dissonance-reduction model of forgiveness was not supported;

however, findings did reveal an indirect effect of perspective-taking on forgiveness

outcomes. Additional exploratory analyses addressed alternative causal paths between

perspective-taking, attributions, and empathy for the offender. Implications are directed toward better understanding the ambiguous nature of the cognitive and emotional processes that help victims cultivate forgiveness and overcome the psychological burden of betrayal.

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Dedication

This work is dedicated to all of those who have been influential educators in my life – the majority of whom are faculty in the psychology departments at Appalachian State University and The University of North Alabama. Thank you for cultivating my love for learning and research.

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Abstract

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How Do We Forgive?: An Empirical Framework for the Underlying Processes of

Overcoming Interpersonal Betrayal

Social interaction guarantees conflict. Interpersonal betrayals are common, with

offenses including dishonesty, deception, infidelity, abuse, and abandonment, which can

apply to victims ranging from friends and family members to romantic significant others. The

effects of betrayal can be large and may include an array of negative consequences such as

insecurity, sadness, guilt, confusion, loneliness, anger and anxiety; all of which elicit the

potential for emotional suffering. The intensity of these feelings may prevent victims from

being able to "move on" to modify a hurtful situation into an opportunity for psychological

and social restoration (Valadez & Evans, 2005).

Forgiveness has consistently been shown to reduce such negative feelings for victims

(Cerney, 1988; Fitzgibbons, 1986; Freedman & Enright, 1996); as such, therapists,

counselors and researchers agree that forgiveness can be essential for emotional healing

(Valadez & Evans, 2005). It can mend broken relationships and restore psychological well-

being in victims suffering from past betrayals or offenses (Hill, 2010).

In addition to emotional healing, forgiveness has been argued to be a cornerstone for

successful relationships. The negative feelings, such as resentment and anger, that result from

hurtful transgressions can be problematic to both current and future relationships (Valadez &

Evans, 2005). Victims who are unable to overcome their pain may fear future

disappointment, become distrustful of others, and consequently, doubt the potential for

successful relationships and friendships in the future (Ellison, 2002). Reconciliation with

offenders can assist victims in regaining that trust (Hargrave, 1994). Moreover, victims who

sustain an overwhelming amount of emotional damage might reduce the psychological

burden when they are able to forgive the offender.

Contemporary counseling often encourages victims to forgive their transgressors, but

this can be a difficult and confusing process that requires a great deal of commitment and

energy (Valadez & Evans, 2005). As such, researchers have emphasized the importance of

studying the forgiveness process, understanding what it is, how it develops, and its

contributions to both individual and social progress (Eaton, Ward Struthers, & Santelli, 2006;

Konstam, Chernoff, & Deveney, 2001).

Forgiveness Defined

According to Konstam et al. (2001), there is evidence of uncertainty surrounding

forgiveness in the variety of its definitions. The confusion does not necessarily exist because

researchers are unable to come to an agreement about what forgiveness is, but because

forgiveness is a complicated process (Worthington, 2005). It has been generally defined as

overcoming resentment toward past offenders (Takaku, 2001), but this requires a series of

changes that are difficult to operationalize (Valadez & Evans, 2005). As such, forgiveness

has been consistently portrayed as a multifaceted process, not a single product (Takaku,

2001), which involves a complex sequence of emotional, motivational, and cognitive changes

(e.g., McCullough et al., 1997; Wade & Worthington, 2003; Welton, Hill, & Seybold, 2008;

Worthington, 2005).

Interestingly, research has suggested that forgiveness requires the victim to abandon

his or her right to resentment (e.g., Enright & the Human Development Study Group, 1996),

but it should not require forgetting, excusing, or condoning the offense (Enright & Zell,

1989). It involves cultivating undeserved positive emotions in order to view the offender with

empathy, compassion, or love (e.g., Berry, Worthington, O'Conner, Parrott, & Wade, 2005; Konstam et al., 2001; Rusbult, Verrete, Whitney, Sovik, & Lipkus, 1991), while also eliminating negative emotions, such as anger and sadness (Berry et al., 2005; Exline & Zell, 2009).

Similarly, McCullough et al. (1997) have suggested that forgiveness is a set of motivational changes that require (a) decreased motivation to retaliate, (b) decreased motivation to withdraw from the offender, and (c) increased motivation to reconcile. Additionally, Valadez and Evans (2005) described forgiveness as a cognitive transformation that involves redirecting one's thoughts in order to achieve insight, mindfulness, and alter perspectives of the self and others.

Regardless of the complexity of forgiveness, there are several points of agreement in its various definitions: Forgiveness is both an interpersonal and intrapersonal process that takes place over time (e.g., Konstam et al, 2001; Valadez & Evans, 2005) and requires that one responds constructively, rather than destructively, to offensive behavior (e.g., McCullough et al., 1997; Rusbult et al., 1991; Takaku, 2001).

Forgiveness, Empathy, and Perspective-Taking

Much research concerning forgiveness has focused on emotional empathy. McCullough et al. (1997) stated, "When people forgive, they become motivated to pursue relationship-constructive, rather than relationship-destructive, actions toward an offending relationship partner. This set of motivational changes is facilitated by the development of empathy for the offender" (p. 333). Specifically, empathy has been shown to mediate the relationship between an apology and forgiveness (e.g., Davis & Gold, 2011; McCullough et al., 1997) possibly because the victim is able to imagine the distress and guilt that the

transgressor is feeling (Baumeister, Stillwell, & Heatherton, 1994). Moreover, other situational factors besides an apology, such as clinical interventions, have been shown to increase forgiveness specifically by fostering empathy toward the transgressor (McCullough et al., 1997). This empathy-based model (see Model 1, *Figure 1*) suggests that forgiveness is largely inspired by empathic responding (Davis & Gold, 2011; McCullough et al., 1997).

Empathy has been broadly defined as reacting to the experiences of another. These reactions have been classified as two types of responses: a cognitive reaction (the ability to take another person's perspective) and an emotional reaction (the ability to feel what others are feeling). Rather than assuming empathy to be a unidimensional construct, it has been described as a multidimensional construct, with four sub-dimensions: fantasy, empathic concern, personal distress, and perspective-taking (Davis, 1983). The four components of empathy all relate to sensitivity to others but are distinguishable from each other. The fantasy component refers to an ability to imagine thoughts and feelings of fictitious characters. Empathic concern refers to feelings or sympathy for those less fortunate than the self. Personal distress involves anxiety that arises in interpersonal situations and conflicts. Finally, perspective-taking is said to be the main component of empathy; it is the adoption of another's psychological viewpoint (Davis, 1983).

While empathy and perspective-taking are distinct concepts, both have been linked to forgiveness (e.g., Welton et al., 2008). According to Davis (1996), perspective-taking is an advanced cognitive process that generates empathic outcomes. Perspective-taking shifts the victim's focus from the self to the transgressor (McCullough et al., 1997) to imagine what he/she may be thinking and feeling in order to better understand the potential cognitive, affective, and environmental factors that contribute to the psychological experience and

behavior of the other person (e.g., Davis, 1996; McCullough et al., 1997). More specifically,

perspective-taking has been portrayed as a precursor to empathy. McCullough et al. (1997)

stated, "Although empathy is primarily an affective phenomenon, [perspective-taking ability]

appears to be an important analogue to empathetic affect … and understanding how

[empathy] develops" (p. 322). Given that perspective-taking has been illustrated as an

antecedent to empathic responses (e.g., Davis, 1996; McCullough et al., 1997) and empathy

as an essential condition for forgiveness (McCullough et al., 1997), perspective-taking may

be a critical piece of the forgiveness process.

In general, perspective-taking has been linked to better social functioning. It allows

people to predict others' reactions and behaviors, therefore facilitating social interaction

(Davis, 1983). By facilitating a general understanding of the offender's behavior,

perspective-taking can minimize the impact of an offense and increase the likelihood of

forgiveness (Exline, Baumeister, Zell, Kraft, & Witvliet, 2008). Manipulations of

perspective-taking have emerged in literature involving altruism, empathy, and relationships.

For example, Oswald (2002) designed a study to examine the influence of

perspective-taking interventions on helping behavior. Participants who focused on another

person's thoughts and feelings were more likely to help the person than those who did not

focus on the other person's thoughts and feelings. Similarly, Batson, Duncan, Ackerman,

Buckley, and Birch (1981) showed that participants assigned to a high empathic response

condition were more likely to help a female confederate receiving electric shock than

participants in the low empathic response condition because they could identify with her

thoughts and feelings. Feelings of empathy were manipulated experimentally by telling

subjects that their responses to a personality assessment were similar to the victim, which

elicited empathic identification. Indeed, the results indicated that those who were in the "high empathy" condition showed greater physiological arousal when the confederate reported feeling pleasure or pain, reported identifying with her on a psychological level, and were more likely to help than those in the "low empathy" condition (Batson et al., 1981).

Leith and Baumeister (1998) examined the link between empathy, perspective-taking, and relationship outcomes after an interpersonal conflict. In order to determine if a transition from self-to-other perspective can actually occur, participants were asked to write two stories. First, they were asked to describe a conflict they had recently experienced and were then asked to describe that conflict again from the other person's point of view. The researchers compared the differences in the first and second accounts to determine objectively if perspective-taking had occurred before coding each story for relationship outcomes on a 3-point scale (1 = relationship deterioration, 2 = maintenance of relationship status quo, and 3 = ultimate improvement of relationship). It should be noted that personal accounts that did not indicate a relationship outcome were not included in the analysis. Additionally, inter-rater reliability (100% agreement) was only calculated for 45 randomly selected stories of a total 69 stories. The findings suggested that (a) the perspective-taking interventions did influence a change in the perspective of victims, and (b) failure to shift one's perspective was strongly correlated with relationship deterioration. While these shifts in perspective-taking were indirectly linked to a better understanding of the other person's thoughts and feelings, to relationship repair, and to relationship improvement (Leith & Baumeister, 1998), results were strictly correlational so no causal direction can be inferred.

Exline and Zell (2009) conducted an experiment to examine perspective-taking as an empathy-inducing strategy to decrease vengefulness and hostility. Participants were asked to

recall a past offense and were then randomly assigned to 1 of 4 conditions. Two of the

conditions involved recalling a time they committed a similar offense or imagining the

offender's perspective (e.g., his/her feelings, thoughts, and other situational factors). A third

condition required participants to recall a time when they felt positive feelings about

themselves (self-affirmation condition), while the fourth involved recalling a normal week

(control group). Results showed that the perspective-taking interventions did elicit lower

vengefulness and expressed hostility in the victims compared to those in the self-affirmation

and control groups, but forgiveness was not measured specifically. Exline and Zell (2009)

interpreted vengefulness and hostility as measures of "unforgiveness." Measures of

forgiveness as positive emotional expressions were never included, but it is likely that

negatively-valenced emotions like vengefulness and hostility would be present in the absence

of forgiveness, and thus, strengthen an argument for the relationship between perspective-

taking and forgiveness.

While perspective-taking has been causally linked to other behaviors, more studies

are needed to illustrate its influence on forgiveness. One of the few studies to have examined

experimentally the effects of perspective-taking on interpersonal forgiveness was conducted

by Takaku (2001). Participants were randomly assigned to 1 of 4 perspective-taking

conditions before reading a scenario describing a situation in which a student apologized

after losing another student's notes before an exam. In one condition, participants were

instructed to reflect on a time they had intentionally or unintentionally hurt someone and to

remember their own thoughts and feelings in that situation (Recall-Self-as-Transgressor). In

another condition, participants were instructed to imagine what the classmate/transgressor

would think and feel when he/she was confronted by the participant (Imagine-Other

condition). A third condition involved participants concentrating on their own thoughts and feelings as if they were the classmate who lost the notes and to visualize how they would behave in that situation (Imagine-Self). These three conditions served as variations of perspective-taking. Finally, the control condition instructed participants to imagine themselves as if they were the victim in the situation. It should be noted that Takaku did not discuss – nor make predictions about – any theoretical differences between the perspective-taking manipulations (i.e., Recall-Self-as-Transgressor, Imagine-Other, Imagine-Self). This will be addressed further in the prospective discussion of limitations and modifications to his design.

Following the manipulation, Takaku (2001) assessed attributions about the classmate, emotions, and forgiveness. Two items were used to determine whether the participants perceived the cause of the offense to be due to an internal characteristic of the offender or due to an external factor of the situation. Participants also indicated whether or not they thought the event was avoidable or unavoidable. Various measures were selected to assess what Takaku labeled as *positive emotional reactions* (e.g., compassion) and *negative emotional reactions* (e.g., anger) toward the offender. Finally, four items were used to measure forgiveness: (a) "I forgive my classmate," (b) "My classmate should be given a second chance," (c) "I would like to study with him again in the future," and (d) "I would let him borrow my notes again in the future" (Takaku, 2001, p. 500).

Overall, Takaku (2001) found that the perspective-taking manipulation did influence forgiveness responses. Participants in the Recall-Self-as-Transgressor and Imagine-Other conditions were significantly more likely to forgive the offender and more likely to elicit positive emotional responses than those in the control group. Furthermore, participants who

recalled themselves as the transgressor were also less likely to elicit negative emotional responses than participants in the control and Imagine-Other conditions. There were no significant differences between those in the Imagine-Self condition and all other conditions. Takaku argued that those instructed to recall themselves as a transgressor or to imagine the transgressor tended to be more forgiving than participants in the control condition, given the greater expression of emotions such as compassion over emotions like anger and vengefulness.

Takaku (2001) has proposed a dissonance-attribution model (see Model 2, *Figure* 1) to explain the relationship between perspective-taking and forgiveness by suggesting that forgiveness is merely a way to reduce cognitive dissonance that results from taking the perspective of the transgressor. According to Takaku, victims experience dissonance as a result of the perspective-taking manipulations (i.e., Recall-Self-as-Transgressor and Imagine-Other conditions) rather than empathizing with the transgressor. Similarly, Thompson et al. (2005) explained that transgressions create a need to resolve psychological distress because they require people to accommodate information that is dissonant with beliefs about the self and others. Consequently, forgiveness can be conceptualized as a coping mechanism: a way to modify reactions to these negative events and reduce cognitive dissonance in the victim.

Takaku (2001) argued that when participants are instructed to consider the transgressor's thoughts and feelings or when they are instructed to recall themselves as the transgressor, they are reminded of times in the past when they were in the transgressor's position – presumably making them aware of self-concept-violating actions. This increases awareness of the inconsistency between the victim's own behavior and the grudge he or she may be holding against the transgressor. Victims may then feel that their judgments are

hypocritical, and consequently, be more inclined to forgive the offender in order to reduce feelings of psychological discomfort and hypocrisy (Takaku, 2001).

Cognitive Dissonance as an Effect of Perspective-Taking

Cognitive dissonance, originally defined by Leon Festinger (1957), is known as "a state of tension that occurs whenever an individual simultaneously holds two cognitions (ideas, attitudes, beliefs, opinions) that are psychologically inconsistent [with each other]" (as cited in Aronson, 2011, p. 180) and has been depicted as a powerful motivator of human behavior and cognition (Aronson, 2011). According to Festinger, there is "a kind of consistency between what a person knows and believes and what [he/she] does" (Festinger, 1957, p. 1). In other words, people tend to believe that one's behavior should be consistent with one's beliefs about the behavior. If an individual believes a behavior is inconsistent with his/her beliefs then he/she should want to refrain from that behavior or modify it, but this is not always the case. While individuals prefer this psychological consistency, there are situations of psychological inconsistency in which people will attempt to reconcile their beliefs and behaviors. When they fail to do so, the two cognitions are dissonant and result in psychological discomfort (Festinger, 1957).

Cognitive dissonance is uncomfortable and aversive; as such, individuals seek to reduce dissonance and eliminate the discomfort by convincing themselves that their behavior and beliefs are compatible in some way. Additionally, Aronson (2011) elaborated on Festinger's theory by suggesting that the purpose of dissonance reduction is not simply to align two competing cognitions, but also to maintain specifically a positive view of the self. According to Aronson, a positive self-concept revolves around ideas that suggest the self is good, smart, and worthwhile; therefore, competing cognitions usually pose a threat to the

self-concept and consequently arouse feelings of dissonance that activate a need for

dissonance reduction (Aronson, 2011).

Interestingly, cognitive dissonance may also occur when one feels threatened by the

performance of another person. This performance may introduce conflicting information and

challenge one's positive view of the self. As a result, people may initiate cognitive or

behavioral techniques to protect or confirm what they believe about themselves; this

protection is achieved by cognitive dissonance reduction (Tesser & Cornell, 1991).

Thus, dissonance reduction can occur via multiple means surrounding the restoration

of the self-concept. This may be achieved by aligning behaviors with self-concept-consistent

beliefs, such as believing oneself to be smart, and consequently making smart choices. It may

also be achieved by alternative self-evaluation maintenance behaviors that turn attention to

other indicators of positive self-achievement. For example, in order to feel favorable about

the self, one might reflect upon a time in which he/she outperformed others on a difficult task

(Tesser & Cornell, 1991). Aronson (2011) has argued that because dissonance is aroused by

recognizing a violation of the self-concept, other cognitive appraisals that serve as a means to

restore the self-concept should be effective in reducing the psychological discomfort and

eliminating the need for dissonance reduction (Tesser & Cornell, 1991).

Tesser and Cornell (1991) supported this rationale by arousing dissonance in

participants and then showing that dissonance reduction is unnecessary if the self-concept

can be protected in some other way. In order to demonstrate the influence of such self-

evaluation processes, participants were placed in one of two conditions: positive comparison

and negative comparison. In the positive comparison condition, participants wrote about a

time they outperformed a close other on a task that was important to them (self-affirming). In

the negative comparison condition, participants wrote about a time when they were outperformed by another person on a task that was important to them. They were then asked to participate in a second, seemingly unrelated study in which they wrote an essay in support of or against a tuition increase. Two conditions were implemented to determine if dissonance reduction was actually occurring: high choice and low choice. In the high choice condition (high dissonance), participants could choose to argue in favor of the increase or against the increase; however, the experimenter suggested they write in support of the increase so that experimenters could get a better understanding of both sides of the issue. In the low choice condition (low dissonance) participants were assigned to either write in support of or against the increase. After they wrote the essay, participants indicated their true opinion toward the increase (Tesser & Cornell, 1991).

Results showed that those in the high dissonance condition were more likely than those in the low dissonance condition to say they agreed with the increase (dissonance reduction). Furthermore, those in the negative comparison condition who wrote in favor of the increase (high dissonance condition) were more likely than those who wrote in opposition of the increase (low dissonance condition) to say that they agreed with the increase, thus aligning their beliefs with their behavior (i.e., believing that they wrote the essay because they supported the cause) and providing evidence of dissonance reduction. As expected, writing about a time when one performed better than a close other (positive comparison condition) blocked dissonance reduction. In other words, there was no need for dissonance reduction because self-affirmation had already restored the self-concept and consequently eliminated psychological discomfort (Tesser & Cornell, 1991). As such, self-affirmation may

be critical to understanding how dissonance can be manipulated and also in determining when dissonance occurs.

Likewise, cognitive dissonance has been shown to co-occur with hypocrisy induction. Stone, Aronson, Crain, Winslow, and Fried (1994) elicited dissonance by having participants advocate the importance of condom use and then systematically reminding them of their own failures to use condoms in the past. The results indicated that there were more condom purchases at the end of the study for those in the hypocrisy condition than for those in the control conditions. These findings suggest that in order to reduce cognitive dissonance, people are motivated to change their behaviors when they are made mindful of the inconsistency between their true behaviors and the behaviors they advocate (Stone et al., 1994).

According to Takaku's (2001) dissonance-attribution model, perspective-taking elicits hypocrisy dissonance that leads to more positive attributions toward the offender so that one can then justify more positive attributions toward the self. These positive attributions toward the offender give rise to more positive emotions that inspire forgiveness (e.g., sympathy and compassion). Victims modify their view of the offender, because if one is to hold the offender accountable for his or her reprehensible behavior, he or she may also be forced to admit, as a result of perspective-taking, one's own similar mistakes. Consequently, the victim may be held equally accountable, and thus, equally worthy of the same grudge he or she may hold against the offender. As such, victims forgive not so much due to empathizing as a result of perspective-taking, but because they are forced to re-evaluate their own behavior and may conclude that the other is not so different from the self. Therefore, they make more positive and benevolent attributions about the offender which

simultaneously cultivate the willingness to forgive while also relieving psychological

discomfort and maintaining a positive self-concept (Takaku, 2001).

It is important to note that although other researchers have agreed dissonance may

motivate forgiveness processes (e.g., Thompson et al., 2005), this explanation contrasts with

traditional explanations, which portray forgiveness as the product of empathizing with the

transgressor. While some have suggested that "the ability to overcome such self-serving

cognitions may facilitate forgiveness" (e.g., Welton et al., 2008, p. 169), Takaku's (2001)

argument depicts forgiveness as a self-serving cognition in itself, in that the perceiver

allegedly realizes the uncomfortable implications of his/her own previous transgressions.

Subsequently, forgiveness is a self-motivated action.

The Current Study

Takaku (2001) argued that perspective-taking increased forgiveness responses by

invoking the self-concept due to feelings of hypocrisy, thus creating dissonance for the

perceiver of the event; however, several limitations warranted additional investigation into

his dissonance-forgiveness model. The purpose of this study was to replicate Takaku's

investigation with multiple modifications designed to test this model of forgiveness more

systematically.

First, Takaku (2001) did not assess dissonance directly, but only speculated about its

mediation in the forgiveness process. One of the primary modifications of his study was to

include measures of cognitive dissonance. Elliot and Devine (1994) argued that dissonance

research has primarily focused on the arousal component of dissonance as compared to the

psychological component. They conducted a study in which they found that participants who

wrote a counter-attitudinal essay reported more discomfort than participants in the control

group. These findings suggested that researchers should also measure self-reported

dissonance to demonstrate better the psychological experience of dissonance, attitude change,

and the effect of dissonance reduction. A measure of self-reported discomfort was included

in this study to examine further the relationship between perspective-taking and cognitive

dissonance.

An indirect measure of dissonance was included by introducing a self-affirmation

manipulation in order to determine if cognitive dissonance did in fact influence forgiveness

responses. To achieve this, Tesser and Cornell's (1991) positive comparison condition was

implemented. Specifically, participants wrote about a time they performed better than a close

other on a task that was important to them after being exposed to one of the perspective-

taking manipulations (i.e., self-affirmation). If cognitive dissonance was occurring, the self-

affirmation manipulation would serve as an alternative opportunity to restore the self-concept

and consequently eliminate the need for dissonance reduction (i.e., forgiveness; see Model 3,

Figure 2). Therefore, there would be no observed increase of forgiveness responses in the

perspective-taking conditions compared to the control condition after participants self-

affirmed.

Additional modifications in the current study involved limitations concerning the

nature of the offense and measurement of forgiveness in Takaku's (2001) study. First, in the

former study, participants were asked to imagine an offense (i.e., losing a student's exam

notes) that may have been perceived as unintentional, regardless of whether they thought the

situation was avoidable. It may also be reasonable to consider that the effects of this type of

offense may not have elicited significant emotional pain. That is, perceptions of a clear

betrayal might have been questionable. Dodd (2010) found that 49% of the transgressions

recalled by undergraduate participants involved the betrayal of a romantic partner. This offense was chosen in order to illustrate a more deliberate, personal, and emotional betrayal of a close other rather than a careless mistake made by a classmate, whose relationship to the victim may be ambiguous.

More detailed and subtle measurements of forgiveness were also utilized. The transparency of Takaku's (2001) four forgiveness items (e.g., "I forgive my classmate") should be considered, in that the direct wording may have revealed the purpose of the study to the participants. Rather than specifically asking about intentions to forgive, the current method included a more empirically-validated measure of forgiveness.

Finally, review of Takaku's study revealed a lack of a rationale behind the inclusion of each of the three perspective-taking instructional sets. Takaku grounded his rationale in Batson, Early, and Salvarani's (1997) suggestion that different kinds of perspective-taking elicit emotional responses other than empathy. Specifically, perspective-taking that involves imagining oneself as the perpetrator should lead to personal distress when they are reminded that they too have committed personal transgressions. Nevertheless, Takaku did not make predictions about differences between the types of perspective-taking instructional sets (e.g., Recall-Self-as-Transgressor, Imagine-Other, and Imagine Self). The current study only included the two instructional sets found to influence forgiveness – remembering a time he/she was a transgressor (Recall-Self-as-Transgressor) or imagining the transgressor's perspective in the scenario (Imagine-Other) – as a conceptual replication.

Theoretically, both perspective-taking prompts should have directed the perceiver's awareness to his/her own past transgressions, as this was a fundamental component of Takaku's argument that perspective-taking elicits dissonance by essentially arousing the self-

concept. Takaku's argument suggested this awareness is achieved by either (a) guiding one to

remember a past situation in which he/she hurt a close other or (b) guiding one to imagine the

transgressor's experience in the hypothetical situation. Specifically, the Recall-Self-as-

Transgressor instructions would evoke memories of a specific situation in which the

perceiver was in the transgressor's position. This would prompt participants to consider the

situation from a perspective similar to the hypothetical transgressor's by imagining the past

experience of being a transgressor themselves. Similarly, instructions to imagine the

transgressor (Imagine-Other) would prompt the consideration of the transgressor's

psychological and situational experience. By considering the transgressor's perspective, one

is ultimately projecting him/herself into the transgressor's place, which in turn should evoke

personally relevant examples (established by one's prior experience as a transgressor in a

similar circumstance) as a means to understanding the potential factors contributing to the

transgressor's behavior (Takaku, 2001). Since inclusion of these two conditions replicated

Takaku's design, the current study provided an opportunity to examine further whether these

instructional sets yielded different outcomes.

Design Overview and Predictions

In summary, the current study was a 3 (Perspective-Taking: Recall-Self-as-

Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer

Vacation Control) factorial ANOVA design. Participants were randomly assigned to one of

three perspective-taking conditions (modifications of Takaku, 2001) and then read a scenario

illustrating a situation of betrayal in which a romantic partner (transgressor) was caught

texting a former romantic partner. Participants were randomly assigned to two levels of self-

affirmation, during which they either described a time they out-performed a close other on a

task that was important to them or wrote about a previous summer vacation (Tesser & Cornell, 1991). Following the manipulation, self-reported dissonance, positive and negative emotional reactions, revenge and avoidance, and forgiveness were assessed.

Hypotheses

It was predicted that perspective-taking should only increase forgiveness responses if participants were not given the opportunity to self-affirm. That is, participants' cognitive dissonance caused by perspective-taking should have been eliminated when given the opportunity to restore the self-concept. Three main hypotheses were proposed to examine Takaku's model of dissonance-based forgiveness (see *Figure* 1, Model 2).

Hypothesis 1. A significant 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) interaction between factors was expected to occur such that (1.a.) participants who did not self-affirm and who engaged in perspective-taking, by either recalling a time they hurt someone (Recall-Self-as-Transgressor) or imagining the transgressor (Imagine-Other) would show higher levels of self-reported dissonance than those in the control condition. (1.b.) By contrast, if cognitive dissonance was occurring as a result of perspective-taking, participants who self-affirmed were expected to have shown no differences in self-reported dissonance across perspective-taking conditions.

Hypothesis 2. Again, a significant 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) interaction was expected to emerge demonstrating that (2.a.) participants who did not self-affirm and who engaged in perspective-taking, by either recalling the self as the transgressor or imagining the transgressor, would have reported (a) more forgiving

responses and (b) more positive emotions than those in the control condition (replication of

Takaku). (2.b.) By contrast, if cognitive dissonance was occurring as a result of perspective-

taking, participants who self-affirmed should have shown no differences in reported

forgiveness and positive emotional reactions across perspective-taking conditions.

Hypothesis 3. Finally, a significant interaction would have demonstrated that (3.a.)

participants who did not self-affirm and who engaged in perspective-taking, by either

recalling the self as the transgressor or imagining the transgressor, would report (1.) less

negative emotional reactions and (2.) less avoidant and vengeful responses ("unforgiveness")

than those in the control condition (replication of Takaku). (3.b.) By contrast, if cognitive

dissonance was occurring as a result of perspective-taking, participants who did self-affirm

would show no differences in negative emotional reactions or avoidant and vengeful

responses across perspective-taking conditions.

Exploratory Analyses. Further exploratory analyses were conducted to examine any

additional underlying mechanisms that may have augmented or explained these hypothesized

findings. While the ultimate goal of this study was to test for cognitive dissonance, Takaku

(2001) noted the potential influence of causal attributions in the apology-forgiveness process.

A series of multiple regressions were used, following Baron and Kenny's (1986) conditions

for mediation, to determine if causal attributions explained the effect of perspective-taking on

forgiveness.

Empathy was also included as the dependent variable in a 3 (Perspective-Taking:

Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-

Affirmation; Summer Vacation Control) ANOVA to see if empathic responding would offer

alternative explanations to Takaku's (2001) theory that perspective-taking elicited cognitive

dissonance, not empathy; however, no predictions were made about these additional constructs. Rather, measures of empathy were included to determine if cognitive dissonance and empathy were truly mutually exclusive mediators of the relationship between perspective-taking and forgiveness or if empathy explained the effect of perspective-taking on forgiveness in the event that evidence of cognitive dissonance was not found.

Additionally, correlational analyses were used to assess whether certain empathic traits were related to forgiveness outcomes. Finally, a 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 3 (Personal Experience: experience as the offender, experience as the victim, no experience) ANOVA was conducted to explore differences in forgiveness across participants' self-reported personal experience. Personal experience was categorized based on whether participants reported previously having been in a similar situation to the offender or victim in the scenario. This analysis was intended to determine whether perceived similarity to the offender was a necessary condition for the experience of dissonance (if it occurred).

Method

Participants

Two-hundred-ninety-four undergraduate students (204 women, 85 men) were recruited through an online subject pool from a comprehensive Southeastern University in the United States and received course credit for their participation. A statistical power analysis using G*Power (Buchner, Erdfelder, Faul, & Lang, 2009) indicated that a sample of at least 216 participants would be required to detect a medium effect ($f = .25$, $\alpha = .05$, $\beta = .20$; Cohen, 1988). All procedures were in compliance with the American Psychological

Association's ethical guidelines (2010) and were approved by the university's Institutional

Review Board on October 1, 2013 (see Appendix A).

Materials

      Scenario. All participants considered the following scenario and then read a

conversation depicted in a smart phone texting format:

      Alan and Anna have been in a committed relationship for almost one year. While

      staying at Alan's house, Anna's cell battery died while she was trying to make a call

      to her workplace. She grabbed Alan's phone to make the call and noticed a recent

      stream of texts passed between Alan and his ex-girlfriend.

            Participants will then read the following conversation:

                  Ex-Girlfriend: "Thanks for giving me a ride home the other day when

                  my car broke down. Did I leave my sunglasses in your car by chance?"

                  Alan: "Yeah, I found them."

                  Ex-Girlfriend: "Cool – I love those sunglasses."

                  Alan: "Yeah, they look good on you."

                  Ex-Girlfriend: "When can I grab them?"

                  Alan: "You should come to my apartment on Saturday. Anna will be

                  visiting her folks."

      The Apology. After the scenario, participants read the following description of

Alan's apology:

      Alan had always told Anna that he had no desire to stay in touch with his ex-

      girlfriend. Given this, Anna confronted Alan about the text messages, to which he

      said, "I am so sorry. When she called me, she was in a bind and needed a ride home.

She couldn't get in touch with anyone else. I invited her to come over while you were

gone because I thought it might make you uncomfortable. It is entirely my fault. I'm

so sorry for betraying your trust. I feel awful; I realize how hurtful that was. I will do

anything to make up for this." Anna then left to think about what had happened.

Perspective-Taking Manipulation. Perspective-taking prompts were presented prior

to the scenario and modeled after the instructions implemented by Takaku (2001). Minimal

changes were made to make the wording applicable to the current scenario and to avoid

ambiguity. Review of Takaku's instructions demonstrated that some of the wording was

specific to the original scenario in which the classmate damaged the exam notes (e.g.,

"imagine how the classmate would think, feel, and behave when confronted by you"). As

such, the modifications made the instructions more specific to the scenario used in the

current study (e.g., "imagine how Alan would think, feel, and behave when confronted by

Anna"), based on the expectation that participants' levels of engagement might be enhanced

with specific wording to guide them through the perspective-taking activity. To ensure

minimal ambiguity, slight modifications were also made to the Recall-Self-as-Transgressor

instructions by further emphasizing the recall of a similar situation – as this may be essential

to the potential experience of dissonance.

Recall-Self-as-Transgressor. Participants in the Recall-Self-as-Transgressor condition

read the following instructions to elicit memories of a time when they hurt a close other in

the past:

While you read the following scenario, please take a moment and visualize an event

in which you intentionally or unintentionally hurt someone close to you (e.g.,

romantic partner, friend, family member, etc.) in the past. Please try to remember how

you thought, felt, and behaved in that situation. If possible, try to imagine a situation

that is similar to the one described. Briefly describe below the event you just

considered.

Imagine-Other. Participants in the Imagine-Other condition read the following

instructions to prompt the imagination of the offender's perspective and what it might have

been like to have been in his position:

While you read the following scenario, please take a moment and visualize possible

events, feelings, and/or thoughts that may have contributed to Alan's behavior. Try to

imagine how Alan would think, feel, and behave when confronted by Anna. Try to

consider all of the information presented. Briefly describe below the events you just

considered.

Control Condition. Participants in the control condition read the following

instructions:

While you read the following scenario, please try to imagine how you would think,

feel, and behave if something like this really happened to you as a victim. Try to

consider all of the information presented. Concentrate on visualizing how you would

think, feel, and behave if you were in Anna's position.

Self-Affirmation Manipulation. Participants in the self-affirmation condition

received the following instructions (see Tesser & Cornell, 1991):

Please take a moment to write about a time when you outperformed a close associate

(e.g., friend or co-worker) while doing some task or activity in which it was important

for you to do well. Try to relive that experience. Describe how you thought and felt at

that moment in as much detail as possible.

Those in the self-affirmation control condition received the following instructions:

Please take a moment to write about a recent summer vacation you took. Briefly

describe when and where the vacation took place, the people with you (e.g., friends or

relatives), and the activities involved.

Measures

The Affect Scale. Items from the Affect Scale (Elliott & Devine, 1994) were used to

measure psychological discomfort (i.e., feelings of dissonance). Responses indicated how

participants felt at that moment on a 7-point Likert scale (1 = does not apply, 7 = applies very

much). An index of discomfort was created by averaging responses to three adjectives:

"uncomfortable," "uneasy," and "bothered" (α = .84). Total possible scores ranged from 1 to

7.

Positive Emotional Reactions. Following Takaku's (2001) methodology, three items

originally derived from Toi and Batson (1982) were used to measure positive emotional

reactions (see Appendix B). Specifically, items assessed the participants' experience of an

emotion on a 7-point Likert scale (1 = not at all, 7 = very much). Participants' responses to

three adjectives (sympathetic, moved, and compassionate) were summed to create a total

score of positive emotional reactions toward the offender. A reliability analysis indicated

that internal consistency (α = .64) could be improved if the second item ("indicate how

moved you are by Alan") were removed from the measure. As such, only items 1 and 3 were

used in the analyses (α = .75) and total scores could have ranged from 2 to 14. It should be

noted that while Takaku interpreted the responses as an index of positive emotional reactions,

the items were derived from a scale that was originally intended to measure empathy and

personal distress. To maintain compliance with Takaku's method, this response index was

referred to as "positive emotional reactions," with acknowledgement to the previously stated difference in interpretation.

Negative Emotional Reactions. An index of negative emotional reactions was derived from the source of negative emotions that was utilized by Takaku (2001): specifically, items in the anger and sadness emotion clusters determined by Shaver, Schwartz, Kirson, and O'Connor (1987). In a study that examined the hierarchical organization of emotion concepts, participants indicated emotions from a list of 213 terms (4-point scale; 1 = definitely not an emotion, 4 = definitely an emotion). Mean ratings were used to determine appropriate examples of emotion domains. Cluster analyses revealed six basic emotion categories (of interest for this particular measure: anger and sadness). Takaku's results suggested high internal consistency for the negative emotional response items (Cronbach's α = .90); however, it should be noted that it was unclear which affective items were specifically chosen by Takaku from the original emotion clusters and subclusters outlined by Shaver et al. (1987). As such, items for negative emotional reactions included the affective responses listed in the two subclusters of anger (rage and disgust) and three subclusters of sadness (suffering, sadness, and disappointment). A total of six items assessed participants' experience of each emotion (e.g., anger, hurt, vengefulness) on a 9-point Likert scale (1 = not at all, 9 = very much). See Appendix C. Participants' responses for each item were summed to create a total score for negative emotional reactions toward the offender; possible total scores ranged from 6 to 54. A reliability analysis produced a moderately high estimate of internal consistency for the scale, α = .84.

The Transgression Related Interpersonal Motivations Scale (TRIM-12). Seven items from the TRIM-12 (McCullough et al., 1998) assessed feelings of avoidance (α = .85)

and five items assessed feelings of revenge ($\alpha = .83$). Agreement with each statement was

measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), with possible

total scores ranging from 12 to 60. Higher scores indicated increased avoidance and revenge

(McCullough et al., 1998). Items were reworded so that responses were applicable to the

scenario. Responses for each of the items were summed to create two subscale scores for

avoidance and revenge. The subscale scores were combined to form an overall measure of

avoidance and vengefulness (i.e., "unforgiveness"), $\alpha = .87$). Further examination of the

scale's convergent validity demonstrated a moderately high, negative correlation between

TRIM-12 scores and The Forgiveness Scale (Rye et al., 2001), $r = -.73$, $p < .01$.

     The Forgiveness Scale. Forgiveness toward the offender was measured using items

from The Forgiveness Scale (Rye et al., 2001). Participants responded to 14 items on a 5-

point Likert scale (1 = strongly disagree, 5 = strongly agree) with higher scores indicating

increased forgiveness. Questions were modified to assess how participants would have

responded to the offense if it had occurred to them since they considered a scenario from a

third person perspective, not a personal situation. The sixth item in the original scale, "I

would pray for the person who wronged me", was removed given that it was not applicable

to participants who do not pray. As such, the total score for the measure could have ranged

from 14 to 70 and was calculated by summing participants' responses to each item. A

reliability analysis indicated moderately strong internal consistency, $\alpha = .81$.

     Manipulation Check. The following true-false statements (modifications of Takaku,

2001) were used to determine if the perspective-taking manipulation was effective: (a)

"Before I answered the questions, I tried to imagine how I thought, felt, and behaved when I

hurt a romantic significant other"; (b) "Before I answered the questions, I tried to imagine

what Alan was thinking and feeling and what factors may have contributed to the situation";

and (c) "Before I answered the questions, I tried to imagine how I would think, feel, and

behave if I were in Anna's position."

Exploratory Measures

Situational Empathy. Four items, originally used by Exline et al. (2008), were

included to measure empathic responding toward the offender. Responses were rated on a 10-

point Likert scale (0 = not at all; 10 = totally). The measure assessed the extent to which the

participants (a) understood the offender's behavior, (b) saw the situation from the offender's

perspective, (c) thought the offender's behavior made sense, and (d) could think of valid

reasons for the offender's actions. A total empathy score was calculated by summing

participants' responses to each of the four items, with possible scores ranging from 0 to 40. A

reliability analysis indicated a strong estimate of internal consistency, $\alpha = .91$.

Interpersonal Reactivity Index. The Interpersonal Reactivity Index (IRI; Davis,

1980) was included as a measure of individual differences in empathy (i.e., trait empathy).

Participants indicated how much each item applied to them on a 5-point Likert scale (0 =

does not describe me well; 4 = describes me very well). A total of 28 items composed 4

subscales (9 items each): Fantasy ($\alpha = .78$), Perspective-Taking ($\alpha = .79$), Empathic Concern

($\alpha = .77$), and Personal Distress ($\alpha = .74$). Scale scores were obtained by summing responses

to items for each subscale. An overall score for the Interpersonal Reactivity Index was

computed by summing scores for each subscale ($\alpha = .82$). Possible scores ranged from 28 to

140.

Causal Attributions. Causal attributions were assessed with two, one-item measures

that were modeled after Takaku's (2001) measures of control and stability. The first item

measured external controllability (i.e., a cause outside of the offender's control). Participants

indicated the extent to which they believed the cause of the offensive behavior was due to

situational factors on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The

second item measured behavioral variability. Participants rated the extent to which they

thought the offender's behavior would change over time (i.e., differ across situations) on a 7-

point Likert scale (1 = strongly disagree, 7 = strongly agree). Both items were positively

correlated, $r = .22, p < .01$.

  Other Measures. Participants were asked to indicate whether they had previously

experienced a similar personal situation to the one depicted in the scenario. Participants who

indicated that they had no similar experience (by selecting "no") were directed to the next set

of items. Participants who indicated that they had previously been in a similar situation (by

selecting "yes") were then asked to elaborate by explaining whether they had been in the

offender's position, victim's position, or both the offender's and victim's position.

Relationship status, sexual orientation, and additional demographics were also assessed (see

Appendix D).

Procedure

  Participants were recruited through an online subject pool of undergraduate students

to earn course credit for their participation in the study. They came in to the laboratory to

complete a computer-based survey. An electronic consent form was presented prior to the

survey (see Appendix E); after agreeing to continue, participants were randomly assigned to

one of three perspective-taking conditions and received one of the following perspective-

taking instructional sets: Recall-Self-as-Transgressor, Imagine-Other, or Control. After the

perspective-taking prompt, participants read the scenario depicting a situation of betrayal

between two romantic partners (i.e., Alan and Anna), which included the screenshot that depicted the conversation in a smartphone format. Participants then read Alan's apology to Anna and typed a brief description of the perspective they just considered. Following this portion of the survey, participants were redirected to the next phase of the study and randomly assigned to one of two self-affirmation instructional sets (i.e., Self-Affirmation or Summer Vacation Control). After reading the instructions, participants typed a brief description of the event they just considered. After they completed their responses, a transitional statement was presented to guide them to subsequent questionnaires (e.g., "We would now like to ask you questions about yourself"). The Affect Scale, Forgiveness Scale, measures of positive and negative emotional reactions, and TRIM-12 were then administered. Finally, personal experience and additional demographics were assessed.

Analyses

A two-way ANOVA was conducted for each dependent variable – feelings of dissonance, forgiveness, positive emotional reactions, negative emotional reactions, and avoidant and vengeful responses – in order to test the proposed 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) interaction. First, an overall *F* test was conducted to determine significant interactions and main effects for each outcome. A *Least Significant Difference* (LSD) *post hoc* analysis was used to make additional pairwise comparisons.

<div align="center">

Results

</div>

Manipulation Check

A total of 31 participants failed the manipulation check by indicating that they did not follow the directions in their assigned perspective-taking instructional sets and were

eliminated from the analyses. Specifically, 14 participants in the Recall-Self-as-Transgressor condition were eliminated by indicating that they did not try to imagine a time when they had hurt someone close to them. An additional 14 participants in the Imagine-Other condition were eliminated because they did not try to imagine what it would be like to be in the transgressor's position. Three participants in the control group were excluded by indicating that they did not try to imagine the victim's perspective. The manipulation was deemed effective for a remaining 263 participants (184 women, 78 men) who indicated that they did engage in their assigned perspective-taking instructions by recalling the self as the transgressor ($n = 77$), imagining the transgressor ($n = 86$), or imagining the victim ($n = 100$).

Main Hypotheses

Contrary to Takaku's (2001) theory that perspective-taking would induce cognitive dissonance in participants, none of the main hypotheses were supported. That is, there were no significant 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) interactions for the five dependent variables: feelings of dissonance, forgiveness, positive and negative emotional reactions, or avoidant and vengeful responses. Findings are presented in Table 1. Participants who did not self-affirm and who engaged in perspective-taking, by either recalling the self as the transgressor or imagining the transgressor, did not report increased feelings of dissonance, forgiveness, or positive emotional reactions compared to those in the perspective-taking control group. Furthermore, participants who did not self-affirm and who engaged in perspective-taking did not show a significant decrease in avoidant and vengeful responses compared to those in the perspective-taking control.

While there was no significant 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) interaction, results yielded a significant main effect of perspective-taking on negative emotional reactions toward the offender, $F(2, 254) = 4.562$, $p = .01$, $\eta^2 = .035$. An LSD *post hoc* analysis indicated that individuals in the perspective-taking control group were more likely to report increased negative emotional reactions toward the offender ($M = 19.80$, $SD = 5.45$) than individuals who engaged in perspective-taking, by either recalling the self as the transgressor ($M = 17.59$, $SD = 5.24$) or imagining the transgressor ($M = 17.62$, $SD = 6.42$), p's $= .01$, CI's [.4839, 3.9278] and [.5049, 3.8440], respectively.

Exploratory Analyses

Situational Empathy. In order to examine an alternative empathy-based model of forgiveness (e.g., McCullough et al., 1997), first, a 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) ANOVA was conducted to explore group differences in situational empathy. There was no significant interaction for empathy; however, findings revealed a significant main effect of perspective-taking instructions on empathy for the offender, $F(2, 256) = 3.427$, $p < .05$, $\eta^2 = .026$. Additional pairwise comparisons indicated that participants who engaged in perspective-taking by imagining the transgressor's perspective (Imagine-Other condition; $M = 22.65$, $SD = 10.17$) reported increased empathy for the transgressor compared to participants who did not engage in perspective-taking (Perspective-Taking Control; $M = 18.77$, $SD = 10.68$), $p = .01$, CI [.9119, 6.8550]. There were no significant differences in empathic responding for participants who recalled the self as the transgressor ($M = 21.02$, $SD = 9.72$).

Given that perspective-taking was shown to influence empathic responding, a subsequent, simple regression analysis was conducted to examine the influence of empathy on forgiveness. Findings suggested an indirect effect of perspective-taking on forgiveness, in that empathy explained 41% of the variance in forgiveness responses, $R = .64$, $r^2 = .41$, $p < .001$, 95% CI [.203, .358].

Trait Empathy. Two simple regression analyses indicated that individuals' total scores on the IRI (a measure of trait empathy) did not significantly predict forgiveness, $\beta = .09$, $r^2 = .007$, $p = .192$, 95% CI [-.023, .115], nor situational empathy for the offender, $\beta = .06$, $r^2 = .004$, $p = .317$, 95% CI [-.148, .048]. Additional correlational analyses indicated that only two of the IRI subscales, perspective-taking and personal distress, were related to forgiveness, r's = .19 and -.15, p's < .01 and .05, respectively. Only one of the IRI subscales, empathic concern, related to situational empathy for the offender, $r = -.17$, $p < .01$. Correlations among the dependent measures are listed in Table 2.

Causal Attributions. A 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other; Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) ANOVA revealed a significant main effect of perspective-taking on ratings of the offender's external controllability, $F(2, 257) = 3.533$, $p < .05$, $\eta^2 = .027$. An LSD *post hoc* indicated that participants who engaged in perspective-taking, by either recalling the self as the transgressor ($M = 4.70$, $SD = 1.31$) or imagining the other ($M = 4.66$, $SD = 1.39$) were more likely to attribute the cause of the offender's behavior to external, situational factors (i.e., external controllability) compared to those in the perspective-taking control ($M = 4.19$, $SD = 1.70$).

Furthermore, there was a significant main effect of perspective-taking on attributions of behavioral instability (i.e., the belief that the behavior would vary over time), $F(2, 257) =$

6.839, $p < .01$, $\eta^2 = .051$. An LSD *post hoc* showed participants who engaged in perspective-

taking by imagining the transgressor ($M = 4.40$, $SD = 1.161$) were more likely to see the

offender's behavior as more variable (i.e., less stable) over time than participants who

recalled the self as a transgressor ($M = 3.96$, $SD = 1.332$) and participants who did not

engage in perspective-taking ($M = 3.74$, $SD = 1.151$).

A subsequent multiple regression analysis indicated that both types of causal

attributions predicted forgiveness. Specifically, increased ratings of external controllability

and behavioral instability explained 5.3% of the variance in forgiveness responses, $R = .25$,

adjusted $r^2 = .053$, $p < .001$, β's $= .18$ and .14, 95% CI's [.245, 1.395] and [.097, 1.507],

respectively.

Additional multiple regression analyses were conducted to test for mediation

following the procedures outlined by Baron and Kenny (1986). In order to include the

perspective-taking manipulation in the regression model, the 3 perspective-taking conditions

(Recall-Self-as-Transgressor, Imagine-Other, and Control) were recoded into two dummy

variables: as 1 (Recall-Self-as-Transgressor) vs. 0 (Imagine-Other and Control) and 1

(Imagine-Other) vs. 0 (Recall-Self and Control). Thus, participants who recalled the self as

the transgressor were denoted with 1, 0; those who imagined the transgressor were denoted

with 0, 1; and those in the perspective-taking control were denoted with 0, 0. Findings

revealed that the effect of perspective-taking on empathy toward the offender was mediated

by participants' rating of external controllability and behavioral instability. Specifically, the

effect of the perspective-taking manipulation on empathy was no longer significant when

accounting for attributions of external controllability (i.e., belief that the cause of the offense

was due to situational factors) and behavioral instability (i.e., the belief that the offender's

behavior would not be the same across time). The regression coefficients for both mediation

models are presented in Figure 3.

Moreover, the positive relationships between the causal attributions (i.e., external

controllability and behavioral instability) and forgiveness were mediated by empathy for the

offender. That is, the relationship between the causal attributions and forgiveness became

non-significant when accounting for empathic responding (see Figure 4 for both mediation

models and the standardized regression coefficients).

Past Experience. One-hundred thirty-eight participants (approximately 53%)

reported that they had been in a personal situation that was similar to the situation in the

scenario. The remaining 125 (48%) indicated that they had not been in a similar situation.

Forty-three of the participants with a similar personal experience identified with the

offender's position. By contrast, 91 participants with a similar personal experience identified

with the victim's position. Four participants indicated that they had been in similar situations

in which they had been in both the offender's and victim's position; they were excluded from

these analyses exploring the influence of personal experience.

An exploratory 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other;

Control) x 3 (Past Experience: offender, victim, no similar experience) ANOVA revealed a

significant main effect of past experience on empathy for the transgressor, $F(2, 249) = 14.76$,

$p < .001$, $\eta^2 = .11$. An LSD *post hoc* analysis indicated that participants who had personally

been in a situation similar to the offender's reported greater empathic responding ($M = 27.77$,

$SD = 8.50$) than participants who had personally been in a situation similar to the victim's (M

$= 17.59$, $SD = 9.70$) and participants who had no similar personal experiences ($M = 20.14$,

$SD = 10.12$). By contrast, there was no significant main effect of perspective-taking in this

model, $F(2, 249) = 1.42$, $p = .245$, $\eta^2 = .01$. However, there were no significant 3

(Perspective-Taking) x 3 (Past Experience: offender, victim, no similar experience)

interactions for forgiveness, $F(4, 242) = 2.17$, $p = .073$, $\eta^2 = .04$, or self-reported dissonance,

$F(4, 250) = .313$, $p = .869$, $\eta^2 = .005$.[1]

Gender. Independent samples t-tests were conducted to explore gender differences

in forgiveness responses. There were no differences in men's and women's forgiveness

toward the offender, $t(252) = .672$, $p = .502$, CI [-1.26014, 2.56585]; however, men did

report greater empathic responding ($M = 23.35$, $SD = 11.41$) than women ($M = 19.57$, $SD =$

9.68), $t(126) = 2.56$, $p = .01$, CI [.85454, 6.70116]. Levene's test indicated unequal variances

for men and women ($F = 3.932$, $p = .048$), so degrees of freedom were adjusted from 259 to

126.

Discussion

Few studies have examined the underlying causal mechanisms of forgiveness

empirically. Researchers have depicted perspective-taking as a precursor to forgiveness (e.g.,

Exline et al., 2008; McCullough et al., 1997; Takaku, 2001); however, inconclusive findings

and methodology have illustrated an incomplete understanding of key influences in the

forgiveness process. Takaku was one of the few researchers to examine the effects of

perspective-taking on forgiveness by having participants adopt the transgressor's perspective

in a situation of conflict. The ultimate goal of this study was to determine whether Takaku's

proposed dissonance-reduction-based model of forgiveness could be replicated by including

a measure and manipulation designed to capture feelings of dissonance evoked by taking the

perspective of the transgressor by imagining the self as that transgressor or imagining the

transgressor.

Takaku's model explained forgiveness as the result of reducing cognitive dissonance that was caused by recognizing that holding the transgressor accountable for the undesired action while acknowledging one's own capability of performing the action would lead to the experience of hypocrisy. Takaku argued that taking the transgressor's perspective in this way prompted dissonance in the participant by emphasizing the similarities between the transgressor and self. Because Takaku speculated about the experience of dissonance but never measured it, the current study included both a direct and indirect measure of dissonance.

The findings did not support Takaku's (2001) dissonance-reduction-based model of forgiveness in multiple ways. First, this study failed to replicate Takaku's findings that imagining a transgressor's perspective – either via remembering one's own perspective as the transgressor or imagining the perspective of the transgressor – facilitated forgiveness relative to those who did not engage in perspective-taking. Additionally, there was no evidence of self-reported dissonance, in that ratings of discomfort were similar for those who did engage and those who did not engage in perspective-taking, regardless of whether they self-affirmed. Furthermore, providing individuals with an opportunity to restore the self-concept and alleviate the need for dissonance reduction (i.e., through self-affirmation; Tesser & Cornell, 1991) did not produce a change in feelings of dissonance or forgiveness responses.

In fairness, it is important to note the methodological differences of the current study when considering the lack of support for Takaku's (2001) model. First, the nature of the offense in the current study (a relational deception) was different from the offense used in Takaku's study (carelessness with a friend's notes). It is possible that the effect of perspective-taking on forgiveness may vary across types of offenses, depending on the

severity of the situation (e.g., Fehr, Gelfand, & Nag, 2010) and one's ability to imagine the

event occurring. A situation of conflict with a romantic partner is likely perceived as more

severe than a situation of conflict with another friend or casual acquaintance (Shackelford &

Buss, 1996), such as the classmate. Additionally, Shackelford and Buss found that a romantic

partner's extra-relationship involvement with a perceived enemy is more hurtful than

involvement with an unknown party. The ex-girlfriend in the current scenario may have been

perceived as an enemy, given that the victim had expressed her distrust for her and requested

that the partner (Alan) not contact her. Moreover, it is important to note that approximately

half of the participants in the current study reported that they had never experienced a similar

situation to the one depicted in the scenario. It is possible that Takaku's (2001) scenario in

which a classmate damaged someone's notes was more applicable to the participants'

personal experiences.

Likewise, a similar personal experience may be an important condition for dissonance

arousal. If dissonance is evoked due to perceived hypocrisy about the potential for the self to

commit the same act as the transgressor, it seems possible that those who have not been in a

similar situation may lack the ability to project themselves into the transgressor's position. Of

the participants who had been in a similar personal situation, only 31% identified with the

offender's position compared to 66% who identified with the victim's position.

Consequently, the requirements for Takaku's (2001) theoretical framework may not have

been met by the majority of participants. As a result, participants may not have fully

experienced the proposed dissonant realizations about the self. As such, it is important to

consider that cognitive dissonance could potentially explain forgiveness in a larger sample of

individuals with similar personal experiences as the transgressor; however, it was not

supported as an explanation for participants' forgiveness in this study.

Contrary to Takaku (2001), Worthington and Kurusu (2000) suggested that inducing

feelings of hypocrisy in the victim may actually be counter-therapeutic. If such feelings of

hypocrisy degrade one's self concept (Aronson, 2011), this may only strengthen negative

emotions in the victim, which hinder emotional healing and constructive responses to an

offense (e.g., Berry et al., 2005). Additionally, traditional explanations of forgiveness have

suggested that a focus on the self is not conducive to forgiveness (e.g., Welton et al., 2008).

Valadez and Evans (2005) noted the importance of being mindful of perspectives that are

different from one's own perspective. Mindfulness of the other person's experience can

redirect the focus from one's own emotional suffering as well as assist him/her in better

understanding the overall experience of what has happened. An other-oriented approach not

only facilitates a greater understanding of the situation, but also of the offender. This

understanding may evoke an emotional connection with the offender, which can strengthen a

relationship and inspire compassion for the other person as well as the self. Moreover,

previous research has argued that forgiveness is cultivated when victims direct their focus to

the transgressor's distress and guilt (e.g., Baumeister et al., 1994) – not their own pain and

discomfort.

Batson et al. (1997) argued a fundamental difference between taking the perspective

of another person in need and imagining the self as experiencing that need. Both of these

perspective-taking strategies were analogous to Takaku's (2001) Recall-Self and Imagine-

Other instructions, in that participants were instructed to either imagine another person in

need of forgiveness or imagine a time when they were in need of forgiveness. Contrary to

Takaku's (2001) rationale that both types of perspective-taking should elicit the same

outcome and cause one to project the self into the transgressor's position, Batson et al. (1997)

showed that imagining the other person's feelings did not produce the same emotional

outcomes as imagining one's self in the other person's position. Specifically, the former,

other-oriented type of perspective-taking cultivated empathy and prosocial responses to the

person in need, while the latter, self-oriented type of perspective-taking, cultivated personal

distress, in addition to empathy. Self-oriented perspective-taking is linked to an egoistic

motivation only to respond constructively when prosocial behavior will alleviate personal

distress felt from empathizing. Particularly, this type of self-centered focus may cause one to

project inaccurate feelings onto the other person (Batson et al., 1997). This is important when

considering that the current findings may have largely been dependent on the self-centered

projections of individuals with different personal experiences than the offender.

It is important to understand that these common depictions of forgiveness processes

are not inherently mutually exclusive with cognitive dissonance; however, these established

notions have seemingly promoted an "other-oriented" approach to forgiveness and opposed

Takaku's (2001) argument, which has suggested the essential forgiveness mechanisms are

actually augmented by focusing on the self. This alternative, "other-oriented" explanation

can be conceptualized with the traditional empathy-based model of forgiveness.

While Takaku depicted cognitive dissonance as an alternative explanation to the

traditional empathy-based model of forgiveness, exploratory measures of empathy were

included to determine if perspective-taking facilitated forgiveness, specifically by means of

empathic responding toward the offender. Both perspective-taking and empathy have been

linked to forgiveness (e.g., Welton et al., 2008). Specifically, McCullough et al. (1997)

argued that perspective-taking facilitates forgiveness by directing one's focus to the

transgressor and away from the self, a process which acts as a precursor to empathy.

Likewise, Davis (1996) explicitly stated that perspective-taking fosters empathic outcomes.

Consistent with Davis's description of empathy, participants who took the offender's

perspective were more empathic than those who took the victim's perspective or those who

recalled their own perspectives in the offender's position; however, there was no evidence to

suggest that perspective-taking directly influenced forgiveness.

By contrast, findings suggested that perspective-taking had an indirect influence on

forgiveness by facilitating empathy for the offender, which in turn, predicted increased

forgiveness. These findings amplified the claim by McCullough et al. (1997) that empathy

not only influences forgiveness, but also may be an essential piece of the forgiveness process.

Additionally, explanations from other researchers (e.g., Davis & Gold, 2011; McCullough et

al., 1997) who described empathy as the important link between an apology and forgiveness

were upheld. The offender in the current scenario apologized for his hurtful behavior.

Overall, findings were consistent with the empathy-based model of forgiveness; thus,

providing empirical support for empathy as a critical component of the forgiveness process

and, subsequently, perspective-taking as an important precursor to empathic responding.

A measure of interpersonal sensitivity (IRI; Davis, 1980) was included to examine the

influence of personal characteristics on forgiveness responses. Interestingly, the four trait

subscales (fantasy, perspective-taking, empathic concern, and personal distress) presumably

measure an overall empathic tendency; however, interpersonal reactivity of participants did

not relate to their forgiveness or empathic responses toward the offender. Moreover,

empathic concern in participants was negatively, yet weakly, related to empathy for the

offender. This correlation was unexpected, but may be explained by differences in the qualitative nature of the empathic concern subscale and the situational measure of empathy for the offender.

A face valid interpretation of the empathic concern items suggested that individuals who scored higher on this trait may be more sensitive to a victim's situation than an offender's situation and therefore, less likely to identify (cognitively or emotionally) with the offender. For example, the items generally assessed a tendency to feel protective toward people who are being mistreated and to feel sympathy and concern for individuals in unfortunate (or "less fortunate") situations. By comparison, the situational measure of empathy focused on understanding the offender's behavior and feelings. It is possible that these individuals may only tend to be empathic toward victims compared to offenders. It is also noteworthy that Takaku (2001) did not assess dispositional or situational empathy, so it is impossible to know whether participants in his study would have responded similarly.

While findings did not depict an influential role for overall trait empathy in the forgiveness process, these results may further augment the importance of perspective-taking interventions as an indirect facilitator of forgiveness compared to empathic tendencies of the individual. Indeed, previous research has examined relationships between forgiveness and various dispositional constructs, such as the Big Five personality traits (McCullough & Hoyt, 2002), trait anger (Berry, Worthington, Parrott, O'Conner, & Wade, 2001), and narcissism (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004); however, these current findings for trait empathy coincide with a recent meta-analysis of 175 forgiveness studies conducted by Fehr et al. (2010), which suggested that situational factors tend to influence forgiveness more than the victim's disposition. Consequently, the significance and development of

effective forgiveness strategies (such as the perspective-taking intervention) emits a hopeful

prospect for victims coping with psychological pain and betrayal.

Previous research has noted the link between attributions and forgiveness (e.g.,

Struthers, Eaton, Santelli, Uchiyama, & Shirvani, 2008; Takaku, 2001). Similarly, the current

study found that attributions of external control and behavioral instability further illustrated

the indirect path between perspective-taking and forgiveness. Seeing the cause of the

offender's behavior as the result of external factors and believing the offender's behavior

would be different across situations was an important predictor of empathy and forgiveness.

Moreover, both attributions explained the effect of perspective-taking on empathy, in that

those who engaged in perspective-taking (by recalling themselves as transgressors or

imagining the transgressor in the scenario) were more likely to attribute the cause of the

offense to situational factors and see the offender's behavior as variable over time compared

to those who did not engage in perspective-taking. When controlling for causal attributions,

perspective-taking no longer influenced empathic responding toward the offender. Thus,

findings suggested that the indirect link between perspective-taking and forgiveness was

upheld by causal attributions that relieved the offender of responsibility, which in turn

predicted increased empathy.

Likewise, the relationship between causal attributions (i.e., external controllability

and behavioral instability) and forgiveness was fully explained by empathy for the offender.

In other words, participants' attributions about the offender influenced their forgiveness

through empathic responding. These findings may suggest that participants need to view the

offender's behavior in a certain way (and arguably more positive way) before they can

empathize with the offender; however, further research is needed for these proposed causal statements to be conclusive.

Much research has examined the link between causal attributions and forgiveness through the lens of Weiner's (1986) Attribution Theory and Jones and Davis's (1965) Correspondence Inference Theory, both of which have noted the role of an apology in conflict resolution. According to Correspondence Inference Theory, negative perceptions of the transgressor's character may be attenuated by an apology. Comparable to this theory, previous research has found that forgiveness is hindered if the offender's actions are perceived as intentional and if the offender is held responsible for his/her behavior (Fehr et al., 2010). According to Goffman (1967), apologies may also influence a disassociation of the offender and the offense. Particularly, an apology can be understood within a broad framework of excuses, explanations, and justifications and it implies that the transgression will not be repeated (Ohbuchi, Kameda, & Agarie, 1989; Schlenker & Darby, 1981; Schmitt, Gollwitzer, Forster, & Montada, 2004; Weiner, 1995). As such, the apology in the current scenario may have legitimized the external attributions of the offender's behavior. Takaku (2001) found that the offender's behavior was perceived as more stable over time when participants took the victim's perspective than when they imagined themselves in the transgressors position. This finding did illustrate a causal link between perspective-taking and causal attributions; however, to my knowledge, no studies have demonstrated causal attributions as an essential condition for the connection between perspective-taking and forgiveness. Such findings in the current study introduce profound implications, not only for how the cognitive and motivational processes of forgiveness unfold, but for the overall understanding of what forgiveness is and the components said to define its construct.

While this study did not find evidence of cognitive dissonance, the implications of the current study may not be exempt from controversy when interpreted through the lens of the current forgiveness literature. Traditional theorists have established that forgiveness is beyond justice and fairness and should subsequently occur even when the offense is not excused or condoned (e.g., Enright & the Human Development Study Group, 1996; Enright & Zell, 1989). Specifically, it has been argued that forgiveness may require the victim to forfeit justified feelings of resentment and, moreover, cultivate responses toward the offender that are not deserved (e.g., Berry et al., 2005; Konstam et al., 2001; Rusbult et al., 1991); however, the empirical evidence presented in this study does not support this perspective. Rather, forgiveness was only related to attributions that depicted the offender as less responsible for causing the conflict. Moreover, perspective-taking did not cultivate empathy for the offender when excluding the contribution of such attributions.

The evidence potentially suggests that forgiveness was not independent of excuse and responsibility, in that it was dependent on the perceived nature of causal influences. The effectiveness of perspective-taking when an offense is seen as the direct result of the offender's character and intentions remains unclear. Regardless, future replication of the relationships modelled in this study could alleviate the ambiguity of forgiveness definitions by further clarifying these underlying cognitive, motivational, and emotional mechanisms.

That said, many of the participants in the study admitted having little experience with the nature of this transgression – perhaps a criterion for truly understanding and then forgiving someone for the behavior. In addition to apologies and perspective-taking, similarity among perceiver and actor has also been linked to empathic responding (e.g., Batson et al., 1981). Assessments of participants' own experience were included, specifically

to examine empathy and forgiveness in participants who had been in a situation similar to Alan's situation (i.e., the offender) in the scenario. Not surprisingly, participants who had previously been in a situation similar to Alan's were more likely to empathize with Alan than those who had previously been in the victim's situation (i.e., Anna's situation) and those who had no previous experience in a similar situation; however, they did not differ in their forgiveness responses. These findings were particularly salient when considering that perspective-taking no longer explained any meaningful differences in empathy for the offender when accounting for participants' personal experiences. Perspective-taking was a useful strategy for empathizing and subsequently forgiving the transgressor, but it is important to acknowledge that imagining the transgressor's perspective may be difficult when individuals have no personal experience to serve as a point of reference. As such, personal experience may not only be a cornerstone of Takaku's proposed dissonance-reduction-based model of forgiveness but also for the traditional empathy-based model.

Limitations and Future Research

Additional research is needed to examine the ecological validity and generalizability of findings. A hypothetical scenario allowed for empirical control and replication of Takaku's (2001) study. While hypothetical scenarios provide an experimental advantage, they lack the realism of personal recollections. Particularly, hypothetical scenarios have been shown to enhance cognitive processes, while personal recollections tend to enhance affective reactions (Fehr et al., 2010). As such, it is important to note that participants considered a hypothetical situation from a third-party perspective. Additional research is needed to determine how the effect of the perspective-taking intervention would translate to responses

of interpersonal conflict involving a real couple. Findings could have differed if participants

considered a personal situation that had previously happened to them.

Previous research has examined gender differences in response to hypothetical

situations of infidelity (e.g., Buss, Larsen, Westend, & Semmelroth, 1992). When

participants were asked to imagine a committed relationship and whether an emotional or

sexual case of infidelity would be more hurtful to them, men were more likely than women to

report greater upset in the event of sexual infidelity. Women were more likely than men to

report greater upset in the event of emotional infidelity (Buss et al., 1992). The current

findings did not reveal any differences in forgiveness for men and women; however, men

were more empathic toward the offender than women. It is important to consider that the

male gender of the offender could have influenced the ability of women to identify with him

in the scenario. In future research, matching the gender of the offender with the gender of

participant would be helpful in identifying whether perspective-taking instructions are more

effective if one is identifying with a same-sex versus opposite-sex individual.

Additionally, it is unclear whether the empathy-based model of forgiveness in the

current study would apply across types of offenses that vary in levels of severity and

duration. Furthermore, an apology is largely seen as the most effective means of conflict

resolution (e.g., Darby & Schlenker, 1982; Gonzales, Manning, & Haugen, 1992; Weiner,

Graham, Peter, & Zmuidinas, 1991); however, it is not uncommon for offenders to be

unapologetic or even unaware of their offensive behavior, in which case the victim must

attempt forgiveness without receiving an apology. Likewise, the perspective-taking

intervention may vary in effectiveness across different contexts. The conflict described in the

scenario could be considered less severe (i.e., presumably one case of dishonesty) in

comparison to offenses that may occur repeatedly for an extended period of time (e.g., an affair that lasts for years).

Finally, forgiveness is a complicated process that takes place over time (Konstam et al., 2001). Worthington and Kurusu (2000) found that forgiveness workshops that lasted for 2 hours had only a small influence on forgiving responses. While a 2-hour intervention designed to cultivate empathy did increase forgiveness in victims, it did not decrease unforgiving responses (avoidance and revenge). Consequently, the absence of a direct link between perspective-taking and forgiveness in the current study may be the result of perspective-taking interventions that only lasted a few minutes. Realistically, forgiveness is a difficult and confusing sequence of emotional changes that may vary across situations (e.g., McCullough et al., 1997; Wade & Worthington, 2003); as such, extending the duration of perspective-taking interventions may be necessary for promoting forgiveness processes that will ensure emotional healing and fully restore psychological well-being in the victim.

Conclusions

Forgiveness has been depicted as critical to relationship maintenance and psychological well-being; however, the complex, ambiguous nature of the underlying emotional and cognitive processes has clouded researchers understanding of what forgiveness is and how it can be facilitated. These findings further solidify current theories of forgiveness by illustrating the underlying influences in an empirical framework. First, this study was the only study to implement an experimental design to determine if perspective-taking causes cognitive dissonance, as proposed by Takaku (2001). Findings not only failed to support the dissonance-based model of forgiveness, but offered evidence, instead, of the

traditional empathy-based model. Thus, it offers useful descriptions and explanations of the potential causal paths between perspective-taking and forgiveness.

Previous findings in the literature have largely been correlational or inconclusive. While it is important to identify the factors related to forgiveness, this study emphasizes how mental health professionals can cultivate predictors of forgiveness through perspective-taking interventions and deliberate cognitive exercises. As such, potential theoretical and practical implications of these findings may be widely applicable to clinical practice, and subsequently, individual well-being, relationship quality, and overall social functioning.

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Endnote

[1] Three exploratory 3 (Perspective-Taking: Recall-Self-as-Transgressor; Imagine-Other;

Control) x 2 (Self-Affirmation: Self-Affirmation; Summer Vacation Control) ANOVA's

were conducted to determine if Takaku's proposed dissonance-reduction model would apply

to the 43 participants who reported that they had experienced a similar situation as the

offender. However, for these individuals, there were no significant interactions for self-

reported dissonance, $F(2, 37) = .826$, $p = .446$, $\eta^2 = .043$, forgiveness, $F(2, 34) = .1.33$, $p =$

.278, $\eta^2 = .073$, or empathy, $F(2, 37) = .152$, $p = .859$, $\eta^2 = .008$.

Table 1

3(Perspective-Taking:Recall-Self-as-Transgressor; Imagine-Other; Control) x 2(Self-Affirmation: Self-Affirmation; Summer Vacation Control) interactions for each outcome: self-reported dissonance, forgiveness, positive and negative emotional reactions, and unforgiveness.

|	RST		IO		Control				
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*df*	*p*
The Affect Scale							.259	(2, 257)	.772
Self-Affirm	2.10	1.25	2.25	1.41	2.03	1.18			
SA control	1.91	1.20	1.84	1.23	1.85	1.05			
Forgiveness Scale							.426	(2, 249)	.654
Self-Affirm	48.94	5.69	49.64	8.17	48.12	6.51			
SA control	47.82	6.05	49.30	6.68	48.96	8.41			
Positive emotions							1.54	(2, 257)	.217
Self-Affirm	5.00	3.17	5.60	2.90	4.21	2.38			
SA control	4.39	2.51	5.09	2.59	4.83	2.40			
Negative emotions							1.17	(2, 254)	.313
Self-Affirm	16.70	5.31	18.05	6.54	20.02	5.16			
SA control	18.44	5.10	17.19	6.35	19.59	5.73			
TRIM-12							.571	(2, 252)	.566
Self-Affirm	32.24	6.59	29.00	7.03	31.43	7.09			
SA control	31.31	6.84	30.45	6.94	31.04	9.69			

Note: RST = Recall-Self-as-Transgressor condition. IO = Imagine-Other condition. SA control = Summer Vacation Control. Higher scores indicate an increase in each outcome.

Table 2

Correlations between IRI subscales, empathy and forgiveness measures

Measures	Perspective-Taking	Empathic Concern	Personal Distress	Forgiveness	Empathy
Fantasy	.22**	.36**	.18**	.09	.02
Perspective-Taking		.28**	-.10	.19**	.09
Empathic Concern			.25**	.07	-.17**
Personal Distress				-.15*	-.11
Forgiveness					.41**

*Note: *p < .05, **p < .01*

| Perspective-Taking | → | Empathy | → | Forgiveness |
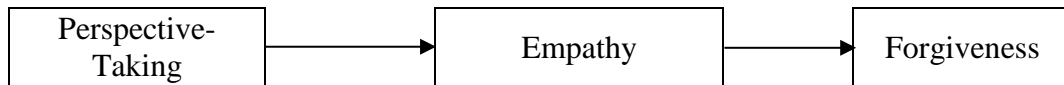
a) Model 1: Traditional empathy-based model of forgiveness

| Perspective-Taking | → | Dissonance | → | Forgiveness |

b) Model 2: Takaku's dissonance-based model of forgiveness

Figure 1. This figure depicts the traditional model (a) and Takaku's (2001) model (b) of forgiveness.

```
┌──────────────┐         ┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ Self-Concept │───────▶ │  Dissonance  │─────▶│ Forgiveness  │─────▶│    Self-     │
│  Violation   │         │              │      │              │      │   Concept    │
└──────────────┘         └──────────────┘      └──────────────┘      │   Restored   │
                                  │                                   └──────────────┘
                                  ▼                                           ▲
                              ┌──────────────┐                                │
                              │ Self-Affirm  │────────────────────────────────┘
                              └──────────────┘
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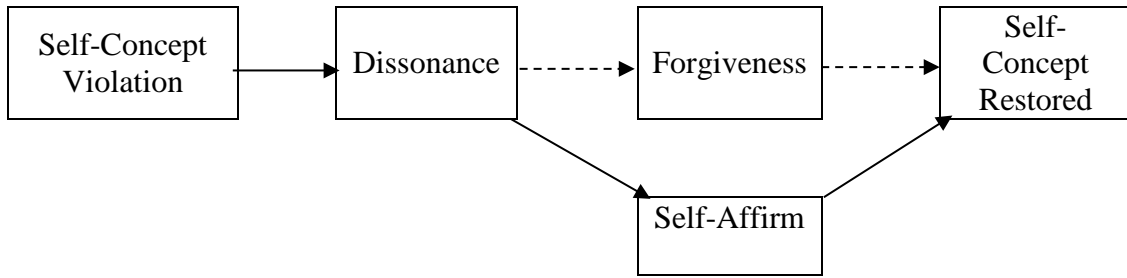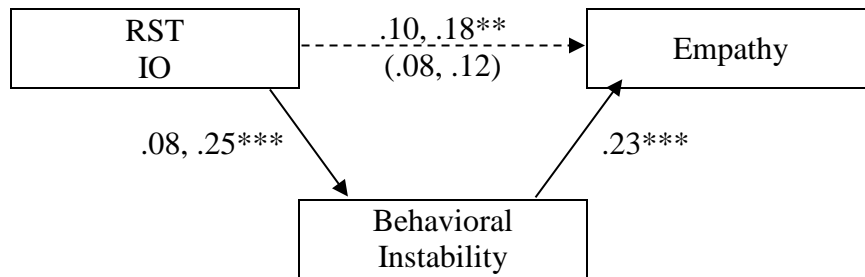
a)   Model 3: Self-Affirmation Model

Figure 2. This model demonstrates the self-affirmation rationale for dissonance reduction.
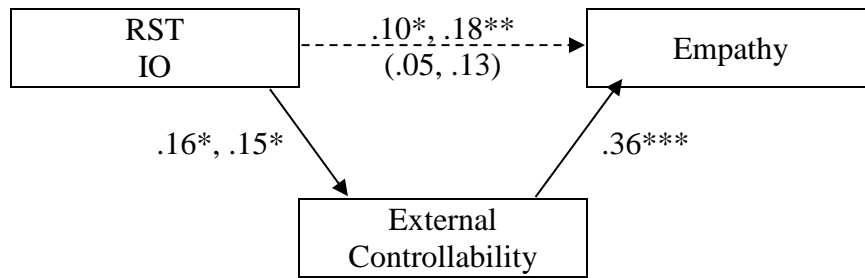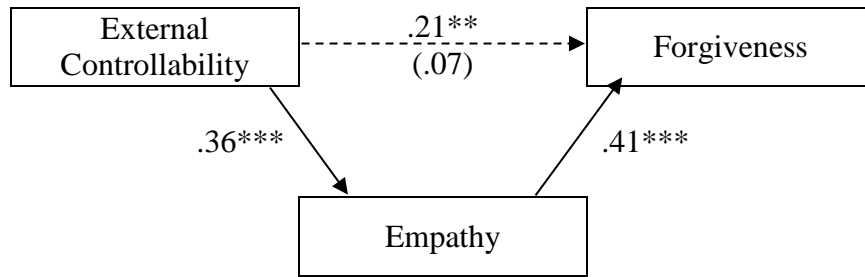
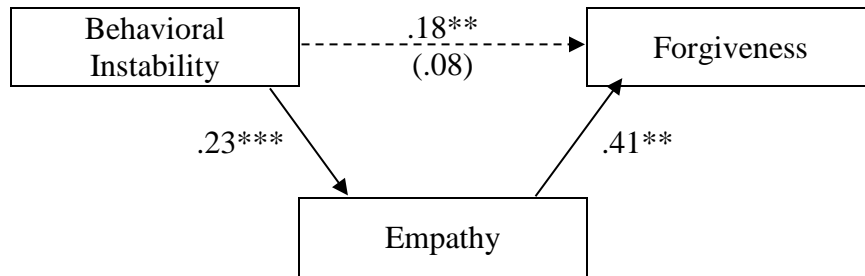a) External controllability mediation model

b) Behavioral instability mediation model

Figure 3. The standardized regression coefficients with both causal attributions included as mediators. RST = Recall-Self dummy variable. IO = Imagine-Other dummy variable. The regression coefficients for the relationship between perspective-taking and forgiveness after accounting for the attributions are noted in parentheses. Both regression coefficients for RST and IO are noted in their respective order.
*p < .05, **p < .01, ***p < .001

a) Empathy mediating the relationship between external controllability and forgiveness

b) Empathy mediating the relationship between behavioral instability and forgiveness

Figure 4. The standardized regression coefficients when empathy is included as a mediator between causal attributions and forgiveness. The regression coefficients for the relationship between both causal attributions (i.e., external controllability and behavioral instability) and forgiveness after accounting for the attributions are noted in parentheses.
**$p < .01$, ***$p < .001$

Appendix A

To: Karly Cochran
EMAIL

From: Dr. Stan Aeschleman, Institutional Review Board Chairperson
Date: 10/01/2013
RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)
Study #: 14-0056

Study Title: Effects of Perspective-Taking on Forgiveness
Submission Type: Initial
Expedited Category: (7) Research on Group Characteristics or Behavior, or Surveys, Interviews, etc.
Approval Date: 10/01/2013
Expiration Date of Approval: 9/30/2014

The Institutional Review Board (IRB) approved this study for the period indicated above. The IRB found that the research procedures meet the expedited category cited above. IRB approval is limited to the activities described in the IRB approved materials, and extends to the performance of the described activities in the sites identified in the IRB application. In accordance with this approval, IRB findings and approval conditions for the conduct of this research are listed below.

Regulatory and other findings:

The IRB waived the requirement to obtain a signed consent form for some or all subjects because the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

Approval Conditions:

Appalachian State University Policies: All individuals engaged in research with human participants are responsible for compliance with the University policies and procedures, and IRB determinations.

Principal Investigator Responsibilities: The PI should review the IRB's list of PI responsibilities. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records.

Modifications and Addendums: IRB approval must be sought and obtained for any proposed modification or addendum (e.g., a change in procedure, personnel, study location, study instruments) to the IRB approved protocol, and informed consent form before changes may be implemented, unless changes are necessary to eliminate apparent immediate hazards to participants. Changes to eliminate apparent immediate hazards must be reported promptly to the IRB.

Approval Expiration and Continuing Review: The PI is responsible for requesting continuing review in a timely manner and receiving continuing approval for the duration of the research with human participants. Lapses in approval should be avoided to protect the welfare of enrolled participants. If approval expires, all research activities with human participants must cease.

Prompt Reporting of Events: Unanticipated Problems involving risks to participants or others; serious or continuing noncompliance with IRB requirements and determinations; and suspension or termination of IRB approval by an external entity, must be promptly reported to the IRB.

Closing a study: When research procedures with human subjects are completed, please complete the Request for Closure of IRB review form and send it to irb@appstate.edu.

Websites:

1. PI
responsibilities: http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/PI%20Responsibilities.pdf

2. IRB forms: http://researchprotections.appstate.edu/human-subjects/irb-forms

CC:
Doris Bazzini, Psychology

Appendix B

Positive Emotional Reactions (Toi & Batson, 1982)

Please indicate how much the following emotions describe your current feelings [toward

Alan] (1 = not at all; 7 = very much):

1. Sympathetic

2. Moved

3. Compassion

Appendix C

Negative Emotional Reactions (Shaver et al., 1987)

Please indicate how much you feel the following emotions [toward Alan] (1 = not at all; 5 = very much).

1. Anger

2. Hurt

3. Vengefulness

4. Disgust

5. Sadness

6. Disappointment

Appendix D

Demographics

1. Age

2. Sex

3. What is your race/ethnicity?

4. What is your sexual orientation?

5. What is your current relationship status?

   Single, In a relationship, Married, Divorced, Widowed

6. What is the highest education level you plan to earn?

7. What is the highest education level your mother earned?

8. What is the highest education level your father earned?

9. Are you currently a student?

10. What is your classification?

    Freshman, Sophomore, Junior, Senior, Graduate

11. What is your GPA?

12. Are you currently employed?

13. What is your household income?

    < 25K, 25-50K, 50-75K, 75-100K, > 100K

Appendix E

Consent to Participate in Research: Information to Consider About this Research

Conflict in Relationships

Principal Investigator:

> Karly Cochran
>
> Dept. of Psychology
>
> Appalachian State University
>
> cochranka@appstate.edu
>
> 828.262.2272

Faculty Advisor:

> Doris Bazzini, Ph.D.
>
> Dept. of Psychology
>
> Appalachian State University
>
> bazzinidg@appstate.edu
>
> 828.262.2272

You are being invited to take part in a study that examines how people approach conflict in relationships. You will be asked to complete a brief writing activity before and after reading a description of conflict between two romantic partners. You will then be asked to answer a series of questions based on your response to the situation.

What are the possible benefits and risks of the research?

Your participation may or may not directly benefit you, but this research may help others in the future by furthering our understanding of relationships and social interactions.

To the best of our knowledge, there are no risks that might result from participating in this study.

No identifying information will be collected. All responses will be anonymous and will not be linked to you in any way.

Who can I contact if I have questions?

Research assistants are available to answer questions you may have concerning the research. You may also contact the Principal Investigator (cochranka@appstate.edu) if you have any questions in the future.

Your participation is completely voluntary.

This survey should take approximately 30 - 45 minutes to complete. You may decide to stop at any time for any reason without consequences, or you may choose not to answer any of the survey questions. If you decide to participate in this study, please advance to the next page using the button below.

You will receive 1 Experiential Learning Credits for your participation in this study. Please note that your participation in research is optional; you may fulfill your Experiential Learning Credit requirements for a course by choosing to complete alternative activities.

This research project has been approved by the Institutional Review Board of Appalachian State University on 10/1/2013.

Questions regarding the protection of human subjects may be addressed to:

IRB Administrator
Research and Sponsored Programs
Appalachian State University
Boone, NC 28608
Phone: (828)262 – 2130
Email: irb@appstate.edu

By continuing to the survey, I acknowledge that I am at least 18 years old, have read the above information, and provide my consent to participate under the terms above.

Vita

Karly Ann Cochran was born in Florence, Alabama, the daughter of Bill and Lisa Cochran. She graduated from Florence High School in 2008 and began undergraduate study at the University of North Alabama. She received her Bachelor of Arts in Psychology with minors in Spanish and Sociology in May 2012. In the following autumn, Karly began study toward a Master of Arts degree in General Experimental Psychology at Appalachian State University and was awarded the degree in May 2014. She plans to begin study at Kent State University in August 2014, where she will pursue a doctorate degree in Experimental Psychology with a specialization in Social Psychology and a minor in Quantitative Methodology.