

JUST WORLD VIOLATIONS PROMPT BELIEFS IN KARMIC RETRIBUTION

BY

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THESIS

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## ABSTRACT

How likely are people to think that someone who perpetrates a crime against another person will experience an adverse event in response? In other words, how much do people believe in karmic retribution? Across three studies, we examined this question in the present research. Participants were randomly assigned to read about a sexual crime that varied in its level of severity (e.g., a man whistles suggestively at a woman vs. a man takes an up-skirt photo of a woman). People who read about more severe crimes thought that a negative event would be more likely to happen to the offender of the crime. Importantly, people thought negative events were more likely to affect offenders of severe crimes even when the event was entirely unrelated to the crime (e.g., getting hit by a car after assaulting a woman), and even if a person did not intentionally create the adverse event (e.g., getting cancer). Dispositional belief in a just world did not consistently moderate the effect of crime severity on the likelihood of negative events. These findings provide novel evidence for the question of how people psychologically manage violations to the belief that the world is fair and just, and provide empirical support that people generally believe in karmic retribution.

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## **CHAPTER 1: INTRODUCTION**

During an interview in 2012, Congressman Todd Akin told the interviewer, “If it’s legitimate rape, the female body has ways to try to shut the whole thing down” (Jaco, 2012). He argued that women who are raped do not get pregnant from the rape. He later defended his statement by saying that he was arguing that children born from rape have a right to life and should not be aborted (Alter, 2014). The interviewer during his defense pointed out that a child born from rape contradicts his original statement.

Why do people sometimes blame the victims of crimes such as rape? People have a motivation to believe that the victim deserved what happened to them (Lerner, 1977). That motivation, in turn, causes them to engage in biased reasoning (Kunda, 1990). That biased reasoning ultimately leads people to certain assumptions, such as that rape victims deserve what happened to them. However, why do people have the motivation to believe that the victim deserved it in the first place? The present research aims to examine whether the blame normally targeted at the victim of crimes can also become targeted towards those who commit the crimes. It also investigates the mechanism by which this blame can come about. Is it the case that people’s judgments of deservingness are always related to the crime itself, such as thinking a rapist deserved to be raped themselves, or could people’s blame also be satisfied by unrelated events, such as a rapist being struck by a runaway vehicle? The final aspect of the literature this research examines is whether people who more strongly believe that people deserve what they get will also blame them more.

### **Just World Theory**

Just world theory, originally developed by Lerner and Simmons (1966), attempts to explain the psychological processes people go through when they are presented with a situation

where someone is an innocent victim of circumstance. The reason why people so readily derogate the victims of crimes is that they believe the world to be fundamentally just, and so in general people not only get what they deserve, but they also deserve what they get (Lerner, 1980). People believe in a just world because, as they grow up, they learn to invest more in long-term benefits and less in short-term ones, and thus they are motivated to believe that the world is fundamentally just and fair to protect their long-term investments (Hafer et al., 2005b; Hafer & Rubel, 2015). This theory helps to explain why people have a motivation to derogate the victim of a crime. Lerner found that people will attempt to compensate (usually by rewarding them or positively rating their character) the victim initially, but if led to believe that the victim will continue to suffer in the future, they instead tended to derogate the victim's character, such as by presuming that they deserved it somehow (Lerner & Simmons, 1966). Research has shown that people will derogate the victims of various crimes such as rape and robbery, and even victims of life events such as AIDS (Callan et al., 2006; Furnham & Procter, 1992; Furnham, 2003; Hafer & Bègue, 2005a). Derogation occurs because people begin with the assumption that the world is fundamentally just, and then reason why the given event has occurred. When people are presented with a person who appears to be completely innocent it violates their initial conclusion that the world is just, and so they must then determine a way for the person to still be a victim while also maintaining a just world. The way that people do that is usually by assuming that the victim deserved their fate somehow. This assumption also helps people to justify investment in long term outcomes over more short-term ones. Overall, just world theory explains that because innocent victims inherently violate people's outlook that the world is fair and just, then people are motivated to believe that the victim somehow deserved what happened to them in order to maintain their belief in a just world.

## **Reaction to Offenders**

The present research attempts to tackle three different gaps in the just world literature. The first gap in the literature is that it addresses very little how people react to the *offenders* of crimes in the just world framework. Can people also satisfy their just world motive by blaming the offender of crimes? As a whole, the body of research on just world theory has addressed how people react to the victims of crimes, but the offender can also present a challenge to people's belief in a just world. People can satisfy their just world motive by derogating or compensating the victim, but could not the just world motive be equally satisfied by derogating the person who performed the unjust act (Furnham, 2003; Hafer & Bègue, 2005a)? What if, instead of focusing on what the victim deserves, the focus is instead on what the offender deserves? Previous literature has suggested that people cope with heinous crimes by labeling the offender as *evil* or labelling the crime as *senseless* (Ellard et al., 2002; Lodewijkx, 2001). This indicates that in an actual criminal scenario people may think that the offender deserves to have something bad happen to them. However, simply thinking that a criminal is more deserving of a negative event does not necessarily satisfy the just world motive. Someone who commits a crime deserves to go to jail, whereas another person who does not commit a crime does not deserve to go to jail—but that is not a new revelation. What this research contributes to the idea of deservingness is that a criminal would also deserve to have other negative events that are unrelated to the crime happen to them.

## **Karmic Retribution**

The second gap in the literature is whether the just world motive can be fulfilled by random unrelated events to the injustice. Do people believe that a just world works through the mechanism of *karma*, or events that are unrelated to the immediate situation, to punish those who

have harmed others? In essence, it would seem that people's belief in a just world operates via "karmic" retribution, where bad people deserve to experience negative events (Callan et al., 2010). It would follow, then, that people would also think that criminals deserve to experience random negative karmic events (events unrelated to the crimes they committed), such as getting into a car accident or getting struck by lightning. Previous work by Harvey and Callan (2014) has shown that people are more willing to entertain the notion that a serious accident was due to a person's conduct when they were described as a thief than when they were described as a volunteer. Based on this past work, it does indeed seem that people readily come to the conclusion that a person's past actions can be the cause of unrelated tragic events.

The just world literature separates thinking about how past action relates to current events into two broad categories. Maes (1998) characterizes two forms of thinking about justice: immanent justice and ultimate justice. Immanent justice is the idea that events are the result of previous actions, while ultimate justice is unconcerned with a time frame and simply is the promise that injustice will be corrected eventually. For example, if people think that a bad person is more deserving to be in a car crash, then they are supporting immanent justice (Callan et al., 2006). If someone instead thinks that a bad person will receive their punishment in the afterlife, then they are thinking based off ultimate justice. Both of these beliefs can and are held together in peoples' minds. Belief in ultimate justice usually acts as a coping mechanism whereby people are able to rely on the belief that justice will ultimately win out in order to steel themselves from a perceived injustice that they might not be able to correct, while imminent justice belief is associated with direct responses that try to immediately correct an injustice (Maes & Kals, 2002). It is through these two beliefs in a just world that people defend and maintain their belief that the world overall is just. Karmic retribution can act both as a form of imminent justice as well as

ultimate justice (Callan et al., 2014). On the imminent justice side, there are concepts such as “instant karma” that represent immediate correction of an injustice. On the ultimate justice end, there is the ideas of many religions that people will be punished in some sort of afterlife (Maes, 1998). Although it may well be the case that karma acts shortly in response to a misdoing (thus fitting with immanent justice), it may also work slowly over a long time frame (and therefore fit better with ultimate justice).

A consistent method used by previous research to establish how people maintain their belief in a just world is through the mechanism of deservingness (Lerner et al., 1976). People will often respond that the victim of a disease or other injustice deserved their fate. Similarly, when someone is described as being a bad person, people will readily make the link between their personality and a tree branch falling on their car (Callan et al., 2013). Some past research has also found that people think that others who do bad things are more deserving of negative events and those who do good things deserve to have more positive events happen to them (Callan et al., 2006). An additional contribution of the present research on how people react to just world violations is examining whether people’s ideas of justice extend beyond attributions of deservingness. The present research will attempt to replicate past work which found that people believe that bad people deserve to have negative events happen to them while also extending those findings by investigating whether people also think that bad people are more likely to have negative events happen to them (Callan et al., 2010). Because of just world theory’s idea of people getting what they deserve, then people might also believe not only that criminals deserve to be the victim of these negative karmic events, but that these negative karmic events are actually more likely to happen to them. Previous research has suggested that people ascribe a causal link between a person’s previous negative actions and an accident that happened to them

(Callan et al., 2013). The present research is interested in whether that same causal link is strong enough such that people will not only think that a bad person deserves to suffer an accident, but that that accident will actually happen to them. It is one thing to think that a criminal deserves to get hit by a car, but another thing to think that they are actually more likely to get hit by a car because the world is trying to punish them.

### **Individual Differences**

The third gap in the literature is limitations of or problems with individual difference measures in people's belief in a just world. Will people who more strongly believe in a just world think that worse criminals are more deserving and more likely to experience negative events? Research predicts (only somewhat reliably) that people who more strongly believe in a just world will think that good people are more deserving of positive events and bad people are more deserving of negative ones (Callan et al., 2006). Previous research on belief in a just world has received mixed results when trying to detect individual differences in belief in a just world (Hafer & Bègue, 2005a). One reason for this could be that people's belief in a just world is not often explicitly endorsed (Lerner, 1998 p.263). However, it is still important to improve scales and determine why effects are only sporadically found (Lipkus, 1991). For the present research, if people's belief in a just world is strong enough such that they make the leap from thinking a criminal is deserving to be hit by a car to actually thinking they will be hit by a car, then there might be less trouble with getting them to explicitly endorse their belief in a just world. The present research explores whether just world belief moderates the effects such that people higher on belief in a just world more strongly believe a bad person deserves to suffer from negative events.

### **Present Research**

In the present research, we examined three main hypotheses: (a) people will judge that offenders who commit worse just world violations will be more deserving and more likely to have a negative event happen to them, (b) people will spontaneously generate unrelated karmic events in response to just world violations, and (c) people who believe more strongly in a just world will ascribe more deservingness and more likelihood of negative events to offenders as compared to people who do not strongly believe in a just world. Studies 1a and 1b addressed whether people will blame offenders and whether this effect is magnified by a stronger belief in a just world. Study 2 again addressed whether people will blame offenders and also examined whether people will spontaneously generate karmic events.

## CHAPTER 2: STUDY 1a

Our first study attempts to answer the question of whether people think that negative events are more likely to occur to those who more strongly violate the just world motive. In the past, research has successfully manipulated the strength of just world violations by varying the severity of health problems suffered by someone (Sherman, Smith, & Cooper, 1982-83; Sloan & Gruman, 1983). We provided participants with short vignettes about a crime happening to someone and manipulated the severity of the crime between conditions to vary how strongly the just world motive had been violated. To maintain consistency among vignettes and previous literature, all of the crimes were of a sexual nature (Hafer & Bègue, 2005a). We then asked participants how deserving and how likely it was that something bad would happen to the offender. Belief in a just world was also measured to see whether it had a significant effect on participant responses.

### Methods

#### Participants

Participants were 319 Amazon Mechanical Turk workers from the United States ( $M_{\text{age}} = 38.57$ ,  $SD = 12.74$ ; 150 male, 166 female, 2 other gender, 1 no gender provided). They received \$0.40 for completing the study. Five additional participants were excluded for failing an attention check (described below).

#### Procedures

**Vignette.** Participants completed the survey online using Qualtrics. After giving their consent, participants were informed that they would read a scenario and answer questions about it. Participants were randomly assigned to read one of six possible scenarios involving a woman

who was the recipient of an event. All scenarios followed the same format of: “Mary is walking home after spending the afternoon studying at her friend’s apartment. It is about 8:00 PM by the time she leaves so it is dark outside. On her way home, [event]. Mary walks the rest of the way home without incident.” The possible event were: “a man walks past her” ( $n = 52$ ), “a man walks up behind her and whistles loudly and suggestively at her” ( $n = 64$ ), “a man walks up behind her and she hears a loud shutter sound as well as a flash as he takes an up skirt photo of her” ( $n = 56$ ), “a man walks up behind her and slaps her butt” ( $n = 43$ ), “a man walks up behind her and grabs her breast over her clothes” ( $n = 57$ ), “a man walks up behind her and aggressively grabs at her chest, groping her and tearing her blouse” ( $n = 47$ ).

**Crime Severity.** Crime severity was measured to gauge how strongly people’s just world motive had been violated (Gruman & Sloan, 1983). The crimes in the vignettes were chosen based on pilot data, which showed that they have a good distribution of crime severity. Pilot participants were one hundred sixty Amazon Mechanical Turk workers from the United States ( $M_{age} = 37.14$ ,  $SD = 11.95$ ; 79 male, 81 female). Participants were shown one of the vignettes above (in addition to some that were not selected for use in the current research) and asked, “How serious of a crime do you think occurred in this scenario?” They responded on a 1 (*not at all serious*) to 9 (*very serious*) scale. The severities were: no event ( $M_{severity} = 1.21$ ,  $SD = 0.83$ ,  $n = 24$ ), whistle ( $M_{severity} = 2.69$ ,  $SD = 1.49$ ,  $n = 16$ ), take picture ( $M_{severity} = 7.26$ ,  $SD = 1.33$ ,  $n = 19$ ), slap butt ( $M_{severity} = 4.69$ ,  $SD = 2.09$ ,  $n = 16$ ), grab breast ( $M_{severity} = 5.78$ ,  $SD = 2.05$ ,  $n = 18$ ), tear blouse ( $M_{severity} = 7.18$ ,  $SD = 1.38$ ,  $n = 17$ ).

**Deservingness of negative event.** Participants indicated how deserving the offender is to have something bad happen to him on a 1 (*not at all deserving*) to 7 (*very deserving*) scale.

**Likelihood of negative event.** Participants then indicated how likely it is that something bad will happen to the offender in the future on a 1 (*not at all likely*) to 7 (*very likely*) scale.

**Belief in a just world.** Participants indicated their belief in a just world through completing the Global Belief in a Just World Scale (Lipkus, 1991). Participants responded to all items using a 1 (*strongly disagree*) to 7 (*strongly agree*) scale. A sample item is “I feel that people who meet with misfortune have brought it on themselves.” We created a composite of the items by averaging across the items ( $\alpha = .93$ ).

**Attention Check.** In all studies participants completed the following attention check. They were shown a question that read “People vary in the amount they pay attention to these kinds of surveys. Some take them seriously and read each question, whereas others go very quickly and barely read the questions at all. If you have read this question carefully, please write the word yes in the blank box below labeled other. There is no need for you to respond to the scale below.” Any participant that responded to the scale measure or did not write “yes” in the text box shown were excluded from analysis.

## Results

### **Do crime severity and belief in a just world increase how much people perceive that the offender deserves to suffer from a negative event?**

We first examined whether the severity of the crime that participants read about affected how deserving people thought the offender was to have something bad happen to him. To do so, we took the severity rating for each condition from the pilot study and created a “severity” variable, such that each participant had a score that corresponded to the rated severity of the crime they read about. We conducted a linear regression analysis, including crime severity (grand-mean centered), belief in a just world (grand-mean centered), and their interaction as

predictors. The perceived deservingness of the offender to have something bad happen to him was the dependent variable.

There was a main effect of crime severity on ratings of deservingness,  $B = 0.65$ ,  $SE = .04$ ,  $t(315) = 17.03$ ,  $p < .001$ , 95% CI = [0.58, 0.73],  $r_{sp} = .69$ . As expected, as the severity of the crime increased, participants rated the offender as being more deserving of having something bad happen to him. There was neither a significant main effect of belief in a just world,  $B = 0.05$ ,  $SE = .07$ ,  $t(315) = 0.78$ ,  $p = .44$ , 95% CI = [-0.08, 0.18],  $r_{sp} = .03$ , nor a significant interaction between crime severity and belief in a just world,  $B = -0.01$ ,  $SE = .03$ ,  $t(315) = -0.39$ ,  $p = .70$ , 95% CI = [-0.02, 0.05],  $r_{sp} = -.02$ . Thus, belief in a just world did not impact people's perceptions that the offender deserved to have a negative event occur to him.

### **Do crime severity and belief in a just world increase how likely the offender is to suffer from a negative event?**

Next, we examined whether people's ratings on whether a negative event will actually happen to the offender are affected by the severity of the crime they read about and by their belief in a just world. We conducted a linear regression analysis, including crime severity (grand-mean centered), belief in a just world (grand-mean centered), and their interaction as predictors. The perceived likelihood that the offender would experience a negative even was included as the dependent variable. There was a main effect of crime severity,  $B = 0.37$ ,  $SE = .04$ ,  $t(315) = 8.51$ ,  $p < .001$ , 95% CI = [0.28, 0.46],  $r_{sp} = .43$ . As the severity of the crime increased, participants were more likely to think that the offender would experience a negative event. There was also a significant effect of belief in a just world,  $B = 0.26$ ,  $SE = .07$ ,  $t(315) = 3.51$ ,  $p = .001$ , 95% CI = [0.11, 0.40],  $r_{sp} = .18$ . Participants who believed more strongly in a just world were more likely to think that the offender would experience a negative event. These main effects were qualified

by a significant interaction between belief in a just world and crime severity,  $B = 0.07$ ,  $SE = .03$ ,  $t(315) = 2.12$ ,  $p = .04$ , 95% CI = [0.01, 0.13],  $r_{sp} = .11$ . This interaction is shown in Figure 1. We decomposed the interaction through examining the effect of crime severity for people high (1 SD above the mean) and low (1 SD below the mean) in belief in a just world (Aiken & West, 1991).

There was a significant effect of crime severity both for participants high in belief in a just world,  $B = 0.46$ ,  $SE = .06$ ,  $t(315) = 7.37$ ,  $p < .001$ , 95% CI = [0.34, 0.59],  $r_{sp} = .37$ , and low in belief in a just world,  $B = 0.28$ ,  $SE = .06$ ,  $t(315) = 4.60$ ,  $p < .001$ , 95% CI = [0.16, 0.40],  $r_{sp} = .23$ . As the severity of the crime increased, participants who are both high and low in belief in a just world believed that the offender was more likely to experience a negative event. However, the extent to which crime severity increased the perceived likelihood of a negative events was stronger for people high (vs. low) in belief in a just world.<sup>1</sup>

## Discussion

Study 1a provides initial evidence for our hypothesis. People who read about a more severe crime thought it was more likely that a bad event would happen to the offender. We also found evidence that people thought a worse offender was more deserving to have something bad happen to him, which replicated previous work (Callan et al., 2006; Harvey & Callan, 2014).

There was conflicting evidence about whether belief in a just world affected people's responses: there was no effect on ratings of deservingness, but there was an effect on ratings of likelihood.

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<sup>1</sup> We conducted analyses to examine whether participant gender moderated any observed effects. Linear regression was performed, including crime severity, belief in a just world, gender, and their interactions as the independent variables. Deservingness of the offender to have something bad happen was the dependent variable. There was not a significant main effect of gender,  $B = -0.13$ ,  $SE = 0.09$ ,  $t(315) = -1.49$ ,  $p = .14$ , 95% CI = [-0.29, 0.04],  $r_{sp} = -.06$ , but there was a significant interaction between crime severity and gender,  $B = -0.08$ ,  $SE = 0.04$ ,  $t(315) = -2.01$ ,  $p = .045$ , 95% CI = [-0.15, -0.002],  $r_{sp} = -.08$ . There was not a significant interaction between gender and belief in a just world,  $B = 0.07$ ,  $SE = 0.06$ ,  $t(315) = 1.04$ ,  $p = .30$ , 95% CI = [-0.06, 0.19],  $r_{sp} = -.06$ . There was also not a significant main effect of gender when likelihood was used as the dependent variable,  $B = -0.06$ ,  $SE = 0.10$ ,  $t(315) = -0.60$ ,  $p = .55$ , 95% CI = [-0.26, 0.14],  $r_{sp} = -.03$ , or interaction between gender and crime severity,  $B = -0.02$ ,  $SE = 0.04$ ,  $t(315) = -0.51$ ,  $p = .61$ , 95% CI = [-0.11, 0.06],  $r_{sp} = -.026$  or gender and belief in a just world,  $B = -0.02$ ,  $SE = 0.08$ ,  $t(315) = -0.26$ ,  $p = .80$ , 95% CI = [-0.17, 0.13],  $r_{sp} = -.01$ .

We conducted Study1b to ensure that we would have enough power to detect whether belief in a just world impacts deservingness and likelihood ratings.

## CHAPTER 3: STUDY 1b

### Introduction

Study 1b was a direct replication of Study 1a with more participants to ensure that we had adequate power to detect our predicted effects.

### Methods

#### Participants

Participants were 711 Amazon Mechanical Turk workers from the United States ( $M_{\text{age}} = 39.54$ ,  $SD = 13.25$ , 453 females, 256 males, 2 other gender). This N provided us with at least 80% power to detect the smallest predicted observed effect in Study 1a ( $r = 0.11$ ), which was the interaction between crime severity and belief in a just world on the likelihood of a negative event. All power analyses were conducted using G Power (Faul, Erdfelder, Lang, & Buchner, 2007). Participants received \$0.40 in exchange for completing the study. Twenty additional participants were excluded for failing an attention check.

#### Procedure

The procedure was nearly identical to Experiment 1a. The only difference was that we changed the wording of our questions to ask about “the man” instead of “the offender” to prevent confusing the participants assigned to read that there was not a crime. The number of participants in each condition were: no event ( $n = 121$ ), whistle ( $n = 102$ ), take picture ( $n = 123$ ), slap butt ( $n = 127$ ), grab breast ( $n = 126$ ), tear blouse ( $n = 112$ ). Reliability of the Belief in a Just World Scale was good ( $\alpha = .88$ ).

### Results

**Do crime severity and belief in a just world increase how much people think that the offender deserves to suffer from a negative event?**

We conducted a linear regression analysis, including crime severity (grand-mean centered), belief in a just world (grand-mean centered), and their interaction as predictors. The perceived deservingness of the offender to have something bad happen to him was included as the dependent variable. We found a main effect of crime severity,  $B = 0.71$ ,  $SE = .02$ ,  $t(707) = 29.52$ ,  $p < .001$ , 95% CI = [0.66, 0.76],  $r_{sp} = .74$ . As the severity of the crime participants read about increased, they rated the offender as being more deserving of having something bad happen to him. There was also a significant main effect of belief in a just world,  $B = 0.08$ ,  $SE = .04$ ,  $t(707) = 2.18$ ,  $p = .03$ , 95% CI = [0.01, 0.15],  $r_{sp} = .06$ . Participants who believed more in a just world thought the offender was more deserving to have something bad happen to him. The interaction between crime severity and belief in a just world was not significant,  $B = -0.03$ ,  $SE = .02$ ,  $t(707) = -1.65$ ,  $p = .10$ , 95% CI = [-0.06, 0.01],  $r_{sp} = -.04$ , indicating that crime severity's effect on deservingness did not change based on the strength of people's belief in a just world.

**Do crime severity and belief in a just world increase how likely the offender is to suffer from a negative event?**

We next examined whether crime severity shapes people's perceptions that the offender will experience a negative event. We conducted linear regression analysis, including crime severity (grand-mean centered), belief in a just world (grand-mean centered), and their interaction as predictors. The perceived likelihood that the offender would experience a negative event was included as the dependent variable. There was a main effect of crime severity,  $B = 0.33$ ,  $SE = .03$ ,  $t(707) = 11.98$ ,  $p < .001$ , 95% CI = [0.27, 0.38],  $r_{sp} = .41$ . Participants thought that offenders who committed more severe crimes were more likely to experience negative events. There was also a significant effect of belief in a just world,  $B = 0.19$ ,  $SE = .04$ ,  $t(707) = 4.53$ ,  $p < .001$ , 95% CI = [0.11, 0.27],  $r_{sp} = .15$ . Participants who more strongly believed in a just

world were more likely to think that the offender would experience a negative event. The interaction between belief in a just world and crime severity was not significant,  $B = 0.02$ ,  $SE = .02$ ,  $t(707) = 1.16$ ,  $p = .25$ , 95% CI = [-0.02, 0.06],  $r_{sp} = .04$ , indicating that the effect of crime severity on the perceived likelihood of the offender experiencing a negative event did not differ based on the strength of participants' belief in a just world.<sup>2</sup> This interaction is shown in Figure 2.

## Discussion

Study 1b replicated and helped reinforce the main findings of Study 1a: crime severity has a positive relationship with perceptions of how deserving and how likely an offender is to have something bad happen to him. Study 1b also helped clarify the issue of whether belief in a just world affects people's ratings of deservingness and likelihood. It appears that individual differences in belief in a just world do indeed influence the degree to which people think that the offender is deserving and likely to experience a negative event.

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<sup>2</sup> We conducted an analysis to examine whether participant gender moderated any observed effects. Linear regression was performed, including crime severity, belief in a just world, gender, and their interactions as the independent variable. Deservingness of the offender to have something bad happen was the dependent variable. There was not a significant main effect of gender,  $B = 0.07$ ,  $SE = 0.06$ ,  $t(701) = 1.23$ ,  $p = .22$ , 95% CI = [-0.04, 0.18],  $r_{sp} = .03$ , interaction between gender and crime severity,  $B = -0.03$ ,  $SE = 0.03$ ,  $t(701) = -1.02$ ,  $p = .31$ , 95% CI = [-0.08, 0.02],  $r_{sp} = -.03$ , or interaction between gender and belief in a just world,  $B = 0.03$ ,  $SE = 0.04$ ,  $t(701) = 0.84$ ,  $p = .40$ , 95% CI = [-0.04, 0.11],  $r_{sp} = .02$ . There was also not a significant main effect of gender when likelihood was used as the dependent variable,  $B = 0.09$ ,  $SE = 0.06$ ,  $t(701) = 1.39$ ,  $p = .166$ , 95% CI = [-0.04, 0.21],  $r_{sp} = .05$ , or an interaction between gender and crime severity,  $B = -0.03$ ,  $SE = 0.03$ ,  $t(701) = -0.94$ ,  $p = .35$ , 95% CI = [-0.08, 0.03],  $r_{sp} = -.03$  or an interaction between gender and belief in a just world,  $B = 0.02$ ,  $SE = 0.04$ ,  $t(701) = 0.54$ ,  $p = .59$ , 95% CI = [-0.06, 0.11],  $r_{sp} = .02$ .

## CHAPTER 4: STUDY 2

### Introduction

Study 2 investigated whether participants' beliefs of which negative events might happen to the offender were a result of *legal* (police based) or *karmic* (unrelated events) intervention. Our findings were consistent with the possibility that people who read about a worse crime thought it was more likely that the criminal would experience a negative event that was unrelated to the crime. However, an alternative explanation for our findings is that people who read about a worse crime thought it was more likely for the person to experience a negative legal event (e.g., being arrested). Another concern we wished to address is the lack of open-ended questions in previous literature. People have always been presented with a scenario where the karmic event has already occurred and then they are asked how deserving the person was to have it occur (Hafer & Bègue, 2005a). Asking people to respond to a specific scenario can be problematic due to its limiting of their response options. People often rate their agreement to a statement more highly when it is part of a close-ended question as compared to when they are allowed to freely respond with statements (Geer, 1988; Reja et al., 2003). This research looks at what events people will spontaneously generate in response to a perceived injustice. This allows examination of what people actually consider to be a just response to the perceived injustice. To address the above potential problems, in Study 2 we allowed participants to fill in their own responses for what they thought might happen to the criminal they read about. Those responses were then coded based on whether they represented a legal (police) or non-legal (karmic) response. We also coded the responses based on whether they involved someone directly harming the offender or not so that we could differentiate between karmic responses that were intentional (e.g., a mob

beating up the offender) and those that were non-intentional (e.g., the offender being struck by lightning).

## Methods

### Participants

Participants were 736 Amazon Mechanical Turk workers from the United States ( $M_{age} = 36.61$ ,  $SD = 12.31$ , 332 females, 401 males, 2 other gender, 1 unanswered). Participants received \$0.40 in exchange for completing the study. Fifteen additional participants were excluded for failing an attention check.

### Procedure

**Vignette.** Participants took the survey online using Qualtrics. After giving their consent, participants were informed that they would read a scenario and answer questions about it. Participants were randomly assigned to read one of six possible scenarios involving a woman who was the victim of a crime. These scenarios were identical to the ones described in Study 1a. The number of participants in each condition were: no event ( $n = 121$ ), whistle ( $n = 120$ ), take picture ( $n = 123$ ), slap butt ( $n = 131$ ), grab breast ( $n = 134$ ), tear blouse ( $n = 107$ ).

**Individual likelihoods.** To assess participants' beliefs of what negative events the offender would experience, we asked participants to list the specific events they thought he would experience. Participants could list up to ten events. For example, participants listed events such as being diagnosed with cancer and being arrested by the police. On average, people gave 3.42 responses ( $SD = 1.92$ ). For each event, participants indicated the perceived likelihood that it would occur using a 1 (*not at all likely*) to 7 (*very likely*) scale.

**Coding of negative events.** Participants entered a total of 2,255 events. These events were coded to address two different questions.

*Legal versus non-legal events.* The events were coded by the first author as either being “legal based” or “non-legal based.” Legal events enforce and punish the offender through legal means, and non-legal events were those that were enacted by anyone not representing the law or chance events. 608 of these events were legal based, such as “incarceration” or “someone will call the police on the man.” 1,647 of the listed events were non-legal based, such as “cancer” or “stabbed.”

*Intentional versus non-intentional events.* The events were also coded as to whether they were “intentional” or “non-intentional.” “Intentional” events were those where there was an actor involved who purposefully intended to execute a negative event on the offender, such as “someone will beat him up”. “Non-intentional” events were those in which there was not an active agent carrying out a negative event on the offender, such as “struck by lightning”. All of the legal events were also intentional (e.g., a person in the legal system was purposefully arresting the offender or putting him in jail). As such, coding of intentionality was only performed on non-legal events.

## **Results**

### **Does Crime Severity Increase the Perceived Likelihood of a Negative Event?**

We first examined whether the severity of the crime was associated with how likely participants thought it was that a negative event would occur. The correlation between crime severity and the likelihood of any negative event occurring was significant,  $r(734) = .42, p < .001$ . This finding replicates the previous studies and indicates that as people read about more severe crimes, they thought that it was more likely that the offender would experience a negative outcome.

### **Does Crime Severity Increase the Perceived Likelihood of Legal versus Non-Legal Events?**

We next examined whether crime severity increased the perceived likelihood of both legal and non-legal events. We conducted a MIXED model in SPSS to account for the nonindependence in participants' responses (Fitzmaurice, Laird, & Ware, 2012). We specified a compound symmetry covariance matrix. We included crime severity (grand-mean centered), the type of event (effect coded as 1 = legal outcome, -1 = non-legal outcome), and their interaction as predictors. The perceived likelihood of each of the specific events that participants listed was included as the dependent variable. Consistent with the results of the likelihood analysis in the above studies, the effect of crime severity was significant,  $B = 0.29$ ,  $SE = .03$ ,  $t(967.88) = 9.52$ ,  $p < .001$ , 95% CI = [0.23, 0.35], showing that participants who read about a more severe crime thought it was more likely that a given event would occur. The main effect of event type was marginally significant,  $B = 0.07$ ,  $SE = .04$ ,  $t(1871.62) = 1.78$ ,  $p = .08$ , 95% CI = [-0.01, 0.15]. Overall, people thought that legal events were marginally more likely to occur than non-legal events. The interaction between crime severity and event type was significant,  $B = 0.06$ ,  $SE = .02$ ,  $t(1923.53) = 2.84$ ,  $p = .005$ , 95% CI = [0.02, 0.10]. This interaction is shown in Figure 3. We decomposed this interaction by examining the effect of crime severity separately for legal and non-legal events. The effect of crime severity was significant for both legal events,  $B = 0.35$ ,  $SE = .04$ ,  $t(1997.89) = 7.97$ ,  $p < .001$ , 95% CI = [0.26, 0.43], and non-legal events  $B = 0.23$ ,  $SE = .03$ ,  $t(735.77) = 8.20$ ,  $p < .001$ , 95% CI = [0.17, 0.28]. These findings indicate that people think that both legal and non-legal negative effects are more likely to occur as the severity of the crime increases. However, the extent to which crime severity increases the perceived likelihood of the negative events is stronger for legal events than non-legal events.

### **Does Crime Severity Increase the Perceived Likelihood of Intentional versus Non-Intentional Events?**

We next examined whether crime severity increased the perceived likelihood of both intentional and non-intentional events. We conducted a MIXED model and specified a compound symmetry covariance matrix. We included crime severity (grand-mean centered), the intentionality of an event (effect coded as 1 = intentional outcome, -1 = non-intentional outcome), and their interaction as predictors. The perceived likelihood of each of the events that participants listed was included as the dependent variable. There was a significant main effect of crime severity,  $B = 0.23$ ,  $SE = .03$ ,  $t(603.18) = 8.08$ ,  $p < .001$ , 95% CI = [0.17, 0.29]. The main effect of intentionality of the event was also significant,  $B = 0.16$ ,  $SE = .05$ ,  $t(1344.20) = 3.33$ ,  $p < .001$ , 95% CI = [0.07, 0.25]. People perceived intentional events as being more likely to occur than non-intentional events. There was also a significant interaction between crime severity and intentionality,  $B = 0.05$ ,  $SE = .02$ ,  $t(1286.09) = 2.72$ ,  $p = .007$ , 95% CI = [0.01, 0.09]. This interaction is shown in Figure 4. We decomposed this interaction by examining the effect of crime severity separately for intentional and non-intentional events. The effect of crime severity was significant for both intentional,  $B = 0.28$ ,  $SE = .03$ ,  $t(703.27) = 9.50$ ,  $p < .001$ , 95% CI = [0.22, 0.34]. and non-intentional events,  $B = 0.18$ ,  $SE = .04$ ,  $t(1187.58) = 4.64$ ,  $p < .001$ , 95% CI = [0.10, 0.25]. These findings indicate that people think that both intentional and non-intentional negative events are more likely to occur as the severity of the crime increases. However, the extent to which crime severity increases the perceived likelihood of the negative events is stronger for intentional events than non-intentional events.<sup>3</sup>

## Discussion

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<sup>3</sup> We conducted an analysis to examine whether participant gender moderated any observed effects. Linear regression was performed, including crime severity, gender, and their interaction as the independent variable. Likelihood of the offender to have something bad happen was the dependent variable. There was not a significant main effect of gender,  $B = 0.05$   $SE = 0.06$   $t(729) = 0.73$ ,  $p = .47$ , 95% CI = [-0.08, 0.17],  $r_{sp} = .03$ , or interaction between gender and crime severity,  $B = 0.01$   $SE = 0.03$   $t(729) = 0.32$ ,  $p = .75$ , 95% CI = [-0.05, 0.06],  $r_{sp} = .01$ .

Study 2 provides more evidence for the hypothesis that worse offenders are thought to be more likely to have negative events happen to them. Study 2 also strengthens this hypothesis by having people generate exact scenarios that they think will happen to the offender instead of asking about a general negative event. In addition, Study 2 shows that people think that legal recourse is more likely to happen for more severe crimes to a greater degree than non-legal events. This same trend is also true for intentional events (i.e., ones with purposeful actors) increasing in likelihood more than non-intentional events (i.e., ones that do not involve human intervention) as crime severity increases.

## CHAPTER 5: GENERAL DISCUSSION

We tested three hypotheses in the present research. The first was that people would derogate the offenders of crimes. The second hypothesis was that this derogation takes the form of people believing that karmic events unrelated to crimes are more likely to happen to the offenders. The third hypothesis was that these effects would be moderated by how strongly people believed the world to be just. Across two studies, we have shown that not only do people believe that offenders of worse crimes are more deserving of negative things happening to them, but that they also believe that those negative things are actually more likely to happen to them. In addition, people believe that random unrelated “karmic” events are also more likely to happen to these criminals. This builds upon the existing literature of just world theory and helps address gaps in the literature (Lerner & Simmons, 1966): if people believe that the world is just and fair, then they will be motivated to believe that victims somehow deserve what they get, and that offenders will face consequences for their actions, even if through karmic retribution (e.g., getting hit by a runaway truck on the road). In line with previous research, we found almost no effect of individual differences in belief in a just world—and when we did, they were small. Potentially, this is because people are not always willing to explicitly endorse their belief in a just world, or because there simply is not much variance between people in how much they believe the world to be just (Lerner, 1998).

### **Implications for Just World Theory**

The first contribution of this paper are the results concerning dispositional belief in a just world. As predicted, we found that people’s ratings of the likelihood of negative events happening to criminals increased the more that they have a dispositional belief in a just world. That dispositional belief in a just world does not moderate the observed relationship between

crime severity and likelihood rating, but instead is a main effect on ratings of likelihood. This is consistent with previous research indicating that people who more strongly believe in a just world tend to be more punitive, and therefore it would be expected that they would have higher overall ratings of likelihood of negative events happening to offenders (Begue & Bastounis, 2003). Part of the reason we found an effect of belief in a just world where others did not is potentially because of the specificity of the scale that we employed. Lipkus' (1991) Global Belief in a Just World Scale reflects many of the ultimate justice concepts that we were attempting to measure in our experiments. If we had used a more general scale of belief in a just world, such as Rubin and Peplau's (1975) scale, it might have been more difficult to find the results that we did. Another concern with using Rubin and Peplau's (1975) scale is that it included reverse scored items, and researchers have since found that those items more closely measure the construct of believing in an unjust world, which is not the same as disbelieving in a just world (Furnham, 1998, 2003; Furnham & Procter, 1989; Maes, 1998b; Schmitt, 1998).

Another, more recent scale, that could produce different results from what was found here is the Personal Belief in a Just World Scale (Dalbert, 1999). This scale is more closely associated with immanent justice concepts, and as such it might find that people still think that an offender is more likely to suffer from a negative event, but that those who score highly on the Personal Belief in a Just World Scale will lean more towards immediate, non-karmic means of rectifying injustice. Someone who strongly believes in immanent personal justice will most likely generate negative events that quickly solve the injustice, such as the police catching the offender, or the offender being beaten up. Someone who strongly believes in global, ultimate justice, on the other hand, is more likely to generate more long term karmic solutions to the injustice, such as cancer or being struck by lightning. Those who strongly adhere to immanent justice require these

immediate solutions in order to defend their worldview, while those who rely on ultimate justice are able to wager on the future in order to defend their worldview (Maes & Kals, 2002; Callan et al., 2013; Mohiyeddini & Montada, 1998). Due to our use of the Global Belief in a Just World Scale, it may be the case that we have only captured how attitudes of ultimate justice predict event likelihood, and so it may be beneficial to also attempt to replicate the findings using the Personal Belief in a Just World Scale, or a similar imminent justice scale. Our findings ultimately indicate that those who strongly believe that the world is globally just are more willing to wait patiently for karma to take its course in correcting a perceived injustice, as opposed to eagerly generating scenarios which respond to the injustice immediately.

### **Implications for Perceptions of Justice**

Another contribution to the literature provided by this research is its insight into how people react to injustices. Not only do people come up with ideas that the police will catch criminals, but they will also spontaneously generate negative karmic events that they think will happen to a criminal offender. These events are completely unrelated to the given crime, but people will still consider them as likely solutions for a perceived injustice. This knowledge will allow us to make better predictions about just world theory. Prior research has found that people will endorse an unrelated accident happening to a bad person as being deserved in order to fulfill their just world motive (Callan et al., 2006). However, this research informs us that people will come up with these accidents themselves. Not only that, but they are willing to entertain the idea that these accidents need not be an immediate response to the injustice. Many participants generated events that would punish the offender over a long time frame, such as cancer. Not only will people generate their own unrelated karmic events, but they will also generate ones that appeal to an ultimate justice framework.

Past research has shown how people believe that bad people deserve to have unfortunate accidents happen to them (Callan et al., 2006). This research goes a step further and asks whether people's desire to see a bad person punished is so strong that they believe these accidents are actually more likely to happen to that person. Past work has shown that if people are motivated enough to believe in something, they will more readily conclude that it is more likely to occur (Kunda, 1990). The current findings help to marry the social cognition literature on biased reasoning with the just world literature. By combining the social cognition literature which states that strong beliefs can impact likelihood ratings with the just world literature that states that people strongly believe the world is just, novel predictions can be made. A prediction that could be made is that people will assume that someone who is described as being a particularly good person is more likely to win the lottery or benefit from some other sort of positive event. The basic framework here is that people's belief in a just world is so strong that they readily bridge the gap between assessments that someone deserves something and assessments that someone is more likely to encounter something.

### **Future Research**

Further research on this topic could take many forms. Our studies used a female victim and a male offender because that is usually what is used by other researchers (Hafer & Bègue, 2005a). Although we tested for possible gender effects and found none in any of our studies, the effect may become stronger or weaker depending on the gender of the victim and the offender. Previous work examining blame towards victims of different genders have found that people blame male and female victims and offenders of the same crime differently (Davies et al., 2006; Ayala et al., 2018; Foley & Pigott, 2000). Based on that previous work, we would predict that there would be a significant effect of both victim and perpetrator gender on ratings of likelihood

of negative events happening to the offender, such that peoples' just world would be less violated by a stereotypical crime and so they would assign less likelihood of a negative event to the offenders of those stereotypical crimes.

### **Concluding Remarks**

In the present research, we have shown that people will go so far as to spontaneously generate unrelated negative events in response to a perceived injustice. These findings extend existing literature on just world theory through exploring perceptions of karmic retribution toward perpetrators of just world violations.

## CHAPTER 6: FIGURES

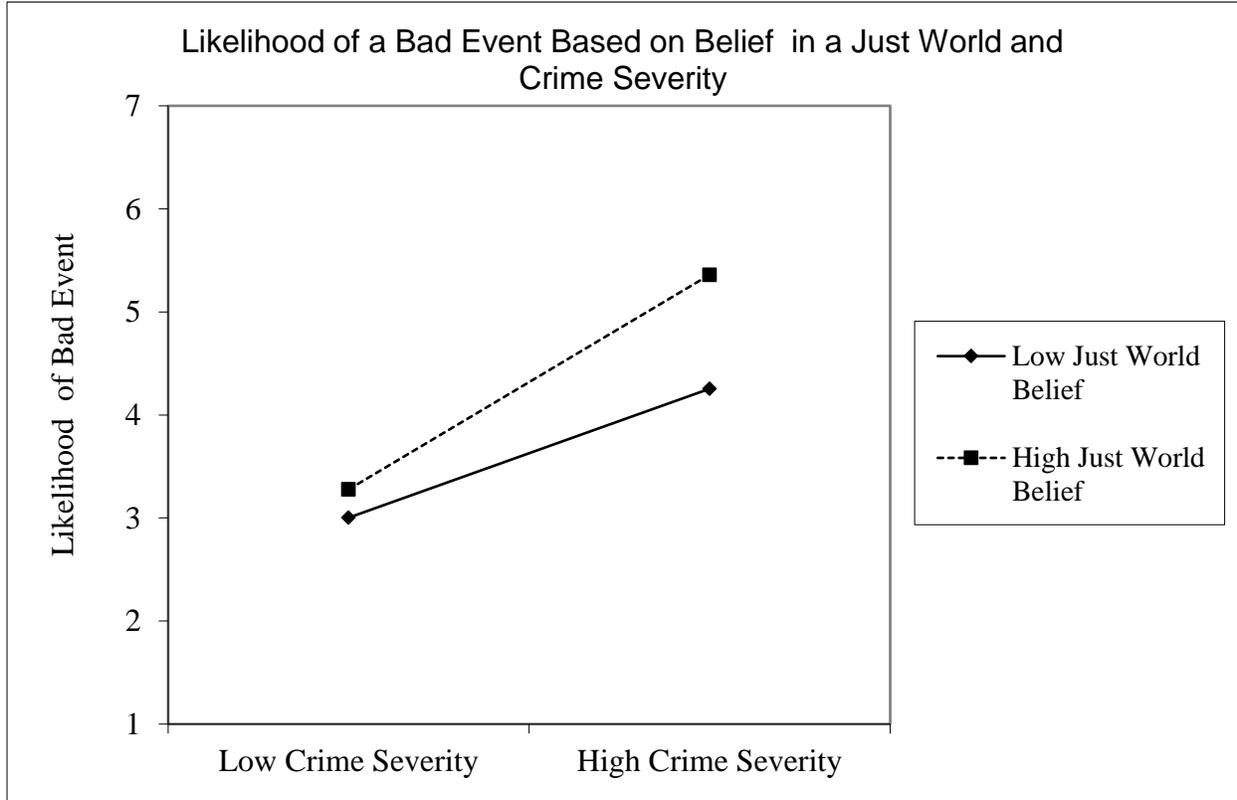


Figure 1. Interaction of crime severity and individual belief in a just world on the likelihood that a bad event would happen to the offender in Study 1a.

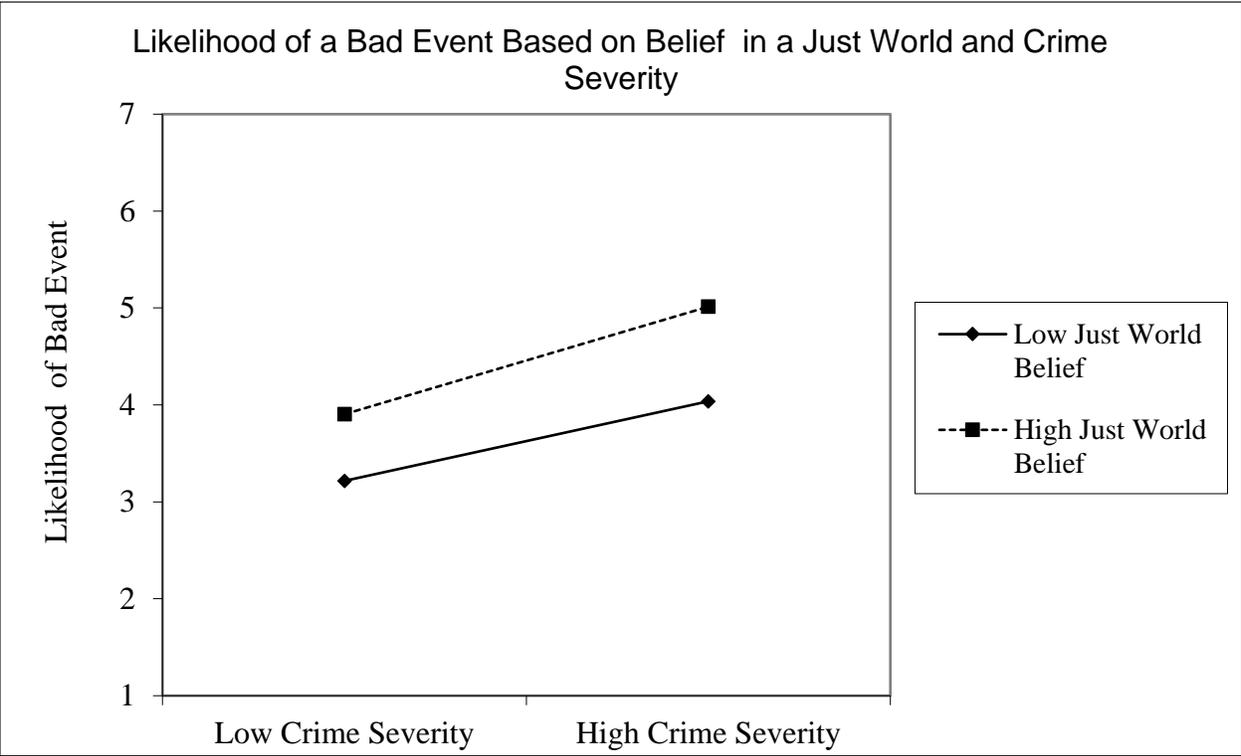


Figure 2. Interaction of crime severity and individual belief in a just world on the likelihood that a bad event would happen to the offender in Study 1b.

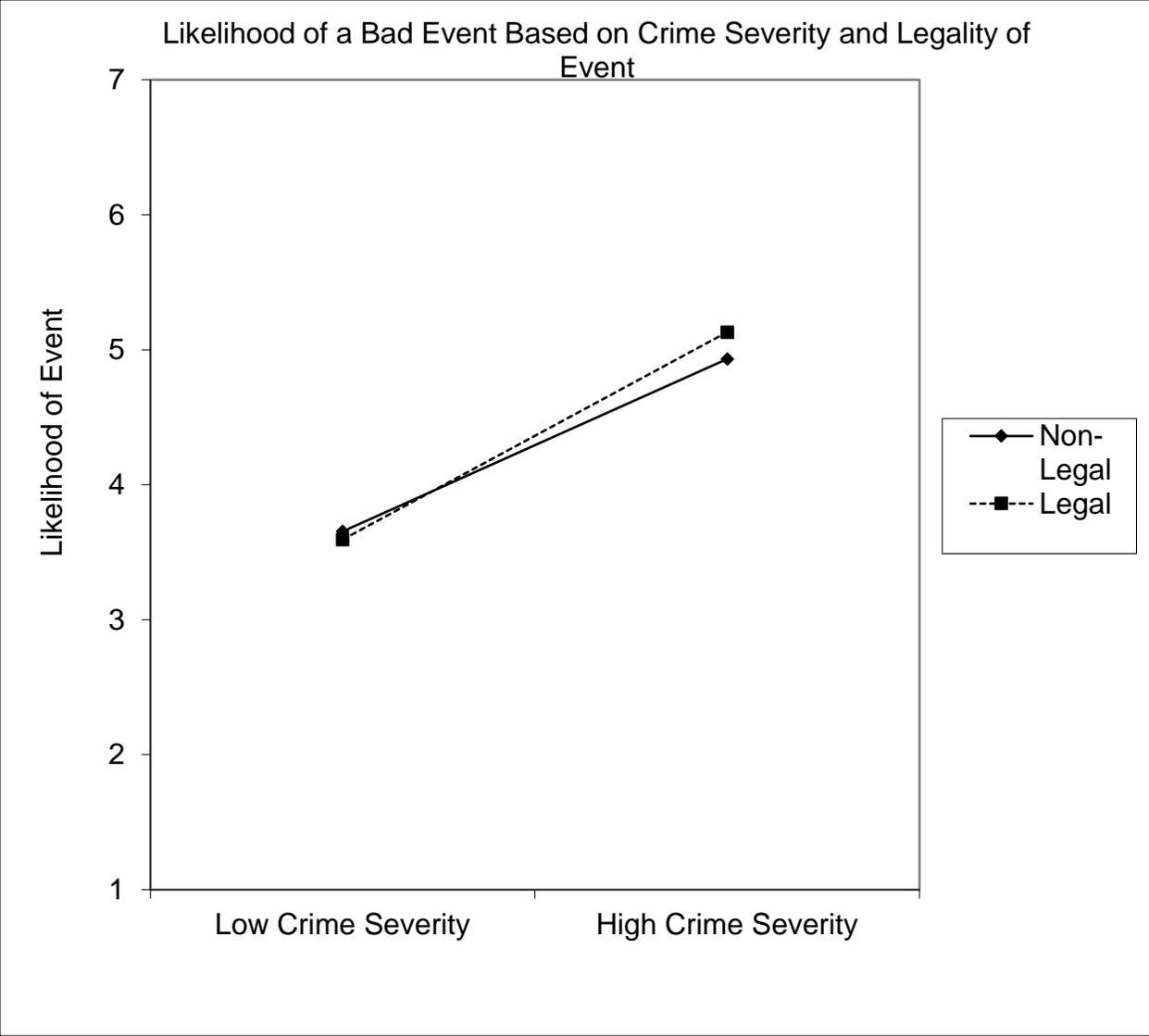


Figure 3. Interaction of crime severity and legality of the event on the likelihood that a bad event would happen to the offender in Study 2.

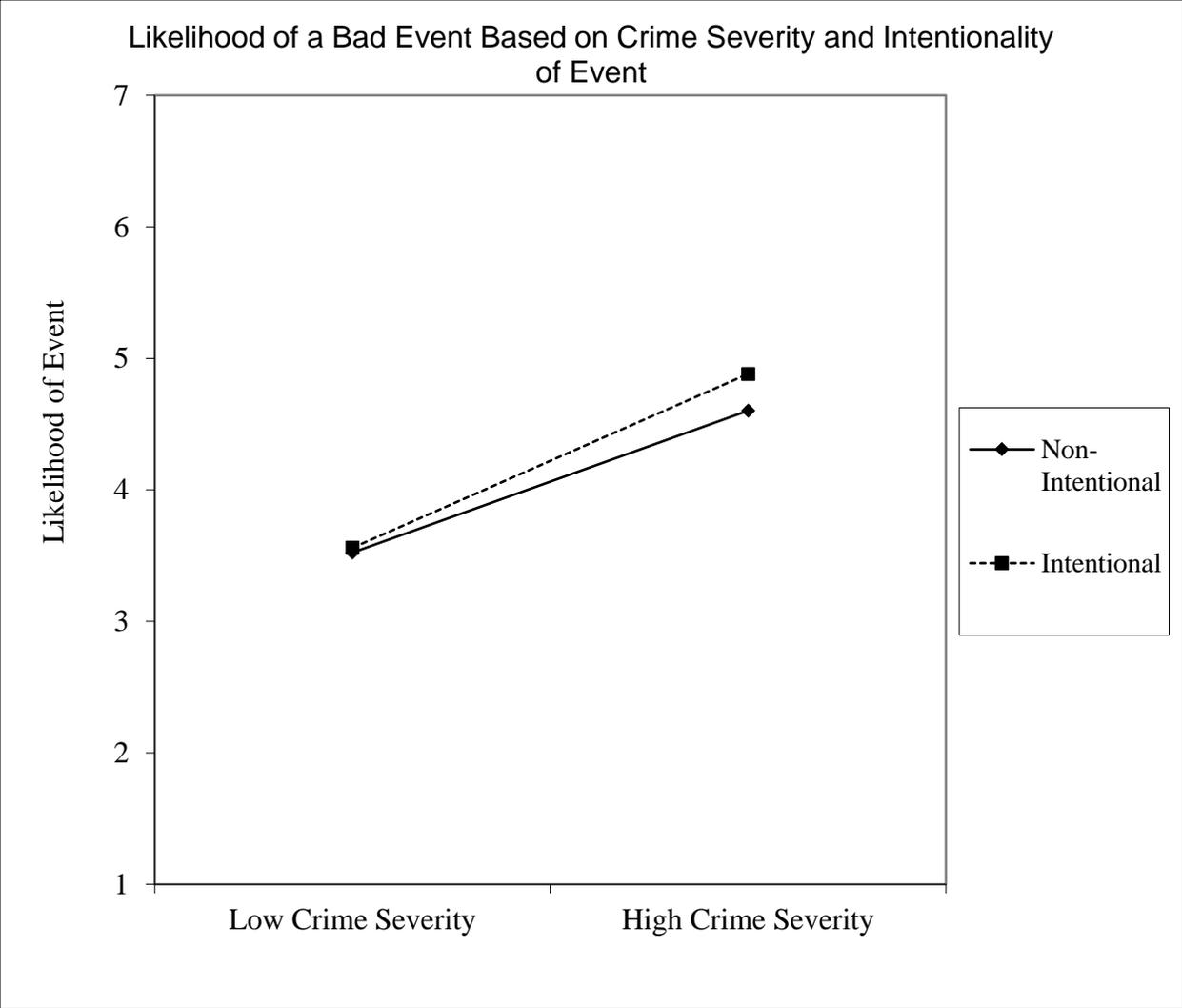


Figure 4. Interaction of crime severity and intentionality of the event on the likelihood that a bad event would happen to the offender in Study 2.

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# APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

## UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research  
Office for the Protection of Research Subjects  
805 West Pennsylvania Ave  
Urbana, IL 61801



September 6, 2017

Chadly Stern  
Psychology  
433 Psychology Bldg  
603 E Daniel St  
Champaign, IL 61820

RE: *Limits of Belief in a Just World*  
IRB Protocol Number: 17170

Dear Dr. Stern:

This letter authorizes the use of human subjects in your continuing project entitled *Limits of Belief in a Just World*. The University of Illinois at Urbana-Champaign Institutional Review Board (IRB) approved the protocol as described in your IRB-1 application, by expedited continuing review. The expiration date for this protocol, IRB number 17170, is 09/04/2020. The risk designation applied to your project is *no more than minimal risk*.

The IRB has also reviewed the request for minor modifications. I will officially note for the record that these minor modifications to the original project, as noted in your correspondence received 8/30/2017, Increasing targeted enrollment, have been approved.

Copies of the attached date-stamped consent form(s) must be used in obtaining informed consent. If there is a need to revise or alter the consent form(s), please submit the revised form(s) for IRB review, approval, and date-stamping prior to use.

Please note that additional modifications to your project need to be submitted to the IRB for review and approval before the modifications are initiated. To submit modifications to your protocol, please complete the IRB Research Amendment Form (see [https://www.oprs.research.illinois.edu/forms\\_templates/forms/protocol\\_amendment\\_form](https://www.oprs.research.illinois.edu/forms_templates/forms/protocol_amendment_form)). Unless modifications are made to this project, no further submittals are required to the IRB.

You were granted a three-year approval. If there are any changes to the protocol that result in your study becoming ineligible for the extended approval period, the RPI is responsible for immediately notifying the IRB via an amendment. The protocol will be issued a modified expiration date accordingly.

We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me at the OPRS office, or visit our website at <https://www.oprs.research.illinois.edu>.

Sincerely,

A handwritten signature in black ink that reads "Michelle Lore".

Michelle Lore, MS  
Human Subjects Research Specialist, Office for the Protection of Research Subjects

Attachment(s): 3 Consent Forms

c: Jack McDonald  
Sean Laurent