

GUILTY UNTIL PROVEN INNOCENT: VARIABLES INFLUENCING THE IMPACT OF
EXONERATIONS ON VICTIMS' FAMILIES

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DEDICATION

This dissertation is dedicated to the talented staff at Northwestern University School of Law's Center on Wrongful Convictions, working endlessly to prevent and correct miscarriages of justice. Their work has inspired my own research interests and social justice passions. It is my hope that this dissertation project contributes, even in some small way, to improving an imperfect system.

ABSTRACT

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When exonerations occur, crime victims' family members often remain unconvinced of an exoneree's innocence. Using scenarios, reactions to exonerations were examined, comparing victims' family members to their neighbors and manipulating the evidence that led to the exoneration and whether or not the true perpetrator of the crime was apprehended. The persuasive quality of the exoneration evidence mattered—DNA evidence and apprehension of the actual perpetrator were both influential—but across the board, family members continued to judge exonerees to be guiltier than neighbors did. Victim's families were particularly likely to doubt an exoneree's innocence when DNA evidence was not involved. Individual differences moderated some of these effects; belief in a just world was associated with ratings of innocence, certainty toward innocence, believability of evidence, and positive and negative emotions, whereas individuals high in intellectual humility were more likely to re-examine evidence.

KEY WORDS: Exoneration, Victim, Wrongful conviction, Reactions

TABLE OF CONTENTS

	Page
DEDICATION	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vii
CHAPTER	
I INTRODUCTION	1
Influences of Social Psychology	4
Individual Differences	7
II CURRENT STUDY	10
III METHOD	12
Design	12
Participants	12
Materials	14
Procedure	17
IV RESULTS	19
Correlations	19
Relationship to Victim	21
Type of Exonerating Evidence	46
Apprehension of a True Perpetrator	50
Comparisons With Controls	63
Personal Victimization	65

V DISCUSSION.....	66
REFERENCES	75
APPENDIX A.....	79
APPENDIX B	80
APPENDIX C	83
APPENDIX D.....	100
APPENDIX E	116
APPENDIX F.....	117
VITA.....	124

LIST OF TABLES

Table	Page
1 Participant Demographics.....	13
2 Individual Difference Correlations on Dependent Variables.....	20
3 MANOVA Effects for Guilt and Innocence Ratings.....	22
4 An Interaction of Relationship to Victim and Evidence Type on Ratings of Exoneree Guilt	23
5 An Interaction of Relationship to Victim and Evidence Type on Ratings of Innocence	24
6 An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Exoneree Guilt.....	25
7 An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Innocence.....	26
8 MANOVA Effects for Nuance Variable Ratings	27
9 An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Exoneration Satisfaction.....	28
10 MANOVA Effects for Faith in Legal Personnel Ratings	29
11 MANOVA Effects for Quality of Evidence Ratings	30
12 An Interaction of Relationship to Victim and Evidence Type Interaction on Ratings of Convincingness of Exonerating Evidence.....	31
13 An Interaction of Relationship to Victim and Type of Evidence on Ratings of Evidence Believability	32
14 MANOVA Effects for Emotions Ratings.....	33

15	An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Negative Affect	34
16	Means for Statistically Significant Univariate Effects of Relationship to Victim (Excluding Covariates)	34
17	MANCOVA Effects for Guilt and Innocence Ratings	36
18	MANCOVA Effects for Nuance Variable Ratings.....	39
19	MANCOVA Effects for Faith in Legal Personnel Ratings	40
20	MANCOVA Effects for Quality of Evidence Ratings	42
21	MANCOVA Effects for Emotions Ratings	44
22	Means for Statistically Significant Univariate Effects of Relationship to Victim (Including Covariates)	45
23	Means for Statistically Significant Univariate Effects of Type of Exonerating Evidence (Excluding Covariates)	49
24	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Exoneree Guilt.....	51
25	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Innocence.....	52
26	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Certainty of Innocence	54
27	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Exoneree Blame for the Crime	55
28	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Exoneration Satisfaction.....	56

29	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Respect for the Judge’s Decision to Exonerate	58
30	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Believability of Evidence	59
31	An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Convincingness of Evidence	60
32	Means for Statistically Significant Univariate Effects of Apprehension of a True Perpetrator (Excluding Covariates)	61
33	Means for Statistically Significant Univariate Effects of Apprehension of a True Perpetrator (Including Covariates)	63

CHAPTER I

Introduction

Since 1989, there have been 1,916 known exonerations in the United States of innocent men and women who had been convicted of crimes they did not commit (The National Registry of Exonerations, 2016). Of course, this also means there have been nearly as many families affected by these wrongful convictions—families of both the exonerated individuals and of the victims. An Innocence Movement has gained momentum in recent years, especially as high-profile exonerations have garnered notoriety and many organizations have formed to prevent miscarriages of justice. These are positive changes, undoubtedly. However, during the process, the effect of exonerations on the crime victims' families and loved ones has been largely ignored. Having believed for many years that the person who committed the crime was properly punished, victims' loved ones may find it difficult to understand what went wrong in the original legal process after an exoneration, and, interestingly, whether or not the exoneree is truly innocent.

Gross and Matheson (2003) analyzed newspaper accounts of the reactions of crime victims' families to the exonerations of men—all of whom had been on death row—who they believed had harmed their relatives. In only seven of the 27 cases did the victims' relatives believe the defendant was actually innocent after the exoneration. Interestingly, DNA tests increased the likelihood—but did not guarantee—that the exonerees would be judged to be innocent. Gross and Matheson suggested there are several reasons for this phenomenon, including the difficulty of replacing the idea of a villain with that of a hero, preoccupation with finding the real perpetrator, trust in the

original authorities who investigated the case, and the effect of the strong opinions legal authorities held who determined the case's original outcome.

Certainly an unexpected exoneration can take an emotional toll on victims' families and loved ones, though there has been little research on this topic. Families of victims may feel overlooked as the media and community focus on and celebrate the wrongfully convicted individual (King, 2016). Some families also fear that the exoneree will blame them for the wrongful conviction and retaliate; they report that it is difficult to "flip a switch" and think more positively about the disposition of the exoneree (Irazola, Williamson, Stricker, & Niedzwiecki, 2013; King, 2016). There is also a lack of finality in these situations, particularly in cases where the true perpetrator is not brought to justice (Irazola et al., 2013). For all of these reasons, and perhaps more, exonerations can be a difficult and emotional experience for those directly affected by the exoneration.

Several studies also have examined the actual victims' experiences of wrongful convictions and found overwhelmingly negative responses. One victim referred to the exoneration as a more painful process than the actual victimization (Williamson, Stricker, Irazola, & Niedzwiecki, 2016). Many victims never believed exoneration was a possibility because they were assured that DNA tests would confirm the guilt of the defendant (Irazola et al., 2013). Though most victims interviewed by one research team said they were able to accept the exonerations, especially if there was DNA evidence, they noted it created strained relationships with family and friends who maintained the exoneree's guilt (Williamson et al., 2016). Surprisingly, this suggests that close family and friends may have a more difficult time changing their views about the exoneree than the actual victim does. One victim observed that "when the exoneration happens, the

exoneree becomes the victim, and I, the rape victim, become the offender” (Williamson et al., 2016, p. 165).

It makes sense that exonerations would have such a strong effect on victims and their families; however, it is less clear how the rest of society views wrongful convictions. In a public survey on attitudes toward wrongful convictions, citizens firmly recognized that wrongful convictions happen, perhaps often enough to warrant criminal justice reform (Zalman, Larson, & Smith, 2012). Demographic differences in attitudes were noted, such that non-whites found wrongful convictions to be much more likely than did white individuals (Zalman et al., 2012). A Canadian survey examining public perceptions of wrongful convictions showed differences in opinion in regards to exonerees: Some thought exonerees contributed to their own wrongful convictions, some thought exonerees must have done something to gain police attention in the first place, and still others thought exonerees were merely in the wrong place at the wrong time (Clow & Ricciardelli, 2014). It seems that some members of society may continue to place some amount of blame on exonerated individuals despite evidence suggesting their innocence, and an exoneration is not always enough to change society’s mind about the disposition of an exoneree.

When research compared perceptions of the wrongly convicted to guilty offenders and a control group, exonerees were stereotyped more negatively, elicited more negative emotions, and were held at a greater social distance than the control group, suggesting they were judged harshly despite their innocent status (Clow & Leach, 2013). These findings may be explained with the idea of “magical contagion,” meaning the stigma associated with offender status can spread to wrongfully convicted individuals as well

(Clow & Leach, 2013). Moreover, Westervelt and Cook (2010) adapted a theoretical framework that viewed the wrongfully convicted as victims—victims of state harm—who are often blamed for their suffering. All of these studies examining perceptions of exonerees taken together suggest that society recognizes the fact that wrongful convictions happen and that change should occur to prevent them, but exonerees still are viewed negatively.

Influences of Social Psychology

Several concepts from social psychology may help to explain why some individuals may not be quick to accept the results of an exoneration. *Belief perseverance* refers to the tendency for individuals to persist in an original belief even after receiving information that contradicts or disconfirms that belief. Studies have examined this phenomenon using a debriefing paradigm, in which participants are presented with information that leads them to form certain beliefs; then, participants are “debriefed” and told that the information they were given was untrue. Despite this new information, participants often continue to think their original beliefs have validity (Ross, Lepper, & Hubbard, 1975). It is posited that this is due to misinformation remaining available in memory and automatically affecting reasoning (Greitmeyer & Sagioglou 2015). Individuals have difficulty adapting their beliefs to new, contradictory information, similar to the findings from research on first impressions. More recently it has been proposed that people may actually adjust their beliefs when they learn they are false, but they tend to do so insufficiently (Greitmeyer & Sagioglou, 2015). In the case of exonerations, belief perseverance may partly explain why many victims’ family members have difficulty believing that the exoneree is actually innocent. Especially in such

surprising, unique circumstances, people will search for adequate causal explanations that fit with their own original beliefs (Ross et al., 1975). Additionally, information that is consistent with a first impression tends to be attributed to a person's disposition, whereas information that is contradictory to the first impression is usually attributed to situations or chance. Thus, for example, victims' family members may originally view an exoneree as a criminal because they believed he or she harmed their loved one; however, they may attribute the exoneration to random chance or technicalities in the legal process instead of the exoneree being truly innocent.

Emotional relevance can also make a large difference in how perceptions are formed. *Hedonic relevance* refers to the manner in which attributions made by a perceiver are affected when the perceiver is directly involved in the action, especially when the consequences are serious; perceivers' judgments are more confident and more extreme than they would have been were they not personally affected by the event. Experimental procedures have been used to examine this process (Jones & DeCharms, 1957). Groups of participants worked on problem-solving tasks, and a confederate in each group was said to have failed at the tasks. For half the groups, only the failing confederate did not receive the promised reward, and for the remaining groups the failure meant that no one in the group received the reward, thus manipulating personal relevance. At the end of the experiment, group members made trait ratings of the failing confederate, and the confederate was more negatively evaluated when his failure prevented others from attaining the reward. Therefore, different conclusions are drawn about the same behavior when the behavior does or does not have personal relevance for the perceiver (Jones & DeCharms, 1957). Behavior does not hold a constant meaning to

all individuals—instead, the attribution of character traits to the person demonstrating the behavior depends on its significance to the perceiver as well as that person's own values and goals (Jones & DeCharms, 1957).

When personally affected by behaviors, perceivers will overestimate dispositional factors and underestimate contextual factors (Actforlibraries.org, 2016; Maselli & Altrocchi, 1969). This suggests that the way a perceiver thinks of someone depends on how involved he or she is in a perceived situation, particularly when the situation is of high importance. How one attributes intentions and characteristics are influenced by the relationship of the observed person's actions to the perceiver's needs and values (McGillis, 1979). Demonstrating this, researchers conducted an experiment that used hypothetical emotional events in which participants were depicted as either actors or observers, and they rated the degree that the actors or observers caused the events. Results reflected the hedonic relevance of the event, such that participants were reluctant to attribute causality to themselves for negative situations (Cunningham, Starr, & Kanouse, 1979). In the case of exonerations, victims' family members are usually highly involved in the situation, and thus are more likely to make certain dispositional attributions about the exoneree than someone who is less involved, such as, for instance, an acquaintance or stranger.

Similarly, Walster's 1966 theory of self-protective, or *defensive, attribution* posits that perceivers confronted by someone else's misfortune are motivated to defend themselves against the threat that they too could endure the same misfortune; thus, to minimize this possibility, people hold the actor uniquely responsible for the predicament (Lowe & Medway, 1976). The theory also proposes that the more severe the misfortune,

the more personal responsibility is assigned to the actor. In a study demonstrating this theory, participants heard about an accident in which a vehicle rolled down a hill. They assigned more personal responsibility to the car owner when the vehicle caused more severe consequences (e.g., injury to a bystander, major vehicle damage) than minor damage (Lowe & Medway, 1976). In regards to exonerations, victims' families may still find the exoneree to be responsible for the crime because the thought that an innocent person could be found guilty is threatening and has severe consequences, thus it *must* be the exoneree's fault in some way.

Individual Differences

Just World Beliefs. Unsurprisingly, people want the world to be just and fair, such that they will be rewarded if they invest time and energy into achieving their goals; however, reality does not always align with these expectations. Individuals differ in the extent to which they believe the world is just, which in turn shapes how they view the world. Some people have a strong desire to believe in a just world in order to function adaptively, even in the face of negative events (Corey, Troisi, & Nicksa, 2015). A Just World Scale measures individual differences in just world beliefs (Rubin & Peplau, 1975). Individuals high in a belief in a just world (BJW) are more likely to believe that people “get what they deserve” and to hold negative attitudes toward underprivileged groups. Additionally, those high in BJW may derogate victims even without evidence of the victim's culpability; however, when the victim's suffering is clearly caused by someone else they will try to restore justice by taking a stand against the actual culprit (Rubin & Peplau, 1975). Those with high BJW evidently attempt to justify situations in order to produce what they perceive to be a form of justice. Belief in a just world has

been well-studied, and research has progressed to examine other factors related to BJW. For example, beliefs in an *unjust* world may be related to defensive coping, anger, and perceived future risks (Lench & Chang, 2007). The effects of BJW also differ depending on the extent to which the beliefs are related with the self or with others. In particular, when individuals believe the world is just for themselves it encourages their decision to forgive, but if individuals believe the world is just for others, not for themselves, it encourages negative responses (Bartholomaeus & Strelan, 2016). These negative responses may be characterized by motivation to punish wrongdoers and the expression of harsh social attitudes (Strelan & Sutton, 2011). Additionally, victim-blaming research has demonstrated that the Just World hypothesis is often utilized by individuals to distance themselves from a victim (Piatak, 2015). Finally, BJW may affect perceptions of ingroups versus outgroups, such that individuals high in BJW attribute less blame for negative events and prescribed less severe punishment to ingroup members than outgroup members (Halabi, Statman, & Dovidio, 2015). This continued research has added depth and nuance to psychology's understanding of how beliefs in a just world can influence a perceiver's reaction to and interpretation of unjust situations. Nevertheless, this individual difference has not yet been utilized in understanding reactions to wrongful convictions.

Intellectual Humility. Recent research has examined individual differences in the extent to which people view their opinions or beliefs as subject to further consideration. This is known as *general intellectual humility*, whereas *specific intellectual humility* refers to a certain view on a particular topic. Intellectual humility differs from merely being humble, as even humble individuals may not be willing to consider views that call

their own views into question (Hoyle, Davisson, Diebels, & Leary, 2016). The Specific Intellectual Humility Scale was recently developed with excellent psychometric values (see Hoyle et al., 2016) as a companion to the Comprehensive Intellectual Humility Scale, which examines intellectual humility as a general individual difference (Krumrei-Mancuso & Rouse, 2016). This newer area of research could add important clarification to understanding how victims' family members react to exonerations, depending on their levels of intellectual humility. It is possible that those who are high in intellectual humility would be more likely to change their attitudes about an exoneration and to accept the exoneration, as they are more inclined to believe their views may change with new information.

CHAPTER II

Current Study

The current study aimed to identify differences in reactions to exonerations between crime victims' family members and crime victims' acquaintances, particularly in regard to the acceptance of the exonerations. Though there is minimal research on this topic, previous studies have found that many victims' family members have difficulty accepting that an exoneree is truly innocent despite significant evidence. This study intended to examine the effect of relationship to the crime victim on one's reaction to an exoneration. Additionally, the study factored in the effect of conclusiveness of evidence that led to the exoneration—DNA evidence versus non-DNA evidence—due to the assumption that it would be harder to persevere in maintaining previous beliefs of guilt if there is concrete, scientific evidence disproving them. Furthermore, the study manipulated whether or not the true perpetrator of the crime was found post-exoneration, as it likely adds additional certainty to an exoneration if an actual perpetrator is identified. It was expected that: 1) acquaintances would be more likely to accept an exoneration and to react less strongly to it than family members; specifically, guilt ratings would be lower and believability of the exoneration would be higher, 2) DNA evidence that leads to an exoneration would cause participants to find the exoneree less guilty and the exoneration to be more believable than non-DNA evidence, and 3) participants would find exonerees less guilty and the exonerations more believable when the true perpetrator is found. Individual differences were also expected to influence the way participants accepted and reacted to the exonerations. In particular, it was hypothesized 4) that those high in belief in a just world would view the exonerees as guiltier and the exonerations

less believable, and 5) those high in intellectual humility would find exonerees less guilty and their exonerations more believable.

CHAPTER III

Method

Design

The study utilized a 2 (Relationship to victim: family member, neighbor) x 2 (Type of exonerating evidence: DNA, non-DNA) x 2 (True perpetrator identified: yes, no) mixed factor design. The type of exonerating evidence and true perpetrator manipulations were within-subjects, maximizing the likelihood that any variance in responses to the vignettes on these two variables would not be due to individual differences and increasing the likely power of the analyses. The relationship to the victim manipulation was a between-subjects variable, deployed in this manner to decrease the number of vignettes for each participant, and thus the likelihood that participants would lose interest in the tasks of the study.

Participants

Participants were recruited from Sam Houston State University's Psychology Experimental Research Participation (PeRP) system ($n = 233$). The participants were undergraduates from Sam Houston State University participating in research to fulfill course requirements. They received two credits for their participation in the study. Thirty-two individuals were excluded from the study because they incorrectly answered at least one of the manipulation checks. Of those whose data were retained for further inspection, in total, 27% were male and 73% were female with ages ranging from 18 to 42 ($M = 20$, $SD = 3.76$). Overall, 39% of the participants were Caucasian, 27% were Hispanic/Latino, 25% were African American, 4% were Asian/Pacific Islander, 1% identified as American Indian/Alaskan Native, and 3% identified as Other. Politically,

13% were Liberal, 29% were Slightly Liberal, 11% were Slightly Conservative, and 15% were Conservative. Thirty-two percent of participants declined to identify a political affiliation. The percentage breakdown of gender, race/ethnicity, and political affiliation by participant type are listed in Table 1.

Table 1

Participant Demographics

		Percentage
Gender	Male	27%
	Female	73%
Race/Ethnicity	Caucasian	39%
	Hispanic/Latino	27%
	African American	25%
	Asian/Pacific Islander	4%
	American Indian/Alaskan Native	1%
	Other	3%
Political Affiliation	Liberal	13%
	Slightly Liberal	29%
	Slightly Conservative	11%
	Conservative	15%
	None of the above	32%

Materials

Vignettes manipulated the independent variables of (1) relationship to the victim, (2) type of exonerating evidence, and (3) whether or not the true perpetrator of the crime was found. In a between-subjects manipulation, participants considered scenarios of defendants who were found guilty of a crime and then later exonerated, imagining themselves to be either siblings (family member group) or neighbors (acquaintance group) of the crime victims. In addition, in within-subjects manipulations, each participant responded to four different vignettes that varied in the type of exonerating evidence presented (DNA evidence or eyewitness retraction) and whether the true perpetrator was found or remained at-large. Each vignette offered details about (a) the crime, (b) the defendant, (c) the first trial in which the defendant was found guilty, and (d) the circumstances surrounding the exoneration at the second trial. These vignettes were based on real cases taken from The National Registry of Exonerations (2016), but with all identifying information changed.

A fifth vignette provided an offset control group. In that scenario, a defendant was found guilty of a crime during his first trial, with no second trial or exoneration. Questions followed each of the five vignettes. (See Appendix C). Participants were asked to rate on scales of 1 to 10, (a) the extent they found the exoneree guilty (“1” meaning “*not at all guilty*” and “10” meaning “*completely guilty*”), (b) the extent they found the exoneree innocent (“1” meaning “*not at all innocent*” and “10” meaning “*completely innocent*”), (c) their certainty about the exoneree’s innocence (“1” meaning “*not at all sure/certain*” and “10” meaning “*completely sure/certain*”), (d) the extent to which the exoneree was to blame for the crime (“1” meaning “*not at all to blame*” and

“10” meaning “*completely to blame*”), (e) the extent to which the exoneree was deserving of his original conviction (“1” meaning “*not at all deserving*” and “10” meaning “*completely deserving*”), (f) the police’s competency in solving the case (“1” meaning “*not at all competent*” and “10” meaning “*completely competent*”), (g) the extent to which they respected the judge’s decision to issue the exoneration (“1” meaning “*completely disrespect*” and “10” meaning “*completely respect*”), (h) their feelings of satisfaction with the exoneration (“1” meaning “*not at all satisfied*” and “10” meaning “*completely satisfied*”), (i) the extent to which they found the exonerating evidence convincing (“1” meaning “*not at all convincing*” and “10” meaning “*completely convincing*”), and (j) the extent to which they found the exonerating evidence believable (“1” meaning “*not at all believable*” and “10” meaning “*completely believable*”). They also rated how they were currently feeling on several mood adjectives, (“distressed,” “happy,” “upset,” “unsettled,” “comfortable,” and “enthusiastic”) on a scale of 1 to 5 (“1” meaning “*very slightly*” and “5” meaning “*extremely*”) that was adapted from the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), in order to gauge emotional reactions to each scenario. The rating scales measuring the exonerees’ guilt and innocence were designed to replicate the results of Gross and Matheson (2003) and were major targets of the analyses. Other dependent measures, such as certainty, blame for the original conviction, deservingness of the original conviction, and satisfaction toward the exoneration, were intended to provide nuance to participants’ reactions to exonerations (and are thus referred to as “nuance variables” throughout the Results section). The measures of believability and convincing nature of exonerating evidence were intended to measure the quality of the

evidence. Finally, the variables of competence of police in the original conviction and respect for the judge's decision to exonerate measured participants' faith in major legal personnel in regards to exonerations.

Manipulation checks—multiple choice questions about specific details from the case—also tested participants' attention and understanding of each vignette. Participants were asked to identify their relationship to the victim, the type of evidence that led to exoneration, and the true perpetrator of the crime (and instructed to write “none” if a true perpetrator was not apprehended) for each vignette. Additionally, subsequent to completing the rest of the materials, participants were asked if about their experiences with violent crime; specifically, if they had personally been a victim, if a family member had been a victim, if a friend had been a victim, or if an acquaintance had been a victim. These questions were intended to ascertain if personal experience with violent crime was associated with participants' responses to the vignettes.

At the start of the procedure, participants were provided demographic information questionnaires, assessing their gender, age, ethnicity, and political views. Before reading and responding to their five vignettes, participants also completed two measures of individual differences (described below). Subsequent to responding to the vignettes, participants answered questions about their personal experiences with violent crime.

The Just World Scale. This 20-item inventory assesses the extent to which individuals view the world as a just place, as an alignment between a person's merit and outcomes. Participants indicated their agreement with individual items on a 6-point scale ranging from 1 (“*completely disagree*”) to 6 (“*completely agree*”). The creators of the scale (Rubin & Peplau, 1975) reported high internal consistency of .80; in this

administration, Cronbach's alpha was .54. There has been significant research conducted on the Just World Scale. Though some researchers have questioned whether or not the scale is multidimensional rather than unidimensional, and the implications of studying orthogonal worldviews (i.e., just and unjust), the vast majority of studies examining beliefs in a just world continue to use the scale by Rubin and Peplau (Furnham, 2003).

Comprehensive Intellectual Humility Scale. This 22-item scale examines the extent to which individuals are humble with regard to the way they acquire and apply knowledge. For example, someone high in intellectual humility is likely to view his or her own knowledge as limited and imperfect. Participants indicated their agreement with individual items on a 5-point scale ranging from 1 (*“strongly disagree”*) to 5 (*“strongly agree”*). The creators of the scale (Krumrei-Mancuso & Rouse, 2016) reported a coefficient alpha for the full scale of .88; in this administration, Cronbach's alpha was .77. The measure also demonstrated appropriate construct, convergent, and discriminant validity with measures of similar concepts, such as general humility and open-mindedness, but intellectual humility was not associated with low self-regard or lack of self-confidence (Krumrei-Mancuso & Rouse, 2016).

Procedure

Participants were recruited for the study using Sam Houston State University's PeRP system. They signed up for specific time slots to attend a study session. On the designated day and time, participants arrived to a pre-arranged mid-size classroom on campus. They received the consent form and the researcher explained the content of the form. Participants signed the forms, and their names were used only to assign PeRP credit. If participants agreed to participate, they received the materials packet, and they

were randomly assigned to either the family or acquaintance condition. Participants first completed a demographics questionnaire (see Appendix A), followed by the individual differences questionnaires (see Appendix B), followed by the vignettes (see Appendix C for “neighbor” vignettes and Appendix D for “sibling” vignettes), and followed by the experiences with violent crime questions (see Appendix E). The order in which the vignettes were presented in the packets was counter-balanced in order to control for order effects. In order to promote careful responding, participants were asked to remain in the classroom until all other participants had finished their packets. Once all participants completed their packets, they were debriefed about the study and dismissed.

CHAPTER IV

Results

The data were examined using 2 (Relationship to victim: family member, neighbor) x 2 (Type of exonerating evidence: DNA, non-DNA) x 2 (True perpetrator identified: yes, no) mixed factor Multivariate Analyses of Variance (MANOVAs) and Multivariate Analyses of Covariance (MANCOVAs) that used the average scores on the (a) Just World Scale and (b) Comprehensive Intellectual Humility Scale as covariates. The MANCOVA analyses assessed the role of individual differences in the results. The MANOVA and MANCOVA analyses each focused on a coherent grouping of dependent variables (i.e., guilt and innocence, nuance variables, faith in legal personnel, quality of evidence, and emotional reactions). The results of the MANOVA and MANCOVA analyses are presented in tables following their discussion in the text. All univariate results discussed followed up significant multivariate results and are reported under headings for each manipulated variable. All significant interactions are also reported. Correlations among the continuous variables (i.e., ratings of guilt, innocence, certainty, blameworthiness, deservedness, competence of police, respect toward the judge's decision, satisfaction toward the exoneration, convincingness of exoneration evidence, and believability of exoneration evidence, as well as ratings of emotions) and individual difference scores (belief in a just world and intellectual humility) were also examined.

Correlations

The bivariate relations of the individual differences (intellectual humility and belief in a just world) with the dependent measures justified their inclusion in the design. (See Table 2.) Belief in a just world was correlated with participants' ratings of the

exonerees' innocence, $r = .26, p < .001$, their certainty about exonerees' innocence, $r = .28, p < .001$, and the believability of the exonerating evidence, $r = .16, p = .026$. Those high in belief in a just world also reported more positive emotions, $r = .18, p = .01$, and less negative emotions, $r = -.27, p < .001$, toward the exoneration. To the extent participants recognized that their beliefs might be wrong (and thus were high in intellectual humility), they found exonerees less to blame for their original convictions ($r = -.18, p = .01$), considered them to be less deserving of the original conviction ($r = -.15, p = .04$), and felt more satisfied with the exoneration ($r = .16, p = .02$). Participants higher in intellectual humility were also more influenced by the exonerating evidence, finding it more convincing ($r = .19, p = .01$) and believable ($r = .15, p = .04$). Given these relationships, the following discussions of the effects of the manipulated variables all conclude with MANCOVAs that assess the extent to which belief in a just world and/or intellectual humility moderate the effects that emerge from the MANOVAs.

Table 2

Individual Difference Correlations on Dependent Variables

		Belief in a Just World	Intellectual Humility
Individual Difference Measure	Guilt	-.11	-.13
	Innocence	.26**	.11
	Certainty	.28**	.06
	Blame	-.09	-.18**
	Deservingness	-.09	-.15**
	Competence of Police	.06	-.12
	Respect for Judge	.10	.11

(continued)

	Belief in a Just World	Intellectual Humility
Satisfaction	.13	.16*
Convincingness of Evidence	.12	.19**
Believability of Evidence	.16*	.15**
Positive Affect	.18*	.13
Negative Affect	-.27**	-.10

Note. A significance level of $< .01$ is marked by two asterisks (**). A significance level of $< .05$ is marked by one asterisk (*).

Relationship to Victim

Main effects and interactions involving the between-subjects manipulation of participants' relationship to the victim—either as a family member or neighbor—are discussed in this section. Significant effects of the other manipulated variables and covariates will be examined in subsequent sections of this report.

Guilt and Innocence. As Table 3 shows, the MANOVA obtained a multivariate main effect of participants' relationships to the victims that revealed that family members had stronger opinions about exonerees' guilt and innocence than their neighbors did, $F(2, 198) = 4.19, p = .04, \eta^2_p = .02$. Follow-up univariate analyses found that exonerees were judged to be guiltier by victims' family members ($M = 3.10$) than by their acquaintances ($M = 2.48$), $F(1, 198) = 8.41, p = .004, \eta^2_p = .04$. Oppositely, but logically, exonerees were judged to be more innocent by acquaintances ($M = 7.88$) than by family members ($M = 7.33$), $F(1, 198) = 4.76, p = .030, \eta^2_p = .02$.

However, as Table 3 indicates, these main effects were moderated by significant interactions of participants' relationship to the victim with both the type of evidence that led to the exoneration and whether or not the actual perpetrator was identified. At the univariate level, the type of exonerating evidence moderated the effects of relationship to

the victim on the ratings of both guilt, $F(1, 198) = 5.82, p = .017, \eta^2_p = .03$, and innocence, $F(1, 198) = 5.92, p = .016, \eta^2_p = .03$.

The interaction of type of evidence and relationship to the victim on ratings of guilt is shown in Table 4. Family members continued to believe that an exoneree was much guiltier than neighbors did when the exoneration resulted from a witness's recantation, $t(199) = 3.54, p < .001, d = .50$, but they did not cling to such harsher judgments when more conclusive DNA evidence was involved; after a DNA revocation, the participants' relationship to the victim had a much smaller, nonsignificant effect on their ratings of guilt, $t(199) = 1.12, p = .264, d = .15$. Consistent with this pattern, family members were more influenced by the type of evidence that led to the exoneration than neighbors were; both the family members, $t(96) = -8.17, p < .001, d = .75$, and the neighbors, $t(103) = -3.77, p < .001, d = .48$, thought that exonerees remained guiltier when non-DNA, rather than DNA, evidence was involved, but the type-of-evidence effect size was higher for family members than for neighbors.

Table 3

MANOVA Effects for Guilt and Innocence Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	.73	35.67	.00	.27
	True Perpetrator	.58	70.29	.00	.42
	Evidence Type x Relationship to Victim	.96	3.66	.03	.04

(continued)

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
	True Perpetrator x Relationship to Victim	.96	4.30	.02	.04
	Evidence Type x True Perpetrator	.89	12.17	.00	.11
Between- Subjects	Relationship to Victim	.96	4.19	.02	.04

Note. Bolded values are statistically significant. All degrees of freedom are (2, 197).

Table 4

An Interaction of Relationship to Victim and Evidence Type on Ratings of Exoneree Guilt

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	2.38 _c (2.02)	3.81 _{ac} (1.79)
	Acquaintance	2.09 _b (1.70)	2.92 _{ab} (1.76)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

A complementary pattern was obtained on participants' ratings of the exonerees' innocence, as Table 5 shows. Both family members, $t(96) = 6.94, p < .001, d = .71$, and the victims' acquaintances, $t(102) = 3.23, p = .002, d = .37$, judged exonerees to be more innocent when DNA evidence supported their exoneration, but the type of evidence had a larger effect on family members than on neighbors. Indeed, when DNA evidence was involved, family members did not reliably differ from acquaintances in their judgments of innocence, $t(199) = -.55, p = .586, d = .07$ —but when a witness's revocation was

involved, family members thought exonerees to be much less innocent than neighbors did, $t(198) = -3.36, p = .001, d = .48$.

Table 5

An Interaction of Relationship to Victim and Evidence Type on Ratings of Innocence

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	8.11 _b (2.39)	6.54 _{bc} (2.00)
	Acquaintance	8.28 _a (2.17)	7.50 _{ac} (2.02)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

As Table 3 indicates, the apprehension of a true perpetrator also moderated the effects of one's relationship to the victim on ratings of guilt and innocence, $F(2, 197) = 4.30, p = .015, \eta^2_p = .04$. At the univariate level, an interaction on ratings of guilt, $F(1, 198) = 8.35, p = .004, \eta^2_p = .04$ (see Table 6), resulted from the fact that family members and neighbors did not much differ in their judgments of an exoneree's guilt when the true perpetrator was apprehended, $t(199) = .96, p = .38, d = .14$, but family members thought exonerees *were* guiltier when the crime remained unsolved, $t(199) = 3.63, p < .001, d = .51$. Both the victims' family members, $t(96) = -9.07, p < .001, d = .86$, and the victims' acquaintances, $t(103) = -6.68, p < .001, d = .68$, judged exonerees to be less guilty when the actual perpetrator was apprehended than when he was not, but—once again, as was the case with the type of evidence manipulation—this manipulation had a stronger effect on family members than on neighbors.

Table 6

An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Exoneree Guilt

		True Perpetrator	
		Apprehended	Not Apprehended
Relationship to Victim	Family	2.20 _c (1.83)	3.99 _{ac} (2.09)
	Acquaintance	1.98 _b (1.40)	3.03 _{ab} (1.66)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

A similar pattern was evident in participants' ratings of an exoneree's innocence, $F(1,198) = 4.14, p = .043, \eta^2_p = .02$. (See Table 7.) When the crime remained unsolved, neighbors found exonerees more innocent than did family members, $t(199) = -3.03, p = .003, d = .33$, but when a true perpetrator was identified, there was no difference between the two groups, $t(198) = -.769, p = .443, d = .03$. Family members thought exonerees to be more innocent when a true perpetrator was found, $t(96) = 7.90, p < .001, d = .80$, and this was also the case for the acquaintances, $t(102) = 5.07, p < .001, d = .55$.

All in all, then, family members were especially likely to think exonerees to be guiltier and less innocent than acquaintances did when the evidence at hand was less conclusive and there was more room for doubt. Family members found exonerees guiltier and less innocent when non-DNA evidence existed, as well as when a true perpetrator remained at large.

Table 7

An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Innocence

		True Perpetrator	
		Apprehended	Not Apprehended
Relationship to Victim	Family	8.22 _b (2.31)	6.43 _{ab} (2.09)
	Acquaintance	8.45 _c (2.01)	7.33 _{ac} (2.11)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

Nuance Variables. As Table 8 shows, a MANOVA that examined the nuance measures obtained a multivariate main effect of participants' relationships to the victims that revealed that, compared to their neighbors, family members had stronger opinions about exonerees' blame for the original conviction, deservingness of the original conviction, satisfaction with the exoneration, and certainty toward the exoneration, $F(4, 196) = 7.70, p < .001, \eta^2_p = .14$. Univariate analyses showed that family members of victims ($M = 2.83$) believed the exoneree was more to blame for the crime than did neighbors ($M = 2.26$), $F(1, 198) = 9.83, p = .002, \eta^2_p = .05$. Additionally, victims' siblings ($M = 4.16$) found the exonerees to be more deserving of their original convictions than did the victims' neighbors ($M = 3.28$), $F(1, 198) = 7.40, p = .007, \eta^2_p = .04$. Further, victims' neighbors ($M = 7.58$) felt significantly more satisfied with the exoneration than did victims' family members ($M = 6.11$), $F(1, 198) = 28.01, p < .001, \eta^2_p = .12$, and they were more certain ($M = 7.27$) that the exonerees were truly innocent than family members were ($M = 6.76$), $F(1, 198) = 3.94, p = .05, \eta^2_p = .02$.

Table 8

MANOVA Effects for Nuance Variable Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	.61	30.86	.00	.39
	True Perpetrator	.46	56.52	.00	.54
	Evidence Type x Relationship to Victim	.97	1.69	.15	.03
	True Perpetrator x Relationship to Victim	.87	7.03	.00	.13
	Evidence Type x True Perpetrator	.87	7.42	.00	.13
Between-Subjects	Relationship to Victim	.86	7.70	.00	.14

Note. Bolded values are statistically significant. All degrees of freedom are (4, 196).

The MANOVA also revealed an interaction between one's relationship to the victim and whether or not a true perpetrator was apprehended on the nuance variables, $F(4, 196) = 7.03, p < .001, \eta^2_p = .13$. Specifically, this was the case for ratings of exoneration satisfaction, $F(1, 199) = 26.23, p < .001, \eta^2_p = .12$. As Table 9 shows, neighbors were always more satisfied with the exoneration than family members were, but this effect was notably stronger when the crime remained unsolved, $t(199) = -7.07, p < .001, d = .99$, than when the true perpetrator was apprehended, $t(199) = -2.21, p = .029, d = .31$. Indeed, everyone was more satisfied when a true perpetrator was identified, but this effect was much stronger for family members, $t(96) = 11.42, p < .001, d = 1.08$, than for mere acquaintances, $t(103) = 4.78, p < .001, d = .46$.

Table 9

An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Exoneration Satisfaction

		True Perpetrator	
		Apprehended	Not Apprehended
Relationship to Victim	Family	7.38 _{ac} (2.27)	4.85 _{bc} (2.42)
	Acquaintance	8.08 _{ad} (2.20)	7.09 _{bd} (2.08)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

In summary, family members had stronger and harsher opinions about exonerees' blame for the original conviction, deservingness of the original conviction, satisfaction with the exoneration, and certainty toward the exoneration than their neighbors did. Identification of a true perpetrator was also more influential for family members than neighbors when rating satisfaction with an exoneration.

Faith in Legal Personnel. A MANOVA did not yield a multivariate effect of relationship to the victim on ratings of competency of the police in solving the case in the first trial or respect for the judge's decision to exonerate (see Table 10), $F(2, 198) = 1.19$, $p = .31$, $\eta^2_p = .01$. (The type of evidence that led to an exoneration and the apprehension of an actual perpetrator did affect these ratings, and those effects are described below.)

Table 10

MANOVA Effects for Faith in Legal Personnel Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	.83	19.73	.00	.17
	True Perpetrator	.77	29.07	.00	.23
	Evidence Type x Relationship to Victim	1.0	.46	.63	.01
	True Perpetrator x Relationship to Victim	.98	2.21	.11	.02
	Evidence Type x True Perpetrator	.97	3.54	.03	.04
Between-Subjects	Relationship to Victim	.99	1.19	.31	.01

Note. Bolded values are statistically significant. All degrees of freedom are (2, 198).

Quality of Evidence. As shown in Table 11, another MANOVA revealed that victims' neighbors found exonerating evidence to be of a higher quality than family members did, $F(2, 197) = 6.97, p < .001, \eta^2_p = .07$. Follow-up univariate analyses showed that victims' acquaintances ($M = 7.66$) found the evidence that exonerated the defendant to be more convincing than did the victims' family members ($M = 7.09$), $F(1, 198) = 6.09, p = .01, \eta^2_p = .03$. Similarly, the acquaintances ($M = 7.85$) found the exonerating evidence to be more believable than did the family members ($M = 7.09$), $F(1, 198) = 11.08, p < .001, \eta^2_p = .05$.

Table 11

MANOVA Effects for Quality of Evidence Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	.46	114.56	.00	.54
	True Perpetrator	.74	35.44	.00	.27
	Evidence Type x Relationship to Victim	.97	3.39	.04	.03
	True Perpetrator x Relationship to Victim	.97	2.66	.07	.03
	Evidence Type x True Perpetrator	.92	8.05	.00	.08
Between-Subjects	Relationship to Victim	.93	6.97	.00	.07

Note. Bolded values are statistically significant. All degrees of freedom are (2, 197).

However, the influence of one's relationship to the victim on judgments of the quality of the exoneration evidence was also moderated by the type of evidence that was involved, $F(2, 197) = 3.39, p = .036, \eta^2_p = .03$. Table 12 displays the means for the interaction on ratings of the evidence's convincingness, $F(1, 198) = 4.81, p = .029, \eta^2_p = .02$. Family members found DNA evidence to be just as convincing as neighbors did, $t(199) = -.58, p = .56, d = .08$, but they judged a witness's revocation to be much less convincing than the neighbors did, $t(199) = -2.94, p < .01, d = .42$. Everyone found DNA evidence to be more convincing than the witness revocation, but this effect was stronger among family members, $t(96) = -7.55, p < .001, d = 1.44$, than among acquaintances condition, $t(103) = 5.12, p < .001, d = .93$. DNA was clearly convincing, but less

conclusive evidence was far less convincing for victims' family members than for their neighbors.

Table 12

An Interaction of Relationship to Victim and Evidence Type Interaction on Ratings of Convincingness of Exonerating Evidence

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	8.49 _a (1.77)	5.69 _{ac} (2.11)
	Acquaintance	8.64 _b (1.90)	6.63 _{bc} (2.41)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

A similar pattern occurred for ratings of the believability of the evidence, $F(1,198) = 6.82, p = .01, \eta^2_p = .03$, and means are presented in Table 13. Everyone found DNA evidence to be believable, and family members did not much differ from their neighbors in this regard, $t(199) = -1.30, p = .194, d = .18$. However, family members found a witness revocation to be less believable than neighbors did, $t(198) = -3.78, p < .001, d = .53$, and the type-of-evidence manipulation had a larger impact on their judgments, $t(96) = 12.31, p < .001, d = 1.42$, than on those of their acquaintances, $t(102) = 8.85, p < .001, d = .99$.

Table 13

An Interaction of Relationship to Victim and Type of Evidence on Ratings of Evidence Believability

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	8.48 _c (1.71)	5.69 _{ac} (2.19)
	Acquaintance	8.80 _b (1.75)	6.87 _{ab} (2.23)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

Thus, when exonerating evidence did not involve DNA, family members generally judged it to be of poorer quality than their neighbors did. Everyone found DNA evidence to be convincing and believable, but family members were more influenced by the type of evidence that led to an exoneration than their acquaintances were.

Emotional Reactions. The MANOVA on participants' mood ratings demonstrated that victims' family members experienced more negative emotions than neighbors did, $F(2, 195) = 36.87, p < .001, \eta^2_p = .27$ (see Table 14). The follow-up univariate analyses showed that family members experienced more negative emotions ($M = .44$) after an exoneration than neighbors did ($M = -.41$), $F(1, 196) = 70.63, p < .001, \eta^2_p = .27$, and, in a like manner, neighbors felt more positive emotions ($M = .26$) than family members did ($M = -.29$), $F(1, 196) = 29.74, p < .001, \eta^2_p = .13$.

Table 14

MANOVA Effects for Emotions Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	1.0	.02	.98	.00
	True Perpetrator	1.0	.03	.97	.00
	Evidence Type x Relationship to Victim	.99	.99	.38	.01
	True Perpetrator x Relationship to Victim	.93	7.59	.00	.07
	Evidence Type x True Perpetrator	1.0	.00	.99	.00
Between-Subjects	Relationship to Victim	.73	36.87	.00	.27

Note. Bolded values are statistically significant. All degrees of freedom are (2, 195).

Identification of the actual perpetrator also moderated these effects of one's relationship to the victim on affect, $F(2, 195) = 7.59, p < .001, \eta^2_p = .07$, and the univariate analyses obtained the interaction on ratings of negative emotions, $F(1, 196) = 10.88, p = .001, \eta^2_p = .05$. (See Table 15.) Family members experienced significantly more negative emotions than did acquaintances when the true perpetrator was identified, $t(196) = 5.64, p < .001, d = .80$, but the differences between them and their neighbors were even greater when the crime remained unsolved, $t(197) = 9.18, p < .001, d = 1.30$. That being said, both the family members, $t(95) = -2.20, p < .03, d = .23$, and their neighbors, $t(101) = 2.49, p = .014, d = .23$, experienced more negative affect when the case was unsolved than when the actual perpetrator was identified.

Table 15

An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Negative Affect

		True Perpetrator	
		Apprehended	Not Apprehended
Relationship to Victim	Family	.34 _{ac} (.91)	.53 _{bc} (.75)
	Acquaintance	-.32 _{ad} (.75)	-.49 _{bd} (.82)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$. The means are presented as z -scores.

As a summary, Table 16 lists the means involved in the statistically significant univariate effects of the relationship to the victim variable. The type of evidence that led to the exoneration and the identification of the actual perpetrator moderated some of these effects, but the manipulation of the participants' relationship to the victim was clearly consequential.

Table 16

Means for Statistically Significant Univariate Effects of Relationship to Victim (Excluding Covariates)

		Relationship to Victim	
		Family	Acquaintance
Univariate Effects	Guilt	3.10	2.48
	Innocence	7.33	7.88
	Blame	2.83	2.26

(continued)

	Relationship to Victim	
Deservingness	4.16	3.28
Satisfaction	6.11	7.58
Certainty	6.76	7.27
Convincingness	7.09	7.66
Believability	7.09	7.85
Negative Affect	.44	-.41
Positive Affect	-.29	.26

Note. Means of the family members and acquaintances differ by at least $p < .05$. Affect ratings are presented as z -scores.

Individual Differences. On the whole then, the participants' imagined connections to the victims substantially influenced their reactions to the exonerations. MANCOVAs assessed the influence of belief in a just world and intellectual humility on these patterns and found that most, but not all, of them were still evident when those individual differences were taken into account.

As Table 17 shows, belief in a just world (but not intellectual humility) was reliably associated with participants' judgments of exonerees' guilt or innocence, $F(2, 198) = 8.84, p = .000, \eta^2_p = .32$. With the individual differences taken into account, the multivariate main effect of relationship to the victim, and its interactions with both the type of evidence and the identification of a true perpetrator, were still evident. Interestingly, however, at the univariate level, controlling for participants' belief in a just world eliminated the main effect of relationship to the victim on ratings of innocence but not on ratings of guilt: Family members ($M = 3.05$) found exonerees to be guiltier than

acquaintances did ($M = 2.24$), $F(1, 192) = 5.84$, $p = .02$, $\eta^2_p = .03$, but the two groups did not differ in their judgments of exoneree's innocence.

Table 17

MANCOVA Effects for Guilt and Innocence Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	.99	1.18	.33	.01
	Evidence Type x Belief in a Just World	.98	1.88	.16	.02
	Evidence Type x Intellectual Humility	.99	1.15	.32	.01
	True Perpetrator	.99	.98	.38	.01
	True Perpetrator x Belief in a Just World	1.0	.20	.82	.00
	True Perpetrator x Intellectual Humility	1.0	.20	.82	.00
	Evidence Type x Relationship to Victim	.96	4.42	.01	.04
	True Perpetrator x Relationship to Victim	.97	3.25	.04	.03
	Evidence Type x True Perpetrator	.99	.58	.56	.01
Between-Subjects	Relationship to Victim	.97	3.09	.05	.03
	Belief in a Just World	.92	8.84	.00	.32
	Intellectual Humility	.99	1.37	.26	.01

Note. Bolded values are statistically significant. All degrees of freedom are (2, 191).

In contrast, the interaction of relationship to victim with the type of evidence that led to the exoneration was obtained at the univariate level on the ratings of both guilt, $F(1, 192) = 7.41, p < .01, \eta^2_p = .04$, and innocence, $F(1, 192) = 6.75, p = .01, \eta^2_p = .03$. The patterns that emerged were not much affected by the inclusion of the covariates; family members differed noticeably from their neighbors when an exoneration resulted from a witness revocation, but not when DNA evidence was involved.

However, like the main effect of relationship to the victim, the interaction of relationship and an identification of the true perpetrator was obtained at the univariate level only on ratings of guilt, $F(2, 191) = 3.25, p = .041, \eta^2_p = .04$, and not on ratings of innocence when the covariates were taken into account. Nevertheless, the nature of the interaction did not depend on either individual difference; once again, when the true perpetrator had not yet been found, family members thought that an exoneree remained guiltier than neighbors did, but family members did not differ from their neighbors when the actual perpetrator was identified.

Overall, then, the patterns observed in the MANOVA for the effects of one's relationship to the victim on ratings of guilt and innocence were still apparent in the MANCOVA. Ratings of the innocence of an exoneree showed fewer effects, but one's relationship to a victim still affected judgment of guilt in a similar manner whether one was high or low in belief in a just world. For ease of presentation, further details on the results of the MANCOVA, including tables of means, are described more fully in Appendix F.

As shown in Table 18, the MANCOVA continued to maintain a multivariate effect of relationship to the victim on nuance variables in the same patterns as when

individual differences were not taken into account, $F(4, 190) = 7.39, p < .001, \eta^2_p = .14$. Univariate analyses revealed that victims' families ($M = 2.80$) continued to find exonerees to be more to blame for the crime than did victims' acquaintances ($M = 2.30$) when individual differences were taken into account, $F(1, 193) = 7.34, p = .007, \eta^2_p = .04$. Family members ($M = 4.15$) also found exonerees more deserving of the original conviction than did neighbors ($M = 3.25$), $F(1, 193) = 7.59, p = .006, \eta^2_p = .04$. Neighbors were ($M = 7.55$) also more satisfied with the exoneration than were family members ($M = 6.15$), $F(1, 193) = 24.33, p < .001, \eta^2_p = .11$. However, certainty in the exoneree's innocence was no longer influenced by the relationship to the victim when individual differences were accounted for.

According to the MANCOVA results in Table 21, there continued to be an interaction between the relationship to the victim and the apprehension of the true perpetrator in regards to nuance variables, $F(4, 190) = 5.52, p < .001, \eta^2_p = .10$. Specifically, this interaction was only produced in regards to satisfaction with the exoneration, $F(1, 193) = 20.29, p < .001, \eta^2_p = .10$. Family members were generally more dissatisfied than acquaintances with an exoneration, but were even more dissatisfied when a crime remained unsolved, which was also true when covariates were excluded. See Appendix F for further description and a table of means.

Table 18

MANCOVA Effects for Nuance Variable Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	1.0	.25	.91	.01
	Evidence Type x Belief in a Just World	.99	.66	.62	.01
	Evidence Type x Intellectual Humility	.98	.88	.48	.02
	True Perpetrator	.95	2.56	.04	.05
	True Perpetrator x Belief in a Just World	.97	1.48	.21	.03
	True Perpetrator x Intellectual Humility	.98	1.17	.33	.02
	Evidence Type x Relationship to Victim	.96	1.87	.12	.04
	True Perpetrator x Relationship to Victim	.90	5.52	.00	.10
	Evidence Type x True Perpetrator	.99	.44	.78	.01
Between-Subjects	Relationship to Victim	.87	7.39	.00	.14
	Belief in a Just World	.91	4.77	.00	.09
	Intellectual Humility	.94	3.01	.02	.06

Note. Bolded values are statistically significant. All degrees of freedom are (4, 190).

Table 19 shows that the addition of the covariates did not change the lack of effect of between-subjects condition on ratings of police competency of respect for the judge's decision, $F(2, 192) = .79, p = .46, \eta^2_p = .01$.

Table 19

MANCOVA Effects for Faith in Legal Personnel Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	.99	.88	.42	.01
	Evidence Type x Belief in a Just World	1.0	.43	.65	.00
	Evidence Type x Intellectual Humility	.99	.87	.42	.01
	True Perpetrator	.99	1.16	.32	.01
	True Perpetrator x Belief in a Just World	.98	1.78	.17	.02
	True Perpetrator x Intellectual Humility	.99	.69	.50	.01
	Evidence Type x Relationship to Victim	.99	.96	.38	.01
	True Perpetrator x Relationship to Victim	.99	1.40	.25	.01
	Evidence Type x True Perpetrator	.99	1.27	.28	.01

(continued)

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Between-Subjects	Relationship to Victim	.99	.79	.46	.01
	Belief in a Just World	.99	.95	.39	.01
	Intellectual Humility	.98	2.06	.13	.02

Note. Bolded values are statistically significant. All degrees of freedom are (2, 192).

As shown in Table 20, the MANCOVA continued to maintain a multivariate effect of relationship to the victim on the quality of the exonerating evidence in the same patterns as when individual differences were not taken into account, $F(2, 191) = 5.39, p = .01, \eta^2_p = .05$. Univariate analyses revealed victims' acquaintances ($M = 7.62$) continued to find the exonerating evidence more convincing than victims' family members when covariates were accounted for ($M = 7.13$), $F(1, 192) = 4.16, p = .043, \eta^2_p = .02$. The acquaintances ($M = 7.81$) still found the exonerating evidence more believable than did victims' family members ($M = 7.14$), $F(1, 192) = 8.12, p = .005, \eta^2_p = .04$.

Table 20

MANCOVA Effects for Quality of Evidence Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	1.0	.06	.94	.00
	Evidence Type x Belief in a Just World	1.0	.02	.98	.00
	Evidence Type x Intellectual Humility	.99	.87	.42	.01
	True Perpetrator	.99	1.32	.27	.01
	True Perpetrator x Belief in a Just World	.99	.96	.39	.01
	True Perpetrator x Intellectual Humility	1.0	.08	.92	.00
	Evidence Type x Relationship to Victim	.96	3.62	.03	.04
	True Perpetrator x Relationship to Victim	.98	1.74	.18	.02
	Evidence Type x True Perpetrator	1.0	.41	.66	.00
Between-Subjects	Relationship to Victim	.95	5.39	.01	.05
	Belief in a Just World	.98	1.83	.16	.02
	Intellectual Humility	.96	3.54	.03	.04

Note. Bolded values are statistically significant. All degrees of freedom are (2, 191).

As shown in Table 20, the MANCOVA showed that an interaction persisted on ratings of quality of the evidence between the type of exonerating evidence and the relationship to the victim, $F(2, 191) = 3.62, p = .029, \eta^2_p = .04$. This interaction occurred in regards to convincingness of the exonerating evidence, $F(1, 192) = 5.35, p = .022, \eta^2_p = .03$, as well as believability, $F(1, 192) = 7.27, p = .008, \eta^2_p = .04$. The nature of the interaction did not depend on either individual difference; once again, DNA evidence was convincing and believable for all parties regardless of relationship, but family members were far less convinced and did not believe evidence as strongly as acquaintances when it was non-DNA evidence (see Appendix F for means tables).

Finally, as Table 21 shows, belief in a just world (but not intellectual humility) was associated with participants' emotional reactions toward the exonerations, $F(2, 190) = 4.87, p = .01, \eta^2_p = .05$. Belief in a just world had a significant effect on ratings of negative affect, $F(1, 191) = 9.49, p < .01, \eta^2_p = .05$, but yet intellectual humility was not found to have a significant effect ratings of emotions. Relationship to the victim continued to have an impact on emotional reactions with covariates included. Victims' family members ($M = .39$) experienced more negative emotions toward exonerations than did victims' acquaintances ($M = -.38$), $F(1, 191) = 59.47, p < .001, \eta^2_p = .24$. Neighbors of the victims ($M = .24$) felt more positively than did victims' family members ($M = -.26$), $F(1, 191) = 24.62, p < .001, \eta^2_p = .11$. According to Table 27, there was also a multivariate interaction on emotion ratings between relationship to the victim and whether or not the case was solved following the exoneration when covariates were included, $F(2, 190) = 6.79, p < .001, \eta^2_p = .07$. Specifically, this interaction occurred in regards to negative emotions, $F(1, 191) = 9.49, p = .002, \eta^2_p = .05$. The identification of

a true perpetrator was not a significant difference for either relationship to the victim; however, family members felt more negatively across the board than did acquaintances, and the effect was larger for family members when the crime remained unsolved (see Appendix F for further details and a table of means).

Table 21

MANCOVA Effects for Emotions Ratings

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Within-Subjects	Evidence Type	1.0	.17	.84	.00
	Evidence Type x Belief in a Just World	1.0	.38	.69	.00
	Evidence Type x Intellectual Humility	1.0	.31	.74	.00
	True Perpetrator		.12	.89	.00
	True Perpetrator x Belief in a Just World	.99	.80	.45	.01
	True Perpetrator x Intellectual Humility	.99	.78	.46	.01
	Evidence Type x Relationship to Victim	.99	1.00	.37	.01
	True Perpetrator x Relationship to Victim	.93	6.79	.00	.07
	Evidence Type x True Perpetrator	.99	1.30	.28	.01

(continued)

		Wilk's Lambda Value	<i>F</i>	<i>p</i> -value	η^2_p value
Between-Subjects	Relationship to Victim	.75	31.30	.00	.25
	Belief in a Just World	.95	4.87	.01	.05
	Intellectual Humility	.99	1.40	.25	.01

Note. Bolded values are statistically significant. All degrees of freedom are (2, 190).

As a summary, Table 22 lists the means involved in the statistically significant univariate effects of the relationship to the victim variable, including the individual difference covariates. The manipulation of the participants' relationship to the victim was clearly still consequential, although the effect on exoneree innocence and several of the nuance variables were no longer statistically significant.

Table 22

Means for Statistically Significant Univariate Effects of Relationship to Victim (Including Covariates)

		Relationship to Victim	
		Family	Acquaintance
Univariate Effects	Guilt	3.05	2.24
	Blame	2.80	2.30
	Deservingness	4.15	3.25
	Satisfaction	6.15	7.55

(continued)

	Relationship to Victim	
Convincingness	7.13	7.62
Believability	7.14	7.81
Negative Affect	.39	-.38
Positive Affect	-.26	.24

Note. Means of the family members and acquaintances differ by at least $p < .05$. Affect ratings are presented as z -scores.

Type of Exonerating Evidence

Main effects and interactions involving the within-subjects manipulation of type of exonerating evidence—either DNA or a witness recantation—are discussed in this section.

Guilt and Innocence. As shown in Table 3, the MANOVA obtained a multivariate main effect of type of exonerating evidence that revealed that DNA evidence led to stronger opinions about exonerees' guilt and innocence than did non-DNA evidence, $F(2, 197) = 35.67, p < .001, \eta^2_p = .27$. Follow-up univariate analyses found that participants found exonerees less guilty when there was DNA exonerating evidence ($M = 2.24$) rather than a witness recantation ($M = 3.33$), $F(1, 198) = 62.96, p < .001, \eta^2_p = .24$. Participants also found exonerees more innocent when there was DNA evidence ($M = 8.19$) rather than a less conclusive type of evidence ($M = 7.02$), $F(1, 198) = 50.42, p < .001, \eta^2_p = .20$.

As Tables 4 and 5 indicated, the type of evidence interacted with one's relationship to the victim in shaping judgments of guilt and innocence. DNA evidence always led participants to believe that exonerees were less guilty and more innocent than

a victim's revocation did, but that effect was stronger among family members than among acquaintances, and family members found exonerees to be guiltier and less innocent with less conclusive evidence.

Nuance Variables. As shown in Table 8, the MANOVA obtained a multivariate main effect of type of exonerating evidence on several nuance variables as well, $F(4, 196) = 3.86, p < .001, \eta^2_p = .39$. Follow-up univariate analyses found that participants felt more certain of exonerees' innocence with DNA evidence ($M = 7.87$) rather than witness recantations ($M = 6.16$), $F(1, 199) = 91.11, p < .001, \eta^2_p = .31$. Non-DNA evidence ($M = 3.06$) also led participants to blame the exoneree more for the crime than DNA evidence ($M = 2.03$), $F(1, 199) = 68.80, p < .001, \eta^2_p = .26$. Further, participants found exonerees more deserving of their original convictions when there was non-DNA evidence ($M = 4.17$) rather than DNA that led to the exoneration ($M = 3.27$), $F(1, 199) = 35.77, p < .001, \eta^2_p = .15$. Further, participants felt more satisfied with the exoneration when there was DNA evidence ($M = 7.58$) rather than less concrete evidence ($M = 6.12$), $F(1, 199) = 84.53, p < .001, \eta^2_p = .30$. These results suggest that lack of DNA evidence led participants to feel more harshly toward an exoneration and had more difficulty accepting that one had occurred.

Faith in Legal Personnel. Table 10 shows that the MANOVA obtained a multivariate main effect of type of exonerating evidence on the competence of the police in the original trial and respect for the exonerating judge, $F(2, 198) = 19.73, p < .001, \eta^2_p = .17$. Follow-up univariate analyses revealed that non-DNA evidence ($M = 4.34$) led participants to find the police more competent than when there was DNA involved ($M = 3.95$), $F(1, 199) = 6.62, p = .011, \eta^2_p = .03$. These rather surprising results likely stem

from the idea that the police should have properly utilized DNA evidence during the original conviction if there was any. Also, participants felt more respect for the judge with DNA evidence involved ($M = 8.01$) than less conclusive evidence ($M = 7.11$), $F(1, 199) = 34.77, p < .001, \eta^2_p = .15$.

Quality of Evidence. Referring to Table 11, the MANOVA produced a multivariate main effect of type of exonerating evidence on the convincingness and believability of evidence, $F(2, 197) = 114.56, p < .001, \eta^2_p = .54$. Follow-up univariate analyses found that DNA evidence ($M = 8.59$) was significantly more convincing than non-DNA evidence ($M = 6.16$), $F(1, 198) = 195.45, p < .001, \eta^2_p = .50$. Additionally, participants found DNA evidence ($M = 8.66$) significantly more believable than witness recantation evidence ($M = 6.28$), $F(1, 198) = 224.55, p < .001, \eta^2_p = .53$.

As indicated in Tables 12 and 13, there was an interaction between the type of exonerating evidence and the between-subjects variable of relationship to the victim. DNA was a convincing and believable type of evidence across groups; however, less conclusive types of evidence were far less convincing and believable for victims' family members than for their acquaintances.

As a summary, Table 23 lists the means involved in the statistically significant univariate effects of the type of evidence variable. The relationship to the victim moderated some of these effects, but the manipulation of the type of evidence was also independently meaningful.

Table 23

*Means for Statistically Significant Univariate Effects of Type of Exonerating Evidence
(Excluding Covariates)*

		Type of Evidence	
		DNA	Witness Recantation
Univariate Effects	Guilt	2.24	3.33
	Innocence	8.19	7.02
	Blame	2.03	3.06
	Deservingness	3.27	4.17
	Satisfaction	7.58	6.12
	Certainty	7.87	6.16
	Competence of Police	3.95	4.34
	Respect for Judge	8.01	7.11
	Convincingness	8.59	6.16
	Believability	8.66	6.28

Note. Means of the family members and acquaintances differ by at least $p < .05$. The means for significant interactions are presented in their own tables.

Individual Differences. Altogether then, DNA evidence seemed to be much more convincing of an exoneree's innocence than less conclusive forms of evidence; however, non-DNA evidence was particularly difficult for victim's family members to accept. MANCOVAs assessed the influence of belief in a just world and intellectual humility on these patterns and found that only the interactions were still evident when those

individual differences were taken into account. The effects of the type of exonerating evidence were no longer significant across all groups of variables—guilt and innocence, nuance variables, faith in legal personnel, or quality of evidence (see Tables 17, 18, 19, and 20). As there were no statistically significant univariate effects of the type of exonerating evidence when covariates were included, aside from the interactions discussed previously, no summary means table is provided. However, see individual means tables in Appendix F for each interaction.

Apprehension of a True Perpetrator

Main effects and interactions involving the within-subjects manipulation of apprehension of a true perpetrator—either a true perpetrator was identified or remained at-large—are discussed in this section.

Guilt and Innocence. As shown in Table 3, the MANOVA obtained a multivariate main effect of apprehension of a true perpetrator that revealed that the crime remaining unsolved led to harsher judgments of the exoneree, $F(2, 197) = 70.29, p < .001, \eta^2_p = .42$. Follow-up univariate analyses found that when the real perpetrator of the original crime was unfound ($M = 3.50$), participants found exonerees guiltier than if a true perpetrator was found ($M = 2.07$), $F(1, 198) = 129.06, p < .001, \eta^2_p = .40$. Participants also found exonerees more innocent when the true perpetrator was apprehended ($M = 8.33$) than when the case was left unsolved ($M = 6.87$), $F(1, 198) = 84.05, p < .001, \eta^2_p = .30$.

Additionally, the MANOVA results from Table 3 showed there was an interaction between the type of exonerating evidence and the apprehension of a true perpetrator on ratings of guilt and innocence, $F(2, 197) = 12.17, p < .001, \eta^2_p = .11$. For this interaction

on guilt, means are presented in Table 24, $F(1, 198) = 23.31, p < .001, \eta^2_p = .06$. The least amount of guilt was assigned to an exoneree who was exonerated by DNA evidence and a true perpetrator was later apprehended, $F(1, 200) = 11.76, p = .001, \eta^2_p = .06$; the most amount of guilt was assigned when the case remained unsolved and non-DNA evidence was used to exonerate, $F(1, 200) = 69.67, p < .001, \eta^2_p = .26$. DNA evidence led to lower guilt ratings overall, but exonerees were found guiltier when there was a lack of finality in the case than when it was solved, $F(1, 200) = 39.10, p < .001, \eta^2_p = .16$, and the same pattern was true when there was a witness recantation rather than more conclusive evidence, $F(1, 200) = 94.60, p < .001, \eta^2_p = .32$.

Table 24

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Exoneree Guilt

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	1.80 _{ac} (1.74)	2.37 _{ad} (2.24)
	Not Apprehended	2.66 _{bc} (2.41)	4.33 _{bd} (2.39)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

This pattern was also true of innocence ratings, $F(1, 198) = 13.24, p < .001, \eta^2_p = .06$. With less conclusive evidence, the identification of a true perpetrator led participants to find exonerees more innocent than they would have otherwise, $F(1, 199) = 71.94, p < .001, \eta^2_p = .27$. This pattern was also true of DNA evidence, and the most innocent

exoneree was one who had DNA evidence *and* an identified true perpetrator in his or her case, $F(1, 200) = 17.01, p < .001, \eta^2_p = .08$. Along these same lines, DNA was a powerful piece of evidence to consider for ratings of innocence when a case remained unsolved, $F(1, 199) = 6.46, p = .012, \eta^2_p = .03$, and the least innocent exoneree was one whose case lacked a true perpetrator as well as DNA evidence, $F(1, 200) = 55.93, p < .001, \eta^2_p = .22$. Table 25 provides the means for this interaction.

Table 25

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Innocence

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	8.63 _{ac} (2.58)	8.05 _{ad} (2.24)
	Not Apprehended	7.77 _{bc} (2.85)	6.03 _{bd} (2.55)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

As shown in Tables 6 and 7, the apprehension of a true perpetrator moderated the effect of one's relationship to the victim in terms of guilt and innocence. Identifying a true perpetrator for the crime led to lower ratings of guilt and higher ratings of innocence across groups; however, the effect of the relationship to the victim was stronger when a perpetrator was not identified, such that family members found the exoneree much guiltier and far less innocent when the case was not solved.

Nuance Variables. As seen in Table 8, the MANOVA obtained a main effect of apprehension of a true perpetrator on several nuance variables, $F(4, 196) = 30.86, p < .001, \eta^2_p = .39$. Univariate results revealed that the apprehension of a true perpetrator ($M = 7.99$) led to higher ratings of certainty that the exoneree was innocent than an unsolved case ($M = 6.04$), $F(1, 199) = 155.37, p < .001, \eta^2_p = .44$. Ratings of the exoneree's blame for the crime were higher when there was no true perpetrator ($M = 3.20$) than when there was ($M = 1.89$), $F(1, 199) = 98.89, p < .001, \eta^2_p = .33$. Ratings that the exoneree deserved the original conviction were higher when a true perpetrator was not apprehended ($M = 4.24$) rather than when a true perpetrator was identified ($M = 3.20$), $F(1, 199) = 52.89, p < .001, \eta^2_p = .21$. Finally, participants felt more satisfied with the exoneration when a true perpetrator was identified ($M = 7.73$) than if the case went unsolved ($M = 5.99$), $F(1, 199) = 135.32, p < .001, \eta^2_p = .41$. Therefore, identifying a true perpetrator went a long way in providing acceptance toward the exoneration.

As produced in Table 9, there was an interaction between identifying a true perpetrator and the relationship to the victim on the nuance variable of exoneration satisfaction. Specifically, there was less of an effect of whether or not a true perpetrator was identified when victims' neighbors were making ratings of satisfaction, but it was more influential for the family members.

Moreover, there was also an interaction of whether or not a true perpetrator was identified and the type of exonerating evidence on several of the nuance variables, $F(4, 196) = 7.42, p < .001, \eta^2_p = .13$. Specifically, this interaction occurred in regards to ratings of certainty of the exoneree's innocence, $F(1, 199) = 18.95, p < .001, \eta^2_p = .09$. Means are presented in Table 26. Participants felt more certain about the exoneree's

innocence when there was a true perpetrator apprehended, both when DNA evidence existed, $F(1, 200) = 34.94, p < .001, \eta^2_p = .15$, and when a witness recanted evidence, although the mean ratings were lower, $F(1, 200) = 110.77, p < .001, \eta^2_p = .34$. Relatedly, when a true perpetrator was apprehended, participants were more sure of innocence when there was DNA than non-DNA evidence, $F(1, 200) = 19.83, p < .001, \eta^2_p = .09$. The same pattern was true, but to a much larger extent, when the crime remained unsolved, $F(1, 200) = 80.51, p < .001, \eta^2_p = .30$. In sum, when there was DNA evidence and the crime was solved, participants felt the most certain of innocence. When no DNA existed and the crime remained unsolved, they were much more uncertain of innocence.

Table 26

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Certainty of Innocence

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	8.47 _{ac} (2.49)	7.51 _{ad} (2.89)
	Not Apprehended	7.27 _{bc} (2.91)	4.84 _{bd} (2.81)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

This same interaction also occurred on ratings of the exoneree's blameworthiness for his original conviction, $F(1, 199) = 21.77, p < .001, \eta^2_p = .10$. When there was DNA exonerating evidence, exonerees were found to be more to blame for the crime when the crime was left unsolved than if a true perpetrator were identified, $F(1, 200) = 36.47, p <$

.001, $\eta^2_p = .15$. Even more glaringly, exonerees continued to be found more blameworthy, but to an even larger extent, when there was not a true perpetrator identified, nor DNA evidence, $F(1, 200) = 81.42, p < .001, \eta^2_p = .29$. Therefore, non-DNA evidence and an unsolved crime meant that an exoneree would be most to blame for the original crime. Unsurprisingly, then, when a true perpetrator was found, exonerees were judged to be more blameworthy for the crime when there was a recanting witness than conclusive DNA evidence, $F(1, 200) = 14.13, p < .001, \eta^2_p = .07$. The same pattern was true when there was no perpetrator involved, although again to a larger extent, $F(1, 200) = 67.16, p < .001, \eta^2_p = .25$. Means can be found in Table 27.

Table 27

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Exoneree Blame for the Crime

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	1.62 _{ac} (1.43)	2.15 _{bc} (2.02)
	Not Apprehended	2.43 _a (2.01)	3.95 _b (2.37)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

Further, this same interaction influenced participants' ratings of satisfaction with the exoneration, $F(1, 199) = 5.88, p = .016, \eta^2_p = .03$. When a true perpetrator was identified, participants felt more satisfied with the exoneration when there was DNA than if there was a recanting witness, $F(1, 200) = 36.48, p < .001, \eta^2_p = .15$, and this was also

true when the crime went unsolved, although with lower mean ratings, $F(1, 200) = 62.82$, $p < .001$, $\eta^2_p = .24$. Logically, then, when there was non-DNA evidence, participants felt more satisfied when a true perpetrator was apprehended than if the case was left unsolved, $F(1, 200) = 80.40$, $p < .001$, $\eta^2_p = .29$, which was also true despite a lack of DNA evidence, $F(1, 200) = 61.06$, $p < .001$, $\eta^2_p = .23$. The combination of DNA evidence and someone else to blame for the crime led to the greatest feelings of satisfaction toward the exoneration. Means are presented in Table 28.

Table 28

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Exoneration Satisfaction

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	8.31 _{ac} (2.38)	7.17 _{ad} (2.85)
	Not Apprehended	6.89 _{bc} (3.05)	5.12 _{bd} (2.88)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

In summary, the identification of a true perpetrator influenced ratings of nuance variables. In particular, when there was DNA evidence and a true perpetrator was found, participants found exonerations to be more satisfying, exonerees to be less blameworthy, and themselves to be more certain of the exoneree's innocence. Further, the effect of the relationship to the victim was stronger when the case remained unsolved.

Faith in Legal Personnel. As shown in Table 10, multivariate analyses revealed that the apprehension of a true perpetrator was a main effect on respect for the exonerating judge, but not on competence of the original police work, $F(2, 198) = 29.07$, $p < .001$, $\eta^2_p = .23$. Univariate follow-up analyses showed that the judge who issued the exoneration was more respected when there was a true perpetrator apprehended ($M = 8.06$) than if the case remained unsolved ($M = 7.06$), $F(1, 199) = 58.41$, $p < .001$, $\eta^2_p = .23$. There was not a significant effect of whether or not the true perpetrator was apprehended on ratings of competence of the police during the original trial.

Table 10 also shows a multivariate interaction between the type of exonerating evidence and the apprehension of a true perpetrator, $F(2, 198) = 3.54$, $p = .031$, $\eta^2_p = .04$. Univariate analyses showed that this was the case for respect for the exonerating judge, $F(1, 199) = 7.10$, $p = .008$, $\eta^2_p = .03$. These means are presented in Table 29. When a true perpetrator was identified, participants respected the judge's decision to exonerate more than if the case went unsolved both in the presence of DNA evidence, $F(1, 200) = 17.02$, $p < .001$, $\eta^2_p = .08$, and in instances of non-DNA evidence, although the mean ratings were lower, $F(1, 200) = 39.42$, $p < .001$, $\eta^2_p = .17$. Along the same lines, there was more respect for the judge when DNA was involved and the case was later solved, although not a large effect, $F(1, 200) = 8.03$, $p < .01$, $\eta^2_p = .04$. However, when the case remained unsolved, type of exonerating evidence had a bigger effect on ratings of respect for the judge's decision, such that DNA led to far more respect, $F(1, 200) = 33.81$, $p < .001$, $\eta^2_p = .15$. All in all, the highest rating of respect for the judge occurred when there was DNA evidence and a solved case.

Table 29

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Respect for the Judge's Decision to Exonerate

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	8.33 _{ac} (2.54)	7.80 _{bc} (2.60)
	Not Apprehended	7.69 _{ad} (2.77)	6.45 _{bd} (2.66)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

Quality of Evidence. According to the MANOVA results shown in Table 11, apprehension of a true perpetrator was a multivariate effect on the quality of exonerating evidence, $F(2, 197) = 35.44, p < .001, \eta^2_p = .27$. Univariate results revealed that the exonerating evidence was more convincing when a true perpetrator was found ($M = 7.89$) than an unsolved case ($M = 6.86$), $F(1, 198) = 51.76, p < .001, \eta^2_p = .21$. Additionally, the exonerating evidence was more believable when the real perpetrator came forward ($M = 8.01$) than when the case was left unsolved ($M = 6.93$), $F(1, 198) = 68.55, p < .001, \eta^2_p = .26$.

A MANOVA also revealed an interaction between the apprehension of the true perpetrator and the type of exonerating evidence in regards to the quality of the evidence (see Table 6), $F(2, 197) = 8.05, p < .001, \eta^2_p = .08$. Specifically, the interaction regarded the believability of the evidence, $F(1, 198) = 9.06, p = .003, \eta^2_p = .04$. Means are shown in Table 30. Exonerating evidence was determined to be more believable when there was

a true perpetrator than when there was not, both when DNA evidence, $F(1, 200) = 22.28$, $p < .001$, $\eta^2_p = .10$, and non-DNA evidence were involved, although with lower mean ratings, $F(1, 199) = 48.27$, $p < .001$, $\eta^2_p = .20$. When a true perpetrator was indeed identified, DNA was evidence added to the believability more so than a recanting witness, $F(1, 199) = 107.51$, $p < .001$, $\eta^2_p = .35$. DNA was also more believable than a recanting witness when the case was left unsolved, but with an even larger effect size, $F(1, 200) = 161.59$, $p < .001$, $\eta^2_p = .45$. Overall, DNA was highly believable evidence and identifying a true perpetrator added to the ratings of believability.

Table 30

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Believability of Evidence

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	9.00 _{ac} (1.75)	7.02 _{bc} (2.73)
	Not Apprehended	8.29 _{ad} (2.28)	5.57 _{bd} (2.71)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

This interaction also occurred in regards to the convincingness of the evidence, $F(1, 198) = 16.16$, $p < .001$, $\eta^2_p = .08$. When DNA evidence was involved, participants were more convinced when a true perpetrator was identified than an unsolved case, $F(1, 198) = 8.17$, $p < .01$, $\eta^2_p = .04$. This same pattern was also true for recanting witnesses, although with lower mean ratings, $F(1, 198) = 50.89$, $p < .001$, $\eta^2_p = .20$. Relatedly,

DNA was also more convincing than non-DNA evidence both when a true perpetrator was identified, $F(1, 198) = 76.91, p < .001, \eta^2_p = .28$, and when the case remained unsolved, $F(1, 198) = 165.09, p < .001, \eta^2_p = .45$. Means are shown in Table 31.

Unsurprisingly, then, the combination of DNA evidence and solving the case accurately resulted in highest ratings of convincingness and believability of the exonerating evidence.

As a summary, Table 32 provides a means table of the significant univariate effects of the apprehension of a true perpetrator variable. The apprehension of a true perpetrator was a meaningful variable on its own, and the relationship to the victim and the type of evidence moderated some of its effects.

Table 31

An Interaction of Evidence Type and True Perpetrator Identification on Ratings of Convincingness of Evidence

		Evidence Type	
		DNA	Witness Recantation
True Perpetrator	Apprehended	8.82 _{ac} (2.10)	6.95 _{bc} (2.73)
	Not Apprehended	8.32 _{ad} (2.32)	5.39 _{bd} (2.83)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

Table 32

Means for Statistically Significant Univariate Effects of Apprehension of a True Perpetrator (Excluding Covariates)

		True Perpetrator	
		Apprehended	Not Apprehended
Univariate Effects	Guilt	2.07	3.50
	Innocence	8.33	6.87
	Blame	1.89	3.20
	Deservingness	3.20	4.24
	Satisfaction	7.73	5.99
	Certainty	7.99	6.04
	Respect for Judge	8.06	7.06
	Convincingness	7.89	6.86
	Believability	8.01	6.93

Note. Means of the family members and acquaintances differ by at least $p < .05$. The means for significant interactions are presented in their own tables.

Individual Differences. The apprehension of a true perpetrator played a large role across the board on various dependent variables. However, when belief in a just world and intellectual humility as individual difference measures were taken into account, the effect of whether or not a true perpetrator was identified became largely unimportant, aside from ratings of blame for the original conviction, satisfaction with the exoneration, and some important interactions.

As shown in Table 17, whether or not a true perpetrator was identified no longer had a significant effect on guilt or innocence ratings once the individual differences of belief in a just world and intellectual humility were included as covariates. Identification of the true suspect also no longer had an impact on both of the quality of evidence variables, convincingness and believability (see Table 20). It was also no longer an effect for faith in legal personnel variables, such as competence of police and respect for the judge's decision (see Table 19). However, there was still a multivariate effect of identifying the true perpetrator on ratings of blame and satisfied feelings toward the exoneration (see Table 18), $F(4, 190) = 2.56, p = .04, \eta^2_p = .05$. When no perpetrator was found ($M = 3.19$), exonerees were blamed more for the crime than if no perpetrator was found ($M = 1.90$), $F(1, 193) = 7.68, p = .006, \eta^2_p = .04$. When the true perpetrator was identified ($M = 7.73$), participants were more satisfied with the exoneration than when the case remained unsolved ($M = 5.97$), $F(1, 193) = 5.13, p = .025, \eta^2_p = .03$.

As indicated in Table 17, the MANCOVA continued to show an interaction between the relationship to the victim and the apprehension of a true perpetrator on ratings of guilt, but not innocence. There was not a meaningful difference between groups on guilt ratings when a true perpetrator was apprehended. It was when the case remained unsolved that led family members to produce much higher guilt ratings than acquaintances. Table 22 showed that this same interaction also continued to occur on ratings of exoneration satisfaction. Family members were generally less satisfied with the exoneration than acquaintances; however, this effect was even greater when the true perpetrator remained at-large. Table 33 provides a summary table of means for the univariate effects of the apprehension of a true perpetrator, including covariates.

Table 33

Means for Statistically Significant Univariate Effects of Apprehension of a True Perpetrator (Including Covariates)

		True Perpetrator	
		Apprehended	Not Apprehended
Univariate Effects	Blame	1.90	3.19
	Satisfaction	7.73	5.97

Note. Means of the family members and acquaintances differ by at least $p < .05$. The means for significant interactions are presented in their own tables.

Comparisons With Controls

Control vignettes were utilized in both between-subjects conditions of the study to determine how judgments emerging from the different types of exonerations differed from judgments of convictions that did not result in an exoneration. Guilt ($M = 6.96$; $SD = 2.03$) and innocence ($M = 3.59$; $SD = 2.01$) ratings were significantly higher in the control vignette than in any of the exoneration vignettes for family members (by Dunnett's test, $p < .05$). Guilt ($M = 6.28$; $SD = 2.20$) and innocence ($M = 4.47$; $SD = 2.09$) ratings were higher for the neighbor control vignette as well, showing that an exoneration was persuasive. As we have seen, the specific circumstances surrounding an exoneration influenced ratings of guilt and innocence, but convicts who were exonerated were always judged to be less guilty than those who were not.

Similarly, ratings of certainty toward a defendant's innocence were typically higher in the exoneration vignettes than the control for both family members ($M = 3.58$; $SD = 2.48$) and neighbors ($M = 4.57$; $SD = 2.43$). However, the vignettes in which

neither DNA nor a true perpetrator were present did not significantly differ from the control vignette, in both the family member and acquaintance groups. This suggests that these less concrete variables led to uncertainty of innocence similar to if the defendant had never been exonerated at all.

Ratings of blame ($M = 6.73$; $SD = 2.28$) and deservedness of the original conviction ($M = 6.77$; $SD = 2.28$) were significantly higher in the control vignette than in the exoneration vignettes for family members. Similarly, blame ($M = 6.01$; $SD = 2.33$) and deservedness ($M = 5.81$; $SD = 2.39$) were far higher in the control vignette than in exoneration scenarios for acquaintances. Unsurprisingly, harsher opinions toward the defendant occurred when the possibility of exoneration was never raised.

Ratings of the competence of the police originally investigating the case were higher in the control vignettes than the exoneration vignettes among both family members ($M = 5.51$; $SD = 2.71$) and neighbors ($M = 5.35$; $SD = 2.73$). This significant difference, though, was quite modest for both relationship groups when a witness revocation had led to the exoneration and no true perpetrator had been apprehended.

When comparing exoneration vignettes with the control vignettes, the ratings of emotional reactions differed between the family member and neighbor groups, which speaks to how the differing relationships to the crime victims evoked varying emotions. Scores across the multiple emotional ratings were averaged to determine general positive and negative affect ratings for ease of interpretation.

All vignettes with an exoneration scenario differed from the control scenario ($M = 3.43$; $SD = 1.29$) for family members in terms of negative affect. Interestingly, the vignettes in which a true perpetrator was apprehended led participants to feel

significantly less negative than the control, but unsolved vignettes led to higher negative emotion ratings than the control. This suggests that the finality of a case was influential in negative emotionality. Neighbors also reacted less negatively than to the control vignette ($M = 2.54$; $SD = 1.25$) when a true perpetrator was found. However, unlike the family members, neighbors did not find the exoneration scenarios to evoke different negative emotions than a standing conviction scenario.

For the family members, the scenario with DNA evidence and a true perpetrator led to significantly higher positive emotion ratings than the control ($M = 1.79$; $SD = 1.22$), and the scenario with an unsolved case and a witness recantation led to lower positive emotions than the control. The other two exoneration scenarios did not differ significantly from the conviction scenario. On the other hand, for victims' acquaintances, both exoneration vignettes including the identification of a true perpetrator led to significantly higher positive emotions than the control vignette ($M = 1.83$; $SD = 1.19$), but the other vignettes did not differ meaningful from the control.

Personal Victimization

Of all the data retained for analysis, 11% of participants reported they had personally been victims of a violent crime, 38.5% had family members who had been victims of a violent crime, 38% had a friend who had experienced violent crime, and 57% knew an acquaintance who had experienced it. Personal victimization of a violent crime was added to the analyses as a between-subjects factor on ratings of guilt, and this was not found to have a statistically significant effect on the guilt of the exonerees, $F(1, 198) = .43$, $p = .512$, $\eta^2_p = .00$.

CHAPTER V

Discussion

The aim of this study was to examine the manner in which the personal relevance of a criminal case affected participants' reactions to the exoneration of someone who had earlier been convicted of the crime. Participants were asked to imagine that they were either *siblings* of a murder victim or acquaintances who were simply *neighbors* of the victim. The study also factored in the effect of conclusiveness of evidence that led to the exoneration (DNA evidence versus non-DNA), as well as whether or not the true perpetrator of the crime was found post-exoneration. It was expected that 1) acquaintances would be more likely to accept an exoneration and react less strongly to it than family members, 2) DNA evidence would cause participants to find the exoneree less guilty and the exoneration to be more believable than non-DNA evidence, and 3) participants would find exonerees less guilty and the exonerations more believable when the true perpetrator was found. Individual differences were also expected to influence the way participants accepted and reacted to the exonerations. In particular, it was hypothesized 4) that those high in belief in a just world would view the exonerees as guiltier and the exonerations less believable, and 5) those high in intellectual humility would find exonerees less guilty and their exonerations more believable.

In fact, acquaintances of the victim were more likely to accept an exoneration and to react less strongly to it than family members, confirming the first hypothesis. Family members found exonerees to be guiltier and less innocent than did victims' acquaintances, and they found exonerating evidence to be less believable. Family members also rated the exoneree as more to blame and deserving of the original

conviction, and they were less satisfied with the exoneration and less certain of the exoneree's innocence. These results corroborated the findings of Gross and Matheson (2003), such that family members of crime victims had a difficult time accepting the innocence of an exoneree post-exoneration. Hedonic relevance, or the manner in which attributions made by the perceiver are affected when the perceiver is directly involved in the action, seemed to play a large role in accounting for the differences between these relationship groups. Simply, the stakes of the exoneration were much higher for the siblings than the neighbors. The stronger the emotional relevance, the harder it was to adjust or discard the belief that the exoneree was guilty. As mentioned previously, belief perseverance refers to the tendency for individuals to persist in an original belief even after receiving information that contradicts or disconfirms that belief, and it does appear that family members' beliefs that an exoneree was culpable were more durable than those of acquaintances who were presumably more dispassionate.

Additionally, Gross and Matheson (2003) found that DNA evidence increased the likelihood—but did not guarantee—that exonerees would be judged to be innocent by family members. This was confirmed by the current study. Regardless of their relationship to the victim, participants found DNA evidence to be far more convincing than a witness recantation—a pattern that supported the second hypothesis—but family members were far more skeptical than were acquaintances about the exonerating evidence when it did not involve DNA. Thus, when there was less conclusive evidence, the effect of the relationship to the victim was stronger. Participants also rated the police to be more competent at solving the case in the first trial when there was non-DNA evidence involved, likely due to the idea that the police should have properly utilized

DNA evidence during the original conviction if there was any. These results of the effect of the type of exonerating evidence affirmed the findings of the Gross and Matheson (2003) study, while also providing especially valuable nuance as to the interaction between relationship to the victim and type of exonerating evidence.

Unsurprisingly, the third hypothesis was also confirmed: Participants found exonerees less guilty and the exonerations more believable when the true perpetrator was found. An interaction also occurred, such that both neighbors and siblings found that identifying a true perpetrator for the crime was highly convincing and satisfying; however, when the case remained unsolved, family members found the exonerees far guiltier, were less satisfied with the exonerations, and continued to blame the exoneree for the crime to a higher degree than did victims' acquaintances. Everyone felt less settled when the true perpetrator remained at large, but the effect of the relationship to the victim was pronounced. In terms of emotional responses, family members endorsed higher negative emotional reactions to exonerations than did acquaintances; however, this, too, was more pronounced when the case remained unsolved.

Exoneration scenarios were also compared to control scenarios in which convictions were made that did not result in exoneration. Notably, both family members and neighbors made higher ratings of guilt and innocence in reaction to the control vignette, showing the persuasive nature of exonerations and that exonerees were always found less guilty than those who were not. Scenarios without an exoneration also unsurprisingly led to harsher opinions toward blame and deservedness for the original conviction. Emotional reactions were also compared between the control and experimental scenarios. Both family members and neighbors felt less negative in

exoneration scenarios than control scenarios when a true perpetrator was apprehended, showing the influential nature of this variable. The opposite was also logically true; identifying the true perpetrator generally led to more positive emotions, although neighbors' emotions toward exoneration scenarios differed from their emotions toward the control scenarios less often than did the family members, suggesting that the emotional impact was overall stronger for family members.

Individual differences played interesting roles in this study, and the measures of belief in a just world and intellectual humility performed quite differently. First, belief in a just world was associated with ratings of innocence, certainty, believability, and both positive and negative emotions. These effects are logical given that people with high beliefs in a just world think that others “get what they deserve” and hold negative attitudes toward underprivileged groups. Particularly interesting was the impact of belief in a just world on participants' emotional reactions. Belief in a just world is associated with individuals' beliefs about fairness and justice, which tend to evoke strong emotions. During this study, those high in belief in a just world rated their positive emotions toward the exoneration higher and their negative emotions lower than those low in belief in a just world.

On the other hand, intellectual humility was associated with ratings of blame for the original conviction, deservingness of the original conviction, satisfaction for the exoneration, as well as convincingness and believability of the evidence. All of these types of ratings involve looking back at the original conviction and changing an opinion based on new facts, which is precisely the concept behind intellectual humility. This study was a new application in judicial decision-making for intellectual humility, and it

showed how important intellectual humility is in being open to considering new evidence, which has implications for theory and practice. For example, taking note of potential jury members' intellectual humility may be a helpful strategy for defense attorneys, particularly when a preconceived notion may exist against the defendant (e.g., cases with significant pretrial publicity, re-trials, and discovery of new evidence).

According to the results of this study, jurors with high intellectual humility will be more apt to re-examine evidence and challenge their own beliefs in light of new information, which would surely be helpful when the odds are against the defendant. Certainly a defendant who was wrongfully convicted would benefit from a jury, judge, attorney, and society that exhibits high intellectual humility, as it would be more likely that he or she would be found less blameworthy and deserving of the original conviction and the evidence would be examined more impartially.

Because these two individual difference measures performed differently, they had different effects on dependent variables. The main effect of type of exonerating evidence disappeared across all dependent variables when covariates were added, though some of the powerful interactions remained, such as the interaction of the relationship to the victim and type of exonerating evidence on ratings of guilt and innocence and quality of the exonerating evidence. The effect of whether or not a true perpetrator was apprehended no longer had an effect when these covariates were added, aside from blame for the original conviction and satisfaction for the exoneration, as well as some large interaction effects. These results suggest that when individual differences were taken into account, some of the main effects decreased in importance, and some disappeared altogether; however, many interactions of the manipulated variables remained vital even

when individual differences were included. Additionally, whether or not participants had personally been victims of violent crimes was added to the analyses to explore any effects of this individual difference; however, none were found.

It is important to note certain limitations of this study. First, reading a brief scenario on paper is not the same as experiencing an emotional situation firsthand. The materials were brief and not as impactful as real crime scenarios and exonerations tend to be, although the vignettes were based on real cases from the National Registry of Exonerations database to ensure realistic scenarios. Experiencing violent crime firsthand as a victim was also not found to have any effect on results, which further supports the legitimacy of using a vignette study. Also, participants were instructed to imagine having a specific relationship to the victims in the vignettes, which is clearly less meaningful than actually having a true relationship to the victims. However, given the significant differences found between the family member and acquaintance groups, and particularly the differences between these groups in emotional reactions, even these imagined relationships had large effects. Likely, then, these differences and emotional reactions would be even more pronounced in actual family members and acquaintances of true crime victims, which speaks to the importance of the study.

This study was novel because it provided previously unexamined nuance to the results of Gross and Matheson (2003). No previous studies have compared relationships to crime victims in regards to reactions to, and acceptance of, exonerations, nor have studies manipulated important variables that influence these reactions, such as type of exonerating evidence and apprehension of a true perpetrator post-exoneration. This study confirmed that crime victims' family members have a difficult time accepting that an

exoneree is truly innocent of their loved ones' victimization, particularly when the exonerating evidence is less conclusive than DNA and the crime remains unsolved. Results suggest it is extremely difficult to "flip a switch" and suddenly view the exonerated individual differently (King, 2016; Irazola et al., 2013).

This study has applications for both exonerees and victims' family members in the wake of an exoneration. Exonerees already have a difficult time convincing society that they are truly innocent, regardless of the circumstances. This study confirmed that individuals for whom the exoneration is the most emotionally relevant—victims' family members—continue to disbelieve their innocence. This is problematic for a number of reasons. Exonerees may experience a fear of retaliation from victims' family members. Their innocence may never be accepted until a true perpetrator is identified, which rarely actually occurs, especially after significant time has passed. They will continue to be stereotyped negatively and held at greater social distance (Clow & Leach, 2013). The perception that exonerees are not truly innocent, as demonstrated by this study and others, serves as a caution to the irreparable damage that can occur for an exoneree post-exoneration, including substance abuse, mental health issues, criminal activity, and even suicide (Flowers, 2016). It is highly recommended that exonerees seek support from loved ones and professionals (e.g., mental health professionals or innocence project staff). While some organizations dedicated to exoneration-specific reentry have developed, such as the Life After Innocence Project at the Loyola University Chicago School of Law, these organizations are few and far between and deserve substantially more attention than they have yet received.

On the other hand, the results of this study suggest that victims' family members cannot find closure regarding the loss of their loved ones due to the belief perseverance they experience, and they may have valid reasons for it. These beliefs do not persist out of stubbornness; rather, they likely persist due to emotional impacts, such as doubt about the criminal justice system, fear about how to proceed, the loss of having someone to blame, and the pain of re-experiencing a traumatic event. Family members likely need additional support during and after the process of an exoneration, as the exonerations cause significant negative emotional reactions. They may feel overlooked after an exoneration takes place (King, 2016), and it may represent a lack of finality they thought they previously had, especially when a case remains unsolved (Irazola et al., 2013). Too little support is shown to victims' family members post-exoneration, and supportive resources need to be developed to ease this life transition. Luckily, some resources have been established, such as the National Crime Victim Law Institute in Portland, Oregon, whose services address crime victims' families during the exoneration process by reducing harm to the families while protecting the interests of the exonerees (Flowers, 2016). However, these resources tend to be rare. Based on the results of this study, crime victims' family members would likely benefit from such services, and victim resource centers should not overlook victims' relatives during the long process of an exoneration.

Additionally, this study offered an important first look at intellectual humility's relevance in judicial matters. Intellectual humility was consequential in how participants re-processed prior information in light of new evidence, and it impacted how the exonerating evidence was evaluated in terms of convincingness and believability.

Intellectual humility appears to play an important role in decision-making and is worth continued exploration, particularly in studies of legal decision-making and jury selection.

Future research should determine the type and intensity of support that is needed post-exoneration for exonerees, but also for victims' loved ones. Particularly useful may be examinations of how to approach discussions of exonerations with victims' family members and best methods for gaining closure and acceptance of an exoneree's innocence, especially when the proceedings lack conclusive evidence and remain unsolved, which is often the case. Victims' family members are often uninformed about possible new evidence of innocence when it arises, or the way in which they are informed creates additional trauma (Flowers, 2016). The effect of timing of exonerations on these reactions is another important future direction, as it may be easier for a family member to accept an exoneration if it occurs relatively soon after a conviction, rather than following years or even decades of belief perseverance.

Of the 1,916 known exonerations of innocent men and women who have been convicted of crimes they did not commit in the United States (The National Registry of Exonerations, 2016), nearly as many victims' families have been affected by these wrongful convictions, and this study provided a nuanced look into reactions of family members to exonerations and the variables influencing their acceptance, or lack thereof. As part of the burgeoning Innocence Movement, future psychological research should guide the creation of a less painful process for all parties involved and determine appropriate means for closure and acceptance.

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APPENDIX A**Demographics**

Age: _____

Gender: _____

With which ethnicity do you most closely identify?

- ___ 1) African-American/Black
- ___ 2) American Indian/Alaskan Native
- ___ 3) Asian/Pacific Islander
- ___ 4) Caucasian
- ___ 5) Hispanic/Latino/a
- ___ 6) Other: _____

With which political group do you most closely identify?

- ___ 1) Liberal
- ___ 2) Slightly Liberal
- ___ 3) Slightly Conservative
- ___ 4) Conservative
- ___ 5) None of the above

APPENDIX B

Questionnaires

Thank you for participating! Please place the corresponding number next to each statement, according to your opinion.

1	2	3	4	5	6
<i>Completely Disagree</i>				<i>Completely Agree</i>	

- ____ 1. I've found that a person rarely deserves the reputation he/she has.
- ____ 2. Basically, the world is a just place.
- ____ 3. People who get "lucky breaks" have usually earned their good fortune.
- ____ 4. Careful drivers are just as likely to get hurt in traffic accidents as careless ones.
- ____ 5. It is a common occurrence for a guilty person to get off free in American courts.
- ____ 6. Students almost always deserve the grades they receive in school.
- ____ 7. Men and women who keep in shape have little chance of suffering a heart attack.
- ____ 8. The political candidate who sticks up for his or her principles rarely gets elected.
- ____ 9. It is rare for an innocent person to be wrongly sent to jail.
- ____ 10. In professional sports, many fouls and infractions never get called by the referee.
- ____ 11. By and large, people deserve what they get.
- ____ 12. When parents punish their children, it is almost always for good reasons.
- ____ 13. Good deeds often go unnoticed and unrewarded.
- ____ 14. Although evil men or women may hold political power for awhile, in the general course of history good wins out.
- ____ 15. In almost any business or profession, people who do their job well rise to the top.
- ____ 16. American parents tend to overlook the things most admirable in their children.

- ____ 17. It is often impossible for a person to receive a fair trial in the USA.
- ____ 18. People who are met with misfortune have often brought it on themselves.
- ____ 19. Crime doesn't pay.
- ____ 20. Many people suffer through absolutely no fault of their own.

Now, please complete a different scale. **Notice that the following statements use a different scale.** Please place the corresponding number next to each statement, according to your opinion.

1	2	3	4	5
<i>Strongly Disagree</i>				<i>Strongly Agree</i>

- ____ 1. I feel small when others disagree with me on topics that are close to my heart.
- ____ 2. When someone contradicts my most important beliefs, it feels like a personal attack.
- ____ 3. When someone disagrees with ideas that are important to me, it feels as though I'm being attacked.
- ____ 4. I tend to feel threatened when others disagree with me on topics that are close to my heart.
- ____ 5. When someone disagrees with ideas that are important to me, it makes me feel insignificant.
- ____ 6. I am open to revising my important beliefs in the face of new information.
- ____ 7. I am willing to change my position on an important issue in the face of good reasons.
- ____ 8. I am willing to change my opinions on the basis of compelling reason.
- ____ 9. I have at times changed opinions that were important to me, when someone showed me I was wrong.
- ____ 10. I'm willing to change my mind once it's made up about an important topic.
- ____ 11. I can respect others, even when I disagree with them in important ways.
- ____ 12. I can have great respect for someone, even though we don't see eye-to-eye on important topics.
- ____ 13. Even when I disagree with others, I can recognize that they have sound points.

- ____ 14. I am willing to hear others out, even if I disagree with them.
- ____ 15. I welcome different ways of thinking about important topics.
- ____ 16. I respect that there are ways of making important decisions that are different from the way I make decisions.
- ____ 17. My ideas are usually better than other people's ideas.
- ____ 18. For the most part, others have more to learn from me than I have to learn from them.
- ____ 19. When I am really confident in a belief, there is very little chance that belief is wrong.
- ____ 20. On important topics, I am not likely to be swayed by the viewpoints of others.
- ____ 21. I'd rather rely on my own knowledge about most topics than turn to others for expertise.
- ____ 22. Listening to perspectives of others seldom changes my important opinions.

APPENDIX C

The victim in this scenario is named Emily Thomas. For the following scenario, imagine that you live in the same neighborhood as Emily Thomas, but you are merely acquaintances. Read the information about this case and answer the questions that follow as if you are one of Emily Thomas' neighbors.

On the night of January 9, 2002, your neighbor Emily Thomas and her friend Jenny Lane were walking home from a party in Houston, and they were followed home by a man with a gun. The man shot and killed Emily, but her friend managed to escape the scene.

Jenny Lane, Emily's friend, gave a description of the attacker based on the few seconds she had to view him despite it being dark outside. The police presented a photographic lineup to Jenny, and she identified 26-year-old Dennis McGill as the man who attacked her and your neighbor, Emily.

Dennis McGill was charged with first-degree murder. He went to trial in Houston Circuit Court in the winter of 2005. Jenny Lane identified McGill as the man who was following them. Defense witnesses testified that McGill was at a friend's house at the time of the crime. On February 3, 2006, the jury convicted McGill of murder. He was sentenced to life in prison.

Please write in your answers to the following question before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

Remember, you are imagining that Emily Thomas is your neighbor, and only an acquaintance. Answer the following questions as if you are the neighbor of Emily Thomas.

- 1) After reading the entire case, how **guilty** do you think Dennis McGill is for your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Guilty</i>					<i>Completely Guilty</i>				

- 2) How **innocent** is Dennis McGill in regards to your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Innocent</i>					<i>Completely Innocent</i>				

- 3) How **sure/certain** are you that Dennis McGill is innocent?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Sure/Certain</i>					<i>Completely Sure/Certain</i>				

- 4) To what extent is Dennis McGill to **blame** for your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all to Blame</i>					<i>Completely to Blame</i>				

- 5) How **deserving** was Dennis McGill of the conviction?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Deserving</i>					<i>Completely Deserving</i>				

- 6) How **competent** (meaning, "capable") were the police in solving this case?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Competent</i>					<i>Completely Competent</i>				

- 7) The following is a list of words that describe different feelings and emotions. Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the case you read about.**

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

The victim in this scenario is named Julie Smith. For the following scenario, imagine that you live in the same neighborhood as Julie Smith, but you are merely acquaintances. Read the information about this case and answer the questions that follow as if you are one of Julie Smith's neighbors.

On the night of September 13, 2004, your neighbor Julie Smith and her best friend Katie Lowe were walking home from dinner in Houston when they were held up by a man with a gun demanding to take their purses. The man shot and killed Julie, but her best friend managed to flee the scene.

Katie Lowe, Julie's best friend, gave a description of the attacker based on the few seconds she had to view him despite his dark clothing. The police presented a photographic lineup to Katie, and she identified 28-year-old Daniel Kratz as the man who attacked her and your neighbor, Julie.

Daniel Kratz was charged with first-degree murder and illegal use of a firearm. He went to trial in Houston Circuit Court in the spring of 2006. Katie Lowe identified Kratz as the man who confronted them. Defense witnesses testified that Kratz was at home at the time of the crime. On June 23, 2006, the jury convicted Kratz of murder and illegal use of a firearm. He was sentenced to life in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case.

In 2013, a petition for DNA testing was filed, and DNA from the gun was sent for testing. The testing revealed a partial DNA profile of a male, which had a rare identifier, which Kratz did not have. Several more rounds of DNA tests were performed and in 2014, a full DNA profile was obtained from Julie's purse. That profile contained the same rare identifier and matched the partial profile taken from the gun.

In early 2015, there was a new trial. On January 9, 2015, all charges against Kratz were dismissed. The DNA on the gun found near your neighbor's body and on her purse were the killer's DNA, which did not match Daniel Kratz's DNA. Therefore, Daniel Kratz was exonerated due to DNA evidence for your neighbor's murder.

Later that year, in the fall of 2015, an inmate named Dennis Rosgrove at the Harris County Jail told another inmate that he was responsible for your neighbor Julie's death. That inmate told investigators about Dennis Rosgrove's admission of guilt. His DNA was taken and matched to the DNA profile found on the gun and on Julie's purse. Thus, Dennis Rosgrove was found to be the true perpetrator of your neighbor's death and was sentenced to life in prison for the murder.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime?
(If the case remains unsolved, write “none”)

Remember, you are imagining that Julie Smith is your neighbor, and only an acquaintance. Answer the following questions as if you are the neighbor of Julie Smith.

- 1) After reading the entire case, how **guilty** do you think Daniel Kratz is for your neighbor's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Guilty *Completely Guilty*

- 2) How **innocent** is Daniel Kratz in regards to your neighbor's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Innocent *Completely Innocent*

- 3) How **sure/certain** are you that Daniel Kratz is truly innocent?

1 2 3 4 5 6 7 8 9 10
Not at all Sure/Certain *Completely Sure/Certain*

- 4) Knowing what you know now, to what extent is Daniel Kratz to **blame** for your neighbor's murder?

1 2 3 4 5 6 7 8 9 10
Not at all to Blame *Completely to Blame*

- 5) During the first trial, Daniel Kratz was convicted for your neighbor's murder. How **deserving** was Daniel Kratz of that conviction?

1 2 3 4 5 6 7 8 9 10
Not at all Deserving *Completely Deserving*

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1 2 3 4 5 6 7 8 9 10
Not at all Competent *Completely Competent*

- 7) How much do you **respect** the judge's decision to exonerate Daniel Kratz?

1 2 3 4 5 6 7 8 9 10
Completely Disrespect *Completely Respect*

- 8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10

Not at all Satisfied

Completely Satisfied

9) How **convincing** is the evidence that exonerated Daniel Kratz?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Convincing</i>					<i>Completely Convincing</i>				

10) In your opinion, how **believable** is the evidence that exonerated Daniel Kratz?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Believable</i>					<i>Completely Believable</i>				

11) The following is a list of words that describe different feelings and emotions. Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the exoneration.**

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

Please read the following scenario. Remember—each scenario is different! Pay attention to the details.

The victim in this scenario is named Stacy Brown. For the following scenario, imagine that you live in the same neighborhood as Stacy Brown, and you are merely acquaintances. Read the information about this case and answer the questions that follow as if you are one of Stacy Brown's neighbors.

On a rainy evening of November 20, 2008, your neighbor Stacy Brown and her coworker Cindy Jones were confronted by a man with a knife who dragged them into a vacant alley in Houston, Texas. Stacy was stabbed to death but her coworker managed to escape.

Cindy Jones, the coworker, gave a description of the attacker based on the few seconds she had to view him in the rainy darkness. The police presented a photographic lineup to Cindy, and she identified 24-year-old Jason Kersch as the man who attacked her and your neighbor, Stacy.

Jason Kersch was charged with first-degree murder and illegal use of a weapon. He went to trial in Houston Circuit Court in the summer of 2009. Cindy Jones identified Kersch as the man who grabbed them. Defense witnesses testified that Kersch was at a nightclub at the time of the crime. On August 5, 2009, the jury convicted Kersch of murder and illegal use of a weapon. He was sentenced to life in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case.

In 2014, a petition for DNA testing was filed, and fingernail clippings taken from your neighbor Stacy were sent for testing. The testing revealed a partial DNA profile of a male, which had a rare identifier, which Kersch did not have. Several more rounds of DNA tests were performed and in 2015, a full DNA profile was obtained from Stacy's t-shirt—where the fatal wound was inflicted. That profile contained the same rare identifier and matched the partial profile taken from the fingernail clippings.

In early 2016, there was a new trial. On May 11, 2016, all charges against Kersch were dismissed. The DNA under your neighbor's fingernails and on her t-shirt was the killer's DNA, which did not match Jason Kersch's DNA. Therefore, Jason Kersch was exonerated due to DNA evidence for your neighbor's murder. Your neighbor's true killer is still unknown and the police have no new leads.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime? (If the case remains unsolved, write “none”)

Remember, you are imagining that Stacy Brown is someone who lives in your neighborhood, and only an acquaintance. Answer the following questions as if you are the neighbor of Stacy Brown.

- 1) After reading the entire case, how **guilty** do you think Jason Kersch is for your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Guilty</i>					<i>Completely Guilty</i>				

- 2) How **innocent** is Jason Kersch in regards to your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Innocent</i>					<i>Completely Innocent</i>				

- 3) How **sure/certain** are you that Jason Kersch is truly innocent?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Sure/Certain</i>					<i>Completely Sure/Certain</i>				

- 4) Knowing what you know now, to what extent is Jason Kersch to **blame** for your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all to Blame</i>					<i>Completely to Blame</i>				

- 5) During the first trial, Jason Kersch was convicted for your neighbor's murder. How **deserving** was Jason Kersch of that conviction?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Deserving</i>					<i>Completely Deserving</i>				

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Competent</i>					<i>Completely Competent</i>				

- 7) How much do you **respect** the judge's decision to exonerate Jason Kersch?

1	2	3	4	5	6	7	8	9	10
<i>Completely Disrespect</i>					<i>Completely Respect</i>				

8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10
Not at all Satisfied *Completely Satisfied*

9) How **convincing** is the evidence that exonerated Jason Kersch?

1 2 3 4 5 6 7 8 9 10
Not at all Convincing *Completely Convincing*

10) In your opinion, how **believable** is the evidence that exonerated Jason Kersch?

1 2 3 4 5 6 7 8 9 10
Not at all Believable *Completely Believable*

11) The following is a list of words that describe different feelings and emotions.
 Read each emotion and then write the appropriate number in the space next to
 that word. Indicate to what extent you feel this way **RIGHT NOW, as a**
result of the exoneration.

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

The victim in this scenario is named Loretta Brooks. For the following scenario, imagine that you live in the same neighborhood as Loretta Brooks, but you are merely acquaintances. Read the information about this case and answer the questions that follow as if you are the neighbor of Loretta Brooks.

On January 4, 2005, your neighbor Loretta Brooks was shot and killed during a robbery of her Houston apartment. Your neighbor's friend, Jane Lowe, was there and survived because the shooter's gun jammed and the shooter fled. Jane initially remembered very few details about the crime, but later identified Edward Ross as the shooter when presented with a photographic line-up.

In May 2007, Edward Ross was charged with second-degree murder. He went to trial in Houston Circuit Court later that year. Jane Lowe identified Edward Ross as the man who shot your neighbor, Loretta. Defense witnesses testified that Edward Ross was at a friend's house at the time of the crime. On December 3, 2007, the jury convicted Ross of second-degree murder. He was sentenced to 30 years in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case due to their opinion that the eyewitness identification of Jane Lowe was questionable. They determined that from her position in the apartment, Jane would have had a difficult time seeing features of the shooter. They approached Jane Lowe about it, and her description of the shooter was significantly different than her original testimony. In April of 2014, Jane Lowe recanted her original testimony, saying she believed she misidentified the shooter. After a long trial, the court decided there was not enough evidence to keep Edward Ross in prison. The charges against Edward Ross for your neighbor's murder were dismissed, and he was exonerated.

In July of 2015, Harry Jones was arrested on drug charges, and eventually gave the authorities a detailed confession that he had committed the 2005 murder of your neighbor, Loretta. Harry Jones was found to be the true perpetrator of your neighbor's murder and was sentenced to 45 years in prison.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime? (If the case remains unsolved, write "none")

Remember, you are imagining that Loretta Brooks is your neighbor, and only an acquaintance. Answer the following questions as if you are the neighbor of Loretta Brooks.

- 1) After reading the entire case, how **guilty** do you think Edward Ross is for your neighbor's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Guilty *Completely Guilty*

- 2) How **innocent** is Edward Ross in regards to your neighbor's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Innocent *Completely Innocent*

- 3) How **sure/certain** are you that Edward Ross is truly innocent?

1 2 3 4 5 6 7 8 9 10
Not at all Sure/Certain *Completely Sure/Certain*

- 4) Knowing what you know now, to what extent is Edward Ross to **blame** for your neighbor's murder?

1 2 3 4 5 6 7 8 9 10
Not at all to Blame *Completely to Blame*

- 5) During the first trial, Edward Ross was convicted for your neighbor's murder. How **deserving** was Edward Ross of that conviction?

1 2 3 4 5 6 7 8 9 10
Not at all Deserving *Completely Deserving*

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1 2 3 4 5 6 7 8 9 10
Not at all Competent *Completely Competent*

- 7) How much do you **respect** the judge's decision to exonerate Edward Ross?

1 2 3 4 5 6 7 8 9 10
Completely Disrespect *Completely Respect*

8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10
Not at all Satisfied *Completely Satisfied*

9) How **convincing** is the evidence that exonerated Edward Ross?

1 2 3 4 5 6 7 8 9 10
Not at all Convincing *Completely Convincing*

10) In your opinion, how **believable** is the evidence that exonerated Edward Ross?

1 2 3 4 5 6 7 8 9 10
Not at all Believable *Completely Believable*

11) The following is a list of words that describe different feelings and emotions.

Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the exoneration.**

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

The victim in this scenario is named Cynthia Carter. For the following scenario, imagine that you are the neighbor of Cynthia Carter, and you are merely acquaintances. Read the information about this case and answer the questions that follow as if you live in the same neighborhood as Cynthia Carter.

On February 12, 2004, your neighbor Cynthia Carter was shot and killed during a robbery of a convenience store. A customer at the store, Sarah Johnson, was there and survived because she was hiding in one of the aisles. Sarah initially had a hard time remembering details about the crime, but later identified Ken Abrams as the shooter when presented with a photographic line-up.

In September 2006, Ken Abrams was charged with second-degree murder. He went to trial in Houston Circuit Court early the next year. Sarah Johnson identified Ken Abrams as the man who shot your neighbor, Cynthia. Defense witnesses testified that Ken Abrams was at his cousins' house at the time of the crime. On April 3, 2007, the jury convicted Abrams of second-degree murder. He was sentenced to 25 years in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case due to their opinion that the eyewitness identification of Sarah Johnson was questionable. They determined that from her position in the convenience store, Sarah would have had a difficult time seeing features of the shooter. They approached Sarah Johnson about it, and her description of the shooter was significantly different than her original testimony. In May of 2015, Sarah Johnson recanted her original testimony, saying she believed she misidentified the shooter.

After lengthy procedures, the court decided there was not enough evidence to keep Ken Abrams in prison. The charges against Ken Abrams for your neighbor's murder were dismissed, and he was exonerated. Your neighbor's true killer is still unknown and the police have no new leads.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime? (If the case remains unsolved, write "none")

Remember, you are imagining that Cynthia Carter is your neighbor, and only an acquaintance. Answer the following questions as if you are the neighbor of Cynthia Carter.

- 1) After reading the entire case, how **guilty** do you think Ken Abrams is for your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Guilty</i>					<i>Completely Guilty</i>				

- 2) How **innocent** is Ken Abrams in regards to your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Innocent</i>					<i>Completely Innocent</i>				

- 3) How **sure/certain** are you that Ken Abrams is truly innocent?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Sure/Certain</i>					<i>Completely Sure/Certain</i>				

- 4) Knowing what you know now, to what extent is Ken Abrams to **blame** for your neighbor's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all to Blame</i>					<i>Completely to Blame</i>				

- 5) During the first trial, Ken Abrams was convicted for your neighbor's murder. How **deserving** was Ken Abrams of that conviction?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Deserving</i>					<i>Completely Deserving</i>				

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Competent</i>					<i>Completely Competent</i>				

- 7) How much do you **respect** the judge's decision to exonerate Ken Abrams?

1	2	3	4	5	6	7	8	9	10
<i>Completely Disrespect</i>					<i>Completely Respect</i>				

- 8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10
Not at all Satisfied *Completely Satisfied*

9) How **convincing** is the evidence that exonerated Ken Abrams?

1 2 3 4 5 6 7 8 9 10
Not at all Convincing *Completely Convincing*

10) In your opinion, how **believable** is the evidence that exonerated Ken Abrams?

1 2 3 4 5 6 7 8 9 10
Not at all Believable *Completely Believable*

11) The following is a list of words that describe different feelings and emotions.
 Read each emotion and then write the appropriate number in the space next to
 that word. Indicate to what extent you feel this way **RIGHT NOW, as a**
result of the exoneration.

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

APPENDIX D

The victim in this scenario is named Emily Thomas. For the following scenario, imagine that you are the sibling (brother or sister) of Emily Thomas. Read the information about this case and answer the questions that follow as if you are Emily Thomas' sibling.

On the night of January 9, 2002, your sister Emily Thomas and her friend Jenny Lane were walking home from a party in Houston, and they were followed home by a man with a gun. The man shot and killed Emily, but Jenny managed to escape the scene.

Jenny Lane, Emily's friend, gave a description of the attacker based on the few seconds she had to view him despite it being dark outside. The police presented a photographic lineup to Jenny, and she identified 26-year-old Dennis McGill as the man who attacked her and your sister, Emily.

Dennis McGill was charged with first-degree murder. He went to trial in Houston Circuit Court in the winter of 2005. Jenny Lane identified McGill as the man who was following them. Defense witnesses testified that McGill was at a friend's house at the time of the crime. On February 3, 2006, the jury convicted McGill of murder. He was sentenced to life in prison.

Please write in your answers to the following question before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

Remember, you are imagining that Emily Thomas is your sister. Answer the following questions as if you are the sibling of Emily Thomas.

- 1) After reading the entire case, how **guilty** do you think Dennis McGill is for your sister's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Guilty</i>					<i>Completely Guilty</i>				

- 2) How **innocent** is Dennis McGill in regards to your sister's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Innocent</i>					<i>Completely Innocent</i>				

- 3) How **sure/certain** are you that Dennis McGill is innocent?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Sure/Certain</i>					<i>Completely Sure/Certain</i>				

- 4) To what extent is Dennis McGill to **blame** for your sister's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all to Blame</i>					<i>Completely to Blame</i>				

- 5) How **deserving** was Dennis McGill of the conviction?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Deserving</i>					<i>Completely Deserving</i>				

- 6) How **competent** (meaning, "capable") were the police in solving this case?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Competent</i>					<i>Completely Competent</i>				

- 7) The following is a list of words that describe different feelings and emotions. Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the case you read about.**

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

The victim in this scenario is named Julie Smith. For the following scenario, imagine that you are the sibling (brother or sister) of Julie Smith. Read the information about this case and answer the questions that follow as if you are Julie Smith's sibling.

On the night of September 13, 2004, your sister Julie Smith and her best friend Katie Lowe were walking home from dinner in Houston when they were held up by a man with a gun demanding to take their purses. The man shot and killed your sister, but her best friend managed to flee the scene.

Katie Lowe, your sister's best friend, gave a description of the attacker based on the few seconds she had to view him despite his dark clothing. The police presented a photographic lineup to Katie, and she identified 28-year-old Daniel Kratz as the man who attacked her and your sister, Julie.

Daniel Kratz was charged with first-degree murder and illegal use of a firearm. He went to trial in Houston Circuit Court in the spring of 2006. Katie Lowe identified Kratz as the man who confronted them. Defense witnesses testified that Kratz was at home at the time of the crime. On June 23, 2006, the jury convicted Kratz of murder and illegal use of a firearm. He was sentenced to life in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case.

In 2013, a petition for DNA testing was filed, and DNA from the gun was sent for testing. The testing revealed a partial DNA profile of a male, which had a rare identifier, which Kratz did not have. Several more rounds of DNA tests were performed and in 2014, a full DNA profile was obtained from Julie's purse. That profile contained the same rare identifier and matched the partial profile taken from the gun.

In early 2015, there was a new trial. On January 9, 2015, all charges against Kratz were dismissed. The DNA on the gun found near your sister's body and on her purse were the killer's DNA, which did not match Daniel Kratz's DNA. Therefore, Daniel Kratz was exonerated due to DNA evidence for your sister's murder.

Later that year, in the fall of 2015, an inmate named Dennis Rosgrove at the Harris County Jail told another inmate that he was responsible for your sister Julie's death. That inmate told investigators about Dennis Rosgrove's admission of guilt. His DNA was taken and matched to the DNA profile found on the gun and on Julie's purse. Thus, Dennis Rosgrove was found to be the true perpetrator of your sister's death and was sentenced to life in prison for the murder.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime? (If the case remains unsolved, write “none”)

Remember, you are imagining that Julie Smith is your sister. Answer the following questions as if you are the sibling of Julie Smith.

- 1) After reading the entire case, how **guilty** do you think Daniel Kratz is for your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Guilty *Completely Guilty*

- 2) How **innocent** is Daniel Kratz in regards to your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Innocent *Completely Innocent*

- 3) How **sure/certain** are you that Daniel Kratz is truly innocent?

1 2 3 4 5 6 7 8 9 10
Not at all Sure/Certain *Completely Sure/Certain*

- 4) Knowing what you know now, to what extent is Daniel Kratz to **blame** for your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all to Blame *Completely to Blame*

- 5) During the first trial, Daniel Kratz was convicted for your sister's murder. How **deserving** was Daniel Kratz of that conviction?

1 2 3 4 5 6 7 8 9 10
Not at all Deserving *Completely Deserving*

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1 2 3 4 5 6 7 8 9 10
Not at all Competent *Completely Competent*

- 7) How much do you **respect** the judge's decision to exonerate Daniel Kratz?

1 2 3 4 5 6 7 8 9 10
Completely Disrespect *Completely Respect*

8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10
Not at all Satisfied *Completely Satisfied*

9) How **convincing** is the evidence that exonerated Daniel Kratz?

1 2 3 4 5 6 7 8 9 10
Not at all Convincing *Completely Convincing*

10) In your opinion, how **believable** is the evidence that exonerated Daniel Kratz?

1 2 3 4 5 6 7 8 9 10
Not at all Believable *Completely Believable*

11) The following is a list of words that describe different feelings and emotions.

Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the exoneration.**

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

The victim in this scenario is named Stacy Brown. For the following scenario, imagine that you are the sibling (brother or sister) of Stacy Brown. Read the information about this case and answer the questions that follow as if you are Stacy Brown's sibling.

On a rainy evening of November 20, 2008, your sister Stacy Brown and her coworker Cindy Jones were confronted by a man with a knife who dragged them into a vacant alley in Houston, Texas. Your sister was stabbed to death but her coworker managed to escape.

Cindy Jones, the coworker, gave a description of the attacker based on the few seconds she had to view him in the rainy darkness. The police presented a photographic lineup to Cindy, and she identified 24-year-old Jason Kersch as the man who attacked her and your sister, Stacy.

Jason Kersch was charged with first-degree murder and illegal use of a weapon. He went to trial in Houston Circuit Court in the summer of 2009. Cindy Jones identified Kersch as the man who grabbed them. Defense witnesses testified that Kersch was at a nightclub at the time of the crime. On August 5, 2009, the jury convicted Kersch of murder and illegal use of a weapon. He was sentenced to life in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case.

In 2014, a petition for DNA testing was filed, and fingernail clippings taken from your sister Stacy were sent for testing. The testing revealed a partial DNA profile of a male, which had a rare identifier, which Kersch did not have. Several more rounds of DNA tests were performed and in 2015, a full DNA profile was obtained from Stacy's t-shirt—where the fatal wound was inflicted. That profile contained the same rare identifier and matched the partial profile taken from the fingernail clippings.

In early 2016, there was a new trial. On May 11, 2016, all charges against Kersch were dismissed. The DNA under your sister's fingernails and on her t-shirt was the killer's DNA, which did not match Jason Kersch's DNA. Therefore, Jason Kersch was exonerated due to DNA evidence for your sister's murder. Your sister's true killer is still unknown and the police have no new leads.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime? (If the case remains unsolved, write "none") _____

Remember, you are imagining that Stacy Brown is your sister. Answer the following questions as if you are the sibling of Stacy Brown.

- 1) After reading the entire case, how **guilty** do you think Jason Kersch is for your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Guilty *Completely Guilty*

- 2) How **innocent** is Jason Kersch in regards to your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Innocent *Completely Innocent*

- 3) How **sure/certain** are you that Jason Kersch is truly innocent?

1 2 3 4 5 6 7 8 9 10
Not at all Sure/Certain *Completely Sure/Certain*

- 4) Knowing what you know now, to what extent is Jason Kersch to **blame** for your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all to Blame *Completely to Blame*

- 5) During the first trial, Jason Kersch was convicted for your sister's murder. How **deserving** was Jason Kersch of that conviction?

1 2 3 4 5 6 7 8 9 10
Not at all Deserving *Completely Deserving*

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1 2 3 4 5 6 7 8 9 10
Not at all Competent *Completely Competent*

- 7) How much do you **respect** the judge's decision to exonerate Jason Kersch?

1 2 3 4 5 6 7 8 9 10
Completely Disrespect *Completely Respect*

8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10
Not at all Satisfied *Completely Satisfied*

9) How **convincing** is the evidence that exonerated Jason Kersch?

1 2 3 4 5 6 7 8 9 10
Not at all Convincing *Completely Convincing*

10) In your opinion, how **believable** is the evidence that exonerated Jason Kersch?

1 2 3 4 5 6 7 8 9 10
Not at all Believable *Completely Believable*

11) The following is a list of words that describe different feelings and emotions. Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the exoneration.**

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

The victim in this scenario is named Loretta Brooks. For the following scenario, imagine that you are the sibling (brother or sister) of Loretta Brooks. Read the information about this case and answer the questions that follow as if you are the sibling of Loretta Brooks.

On January 4, 2005, your sister Loretta Brooks was shot and killed during a robbery of her Houston apartment. Your sister's friend, Jane Lowe, was there and survived because the shooter's gun jammed and the shooter fled. Jane initially remembered very few details about the crime, but later identified Edward Ross as the shooter when presented with a photographic line-up.

In May 2007, Edward Ross was charged with second-degree murder. He went to trial in Houston Circuit Court later that year. Jane Lowe identified Edward Ross as the man who shot your sister, Loretta. Defense witnesses testified that Edward Ross was at a friend's house at the time of the crime. On December 3, 2007, the jury convicted Ross of second-degree murder. He was sentenced to 30 years in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case due to their opinion that the eyewitness identification of Jane Lowe was questionable. They determined that from her position in the apartment, Jane would have had a difficult time seeing features of the shooter. They approached Jane Lowe about it, and her description of the shooter was significantly different than her original testimony. In April of 2014, Jane Lowe recanted her original testimony, saying she believed she misidentified the shooter. After a long trial, the court decided there was not enough evidence to keep Edward Ross in prison. The charges against Edward Ross for your sister's murder were dismissed, and he was exonerated.

In July of 2015, Harry Jones was arrested on drug charges, and eventually gave the authorities a detailed confession that he had committed the 2005 murder of your sister, Loretta. Harry Jones was found to be the true perpetrator of your sister's murder and was sentenced to 45 years in prison.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime? (If the case remains unsolved, write "none")

Remember, you are imagining that Loretta Brooks is your sister. Answer the following questions as if you are the sibling of Loretta Brooks.

- 1) After reading the entire case, how **guilty** do you think Edward Ross is for your sister's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Guilty</i>					<i>Completely Guilty</i>				

- 2) How **innocent** is Edward Ross in regards to your sister's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Innocent</i>					<i>Completely Innocent</i>				

- 3) How **sure/certain** are you that Edward Ross is truly innocent?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Sure/Certain</i>					<i>Completely Sure/Certain</i>				

- 4) Knowing what you know now, to what extent is Edward Ross to **blame** for your sister's murder?

1	2	3	4	5	6	7	8	9	10
<i>Not at all to Blame</i>					<i>Completely to Blame</i>				

- 5) During the first trial, Edward Ross was convicted for your sister's murder. How **deserving** was Edward Ross of that conviction?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Deserving</i>					<i>Completely Deserving</i>				

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1	2	3	4	5	6	7	8	9	10
<i>Not at all Competent</i>					<i>Completely Competent</i>				

- 7) How much do you **respect** the judge's decision to exonerate Edward Ross?

1	2	3	4	5	6	7	8	9	10
<i>Completely Disrespect</i>					<i>Completely Respect</i>				

8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10
Not at all Satisfied *Completely Satisfied*

9) How **convincing** is the evidence that exonerated Edward Ross?

1 2 3 4 5 6 7 8 9 10
Not at all Convincing *Completely Convincing*

10) In your opinion, how **believable** is the evidence that exonerated Edward Ross?

1 2 3 4 5 6 7 8 9 10
Not at all Believable *Completely Believable*

11) The following is a list of words that describe different feelings and emotions. Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the exoneration.**

1 2 3 4 5
Very slightly A Little Moderately Quite a bit Extremely

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

The victim in this scenario is named Cynthia Carter. For the following scenario, imagine that you are the sibling (brother or sister) of Cynthia Carter. Read the information about this case and answer the questions that follow as if you are the sibling of Cynthia Carter.

On February 12, 2004, your sister Cynthia Carter was shot and killed during a robbery of a convenience store. A customer at the store, Sarah Johnson, was there and survived because she was hiding in one of the aisles. Sarah initially had a hard time remembering details about the crime, but later identified Ken Abrams as the shooter when presented with a photographic line-up.

In September 2006, Ken Abrams was charged with second-degree murder. He went to trial in Houston Circuit Court early the next year. Sarah Johnson identified Ken Abrams as the man who shot your sister, Cynthia. Defense witnesses testified that Ken Abrams was at his cousins' house at the time of the crime. On April 3, 2007, the jury convicted Abrams of second-degree murder. He was sentenced to 25 years in prison.

After his appeals failed, the Texas Innocence Project began re-investigating the case due to their opinion that the eyewitness identification of Sarah Johnson was questionable. They determined that from her position in the convenience store, Sarah would have had a difficult time seeing features of the shooter. They approached Sarah Johnson about it, and her description of the shooter was significantly different than her original testimony. In May of 2015, Sarah Johnson recanted her original testimony, saying she believed she misidentified the shooter.

After lengthy procedures, the court decided there was not enough evidence to keep Ken Abrams in prison. The charges against Ken Abrams for your sister's murder were dismissed, and he was exonerated. Your sister's true killer is still unknown and the police have no new leads.

Please write in your answers to the following questions before moving on.

- 1) According to the scenario, what relationship do you have to the victim?

- 2) What type of evidence led to the exoneration?

- 3) After the exoneration, who was later found to be the true perpetrator of the crime? (If the case remains unsolved, write "none")

Remember, you are imagining that Cynthia Carter is your sister. Answer the following questions as if you are the sibling of Cynthia Carter.

- 1) After reading the entire case, how **guilty** do you think Ken Abrams is for your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Guilty *Completely Guilty*

- 2) How **innocent** is Ken Abrams in regards to your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all Innocent *Completely Innocent*

- 3) How **sure/certain** are you that Ken Abrams is truly innocent?

1 2 3 4 5 6 7 8 9 10
Not at all Sure/Certain *Completely Sure/Certain*

- 4) Knowing what you know now, to what extent is Ken Abrams to **blame** for your sister's murder?

1 2 3 4 5 6 7 8 9 10
Not at all to Blame *Completely to Blame*

- 5) During the first trial, Ken Abrams was convicted for your sister's murder. How **deserving** was Ken Abrams of that conviction?

1 2 3 4 5 6 7 8 9 10
Not at all Deserving *Completely Deserving*

- 6) In the first trial, how **competent** (meaning, "capable") were the police in solving this case?

1 2 3 4 5 6 7 8 9 10
Not at all Competent *Completely Competent*

- 7) How much do you **respect** the judge's decision to exonerate Ken Abrams?

1 2 3 4 5 6 7 8 9 10
Completely Disrespect *Completely Respect*

8) How **satisfied** do you feel with the exoneration?

1 2 3 4 5 6 7 8 9 10
Not at all Satisfied *Completely Satisfied*

9) How **convincing** is the evidence that exonerated Ken Abrams?

1 2 3 4 5 6 7 8 9 10
Not at all Convincing *Completely Convincing*

10) In your opinion, how **believable** is the evidence that exonerated Ken Abrams?

1 2 3 4 5 6 7 8 9 10
Not at all Believable *Completely Believable*

11) The following is a list of words that describe different feelings and emotions.

Read each emotion and then write the appropriate number in the space next to that word. Indicate to what extent you feel this way **RIGHT NOW, as a result of the exoneration.**

1	2	3	4	5
<i>Very slightly</i>	<i>A Little</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>

___ distressed

___ happy

___ upset

___ unsettled

___ comfortable

___ enthusiastic

APPENDIX E

- 1) Have you ever been the victim of a violent crime?
 - a. Yes
 - b. No

- 2) Has a family member ever been the victim of a violent crime?
 - a. Yes
 - b. No

- 3) Has a close friend ever been the victim of a violent crime?
 - a. Yes
 - b. No

- 4) Has anyone else you've known, such as an acquaintance, ever been the victim of a violent crime?
 - a. Yes
 - b. No

APPENDIX F

MANCOVA Effects of the Relationship to the Victim Variable

A MANCOVA of guilt and innocence ratings showed that there continued to be an interaction on guilt and innocence ratings between type of evidence and relationship to the victim when covariates were included, $F(2, 191) = 4.42, p = .013, \eta^2_p = .04$. This interaction existed in regards to guilt ratings, specifically (see means in Table 34), $F(1, 192) = 7.41, p < .01, \eta^2_p = .04$. Surprisingly, the evidence type was not meaningfully different for family members, $F(1, 91) = 1.04, p = .31, \eta^2_p = .01$, nor for neighbors, $F(1, 100) = .17, \eta^2_p = .00$. DNA evidence also did not meaningfully distinguish between neighbors and family members; both groups rated exoneree guilt low, $F(1, 193) = .34, p = .56, \eta^2_p = .00$. However, family members found exonerees much guiltier than did neighbors when the type of exonerating evidence was a witness recantation, $F(1, 193) = 10.722, p < .001, \eta^2_p = .05$.

Table 34

An Interaction of Relationship to Victim and Evidence Type on Exoneree Guilt (With Covariates)

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	2.31 (2.03)	3.80 _a (1.81)
	Acquaintance	2.17 (1.71)	2.88 _a (1.75)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

The same effect continued to be true for this interaction on ratings of innocence (see Table 35 for means), $F(1, 192) = 6.75, p = .01, \eta^2_p = .03$. The type of evidence did not have a significant effect on innocence ratings for family members, $F(1, 91) = 1.72, p = .19, \eta^2_p = .02$, or for neighbors, $F(1, 99) = .40, p = .53, \eta^2_p = .00$. DNA evidence did not distinguish between family members or neighbors; both groups found exonerees more innocent when the evidence was conclusive, $F(1, 193) = .01, p = .91, \eta^2_p = .00$. However, in the case of non-DNA evidence, family members found exonerees far less innocent than did acquaintances, $F(1, 192) = 7.97, p < .01, \eta^2_p = .04$.

Table 35

An Interaction of Relationship to Victim and Evidence Type on Ratings of Innocence (With Covariates)

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	8.22 (2.18)	6.61 _a (1.98)
	Acquaintance	8.16 (2.41)	7.43 _a (2.02)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

The MANCOVA continued to show that the effect of the relationship to the victim was moderated by the apprehension of a true perpetrator on ratings of guilt, $F(2, 191) = 3.25, p = .041, \eta^2_p = .04$. This interaction was only in regards to guilt, not innocence, $F(1, 192) = 6.13, p = .014, \eta^2_p = .03$. Both groups continued to find exonerees less guilty when a true perpetrator was apprehended, $F(1, 193) = .54, p = .47, \eta^2_p = .00$. Whether or not a true perpetrator was found was also not statistically meaningful for

family members, $F(1, 91) = 2.74, p = .10, \eta^2_p = .03$, or for neighbors, $F(1, 100) = .01, p = .93, \eta^2_p = .00$. However, family members found exonerees guiltier than acquaintances did when there was no true perpetrator identified, $F(1, 193) = 9.47, p = .002, \eta^2_p = .05$.

Means are presented in Table 36.

Table 36

An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Exoneree Guilt (With Covariates)

		True Perpetrator	
		Apprehended	Not Apprehended
Relationship to Victim	Family	2.19 (1.85)	3.91 _a (3.08)
	Acquaintance	1.99 (1.40)	3.07 _a (1.65)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

According to the MANCOVA results in Table 18, there was still an interaction between the relationship to the victim and the apprehension of the true perpetrator in regards to the nuance variables, $F(4, 190) = 5.52, p < .001, \eta^2_p = .10$. Specifically, this interaction only occurred in regards to satisfaction with the exoneration, $F(1, 193) = 20.29, p < .001, \eta^2_p = .10$. Other nuance variables, such as blame and deservingness for the original conviction, were no longer statistically meaningful with covariates included. The effect of the relationship to the victim mattered: family members felt less satisfied with the exoneration than acquaintances when a true perpetrator was found, $F(1, 193) = 4.95, p = .027, \eta^2_p = .03$, and this same pattern also occurred when there was no true perpetrator found, although to a larger extent, $F(1, 193) = 41.74, p < .001, \eta^2_p = .18$. In general, family members were not highly satisfied with exonerations, whether or not the

crime was later solved or not, $F(1, 91) = 1.68, p = .199, \eta^2_p = .02$. For acquaintances, a pattern was trending toward significance that they felt more satisfied when a true perpetrator was found, $F(1, 100) = 3.55, p = .062, \eta^2_p = .03$. Means are presented in Table 37.

Table 37

An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Exoneration Satisfaction (With Covariates)

		True Perpetrator	
		Apprehended	Not Apprehended
Relationship to Victim	Family	7.37 _a (2.29)	4.92 _b (2.44)
	Acquaintance	8.09 _a (2.19)	7.01 _b (2.08)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

A MANCOVA also continued to show that the effect of the relationship to the victim was moderated by the type of evidence in terms of quality of the evidence, as seen in Table 20. There was no difference in relationship to victim on convincingness of evidence when there was DNA; both family members and neighbors found it highly convincing, $F(1, 193) = .01, p = .929, \eta^2_p = .00$. Neighbors found witness recantations to be more convincing than family members did, although the mean ratings were lower, $F(1, 193) = 7.12, p = .008, \eta^2_p = .04$. Within family members alone, there was not a difference in type of evidence on ratings of convincingness when covariates were included, $F(1, 91) = .06, p = .81, \eta^2_p = .00$, nor was there a difference within the acquaintances group, $F(1, 100) = .07, p = .79, \eta^2_p = .00$. Means are presented in Table 38.

Table 38

An Interaction of Relationship to Victim and Evidence Type on Ratings of Convincingness of Evidence (With Covariates)

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	8.55 (1.79)	5.71 _a (2.13)
	Acquaintance	8.62 (1.90)	6.61 _a (2.42)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

This interaction continued to persist on ratings of evidence believability as well, $F(1, 192) = 7.27, p = .008, \eta^2_p = .04$. With individual difference measures accounted for, there was no significant difference in relationship to victim on believability of exonerating evidence when there was DNA; both family members and neighbors found it highly believable, $F(1, 193) = .61, p = .436, \eta^2_p = .00$. There was, however, a difference when there was non-DNA evidence, such that acquaintances found it more believable than did family members, $F(1, 192) = 11.87, p = .001, \eta^2_p = .06$. The type of evidence did not make a meaningful difference within each group alone, though; believability ratings did not difference depending on the type of evidence for family members, $F(1, 91) = .25, p = .622, \eta^2_p = .00$, or for acquaintances, $F(1, 99) = .03, p = .847, \eta^2_p = .00$. Means for this interaction are presented in Table 39.

Table 39

An Interaction of Relationship to Victim and Evidence Type on Ratings of Believability of Evidence (With Covariates)

		Evidence Type	
		DNA	Witness Recantation
Relationship to Victim	Family	8.54 (1.73)	5.73 _a (2.21)
	Acquaintance	8.77 (1.73)	6.84 _a (2.24)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$.

According to Table 21, there also continued to be a multivariate interaction on emotion ratings between relationship to the victim and whether or not the case was solved when covariates were included, $F(2, 190) = 6.79, p < .001, \eta^2_p = .07$. Specifically, this interaction occurred in regards to negative emotions, $F(1, 191) = 9.49, p = .002, \eta^2_p = .05$. Means are presented in Table 40. Family members generally felt more negatively than did neighbors, regardless of whether there was a true perpetrator identified, $F(1, 191) = 25.99, p < .001, \eta^2_p = .12$, or not, although the negative emotions ratings had larger means during that circumstance, $F(1, 191) = 71.48, p < .001, \eta^2_p = .27$. Differences in affect ratings were not significant for family members, $F(1, 90) = .14, p = .707, \eta^2_p = .00$, nor for the acquaintance condition, $F(1, 99) = .04, p = .852, \eta^2_p = .00$.

Table 40

An Interaction of Relationship to Victim and True Perpetrator Identification on Ratings of Negative Affect (With Covariates)

		True Perpetrator	
		Apprehended	Not Apprehended
Relationship to Victim	Family	.31 _a (.90)	.48 _b (.75)
	Acquaintance	-.29 _a (.75)	-.47 _b (.82)

Note. Numbers in parentheses are standard deviations. Means with the same single letter subscript differ by at least $p < .05$. Means are presented as z-scores.

VITA

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EDUCATION

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- | | |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2013-present | Doctor of Philosophy Candidate
Clinical Psychology with a Forensic Emphasis, Sam Houston State University, Huntsville, TX
<i>Dissertation:</i> Guilty Until Proven Innocent: Variables Influencing the Impact of Exonerations on Victims' Families (Proposal Defended: 02/28/2017)
<i>Advisor:</i> Rowland Miller, Ph.D. |
| 2015 | Master of Arts
Clinical Psychology, Sam Houston State University, Huntsville, TX
<i>Thesis:</i> Juror Perceptions of False Confessions Versus Witness Recantations
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| 2013 | Bachelor of Arts, Departmental Honors
Psychology and Legal Studies, Northwestern University, Evanston, IL
<i>Departmental Honors Thesis:</i> An Online Community Survey of Men Sexually Attracted to Children
<i>Advisor:</i> J. Michael Bailey, Ph.D. |

CLINICAL & PRACTICA EXPERIENCE

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|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08/2017-present | Practicum Student- Federal Prison Camp, Bryan, TX
<i>Responsibilities:</i> <ul style="list-style-type: none"> • Co-facilitated process- and skills-based group therapy within a trauma treatment program, as well as psychoeducational drug education groups to inmates on topics of addiction and substance use disorders • Conducted brief individual therapy, utilizing Cognitive-Behavioral Therapy and Motivational Interviewing • Attended residential drug abuse program therapeutic community meetings <i>Population:</i> Ethnically diverse, adult, female offenders incarcerated in a minimum security federal facility
<i>Supervisors:</i> Ashley Noble, Psy.D., Leana Talbott, Psy.D., Deanna Berg, Psy.D., Melisa Arrieta, Psy.D. |
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08/2016-09/2017

Co-Leader- Sex Offender Treatment Group

Psychological Services Center, Sam Houston State University

Responsibilities:

- Co-facilitated a bi-weekly, mandated, evidence-based, manualized male sexual offender treatment group with a Licensed Sex Offender Treatment Provider
- Provided individual, evidence-based psychotherapy to members of the sexual offender treatment group, in adjunct to SOTP group, including Cognitive Behavioral Therapy, Dialectical Behavior Therapy, supportive counseling, and suicide risk assessment/management
- Observed meetings of sexual offenders' external support groups

Population: Ethnically diverse, adjudicated male sexual offenders*Supervisor:* Holly Miller, Ph.D., LSOTP

08/2016-08/2017

Practicum Student- Individual and Group Therapist, Evaluator

Walker County Adult Probation Department

Responsibilities:

- Provided substance abuse interventions and utilized techniques such as Motivational Interviewing, psychoeducation, distress tolerance, and relapse prevention
- Conducted psychodiagnostic evaluations, which included administering personality measures, as well as cognitive and achievement tests
- Performed substance abuse evaluations, consisting of clinical interviews and the Addiction Severity Index
- Co-facilitated manualized anger management group training
- Provided voluntary and mandated, individual, evidence-based psychotherapy, including Cognitive Behavioral Therapy, Dialectical Behavior Therapy, Assertiveness Training, exposure therapies, and career counseling

Population: Ethnically diverse, adult, males and females on community supervision*Supervisor:* Darryl Johnson, Ph.D.

08/2015-07/2016

Practicum Student- Counselor

Telehealth Counseling Clinic, Texas A&M University

Responsibilities:

- Provided individual, evidence-based interventions, including Cognitive Behavioral Therapy, components of Cognitive Processing Therapy, and components of Dialectical Behavior Therapy via telepsychology mediums (videoconferencing and telephone sessions)
- Conducted intake evaluations and authored intake reports

- Collaborated with clients on treatment plans and monitored progress closely in relation to the treatment plan using self-report measures
 - Conducted suicide risk assessment/management
 - Participated in weekly didactic and group supervision meetings
- Population:* Ethnically diverse adults from rural, low income areas with a variety of mental health concerns
Supervisors: Carly McCord, Ph.D., Edgar Villarreal, Ph.D.

10/2015-present

Student Forensic Evaluator

Psychological Services Center, Sam Houston State University

Responsibilities:

- Conducted court-ordered, pre-trial forensic evaluations under the supervision of a licensed psychologist, consisting primarily of a comprehensive clinical interview and record review
- Administered psychological testing, such as response style measures, when appropriate
- Co-authored reports for adult forensic evaluations (i.e., competency to stand trial and mental state at the time of the offense) and juvenile forensic evaluations (i.e., fitness to proceed and criminal responsibility), formulated psycholegal opinions with the primary supervisor in accordance with state statute, and provided treatment recommendations

Population: Ethnically diverse, male and female, justice-involved adults and adolescents of several rural counties, evaluated at jails, juvenile detention centers, and an outpatient clinic

Supervisors: Mary Alice Conroy, Ph.D., ABPP, Wendy Elliott, Ph.D.

2015-present

Assistant Evaluator

Montgomery County Juvenile Probation Department

Responsibilities:

- Conducted psychodiagnostic evaluations of juveniles as ordered by the court or probation department
- Administered measures of intelligence, achievement, and adaptive behavior
- Authored integrated reports and provided treatment and placement recommendations, and collected collateral information from juveniles' parents and teachers

Population: Ethnically diverse, male and female, justice-involved youth

Supervisor: Darryl Johnson, Ph.D.

07/2015

Assistant Evaluator

Private Practice, Jorge Varela, Ph.D.

Responsibilities:

- Conducted several court-ordered sexually violent predator (SVP) evaluations
- Administered and interpreted statute-required measures, such as the Psychopathy Checklist-Revised (PCL-R) and the Static-99R

Population: Detained adult male sexual offenders

Supervisor: Jorge Varela, Ph.D.

2014-present

Student Clinician

Psychological Services Center, Sam Houston State University

Responsibilities:

- Administered and scored assessment materials, including cognitive, achievement, adaptive behavior, personality, neuropsychological, and behavioral measures
 - Assessments included, but were not limited to, learning disabilities, ADHD, and comprehensive psychological evaluations
- Provided individual evidence-based interventions, including Cognitive Behavioral Therapy, Dialectical Behavior Therapy, and Motivational Interviewing
- Conducted suicide risk assessments and prevention plans
- Completed intake evaluations and authored intake reports
- Collaborated with clients on treatment plans and closely monitored treatment goals and progress
- Gave feedback to clients about assessment results and made treatment recommendations and referrals
- Attended and participated in case conferences and group supervision

Population: Ethnically diverse, low-income adolescent and adult college students and community members with a variety of mental health concerns

Supervisors: Craig Henderson, Ph.D., Jorge Varela, Ph.D., Lisa Kan, Ph.D., Adam Schmidt, Ph.D., David Nelson, Ph.D., Jaime Anderson, Ph.D.

05/12-08/12

Undergraduate Intern

Isaac Ray Forensic Group, LLC, Chicago, IL

Responsibilities:

- Observed private practice civil and criminal neuropsychological forensic evaluations, including fitness to stand trial, sexually violent persons, and worker's compensation
- Watched the administration of comprehensive diagnostic measures, including personality, sexual behavior and interest (penile plethysmography), and neurodevelopmental

- Received group supervision and didactic training in mental health and disability case law with pre-doctoral interns, led by attorney S. Jan Brakel, J.D.

- Participated in case conferences with all staff members

Population: Ethnically diverse, male and female, urban, justice-involved adults receiving court-ordered and *ex parte* services from a forensic neuropsychology private practice clinic

Supervisors: Diana Goldstein, Ph.D., ABPP/CN, Tracy Rogers, Ph.D.

TEACHING EXPERIENCE

08/2017-present

Teaching Assistant

Doctoral Capstone (PSYC 8382), Sam Houston State University

Responsibilities:

- Provided peer supervision to doctoral students in their therapy and assessment class in order to prepare for their formal case presentations to faculty
- Assisted the professor in demonstrating therapeutic techniques, arranging presentations, and other administrative duties

Supervisor: Craig Henderson, Ph.D.

08/2015-12/2015

Instructor of Record

Law and Psychology (PSYC 3383), Sam Houston State University

Responsibilities:

- Lectured and facilitated class discussions on the theories, definitions, controversies, and practical skills related to the field of forensic psychology, including, but not limited to, competency, corrections, criminal responsibility, eyewitness memory, expert testimony, psychopathy, risk assessment, and wrongful convictions
- Designed the course, chose readings, and created multimedia presentations
- Arranged guest speakers from the fields of psychology and law
- Prepared and graded students' exams and tracked student grades

Supervisor: Christopher Wilson, Ph.D.

08/2014-05/2015

Instructor of Record

Introduction to Psychology (PSYC 1301), Sam Houston State University

Responsibilities:

- Lectured on various topics spanning an introduction to the field of psychology, including, but not limited to, social psychology, developmental psychology, psychopathology, sensation and

perception, memory, biological mechanisms of the brain and nervous system, and therapeutic modalities

- Created multimedia presentations and in-class demonstrations
- Prepared and graded students' exams and tracked student grades
- Held weekly office hours and met with students for voluntary monthly psychology-related discussion groups outside of class

Supervisor: Christopher Wilson, Ph.D.

10/2014

Invited Guest Lecturer

Victims and Violence (PSYC 4333), Sam Houston State University

- Lectured on topics of national innocence projects, the causes and consequences of wrongful convictions, and the future of the "innocence movement" for an upper-level undergraduate class

Supervisor: Robert Cramer, Ph.D.

SUPERVISORY EXPERIENCE

08/2017-present

Peer Supervisor

Capstone Practicum Course

Psychological Services Center, Sam Houston State University

Responsibilities:

- Co-facilitated supervision sessions with a junior doctoral student clinician and licensed staff psychologist
- Reviewed therapy videos with supervisee and provided feedback on case presentations to faculty

Supervisor: Craig Henderson, Ph.D.

01/2016-05/2016

Peer Supervisor

Psychological Services Center, Sam Houston State University

Capstone Practicum Course

Responsibilities:

- Provided instruction and guidance to a junior doctoral student on approaching learning disability assessments
- Checked students' administration of various intelligence and achievement tests

Supervisor: Darryl Johnson, Ph.D.

01/2016-05/2016

Peer Supervisor

Theory & Research in Psychotherapy I (PSYC 5333), Sam Houston State University

Responsibilities:

- Reviewed and provided feedback on video-taped, role-played interventions for junior doctoral students in their psychotherapy class
- Made recommendations and demonstrated techniques of basic therapeutic foundations and interventions

Supervisor: Craig Henderson, Ph.D.

RESEARCH EXPERIENCE

08/2016-present

Principal Investigator

Dissertation: Guilty Until Proven Innocent: Variables Influencing the Impact of Exonerations on Victims' Families

Responsibilities:

- Designed an experimental survey study exploring the impact of exonerations on crime victims' families while manipulating variables such as relationship to victim, type of exonerating evidence, and apprehension of a true perpetrator
- Collected data, analyzed and interpreted multivariate statistics, and prepared a manuscript

Supervisor: Rowland Miller, Ph.D.

05/2016-03/2017

Co-Investigator

The Effects of Telepsychology on Interview Disclosure

Responsibilities:

- Co-designed an experimental study exploring the effect of a technological medium on participants' self-disclosure, and the impacts of videoconference interviewing on forensic evaluations
- Conducted interviews and analyzed statistics

Supervisor: Jorge Varela, Ph.D.

08/2015-03/2016

Co-Investigator

Freaking out! The Role of Affective Arousal in Objective Personality Assessment: Implications for Forensic Assessment

Responsibilities:

- Co-designed an experimental study exploring the effect of state-related fluctuations in affect on MMPI-2-RF profiles by inducing affect through a racially-charged video versus a neutral video
- Hand-scored MMPI-2-RF profiles and entered data

Supervisor: Adam Schmidt, Ph.D.

08/2014-07/2015

Principal Investigator

Master's Thesis: Juror Perceptions of False Confessions Versus Witness Recantations

Responsibilities:

- Designed an experimental study determining differences in mock jurors' perceptions of guilt in false confessors versus witnesses who had recanted testimony
- Collected data, analyzed and interpreted multivariate statistics, and prepared a manuscript

Supervisor: Rowland Miller, Ph.D.

08/2014-05/2015

Research Director

Innocence Project of Texas, Lubbock, TX

Responsibilities:

- Compiled documents and directed research for a review of innocence projects' work and objectives across Texas
- Acted as a member of the Policy & Research Committee and participated in videoconference meetings

Supervisors: Jeff Blackburn, J.D., Nick Vilbas, J.D.

08/2013-07/2016

Graduate Research Assistant

Social Psychology Research Lab, Sam Houston State University

Responsibilities:

- Collected data from undergraduate participants for various romantic relationship social psychology projects
- Collected, analyzed, and interpreted data, and prepared manuscripts and conference presentations

Supervisor: Rowland Miller, Ph.D.

08/2011-07/2013

Volunteer/Intern

Center on Wrongful Convictions, Bluhm Legal Clinic,
Northwestern University School of Law, Chicago, IL

Responsibilities:

- Summarized case intakes of incarcerated individuals seeking representation for exoneration and recommended cases for representation
- Researched cases and compiled case information into the National Registry of Exonerations

Supervisor: Dolores Kennedy, M.A.

PUBLISHED MANUSCRIPTS

Bailey, J. M., **Bernhard, P. A.**, & Hsu, K. J. (2016). An Internet study of men sexually attracted to children: Correlates of sexual offending against children. *Journal of Abnormal Psychology*, 125(7), 989-1000. doi: 10.1037/abn0000213

Bailey, J. M., Hsu, K. J., & **Bernhard, P. A.** (2016). An Internet study of men sexually attracted to children: Sexual attraction patterns. *Journal of Abnormal Psychology*, 125(7), 976-988. doi: 10.1037/abn0000212

MANUSCRIPTS IN PREPARATION/UNDER REVIEW

Bernhard, P. A., & Miller, R. S. (2017). Juror perceptions of false confessions versus witness recantations in a community sample. Manuscript under review.

McCord, C., Walsh, M., **Bernhard, P. A., & Rosner, C.** (2017). A competency cube model for telehealth clinics. Manuscript in preparation.

PROFESSIONAL RESEARCH PRESENTATIONS

Mattos, L., **Bernhard, P. A.,** Varela, J., Long, T., Yenne, E., Kavish, N., & Holden, S. (2017, March). The effects of telepsychology on interview disclosure. Poster presented at the annual meeting of the *American Psychology-Law Society*, Seattle, WA.

McCord, C., Villarreal, E., **Bernhard, P. A., & Garney, W.** (2016, November). Telesupervision: To be feared or revered? Paper presented as part of a symposium at the annual meeting of the *Texas Psychological Association*, Austin, TX.

Kempker, S., Formon, D. L., **Bernhard, P. A.,** Bate, B. P., & Schmidt, A. T. (2016, April). The Michael Brown “affect”: Impacts of race-related arrest footage on personality. Poster presented at the annual meeting of the *Southwestern Psychological Association*, Dallas, TX.

Formon, D. L., **Bernhard, P.,** Kempker, S. Bate, B., & Schmidt, A. T. (2016, March). Freaking out! The role of affective arousal in objective personality assessment: Implications for forensic assessment. Poster presented at the annual meeting of the *American Psychology-Law Society*, Atlanta, GA.

Bernhard, P. A., & Miller, R. S. (2016, March). Juror perceptions of false confessions versus witness recantations in a community sample. Paper presented at the annual meeting of the *American Psychology-Law Society*, Atlanta, GA.

Bernhard, P. A., Miller, R., Cramer, R. J., Boccaccini, M. (2015, August). Juror perceptions of false confessions versus witness recantations. Poster presented at the annual meeting of the *American Psychological Association*, Toronto, Canada.

Bernhard, P. A., Cramer, R. J., & Havrdová, E. (2015, August). A case illustration of interdisciplinary training in psychology-law: The Prague Center for Public Policy’s Summer School on Crime, Law and Psychology. Poster presented at the annual meeting of the *American Psychological Association*, Toronto, Canada.

Miller, R. S., **Bernhard, P. A., & Bowen, T. J.** (2014, July). Who are some of these people? An analysis of Facebook “friends.” Poster presented at the annual meeting of the *International Association for Relationship Research*, Melbourne, Australia.

Bernhard, P. A., & Bailey, J. M. (2013, May). An online community survey of men sexually attracted to children. Poster presented at the *Northwestern University Undergraduate Research and Arts Exposition*, Evanston, IL.

AWARDS AND SCHOLARSHIPS

2016	Sam Houston Area Psychological Association (SHAPA) Travel Award
2016, 2015	Leadership Scholarship Initiative, Sam Houston State University Graduate Studies
2016, 2015	Sam Houston State University Outstanding Teaching Assistant Award Nominee
2013	“People’s Choice Award” for Honors Thesis at the Undergraduate Research and Arts Exposition, Northwestern University
2013	Northwestern University Departmental Honors in Psychology
2009-2013	Northwestern University Alumnae Board Scholarship

RELATED TRAVEL EXPERIENCE

07/2014	<p>International Student The Prague Center for Public Policy’s Summer School on Crime, Law and Psychology in Prague, Czech Republic</p> <ul style="list-style-type: none"> • Attended a week-long educational program in the Czech Republic involving lectures and workshops on topics related to crime, law, and psychology, such as eyewitness memory, serial killers, hate crimes, and child abuse cases <p><i>Supervisor:</i> Egle Havrdová, Ph.D.</p>
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PROFESSIONAL SERVICE

2016-2017	<p>Campus Representative, Advocacy Coordinating Team American Psychological Association of Graduate Students (APAGS)</p> <p><i>Responsibilities:</i></p> <ul style="list-style-type: none"> • Disseminated information to classmates in regards to advocacy-related efforts of the American Psychological Association • Participated in monthly advocacy-related discussions
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- 02/2016 **Ad Hoc Reviewer**
Journal of Sex Research
Responsibilities:
- Co-authored peer reviews of manuscripts seeking publication related to the topic of pedophilia and hebephilia
- 2015-2016 **President**
 Graduate Student Psychology Organization, Sam Houston State University
Responsibilities:
- Planned and oversaw program events and community service activities
 - Acted as a liaison between the organization and departmental faculty
 - Led executive board and general member meetings, and managed the executive board
- Advisor:* Craig Henderson, Ph.D.
- 2014-2015 **Secretary**
 Graduate Student Psychology Organization, Sam Houston State University
Responsibilities:
- Documented meeting minutes at executive board and general meetings, and communicated with students/faculty
 - Planned events and collaborated with other executive board members
- Advisor:* Craig Henderson, Ph.D.

PROFESSIONAL DEVELOPMENT

- 07/2017 Motivational Interviewing: Clinical Training Workshop
 Consolidated Continuing Education and Professional Training,
 Sam Houston State University
Presenter: Joe Mignogna, Ph.D.
- 05/2017 Haven Diversity Advocate Training
 Training for advocating for and celebrating LGBTQ+ identities
Presenter: Drew Miller, PsyD
- 04/2017 “Indispensable Forensic Psychology” in the Age of Neuroscience
 Consolidated Continuing Education and Professional Training,
 Sam Houston State University
Presenter: Stephen Morse, J.D., Ph.D.
- 11/2016 Getting It Wrong About Miranda Rights: Research On Our Myths
 and Misconceptions

Consolidated Continuing Education and Professional Training,
Sam Houston State University
Presenter: Richard Rogers, Ph.D., ABPP

- 04/2016 Risk-Needs-Responsivity Simulation Tool
Consolidated Continuing Education and Professional Training,
Sam Houston State University
Presenter: Faye Taxman, Ph.D.
- 03/2016 Not Taking the Bait: An Experiential Workshop on Expert
Testimony
Continuing Education Training, AP-LS Annual Convention,
Atlanta, Georgia
Presenter: Joel Dvoskin, Ph.D. & Stanley Brodsky, Ph.D.
- 04/2015 Callous-Unemotional Traits and Conduct Disorder: Implications
for Understanding, Diagnosing, and Treating Antisocial Youths
Consolidated Continuing Education and Professional Training,
Sam Houston State University
Presenter: Paul Frick, Ph.D.
- 02/2014 Clinical and Conceptual Problems in the Attribution of
Malingering in Forensic Evaluations
Consolidated Continuing Education and Professional Training,
Sam Houston State University
Presenter: Richard Frederick, Ph.D.

PROFESSIONAL MEMBERSHIPS

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| 2016-present | Texas Psychological Association |
| 2015-present | American Psychological Association |
| 2014-present | American Psychology-Law Society (APA Division 41) |
| 2013-present | Graduate Student Psychology Organization, Sam Houston State University |