

**How do People with High ‘Belief in a Just World-Self’ React Towards  
an Innocent and a Non-innocent Victim?**

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## Abstract

The theory of belief in a just world (BJW) claims that the extent to which one believes that the world treats them fairly affects one's response to an adverse event involving themselves or a third party. Generally, high BJW for the self (BJW-Self) is associated with higher levels of wellbeing and prosocial behaviour, whilst high BJW for others (BJW-Other) correlates higher with pessimism and victim-blame. This study focused on how BJW-Self and BJW-Other relate with people's levels of empathy, willing to help, positive attitudes, perspective-taking, deservingness, and victim-blame towards another person's misfortune. The victim's responsibility was manipulated to find an interaction between BJW-Self or BJW-Other and the manipulation. It was hypothesised that the higher the BJW-Self scores, the higher the levels of positive responding would be. Conversely, the higher the BJW-Other scores, the higher the levels of negative responding would be. Participants ( $N=372$ ) read one of the two scenarios about a person contracting HIV. Then, they completed the measures for each outcome variable. Quantitative analysis involves an independent samples *t*-test, Person's correlations, and a moderation analysis using hierarchical regression. Contrary to the hypothesis, there were no significant interactions found. However, innocence manipulation affected people's reactions, as participants demonstrated more positive responses towards innocent victims, and more negative responses towards non-innocent victims. Moreover, there was a significant negative correlation between BJW-Other and empathy; and a significant positive correlation between BJW-Other, deservingness, and victim-blame. The implications of the study will be discussed.

## **Declaration**

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, this thesis contains no material previously published except where due reference is made. I give permission for the digital version of this thesis to be made available on the web, via the University of Adelaide's digital thesis repository, the Library Search and through web search engines, unless permission has been granted by the School to restrict access for a period of time.

**Signature:**

Date: September, 2020

## Contribution Statement

In writing this thesis, my supervisor and I collaborated to generate research questions of interest and design the appropriate methodology. I conducted the literature search, completed the ethics application, and wrote the *Qualtrics* Survey. I was responsible for all participant recruitment and data collection. I wrote all aspects of the thesis, whilst my supervisor provided me with constructive feedback for the improvement of the Introduction, Method, and Results sections.

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## CHAPTER 1

### Introduction

#### 1.1 Belief in a Just World Background

The beliefs that we hold about the world play a crucial role in how we interact with the people around us, as we try to determine what is just for ourselves and for others. These beliefs enable people to interact with their environment as if it were predictable and orderly (Lerner, 1977). Studying how people view the world can have profound implications for individuals, as it affects people's meaning of life, interpersonal relationships, and social behaviours (Hafer & Sutton, 2016). It is important living in a society where people believe in a world of deservingness and justice because it can ensure people will treat each other in more harmonious and respectful ways than living in a world of anarchy or injustice (Lerner, 1977). It is now widely acknowledged that believing in a just world affords a sense of control, where people can live in a stable world and feel more secure about their future, hence promoting greater mental health (Bartholomaeus & Strelan, 2019).

Principally, the theory of the Belief in a Just World (BJW) assumes that a) people get what they deserve, b) people deserve what they get, c) the world is a stable and predictable place, and d) contrary evidence is threatening (Lerner & Miller, 1978). The principle of deservingness is one of the fundamental pillars of BJW (Lerner, 1977). When an event threatens people's belief in a just world, they strive to enter into and maintain their *personal contract* with the world. The personal contract codifies the contingency between inputs and outputs people get what they deserve. Adhering to the personal contract leads to the need to believe in a just world, because only when the world functions according to the rules of justice, does one receive the appropriate long-term rewards for one's short-term sacrifices (Lerner, 1977). For example, from a young age, children are taught to deny immediate

gratification to earn long-term rewards, such as doing chores in order to play video games later. Once the chores are completed a reward is received, and the child feels that they deserve their reward. Hence, the notion that good things happen to those who do good deeds is reinforced. Dalbert (1999) extended upon this notion by proposing that the more people rely on being treated fairly by the world, the more compelled they would feel to treat others fairly. Thus, maintaining the personal contract of reciprocity helps people live in a stable world where their efforts will be acknowledged.

Another hallmark of BJW is the attitude one holds towards victims of injustices. Lerner and Simmons (1966) proposed that people are deserving of a positive event in two ways: if their behaviour is appropriate, or if they are inherently good. In their study, they observed a surprising prevalence in victim blaming and derogations of innocent victims receiving painful electric shocks. Lerner (1980) extended these findings by reporting that participants were more likely to devalue the innocent victims when they were unable to intervene and help them. The study found a significant positive relationship between victim rejection and the degree of undeserved suffering (Lerner, 1980). Participants justified their decisions by claiming that the victims were deserving of their misfortune due to their “fate” (Lerner, 1980, p. 50). Moreover, Karuza and Carey (1984) explained that observers of victims, who threatened their belief in a just world, would derogate the victims’ behaviours more than their characters because this preserves the predictability of the world (i.e., it is easier to change people’s behaviour than character), so if they act inappropriately, they will face adverse consequences.

Although experimental research has repeatedly found that people who score high in general BJW respond more negatively towards innocent victims’ misfortune (Bègue & Bastounis, 2003; Furnham, 1995; Hafer, 2002), it has also been noted that when participants are presented with a prosocial situation in which they can intervene and help the victim, then

they are less likely to demean them (Dalbert, 1999; Dalbert, 2009). This is another way of defending one's belief in a just world, as personal contracts and victim blaming are interconnected: An innocent person deserves assistance if it is a viable option. Bierhoff, Klein and Kramp (1991) found a significant positive correlation between BJW, helpfulness, and empathy. Therefore, if participants can end the victim's injustice, they are more likely to have positive attitudes towards them (Hafer & Bègue, 2005).

In spite of the studies measuring BJW in general (Lerner, 1977; Karuza & Carey, 1984; O'Quin & Vogler, 1989), Lipkus, Dalbert and Siegler (1996) conducted the first empirical test demarcating BJW into the belief in a world for the self (BJW-Self) and the belief in a just world for others (BJW-Other). As the names suggest, people with high BJW-Self believe the world treats them fairly, whereas people high in BJW-Other believe the world treats others fairly (Lipkus et al., 1996). High levels of BJW-Self are strongly correlated with adaptive and prosocial behaviours, whilst people scoring high in BJW-Other are more likely to uphold prejudiced attitudes towards vulnerable people (Bègue & Bastounis, 2003).

Rubin and Peplau (1975) observed that in the traditional innocent victim experiment (Lerner & Simmons, 1966), the victim was not shown contempt by every participant. They explained this was due to a combination of situational and individual discrepancies in the participants' perception of justice. Hence, a victim is not derogated only because they may have done something that makes them appear non-innocent (situation), but also because the participants define what is fair differently (individual differences). This marks the birth of BJW-Self and BJW-Other. Importantly, the situation-specific effect is analogous to BJW-Other, as they both focus on a third party's situation (Bartholomaeus & Strelan, 2019).

## 1.2 Aims

This study aims to expand the literature in the bidimensional model of BJW given that an ample body of research already exists regarding the link between BJW-Other and people's reactions to a misfortune (Bartholomaeus & Strelan, 2019; Hafer & Bègue, 2005). Specifically, I will focus on positive (empathy, willingness to help, positive attitude and perspective taking) and negative (deservingness and victim blame) reactions towards a victim. Adhering to past research on the positive relationship between BJW-Self and personal psychological wellbeing, it is hypothesised that participants with high BJW-Self are likely to respond in a more positive way towards the victim than those with high BJW-Other (Hafer & Bègue, 2005; Furnham, 2003). I will also manipulate the victim's perceived responsibility in order to vary the need to protect one's belief in a just world. For the purpose of this study, the term *innocent victim* signifies a victim who is not perceived responsible for their plight, whereas a *non-innocent victim* is one who is deemed morally responsible for what has occurred to them. Hence, I will measure how different levels of BJW-Self and BJW-Other will moderate the participants' reactions towards responsible and non-responsible victims.

## 1.3 BJW-Self and BJW-Other

Although BJW-Self and BJW-Other are parallel constructs, as there is a moderate positive correlation between them (Sutton, Wilkin, Cole & Stathi, 2008; Bègue & Bastounis, 2003), the individual variation in BJW is associated with notable differentiations in various facets of life (Furnham, 2003; Calhoun & Cann, 1994).

As mentioned above, BJW-Self is positively associated with psychological wellbeing. Lipkus and colleagues (1996) were the first to document the strong link between high BJW-Self scores, life satisfaction and reduced depression and anxiety. They also found participants

high in BJW-Self to be more emotionally stable, open, extraverted, and less neurotic. Since then, multiple studies have identified positive correlations between BJW-Self, personal control (Furnham & Karani, 1985), feeling less lonely (Jones, Freemon & Goswick, 1981), forgiveness (Strelan, 2007), optimism (Jiang, Yue, Lu, Yu, & Zhu, 2016), life satisfaction, mood levels, and self-esteem (Dalbert, 1999). Lipkus and colleagues' (1996) work has introduced a new area of research within the BJW realm by focusing on positive outcomes of BJW, given that most prior research focused on negative behaviours and BJW-Other (Bartholomaeus & Strelan, 2019).

The BJW-Other is positively related to neuroticism and negative attitudes towards deprived groups (Lipkus et al., 1996). Participants with high BJW-Other have been repeatedly found to display high levels of victim blame and lack empathy (Sutton & Douglas, 2005; Bègue & Bastounis, 2003). Moreover, aggression and antisocial intentions have been linked to BJW-Other (Bègue & Muller, 2006).

It is important to distinguish the two spheres of BJW because besides correlating with different variables, they also correlate with the same variables in the opposite direction (Sutton, Stoeber & Kamble, 2017). Such correlations become more obvious when each dimension is controlled for the other. For instance, desire for revenge (Strelan & Sutton, 2011), antisocial behaviour, and pessimism (Sutton & Winnard, 2007) have been negatively correlated with BJW-Self when BJW-Other is controlled. These discrepancies have been emphasised in scenarios of unjust suffering, for instance when an innocent person faces adversity, the observers tend to protect their BJW by segregating their world from the victim's world (Bartholomaeus & Strelan, 2019).

## **1.4 Positive Responding**

I have chosen to measure positive responses towards the victim through empathy, willingness to help, positive attitude towards a victim, and perspective taking. I selected those specific variables, as various studies have used each of those measures separately to assess positive responding towards a victim (Correia & Vala, 2003; Mccullough, Fincham & Tsang, 2003; Murphy-Berman & Berman, 1990; Gummerum & Hanoch, 2012). I decided to compile different types of positive attitudes in order to gain a clearer relation between BJW-Self and positive psychological outcomes. The present study will reassess such findings and will expand on the literature of positive reactions towards victims in order to find how the two distinct spheres of BJW affect one's empathy, willingness to help, positive attitude and perspective taking.

### **1.4.1 Empathy**

Empathy is defined as sharing and perceiving another person's emotional and mental state (Stotland, 1969). Empathic emotions inherently compel one to take another person's perspective, to identify what is missing, and to try and compensate the victim (Stotland, 1969). The positive association of empathy and other prosocial behaviours has been demonstrated by many studies (Berger, 1962; Coke, Batson & McDavis, 1978, Silver, Karakurt & Boysen, 2015). In particular, Coke and colleagues (1978) claimed that empathic feelings motivated participants to offer their help to victims when that was an option because they were emotionally moved by their misfortune. Paradoxically, Berger (1962) noted that if empathy elicited negative emotional arousal, participants were more likely to refrain from helping, and placed the responsibility upon the victim. Negative emotional arousal could be provoked by innocent suffering, which threatens one's belief in just world.

### **1.4.2 Willingness to helping**

Helping behaviour has been strongly associated with BJW (Query, 2006). Helping a person in need is believed to one of the most effective ways of reducing the victim's undeserved suffering (Query, 2006; Coke et al., 1978). People's perceived responsibility, however, affects one's willingness to help (Turner-Depalma, Madey, Tillman & Wheeler, 1999). People are more likely to offer assistance when the victim is not deemed responsible for their predicament. Consequently, justice is restored. Moreover, willingness to help has been positively correlated with empathy, as participants are more likely to help a victim when pity and empathy have been elicited (Schmidt & Weiner, 1988).

### **1.4.3 Positive attitudes towards the victim**

Positive attitudes towards the victims were included in the study in order to obtain insight into the participants' general attitudes towards the victim. Having a positive attitude means not holding prejudiced opinions, but rather viewing the victim in good light (Irwin, Jones & Mundo, 1996). Lodewijckx, Wildschut, Nijstad, Savenije and Smit (2001) and Irwin and colleagues (1996) studied the relationship between the victim's perceived responsibility and the participants' reactions. Silver and colleagues (2015) found a significant positive correlation between empathy and overall positive attitudes towards a victim.

### **1.4.4 Perspective taking**

According to Erle and Topolinski (2017), perspective taking is a social cognition that enhances people's understanding of another person's situation. It is the ability to take another person's stance or opinion in order to alleviate one's distress (Underwood & Moore, 1982). Such skill is associated with positive social relationships, which in turn impacts people's BJW (Erle & Topolinski, 2017). Gummerum and Hanoch (2012, p. 65) suggested that perspective taking is the "cognitive aspect of empathy", as it involves taking a person's

viewpoint and mental state in a situation. Consequently, it can be deduced that empathy, willingness to help, and perspective taking are highly interrelated as they all lead to prosocial and altruistic acts, which are features of a just world.

## **1.5 Negative Responding**

One of the main pillars of the BJW theory is people's reaction towards a victim (Lerner, 1980). Early research was predominantly focused on negative reactions, such as victim blame and holding someone accountable for the incident (Rubin & Peplau, 1975; O'Quin & Vogler, 1989; Lerner & Simmons, 1966). Although this study is more interested in positive responses, negative responding is also included in the measures in order to contrast how BJW-Self and BJW-Other relate to both positive and negative reactions.

### **1.5.1 Deservingness**

Deservingness denotes the relationship between people and the outcome of their actions or character (Callan, Ellard & Nicol, 2006). Lerner, Miller and Holmes (1976) proposed that an outcome or an event may be more or less deserved by a person based on their behaviour or virtue of who they are. This notion is inherently related to the core of BJW, as people expect bad people to be deserving of adverse experiences in order to maintain the predictability and order of the world. The more one believes that the world treats others justly, the more likely they are to perceive victims as deserving of their misfortune (Hafer, 2002). Hence, this study will assess the participants' deservingness not only to confirm past research, but to also explore whether there is an interaction between BJW on a trait level and the manipulation of the victim's character.

### **1.5.2 Victim Blame**

The most common outcome variable measured by many BJW studies is victim blaming (Lerner, 1980; Furnham & Procter, 1989). This happens because people often tend to hold victims accountable for their predicaments in order to preserve their belief in a just world when the principle of deservingness is violated (Hafer, 2000). According to the BJW theory, if good people deserved good outcomes in life, and a negative event occurs, then the person must have deserved it (Lerner, 1977). Van den Bos and Maas (2009) confirmed that the stronger the threat of one's belief in a just world was, the more likely subjects were to blame and derogate the victims. Given that this study will manipulate the victim's moral character, the threat will inevitably differ too – innocence indicates stronger threat to BJW than non-innocence. Further, manipulating the victim's character by presenting it more 'questionable' makes allocation of responsibility easier. Considering that this study focuses on the bidimensional model of BJW, it is expected that BJW-Self will have weaker correlations with negative attributions than BJW-Other, as BJW-Self has been previously found to have strong positive correlations with prosocial attitudes (Lipkus et al., 1996; Strelan, 2007).

### **1.6 Manipulation of Responsibility**

Lerner and Simmons (1966) have studied the role that moral and behavioural responsibility play when people encounter a victim, and found that initially, people analyse the victim's behaviour to find an explanation for what happened. Then, they contemplate whether the victim deserved the outcome. When responsibility cannot be assigned to the victim's behaviour, the victim's character will be held accountable for the unjust outcomes (Lerner & Simmons, 1966). This preserves one's belief in a just world. The extent to which

victims will be blamed is determined by their perceived responsibility; the more responsible a victim is deemed, the more they will be derogated (Braman & Lambert, 2001).

Hafer and Bègue (2005) identified two main ways of manipulating scenarios to measure BJW levels. A popular way is by manipulating variables anticipated to increase the threat to protect one's belief in a just world. For instance, manipulating the victim's innocence or moral character will affect the observers' stance on the victim regarding how much they deserved the outcome. The other way is by presenting a scenario that poses a threat to one's belief in a just world, while simultaneously manipulating the effectiveness of strategies used to preserve one's BJW (e.g., having the opportunity to compensate or help the victim). In the present study, both methods will be implemented as I will target the victim's moral character by manipulating his/her perceived responsibility, and I will also present a hypothetical opportunity to compensate the victim.

Previous research has demonstrated that BJW is most at threat when the victim is portrayed as innocent, or not responsible for their misfortune (Correia, Vala & Aguiar, 2001; Correia & Vala, 2003; Braman & Lambert, 2001). When there is unearned suffering, participants try to redefine it by shifting some blame and liability to the innocent sufferer. Correia and colleagues (2001) found that participants scoring high in BJW were more likely to show disdain for the victims. Particularly, subjects believed that innocent victims were in a fairer and more deserving situation than non-innocent victims. However, contrary to their hypothesis, they found no interaction between the victim's innocence and the participants' levels of BJW. This means that innocent victims were not seen as less responsible for contracting HIV by the low believers in a just world; innocent and non-innocent victims were perceived similarly by both high and low believers in a just world.

Given the mixed results in the literature, I will manipulate the victim's perceived responsibility, and I will measure BJW-Self and BJW-Other in order to further-explore how BJW levels predict people's reactions to different types of victims.

### **1.7 Attitudes towards HIV Patients**

The human immunodeficiency virus (HIV) is a prevalent victimisation scenario used in research to measure people's BJW levels, as the responsibility of the patient is manipulated (Correia et al., 2001; Heaven, Connors & Kellehear, 1990; Furnham & Procter, 1992). Consequently, the scenario of the present study is based on an innocent versus a non-innocent contractor of HIV. The fact that HIV is associated with physical suffering and death threatens people's belief in a just world, especially when the suffering is innocent (Correia et al., 2001). Connors and Heaven (1990), Correia and colleagues (2001) and Furnham and Procter (1992) detected a positive correlation between BJW and victim blame within populations suffering from HIV or AIDS. These findings have been expanded by Nudelman and Shiloh (2010) who claimed that behavioural causes of illness are deemed to be more just than environmental causes. This explains why people hold negative attitudes towards HIV sufferers: They assign responsibility to the patients' actions. This type of derogation serves as a coping mechanism in order to preserve one's BJW and have some sense of control over one's future (Dzuka & Dalbert, 2000).

The perception of HIV is dependent on the reaction towards particular victims (Irwin et al., 1996). If the victim is believed to have risked contracting the disease (e.g., by not wearing a condom), then a more negative and distasteful reaction will be elicited. Irwin and colleagues (1996) suggested an interaction between the observers' personal values, risk perception, and the victim's behaviour and character. Their study found that victims who

took precautions to avoid the disease were viewed as more innocent and were derogated less. This finding contradicts Lerner's (1980) previous work, where innocent victims were blamed more. A reason for this may be the nature of the event – contracting HIV can be more attributable to one's actions and precautions, unlike an unpredictable event (e.g., a robbery). On the contrary, Murphy-Berman and Berman (1990) found that high scorers of BJW were less willing to help and were less sympathetic towards AIDS patients regardless of whether victims were aware or unaware of the risks associated with HIV. Due to the conflicting evidence, this study will shed more light in the interaction between the participants' BJW levels, prosocial behaviour, and the victim's innocence.

### **1.8 Current Study**

Despite the substantial amount of studies on general BJW, there is a significant gap in literature focused on the bidimensional model of BJW, and particularly BJW-Self (Hafer & Bègue, 2005). This study will contribute to the BJW research by measuring the discrepancies between BJW-Self and BJW-Other, and by relating them to the victim's responsibility. Importantly, this study is interested in exploring how people with different levels of BJW-Self and BJW-Other will respond towards another person's predicament. The existing BJW-Self literature focuses predominantly on outcomes relating to oneself, for instance self-esteem, life satisfaction (Sutton & Douglas, 2005), and optimism (Dzuka & Dalbert, 2007). In the current study, more social attributes will be examined, such as empathy, willingness to help, positive attitudes, and perspective taking. Measures of negative responding, such as deservingness and victim blame, will be also included to confirm previous findings.

This study proposes that high scorers of BJW-Self will demonstrate higher levels of positive responding, given the well-established positive correlations between BJW-Self and

psychological wellbeing (Strelan, 2007; Sutton, et al., 2008; Dalbert, 1999). Conversely, adhering to past findings (Dalbert, 2009), BJW-Other is expected to correlate positively with negative reactions. Moreover, the BJW-Self and BJW-Other levels are expected to moderate the levels of positive and negative responding in both manipulations of responsibility: The higher the BJW-Self, the more positive the responses, whereas the higher the BJW-Others, the more negative the responses in both scenarios will be.

### **1.8.1 Hypotheses of the current study**

The following hypotheses are based on the aims of the study.

Hypothesis 1: The scenario where the victim is perceived as innocent is more likely to elicit positive responses than the scenario with the non-innocent victim.

Hypothesis 2: BJW-Self is more likely to correlate positively with positive responding than BJW-Other. BJW-Self is also more likely to correlate negatively with negative responding.

Hypothesis 3: A positive interaction between BJW-Self and the manipulation of responsibility is expected: The higher the BJW-Self scores are, the more positive the responses will be in both scenarios.

Hypothesis 4: A positive interaction between BJW-Other and the manipulation of responsibility is expected: The higher the BJW-Other scores are, the more negative the responses will be in both scenarios.

## CHAPTER 2

### Method

#### 2.1 Participants and Design

According to an *a priori* power analysis using G\*Power 3.1.9.7 (Faul, Erdfelder, Lang, & Buchner, 2007), the study had to recruit a minimum of 82 participants to achieve a power level of .80 when adopting a conventional significance criterion of  $\alpha = .05$  and measuring a medium effect size. The study had sufficient statistical power for all the statistical analyses, given that a total of 375 people completed the survey. Three participants were excluded, as one was underage, and two participants selected the same answer for every question, which meant that their answers were disingenuous and could affect the overall results. From the 372 participants, females accounted for 59.1% ( $N = 220$ ) of the sample, while males accounted for 40.6% ( $N = 152$ ). A small number ( $N = 6$ ) of *University of Adelaide* first-year psychology students also completed the survey and were eligible to receive course credit. Participants aged between 18 and 56 years ( $M = 23.42$ ,  $SD = 4.7$ ).

The survey lasted approximately 12 minutes. Participants were randomly allocated into the experimental condition where the innocence was manipulated. The study took the form of a 2 (BJW-Self, BJW-Other) x 2 (responsibility: innocent vs non-innocent victim) design.

#### 2.2 Procedure

The current study was approved by the *University of Adelaide Human Research Ethics Subcommittee* (Approval Number: 2020/11). Participants were recruited from a social media post (Facebook) that invited people to complete an online survey regarding sexual behaviour (see Appendix A). The online survey was accessed from a web URL on *Qualtrics* (see Appendix C). After meeting the eligibility criteria (i.e., be over 18 years of age), participants

read the explanatory statement that summarised the aims and implications of the research (see Appendix B). Partaking in the survey was voluntary and anonymous. At the end of the participant information sheet, the contacts of the researchers, ethics committee and counselling services were offered.

After consenting to participate in the online survey, participants were firstly asked to complete a scale measuring BJW-Self and BJW-Other. Secondly, they read a short vignette in which the victim's responsibility was manipulated. Finally, a series of survey questions measuring empathy, willingness to help, attitude towards the victim, perspective taking, deservingness, and victim blame were administered. These questions were selected from various studies that have measured similar constructs and adapted to the current study.

## **2.3 Materials**

### **2.3.1 Belief in a just world for self and others**

The BJW-Self and BJW-Other scale comprised of eight items addressing each domain of justice (Lipkus et al., 1996). The internal reliability of the BJW-Self and the BJW-Other questions in my study was high ( $\alpha = .82$ ;  $\alpha = .87$  respectively). The questions in each domain were significantly similar to the point that only pronouns differed. For instance, the item for BJW-Self, "*I feel that I get what I deserve*", corresponded with the BJW-Other item, "*I feel that people get what they deserve*". The answers were recorded in a seven-point Likert scale (1= *strongly disagree*, 7= *strongly agree*). The means of the BJW-Self and the BJW-Other answers were added separately, and they were placed into two categories.

### 2.3.2 Scenario

The participants read one of the two vignettes about a person, Sam, who had contracted a sexually transmitted disease, HIV. The gender of Sam was intentionally ambiguous to avoid biases based on gender. The perceived responsibility of Sam was manipulated. The vignette originated from Correia and Vala's (2003) study. The vignette where Sam was deemed innocent reads as follows:

*Sam has recently been diagnosed positive with HIV after having sexual intercourse with a friend. Sam has always been careful with his/her sexual life, and has always used protection. Last time, the condom Sam used broke, so he/she were infected even though he/she had taken measures to prevent a sexually transmitted disease (STD).*

The scenario where Sam was perceived responsible for his or her misfortune was:

*Sam has recently been diagnosed positive with HIV after having sexual intercourse with a friend. Sam has never been a fan of using condoms, although he/she knew the risks he/she ran. Last time Sam was tested for a sexually transmitted disease (STD), he/she tested positive.*

### 2.3.3 Empathy

The first question measuring empathy consisted of a pool of positive and negative nouns and adjectives that describe the participants' emotions towards Sam. The pool of words was selected from McCullough and colleagues' (2003) study. Some irrelevant emotions were omitted (e.g., *soft-hearted*), and more relevant nouns were added (e.g., *disgust*) in order to increase the reliability and relevance of my study ( $\alpha = 0.87$ ). The feelings used included empathetic, concerned, compassionate, warm, pity, sadness, anger, coldness, indifference, contempt, and disgust.

For a more accurate and reliable analysis, the second measure of empathy was separated into a) empathy towards Sam and b) empathy towards HIV patients in general, given that one measure focuses on the vignette provided, whilst the second one is a generalised preconception about HIV patients. The questions relating to Sam included “*Is it tragic that Sam contracted HIV?*”; “*If you met Sam, how much do you think you would like him/her?*”; and “*How much do you sympathise with Sam?*”. The questions addressing HIV patients in general consisted of “*Those who have HIV should not be blamed for the disease*” and “*Those who have HIV are just innocent victims*”. The questions were extracted from Heaven, Connors and Kellehear’s (1990) study.

The measure of empathy towards Sam in this study was more reliable ( $\alpha = .88$ ) than the empathy for HIV patients measure ( $\alpha = .77$ ). The answers were recorded in a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). The mean scores of each participant were calculated and added: The higher their scores, the more empathy they demonstrated towards Sam or the HIV patients.

#### **2.3.4 Willingness to helping**

Willingness to help was measured using four items. The questions originated from Murphy-Berman and Berman’s (1990) study. In the first two questions, participants had to hypothetically select the amount of money they would be willing to give to help Sam if they had \$100 spare. They also had to hypothetically select the percentage of a \$10,000 grant at a hospital for clients suffering from a sexually transmitted disease.

The last two questions asked, “*How much would you support Sam if you could?*” and “*Would you help Sam in some way if possible?*”. The reliability of the last two questions was high ( $\alpha = .92$ ). Answers were recorded in a five-point Likert scale (1 = *not at all*, 5 = *a great deal*). Only the means of the last two questions were used for my calculations due their high

reliability and the fact that they were in Likert scale, rather than in percentages or amounts of money. The higher the scores, the more willing the participants were to help Sam.

### **2.3.5 Attitudes towards the victim**

The attitudes towards Sam were measured by rating Sam's perceived personality and behaviour. The majority of the adjectives were used previously by Lodewijkx and colleagues (2001). The personality words in this study were: extroverted-introverted, friendly-unfriendly, trustworthy-untrustworthy, honest-dishonest, mature-immature, and sympathetic-unsympathetic ( $\alpha = .83$ ). The participants were required to move the point of a slider to indicate their opinion.

The second part of this measure asked participants to rate Sam's behaviour in a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*;  $\alpha = .77$ ). The questions were extracted from Irwin and colleagues' (1996) study: "*Sam behaved in a risky manner*", "*People similar to Sam are likely to contract HIV*", "*I find Sam distasteful*", and "*Sam is likeable*". The means of the responses were calculated and added. Higher scores meant more positive attitude towards Sam.

### **2.3.6 Perspective taking**

Participants rated Sam's behaviour in a seven-point Likert scale in the perspective taking measure (1 = *strongly disagree*, 7 = *strongly agree*). The questions asked whether Sam's actions were sensible, appropriate and justifiable; whether participants could see things from Sam's perspective; how similar Sam's and their personality were; and whether they would put themselves in Sam's situation (Lodewijkx et al., 2001). The reliability of the questions of the present study was high ( $\alpha = .89$ ). Similar to the previous measures, the means of the responses were calculated and added. The higher the participants scored, the more able they were to take Sam's perspective.

### 2.3.7 Deservingness

A five-point Likert scales was used to measure levels of deservingness (1 = *strongly disagree*, 5 = *strongly agree*). The questions targeting Sam and HIV patients in general were segregated to enhance the reliability of the scales ( $\alpha = .79$  and  $\alpha = .69$  respectively). The question relating to Sam was “*Sam deserves what has happened to him/her*” (Correia et al., 2001). The questions for the HIV patients were “*HIV sufferers should not expect any sympathy from the rest of the population*” and “*By large, those with HIV probably deserve it*” (Heaven et al., 1990). The means of each group were calculated and added. The higher one’s scores was, the more deserving they deemed Sam or HIV patients in general to be.

### 2.3.8 Victim blame

Victim blame was assessed by employing a question featured in O-Quin and Vogler’s (1989) study, and one question from Correia and colleagues’ (2001) study. The questions were, “*How much do you think the incident was Sam's fault?*”, and “*Is Sam responsible for the disease?*” They had a moderate internal reliability ( $\alpha = .76$ ). A five-point Likert scale was used to capture their responses (1 = *not at all*, 5 = *a great deal*). The means were calculated and added. The higher the participants scored in the questions, the more they blamed the victim for his/her situation.

## CHAPTER 3

### Results

#### 3.1 Manipulation of Victim's Responsibility

A series of independent samples *t*-test were used to establish whether a statistically significant difference existed between the innocent and the non-innocent scenarios on the outcome variables. The results have been summarised in Table 1. The scores of BJW-Self and BJW-Other were equivalently distributed across the two conditions, and no significant difference was found between the two conditions.

Despite that, Table 1 indicates that there was a significant difference in most dependant variables between the innocent and non-innocent scenarios. Empathy for Sam was higher in the innocent manipulation than the non-innocent one. Empathy for HIV patients had a smaller difference but a wider variance than empathy for Sam. The participants were more willing to help Sam in the innocent scenario. In the hypothetical question of giving Sam an amount out of \$100, participants offered a larger amount in the innocent scenario ( $M = \$36.00$ ) than in the non-innocent one ( $M = \$24.84$ ), although it was non-significant. Similarly, they offered a larger percentage of funds to HIV patients when they were allocated in the innocent manipulation. The scores of the perspective taking scale in the innocent scenario were also higher than the non-innocent scenario scores. The difference between positive attitudes towards Sam had a significantly large difference between the scenarios. Finally, as expected, participants demonstrated significantly higher levels of deservingness for Sam and victim blame in the non-innocent scenario. The participants' level of deservingness for HIV patients more broadly did not differ significantly between the two scenarios. Therefore, it can be safely assumed that the manipulation of the scenario affected the participants' levels of

empathy, willingness to help, positive attitude, perspective taking, deservingness for Sam and victim blame.

Table 1

*Independent Sample t-test for the Manipulation of Responsibility*

	Innocence		Non-innocent		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
BJW-S	4.87	.86	4.95	.80	-.94	.35	.10
BJW-O	3.54	1.04	3.35	1.00	1.71	.09	.00
Empathy (Sam)	5.22	.70	4.29	.88	11.33	.000	1.17
Empathy (HIV)	5.02	1.32	4.59	1.34	3.17	.002	.32
Help	3.12	1.06	2.76	1.08	3.23	.001	.34
Help (\$)	36.00	29.73	24.84	28.29	3.68	.81	.38
Help (%)	37.28	30.15	33.52	30.34	1.20	.739	.12
Pos. Attitude	5.08	1.01	4.47	.98	15.60	.000	.61
Persp. taking	4.36	1.07	2.78	1.04	14.41	.000	1.50
Deserve (Sam)	1.40	.63	1.91	1.01	-5.95	.000	.61
Deserve (HIV)	1.41	.69	1.54	.81	-1.70	.09	.17
Victim blame	1.60	.65	2.49	.88	-11.16	.000	1.15

*Note.* *M* = mean; *SD* = standard deviation; *t* = *t*-value; *p* = *p*-value; *d* = effect size (Cohen's *d*)

### 3.2 Trait Measurements of BJW

Pearson's correlation coefficient (*r*) was employed to calculate the relationships between participants' BJW-Self, BJW-Other scores, and positive and negative responses. In line with

previous observations (Dalbert, 1999; Lipkus et al., 1996), the two scales of BJW were positively correlated (see Table 2). Overall, participants scored higher on BJW-Self ( $M = 4.91$ ,  $SD = .83$ ;  $t(371) = 113.98$ ,  $p < .001$ ) than BJW-Other ( $M = 3.45$ ,  $SD = 1.03$ ;  $t(366) = 64.44$ ,  $p < .001$ ), which confirms prior research about BJW-Self being the more prominent dimension of BJW (Lipkus et al., 1996; Hafer & Sutton, 2016).

A correlational matrix was used to illustrate the main effects of BJW-Self and BJW-Other on the outcome variables in Table 2. In contrast to my hypothesis regarding the positive correlations between BJW-Self and positive responses, BJW-Self demonstrated weak and non-significant correlations with both positive and negative responses. When conducting a partial correlation to control for the effect of BJW-Other, BJW-Self still had no significant strong correlations.

The BJW-Other demonstrated more significant correlations than BJW-Self. As hypothesised, BJW-Other had a significant negative correlation with empathy for Sam and empathy for HIV patients (see Table 2). It also had weak non-significant correlations with help and positive attitude. There was a significant, positive, albeit weak, correlation between BJW-Other and deservingness for the victim and HIV patients, as well as victim blame. When controlling for BJW-Self, most of the results did not change significantly, besides help which became significant ( $r = -.110$ ,  $p = .035$ ).

Table 2

*Correlation Matrix of BJW-Self, BJW-Other, and Responses*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. BJW-S	1.00									
2. BJW-O	.397***	1.00								
3. Emp Sam	.004	-.116*	1.00							
4. Emp HIV	-.049	-.127*	.457***	1.00						
5. Help	.034	-.085	.534***	.365***	1.00					
6. Pos. attitude	-.014	-.039	.736***	.428***	.423***	1.00				
7. Persp. taking	-.023	.001	.692***	.389***	.366***	.828***	1.00			
8. Deserve Sam	.088	.198***	-.570***	-.417***	-.366***	-.503***	-.458***	1.00		
9. Deserve HIV	.063	.236***	-.404***	-.474***	-.364***	-.309***	.543***	-.239***	1.00	
10. Victim blame	.042	.118*	-.616***	-.488***	-.321***	-.666***	.558***	.426***	-.631***	1.00

*Note.* Pearson's correlation coefficient values as depicted by *r* values.

\*\*\*. Correlation is significant at the .001 level (2-tailed).

\*\*. Correlation is significant at the .01 level (2-tailed).

\*. Correlation is significant at the .05 level (2-tailed).

### 3.3 Interactions between Manipulation, Variables, and BJW-Self

Hayes' (2013) PROCESS macro was employed to conduct separate moderation analyses to test the proposed interaction between the manipulation of the scenario, BJW-Self, and the outcome variables (Model 1; Confidence interval 95; 5000 iterations). PROCESS macro is a regression path analysis modelling tool that calculates direct or indirect effects in mediator models (Hayes, 2013). In each regression, I entered the manipulation (1 = *innocent*, -1 = *non-innocent*) as the predictor, whilst BJW-Self was entered as the moderator. The interaction was evident when the *p*-value was significant, and when the confidence intervals did not cross zero.

Table 3 provides a summary of each interaction between the manipulation, BJW-Self, and the outcome variables: empathy, willingness to help, positive attitude, perspective taking, deservingness and victim blame. In contrast to our predictions, BJW-Self was unrelated to all outcome variables. This means that the participants' level of BJW-Self did not moderate their positive or negative reaction towards the victim. However, consistent with the aforementioned *t*-tests, the innocent condition was positively related to empathy for Sam and HIV patients, willingness to help, positive attitude and perspective taking; negatively related to deservingness for Sam and victim blame; and there was no significant correlation with deservingness for HIV patients.

### 3.4 Interaction between Manipulation, Variables, and BJW-Other

Similarly to above, I tested the proposed interaction between the manipulation of the scenario, BJW-Other and the positive and negative reactions by conducting a moderation for each variable while using Hayes' (2013) PROCESS macro (Model 1; Confidence interval 95;

5000 iterations). In each regression, I entered the manipulation (1 = *innocent*, -1 = *non-innocent*) as the predictor, while BJW-O was entered as the moderator.

Table 3 provides a summary of each interaction between the manipulation, BJW-Other, and the outcome variables. Contrary to my hypothesis, the table demonstrates that there were no significant interactions between the scenario manipulation, BJW-Other, and any of the variables. Nevertheless, helping behaviour ( $\beta = -.103$ ,  $p = .06$ ) and perspective taking ( $\beta = -.092$ ,  $p = .09$ ) were close to having a significant negative interaction with BJW-Other, which would align with my predictions.

Further, the manipulation of the condition correlated significantly and in the expected direction with empathy, willingness to help, positive attitude, perspective taking, and victim blame. Unlike the *t*-test, however, when accounting for BJW-Other, the innocent manipulation was positively, rather than negatively, correlated with deservingness for Sam. Interestingly, deservingness for HIV patients did not differ significantly between scenarios in the *t*-test, however, in PROCESS the non-innocent scenario had a significant negative correlation with deservingness for HIV patients.

Finally, Table 3 presents similar results with the correlation matrix. The BJW-Other had a significant negative correlation with empathy for Sam and HIV patients. There was also a significant positive correlation with deservingness for HIV patients and victim blame. It also correlated negatively with positive attitudes towards the victim, which was not found while conducting a Pearson's correlations coefficient. Moreover, deservingness for Sam did not show any significant correlations, which contradicts the correlation matrix in Table 2.

Table 3

*Interactions: Scenario x BJW-Self and Scenario x BJW-Other*

	Empathy (Sam)	Empathy (HIV)	Help	Pos. attitude	Persp. taking	Deserve (Sam)	Deserve (HIV)	Victim blame
Scenario	.469***	.216***	.182***	.806***	.789***	-.253***	-.064	-.445***
BJW-S	.037	-.063	.058	.026	.007	-.048	.048	.023
Interaction	-.038	-.024	-.023	-.013	.019	.039	.05	-.035
Scenario	.483***	.248***	.186***	.815***	.794***	.655***	-.089*	-.456***
BJW-O	-.149***	-.188***	-.103	-.111*	-.058	-.085	.187***	.144***
Interaction	.019	-.008	-.035	-.081	-.092	-.049	-.054	-.033

*Note. PROCESS output as depicted by standardised beta coefficients.*

\*\*\*. Correlation is significant at the .001 level (2-tailed).

\*\*. Correlation is significant at the .01 level (2-tailed).

\*. Correlation is significant at the .05 level (2-tailed).

## CHAPTER 4

### Discussion

#### 4.1 Overview

This study was the first attempt in the literature to explore the relationship between the bidimensional model of BJW and empathy, willingness to help, positive attitude, perspective taking, deservingness and victim blame towards a third party. The complexity of the study was enhanced by manipulating the perceived responsibility of the victim. The study aimed to explore whether participants who believe that the world treats them fairly would react more positively towards a victim than those with high BJW-Other.

According to the results, participants demonstrated more empathic responses and less derogation to the victim in the innocence manipulation. The subjects' BJW-Self did not determine how they reacted towards the innocent or non-innocent victims. Nevertheless, their BJW-Other scores had a weak relationship in the expected negative direction with derogatory perceptions of the victim, regardless of the victim's perceived responsibility. This means that participants who believed that the world treated others fairly displayed more negative attitudes towards the victims.

Contrary to my predictions, there were no interactions between BJW-Self, BJW-Other, and the manipulation of the scenario. In the innocent scenario, the participants did not act in a more positive manner when they believed that the world treats them fairly. Likewise, in the non-innocent scenario, their reactions did not differ from the participants who believed that the world treats others fairly. Participants who believed more strongly that the world is just to others did not express much higher levels of negative attitudes than participants who scored high in BJW-Self.

## 4.2 Current findings

### 4.2.1 Hypothesis 1: Relationship between innocence and positive responses

To explain these results, it is important to consider methodological and theoretical explanations, as well as to compare findings of previous studies. As predicted, the participants demonstrated significantly higher levels of empathy, willingness to help, positive attitude and perspective taking in the scenario where the victim was perceived innocent. This is in line with previous research studies that have also found significant correlations between the victim's actions and their perceived responsibility (Braman & Lambert, 2001; Weiner, Perry & Magnusson, 1988). Murphy-Berman and Berman (1990) found that participants with high levels of BJW-Self and BJW-Other were more willing to help a victim when he or she was unaware of the risks of contracting AIDS. On the contrary, victims that were fully aware of the risks they were taking while having unprotected sex, were deemed as non-innocent, so participants derogated and blamed them regardless of how high or low the participants' BJW-Self and BJW-Other were (Murphy-Berman & Berman, 1990). This direct replication of previous studies confirms that positive responding is correlated with the victim's perceived innocence.

Although participants responded in significantly different ways towards the innocent and non-innocent victims, their scores for deservingness for HIV patients in general did not differ between the scenarios. This means that participants held HIV victims as deserving of their predicament regardless of whether they belonged in the innocent or non-innocent manipulation. This is reasonable, given that the items of the Deservingness (HIV) measure were assessing the participants' general opinion on HIV patients. The manipulation of the condition should not have affected their responses.

It is worth mentioning that there was an inconsistency between the calculations of the *t*-test and the regression path analysis modelling tool (PROCESS). Although the *t*-test statistic found participants to place more blame and deservingness upon the non-innocent victim, the PROCESS calculations found the opposite – the innocent victim was deemed deserving of contracting HIV, whilst the non-innocent victim was not perceived as deserving. Those contrasting findings occur because PROCESS took into account the variance shared by BJW-Self and BJW-Other. This is an interesting conceptual finding, as it signifies that when BJW is not considered (in a *t*-test), participants were kinder to the innocent victim. However, when I included BJW-Self and BJW-Other (in PROCESS), participants were blaming the victim, which corresponds with the BJW theory.

Hence, an overarching theme is created, where participants showed more empathy and compassion towards victims who took precautions or were unaware of the risks involved, as they were perceived as less deserving of becoming ill. This happened despite the fact that the victims in both innocent and non-innocent manipulations contracted the virus involuntarily. Victims who are seen as non-innocent are believed to have caused their predicament due to their lack of proactiveness. Having the choice of avoiding an illness, or any other unfortunate event, inherently grants people responsibility for their actions (Braman & Lambert, 2001). This aligns with the fundamental tenet of the BJW theory – deservingness, where one does not just become sick; one becomes sick for a reason (Weiner et al., 1988).

Nevertheless, these findings contradict Lerner's (1980) claim that the derogation of a victim magnifies as the extent of the injustice increases. Adhering to Lerner (1980), an innocent victim should be blamed more than a non-innocent one in order to preserve one's belief in a just world. However, participants in Braman and Lambert's (2001) and in the current study, have acted in the opposite manner by showing more positive attitudes towards the innocent victims. A reason for this could be the nature of the unjust event. People who do

not wear protection are statistically more likely to contract a sexually transmitted disease compared to the ones that do. Consequently, they are viewed as more responsible and blameworthy if they test positive for a sexually transmitted illness. Conversely, participants may have felt more sympathy towards the victim that regularly wore protection, as the contraction of the disease was out of their control given that they took precautions.

#### **4.2.2 Hypothesis 2: Correlation between BJS-Self and positive responding**

The relationships between BJW-Self and the participants' reactions towards a third party did not fulfil the second hypothesis. BJW-Self failed to correlate significantly with any outcome variable. The non-significant correlations were also either weak or in the opposite direction from what was predicted. Consequently, participants scoring high on BJW-Self did not show more positive attitudes towards the victim.

A possible explanation for these findings is the fact that both vignettes target a third person. The BJW-Self measure may not encapsulate the participants' perception of a third party effectively, as the items of the scale ask about the self specifically. Conversely, BJW-Other had more significant correlations because the measure encourages participants to take other people's perspective. Hence, BJW-Other assesses people's reactions towards a third party more precisely. If the scenarios were written in the first-person, the results may have differed, as the more personal an unjust experience appears, the more one will try to deny it (Dalbert, 1999).

##### **4.2.2.1 Correlation between BJW-Other and negative responding**

The second hypothesis was partially met, given that believing that the world treats others fairly had a significant negative, albeit weak, correlation with empathy for the victim and HIV patients in general. Further, BJW-Other correlated negatively with positive attitude and willingness to help although those correlations were not significant. This suggests that

participants who believed that the world is fair for others were less empathetic towards innocent and non-innocent victims. They may have also been less willing to help the victim, and more likely to uphold negative attitudes towards them (e.g., finding Sam distasteful and untrustworthy). The BJW-Other scale had significant positive correlations with deservingness and victim blame for Sam and HIV patients. This signifies that participants who believed that the world is just for others demonstrated less pro-social behaviours and placed more accountability upon the victim and HIV patients regardless of whether they read the innocent or non-innocent manipulation.

#### **4.2.3 Hypothesis 3: Interaction between BJW-Self and manipulation of innocence**

Contrary to the third hypothesis, BJW-Self failed to interact significantly with the manipulation of conditions. The extent to which participants believed the world was fair for themselves was unrelated to their level of positive and negative reactions in both scenarios. Hence, as BJW-Self increased, positive responses did not magnify, and negative responses did not diminish. Similar to above, one of the main reasons for these results may be the fact that the scenarios were written in the third person, rather than the first person. Given that people tend to segregate their personal world from other people's world (Calhoun & Cann, 1994), the participants' views about how fairly the world treats them may not have affected their perception of another person's misfortune.

The present study is not the only one that failed to find many correlations between BJW-Self and other variables. Lambert and Raichle (2000) found that BJW correlated with victim derogation in a rape scenario only when the participants and the victim were female, and only when the Rubin and Peplau (1975) BJW scale was used. Similarly, Braman and Lambert (2001) found innocent victims being blamed and held responsible only when they belonged in an out-group. Corresponding to the argument above, Lambert and Raichle (2000) agreed

that correlations may not be as strong when employing a BJW-Self scale to measure responses towards others, as it may play a stronger role in a manipulation where there is a tangible threat to the self rather than someone else.

Similar to this study, Correia and colleagues' (2001) research did not find an interaction effect between the participants' BJW levels and the victim's innocence on victim blaming. Their participants' belief in a just world did not increase or decrease the level of victim blaming. They suggested a possible reason could be the nature of the scenario – people contracting HIV in both manipulations may be deemed as less innocent regardless of whether or not they used a condom.

#### **4.2.4 Hypothesis 4: Interaction between BJW-Other and manipulation of innocence**

Although subjects scoring high in BJW-Other demonstrated the estimated levels of empathy, deservingness and victim blame, there were no significant interactions between their BJW-Other levels and the manipulation of responsibility, which means that the fourth hypothesis was not met. The extent of positive or negative responding was not moderated by how fair participants thought the world treats others. The levels of negative responding did not amplify when they scored high on BJW-Other. However, there were two instances where BJW-Other could have affected the participants' willingness to help and perspective taking but their *p*-values were marginally above to the conventional .05. If those interactions were significant, it would indicate that the higher the participants' BJW-Other were, the less willing they would be to help the victim and to take the victim's perspective in both scenarios.

Furthermore, when examining the correlational relationship between BJW-Other and positive attitudes towards the victim, no significant results were found. However, when the manipulation of the condition was taken into consideration, a negative relationship emerged.

Subsequently, subjects who believed the world treats others fairly held negative attitudes towards the non-innocent victims. Therefore, the manipulation of the scenario had some effect on how BJW-Other operated.

### **4.3 Significance and Contribution of this Study**

This study has managed to confirm past findings, and it has shed new light in the area of BJW-Self and its relationship with positive reactions towards victims. The internal validity of the BJW-Self and BJW-Other measures was confirmed, as the scores of the two scales were positively and moderately correlated. This indicates that people who believed in a just world for themselves were likely to also believe that the world is just towards others (Dalbert, 1999; Bègue & Bastounis, 2003; Sutton et al., 2008). Adhering to past research, participants' belief that the world is just for themselves was more prominent than the belief that the world is just for others (Dalbert, 1999; Lipkus et al., 1996; Bègue & Bastounis, 2003). Even though a positive interaction between BJW-Self and prosocial attitudes was expected, the absence of significant results may mean that people's perception of another person's misfortune may be mainly affected by how fairly they view the world is for others, rather than for themselves. Conversely, the BJW-Other results reaffirmed the well-established positive correlations between BJW-Other and harsh societal attitudes, given that BJW-Other was positively correlated with derogatory attitudes towards the victim (Furnham & Procter, 1992; Lipkus et al., 1996; Sutton & Douglas, 2005; Bègue & Bastounis, 2003).

The credibility of the rest of the measures used was evident as they were collected from previous peer-reviewed studies focusing on each outcome variable separately. For instance, the measure of attitude towards the victim consisted partially of statements from Lodewijkx and colleagues' (2001) study, and partially of questions from Irwin and colleagues' (1996)

paper. The manipulation used in the scenario was also a reputable scenario utilised in many studies before – the manipulation of innocence during the contraction of a sexually transmitted illness (Correia et al., 2001; Murphy-Berman & Berman, 1990; Hafer & Bègue, 2005). Hence, the participant's BJW was threatened differently by the two scenarios. The overall internal validity of the measures was high, meaning that the positive and negative reactions were assessed efficiently. It is worth mentioning, no other study had previously explored empathy, willingness to help, positive attitude, perspective taking, deservingness, and victim blame at the same time. Moreover, the reliability of the results was ensured by the large sample of participants that completed the online survey ( $N = 372$ ). Having a large sample size is useful as results can have greater statistical power and external validity, so the results of this study were robust.

#### **4.4 Limitations and Future Recommendations**

There are various sources of variance in the results that led to null findings in the BJW-Self domain and the hypothesised interactions. First, it has been argued previously that there are significant correlations between BJW scale scores and social desirability bias (Hafer & Bègue, 2005; Heaven & Connors, 1988; Loo, 2002). The desire of wanting to appear in line with socially encouraged notions could have affected some of the participants' responses in this study, for instance, the amount of money they would offer to the victim or other HIV patients. Participants may have also chosen to appear more empathetic and open-minded in their answers, given that they did not have to follow up their statements with actions. Hence, their true attitudes towards the innocent or non-innocent victim may differ. Further, despite the advantages of employing an online survey to collect data (i.e., convenience and access to diverse populations), there can be drawbacks that may affect responses. For example, respondents may adopt any attitude they wish towards the victim due to the reduced self-

regulation (Skitka & Sargis, 2006). It is unknown whether the participants were adopting a more anti-social or a socially desirable behaviour. To encounter this caveat, a future study can include a social desirability measure (Crowne & Marlowe, 1960).

Another bias that may have affected the participants' scores is the acquiescence bias, where respondents are more likely to select a positive response (Hafer & Bègue, 2005). Given that the items were phrased in a specific direction (e.g., *The world treats me fairly*), participants may have been compelled to agree rather than disagree with them. Furnham (1995) also added that endorsing a belief in an unjust world (i.e., bad behaviours predicting good outcomes) does not necessarily mean it is the opposite of believing that the world is fair. Some participants may believe that the world is fair regardless of whether or not the personal contracts are maintained. Despite the popularity of the Lipkus and colleagues' (1996) scale, the results could have been different if some questions asked directly about the injustice of the world (e.g., *I feel that people's efforts are not noticed and rewarded*).

In spite of the large sample size of the present study, there are some inherent disadvantages with the demographics. The majority of the participants were university students, and the average age was 23 years old: This makes the generalisability of the results less broad for the general population. The shared characteristics and experiences of the cohort influence the findings (i.e., cohort effect). Moreover, given that BJW-Self and BJW-Other can only be extracted through people's subjective experiences (Sutton et al., 2008), it is unlikely that I received an accurate picture of the theory as participants of this study, and many other studies conducted in the past, come from Western, educated, industrialised, rich and democratic (WEIRD) backgrounds (Henrich, Heine & Norenzayan, 2010). Most people surveyed have not been victims of larger injustices such as genocides, famines, slavery, and political oppression. Sutton and Winnard (2007) explored this argument and concluded that participants of less privileged backgrounds believed that the world was equally fair for

themselves and others, rather than having a more prominent BJW-Self. Hence, more research could be conducted in the future comparing people with diverse life experiences.

Another factor that may have influenced the results of the present study is the scenario used for the manipulation. Although the “innocent” versus “non-innocent” HIV patient scenario is widespread in the literature, it is worth noting that its prevalence was primarily in the early 2000s, when HIV was loaded with negative connotations and was highly associated with death and prejudice (Correia et al., 2001). Since then, HIV is still an undesirable and life-threatening disease, however there are effective ways of managing it. In this study, it is highly likely that the cohort consisted of young people who uphold liberal attitudes towards sexually transmitted illnesses. Therefore, this may partially defy the aim of the manipulation which was to threaten the participants’ belief in a just world. A more current threat could be more effective for this study, for instance contracting COVID-19. In one scenario, a person’s careless behaviour could lead them to contract COVID-19 because they had not taken any precautions and had gone to known COVID hotspots; whilst in the other scenario, the victim contracted the virus even if they acted in a COVID-safe manner. Such relatable manipulation of innocence could threaten the participants’ BJW more intensely than contracting HIV.

One of the purposes of this study was to explore how participants with high BJW-Self would react to another person’s plight. Although it was expected that there would be higher levels of positive reactions, in reality, the BJW-Self levels did not interact with people’s reactions in any of the scenarios. This may signify that higher levels of psychological wellbeing and prosocial behaviour may be associated with BJW-Self only when the victim is oneself rather than someone else. Hence, a future study could explore this by presenting the same scenario to two randomly allocated groups but manipulate the victim – first person versus third person. Calhoun and Cann (1994) first explored this notion by replacing the pronouns of a general BJW scale from the first to the third person, and found that participants

viewed their world as fairer and less random. However, it is still unknown whether participants would act similarly if pronouns of the scenario were manipulated. Hafer and Bègue (2005) pointed out that the participants' derogative responses are less likely to be used as a means of maintaining a belief in just world when the victim of the story is oneself, resulting in a more lenient response.

Another broader feature of the literature that may have affected the quality of the present study is the common trend of studies combining the two distinct spheres of BJW into one general variable. This has been highlighted in other studies too, who encourage future research to segregate the two constructs given their opposing outcome variables (Bartholomaeus & Strelan, 2019; Hafer & Bègue, 2005).

#### **4.5 Conclusion**

Overall, the current study managed to confirm as well as explore various domains of the two spheres of BJW. As expected, participants demonstrated a more prosocial attitude towards the victim that was perceived innocent. Moreover, in line with previous literature, participants believed that the world treated them more fairly than other people. Nevertheless, the study failed to discover any significant differences between people's BJW-Self and their reactions to the victim. Although it was assumed that people with high BJW-Self would demonstrate more positive attitudes towards innocent and non-innocent victims, no such interactions were statistically significant. The study also failed to find an interaction between BJW-Other and the level of negative responding. However, when the scenario manipulation was considered, participants who believed that the world treated others justly displayed negative attitudes towards the non-innocent victim. Additionally, consistent with my predictions, participants with high BJW-Other exhibited less empathy, and more disparaging

attitudes towards the victim, regardless of the manipulation of responsibility; thus, confirming a widely held tenant of BJW theory. Willingness to help and perspective taking did not have a significant relationship with BJW-Other. Overall, it can be deduced that the participant's strength of BJW-Self and BJW-Other did not influence their responses towards the innocent or non-innocent victim. There is ample space for future research to expand this area and to solidify whether people who believe the world treats them fairly demonstrate positive attitudes towards other people, rather than just themselves.

## References

- Appelbaum, L., Lennon, M., & Lawrence Aber, J. (2006). When Effort is Threatening: The Influence of the Belief in a Just World on Americans' Attitudes Toward Antipoverty Policy. *Political Psychology, 27*(3), 387–402. <https://doi.org/10.1111/j.1467-9221.2006.00506.x>
- Bartholomaeus, J., & Strelan, P. (2016). Just world beliefs and forgiveness: The mediating role of implicit theories of relationships. *Personality and Individual Differences, 96*, 106–110. <https://doi.org/10.1016/j.paid.2016.02.081>
- Bartholomaeus, J., & Strelan, P. (2019). The adaptive, approach-oriented correlates of belief in a just world for the self: A review of the research. *Personality and Individual Differences, 151*. <https://doi.org/10.1016/j.paid.2019.06.028>
- Bègue, L., & Bastounis, M. (2003). Two Spheres of Belief in Justice: Extensive Support for the Bidimensional Model of Belief in a Just World. *Journal of Personality, 71*(3), 435–463. <https://doi.org/10.1111/1467-6494.7103007>
- Bègue, L., & Muller, D. (2006). Belief in a just world as moderator of hostile attributional bias. *British Journal of Social Psychology, 45*(1), 117–126. <https://doi.org/10.1348/014466605X37314>
- Berger, S. (1962). Conditioning through vicarious instigation. *Psychological Review, 69*(5), 450–466. <https://doi.org/10.1037/h0046466>
- Bierhoff, H., Klein, R., & Kramp, P. (1991). Evidence for the Altruistic Personality from Data on Accident Research. *Journal of Personality, 59*(2), 263–280. <https://doi.org/10.1111/j.1467-6494.1991.tb00776.x>

- Braman, A., & Lambert, A. (2001). Punishing Individuals for Their Infirmities: Effects of Personal Responsibility, Just-World Beliefs, and In-Group/Out-Group Status. *Journal of Applied Social Psychology, 31*(5), 1096–1109. <https://doi.org/10.1111/j.1559-1816.2001.tb02664.x>
- Calhoun, L. G., & Cann, A. (1994). Differences in assumptions about a just world: Ethnicity and point of view. *The Journal of Social Psychology, 134*(6), 765-770. <https://doi.org/10.1080/00224545.1994.9923011>
- Callan, M. J., Ellard, J. H., & Nicol, J. E. (2006). The Belief in a Just World and Immanent Justice Reasoning in Adults. *Personality and Social Psychology Bulletin, 32*(12), 1646–1658. <https://doi.org/10.1177/0146167206292236>
- Coke, J., Batson, C., & McDavis, K. (1978). Empathic mediation of helping: A two-stage model. *Journal of Personality and Social Psychology, 36*(7), 752–766. <https://doi.org/10.1037/0022-3514.36.7.752>
- Connors, J., & Heaven, P. (1987). Authoritarianism and just world beliefs. *The Journal of Social Psychology, 127*(3), 345–346. <https://doi.org/10.1080/00224545.1987.9713702>
- Connors, J., & Heaven, P. (1990). Belief in a Just World and Attitudes toward AIDS Sufferers. *The Journal of Social Psychology, 130*(4), 559–560. <https://doi.org/10.1080/00224545.1990.9924619>
- Corey, M., Troisi, J., & Nicksa, S. (2015). Tipping the Scales of Justice: The Influence of Victimization on Belief in a Just World. *Social Justice Research, 28*(4), 509–525. <https://doi.org/10.1007/s11211-015-0252-8>

- Correia, I., & Vala, J. (2003). When Will a Victim Be Secondarily Victimized? The Effect of Observer's Belief in a Just World, Victim's Innocence and Persistence of Suffering. *Social Justice Research, 16*(4), 379–400. <https://doi.org/10.1023/A:1026313716185>
- Correia, I., Vala, J., & Aguiar, P. (2001). The Effects of Belief in a Just World and Victim's Innocence on Secondary Victimization, Judgements of Justice and Deservingness. *Social Justice Research, 14*(3), 327–342. <https://doi.org/10.1023/A:1014324125095>
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*(4), 349–354. <https://doi.org/10.1037/h0047358>
- Dalbert, C. (1999). The World is More Just for Me than Generally: About the Personal Belief in a Just World Scale's Validity. *Social Justice Research, 12*(2), 79–98. <https://doi.org/10.1023/A:1022091609047>
- Dalbert, C. (2009). Belief in a just world. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of Individual Differences in Social Behaviour* (pp. 288-297). New York: Guilford Publications.
- Dzuka, J., & Dalbert, C. (2007). Student violence against teachers: Teachers' well-being and the belief in a just world. *European Psychologist, 12*(4), 253–260. <https://doi.org/10.1027/1016-9040.12.4.253>
- Eisenberg N. (2000). Emotion, regulation, and moral development. *Annual review of psychology, 51*, 665–697. <https://doi.org/10.1146/annurev.psych.51.1.665>
- Erle, T. M., & Topolinski, S. (2017). The grounded nature of psychological perspective-taking. *Journal of Personality and Social Psychology, 112*(5), 683–695. <https://doi.org/10.1037/pspa0000081>

- Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis program for the social, behavioural, and biomedical sciences. *Behaviour Research Methods*, *39*(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Furnham, A. (1995). The just world, charitable giving and attitudes to disability. *Personality and Individual Differences*, *19*(4), 577–583. [https://doi.org/10.1016/0191-8869\(95\)00090-S](https://doi.org/10.1016/0191-8869(95)00090-S)
- Furnham, A. (2003). Belief in a just world: Research progress over the past decade. *Personality and Individual Differences*, *34*(5), 795–817. [https://doi.org/10.1016/S0191-8869\(02\)00072-7](https://doi.org/10.1016/S0191-8869(02)00072-7)
- Furnham, A., & Karani, R. (1985). A cross-cultural study of attitudes to women, just world, and locus of control beliefs. *Psychologia: An International Journal of Research in the Orient*, *28*, 11–20.
- Furnham, A., & Procter, E. (1989). Belief in a just world: Review and critique of the individual difference literature. *British Journal of Social Psychology*, *28*(4), 365–384. <https://doi.org/10.1111/j.2044-8309.1989.tb00880.x>
- Furnham, A., & Procter, E. (1992). Sphere-Specific Just World Beliefs and Attitudes to AIDS. *Human Relations*, *45*(3), 265–280. <https://doi.org/10.1177/001872679204500303>
- Gummerum, M., & Hanoch, Y. (2012). Altruism Behind Bars: Sharing, Justice, Perspective Taking and Empathy Among Inmates. *Social Justice Research*, *25*(1), 61–78. <https://doi.org/10.1007/s11211-012-0149-8>

- Hafer, C. (2000). Do Innocent Victims Threaten the Belief in a Just World? Evidence from a Modified Stroop Task. *Journal of Personality and Social Psychology*, 79(2), 165–173. <https://doi.org/10.1037/0022-3514.79.2.165>
- Hafer, C. (2002). Why we reject innocent victims. In M. Ross & D. T. Miller (Eds.), *The justice motive in everyday life* (pp. 109–126). Cambridge University Press. <https://doi.org/10.1017/CBO9780511499975.007>
- Hafer, C., & Bègue, L. (2005). Experimental Research on Just-World Theory: Problems, Developments, and Future Challenges. *Psychological Bulletin*, 131(1), 128–167. <https://doi.org/10.1037/0033-2909.131.1.128>
- Hafer, C., & Gosse, L. (2011). Predicting alternative strategies for preserving a belief in a just world: The case of repressive coping style. *European Journal of Social Psychology*, 41(6), 730–739. <https://doi.org/10.1002/ejsp.807>
- Hafer, C., & Sutton, R. (2016). Belief in a Just World. In C. Sabbagh, & M. Schmitt (Eds.), *Handbook of Social Justice Theory and Research* (pp. 145-160). New York, NY: Springer.
- Hayes, A. F. (2013). *Methodology in the social sciences. Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Heaven, P., Connors, J., & Kellehear, A. (1990). Structure and Demographic Correlates of Attitudes Toward AIDS Sufferers. *The Journal of Psychology*, 124(3), 245–252. <https://doi.org/10.1080/00223980.1990.10543220>
- Henrich, J., Heine, S., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466, 29. <https://doi.org/10.1038/466029a>

- Irwin, J., Jones, L., & Mundo, D. (1996). Risk perception and victim perception: The judgment of HIV cases. *Journal of Behavioural Decision Making*, 9(1), 1–22. [https://doi.org/10.1002/\(SICI\)1099-0771\(199603\)9:13.0.CO;2-Y](https://doi.org/10.1002/(SICI)1099-0771(199603)9:13.0.CO;2-Y)
- Jiang, F., Yue, X., Lu, S., Yu, G., & Zhu, F. (2016). *How Belief in a Just World Benefits Mental Health: The Effects of Optimism and Gratitude. (Report)*. 126(1), 411–423. <https://doi.org/10.1007/s11205-015-0877-x>
- Jones, W. H., Freemon, J. E., & Goswick, R. A. (1981). The persistence of loneliness: Self and other determinant. *Journal of Personality*, 49, 27–48.
- Karuza, J., & Carey, T. (1984). Relative preference and adaptiveness of behavioural blame for observers of rape victims. *Journal of Personality*, 52(3), 249–260. <https://doi.org/10.1111/j.1467-6494.1984.tb00880.x>
- Kogut, T. (2011). Someone to blame: When identifying a victim decreases helping. *Journal of Experimental Social Psychology*, 47(4), 748–755. <https://doi.org/10.1016/j.jesp.2011.02.011>
- Lambert, A., & Raichle, K. (2000). The Role of Political Ideology in Mediating Judgments of Blame in Rape Victims and their Assailants: A Test of the Just World, Personal Responsibility, and Legitimization Hypotheses. *Personality and Social Psychology Bulletin*, 26(7), 853–863. <https://doi.org/10.1177/0146167200269010>
- Landström, S., Strömwall, L., & Alfredsson, H. (2016). Blame attributions in sexual crimes: Effects of belief in a just world and victim behaviour. *Nordic Psychology*, 68(1), 1–11. <https://doi.org/10.1080/19012276.2015.1026921>

- Lerner, M. J. (1977). The justice motive: Some hypotheses as to its origins and forms. *Journal of Personality*, 45(1), 1–52. <https://doi.org/10.1111/j.1467-6494.1977.tb00591.x>
- Lerner, M. J. (1980). *The Belief in a Just World A Fundamental Delusion*. Springer US.
- Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin*, 85(5), 1030–1051. <https://doi.org/10.1037/0033-2909.85.5.1030>
- Lerner, M. J., Miller, D. T., & Holmes, J. G. (1976). Deserving and the emergence of forms of justice. In L. Berkowitz & E. Walster (Eds.), *Advances in experimental social psychology* (Vol. 9, pp. 133-162). New York: Academic Press.
- Lerner, M. J., & Simmons, C. (1966). Observer's reaction to the "innocent victim": Compassion or rejection? *Journal of Personality and Social Psychology*, 4(2), 203–210. <https://doi.org/10.1037/h0023562>
- Lipkus, I. M., Dalbert, C., & Siegler, I. C. (1996). The importance of distinguishing the belief in a just world for self versus for others: Implications for psychological well-being. *Personality and Social Psychology Bulletin*, 22(7), 666–677. <https://doi.org/10.1177/0146167296227002>
- Lodewijkx, H., Wildschut, T., Nijstad, B., Savenije, W., & Smit, M. (2001). *In a Violent World a Just World Makes Sense: The Case of "Senseless Violence" in The Netherlands*. *Social Justice Research*, 14(1), 79–94. <https://doi.org/10.1023/A:1012527808620>
- Loo, R. (2002). A psychometric and cross-national examination of a belief in a just world scale. *Journal of Applied Social Psychology*, 32, 1396–1406.

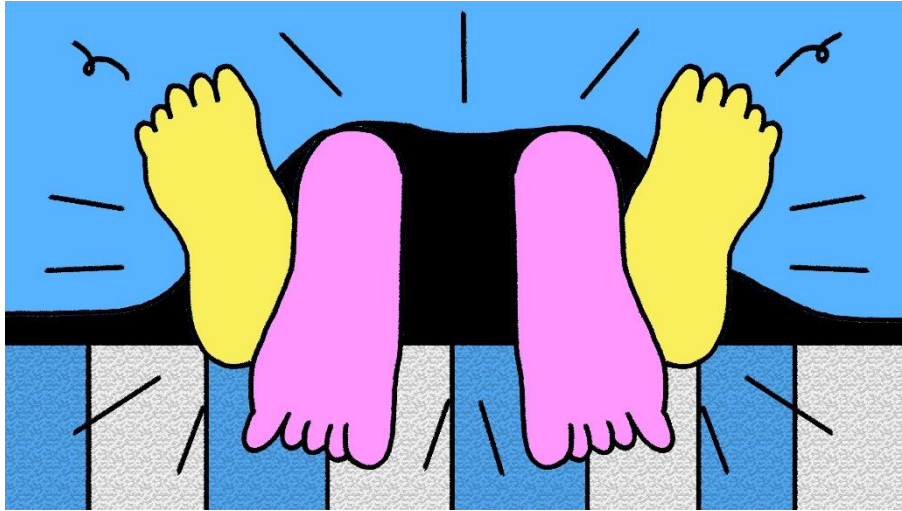
- Mccullough, M., Fincham, F., & Tsang, J. (2003). Forgiveness, Forbearance, and Time: The Temporal Unfolding of Transgression-Related Interpersonal Motivations. *Journal of Personality and Social Psychology*, *84*(3), 540–557. <https://doi.org/10.1037/0022-3514.84.3.540>
- Murphy-Berman, V., & Berman, J. (1990). The effect of respondents' just world beliefs and target person's social worth and awareness-of-risk on perceptions of a person with AIDS. *Social Justice Research*, *4*(3), 215–228. <https://doi.org/10.1007/BF01048398>
- Nudelman, G., & Shiloh, S. (2011). Who deserves to be sick? An exploration of the relationships between belief in a just world, illness causal attributions and their fairness judgements. *Psychology, Health & Medicine*, *16*(6), 675–685. <https://doi.org/10.1080/13548506.2011.569730>
- O'Quin, K., & Vogler, C. (1989). Effects of just world beliefs on perceptions of crime perpetrators and victims. *Social Justice Research*, *3*(1), 47–56. <https://doi.org/10.1007/BF01050938>
- Query, P. F. (2006). Attitudes toward the Willingness to Help, *Journal of Undergraduate Psychological Research*, *1*, 18-21.
- Rubin, Z., & Peplau, L. (1975). Who Believes in a Just World? *Journal of Social Issues*, *31*(3), 65–89. <https://doi.org/10.1111/j.1540-4560.1975.tb00997.x>
- Schmidt, G., & Weiner, B. (1988). An Attribution-Affect-Action Theory of Behaviour: Replications of Judgments of Help-Giving. *Personality and Social Psychology Bulletin*, *14*(3), 610–621. <https://doi.org/10.1177/0146167288143021>

- Searls, R. A. (2014). The Threat of an Innocent Victim: How Perspective-Taking and Mood Affect Perceptions of Victims. *Syracuse University Honours Program Capstone Projects*. 800. [https://surface.syr.edu/honors\\_capstone/800](https://surface.syr.edu/honors_capstone/800)
- Sheridan, L., Gillett, R., Davies, G., Blaauw, E., & Patel, D. (2003). “There’s no smoke without fire’: Are male ex-partners perceived as more “entitled” to stalk than acquaintance or stranger stalkers? *British Journal of Psychology*, *94*(1), 87–98. <https://doi.org/10.1348/000712603762842129>
- Shiloh, S., Rashuk-Rosenthal, D., & Benyamini, Y. (2002). Illness Causal Attributions: An Exploratory Study of Their Structure and Associations with Other Illness Cognitions and Perceptions of Control. *Journal of Behavioural Medicine*, *25*(4), 373–394. <https://doi.org/10.1023/A:1015818532390>
- Silver, K., Karakurt, G., & Boysen, S. (2015). Predicting Prosocial Behaviour Toward Sex-Trafficked Persons: The Roles of Empathy, Belief in a Just World, and Attitudes Toward Prostitution. *Journal of Aggression, Maltreatment & Trauma*, *24*(8), 932–954. <https://doi.org/10.1080/10926771.2015.1070231>
- Skitka, L., & Sargis, E. (2006). The Internet as Psychological Laboratory. *Annual Review of Psychology*, *57*(1), 529–555. <https://doi.org/10.1146/annurev.psych.57.102904.190048>
- Stotland, E. (1969). Exploratory Investigations of Empathy. *Advances in Experimental Social Psychology*, *4*, 271–314. [https://doi.org/10.1016/S0065-2601\(08\)60080-5](https://doi.org/10.1016/S0065-2601(08)60080-5)
- Strelan, P. (2007). The prosocial, adaptive qualities of just world beliefs: Implications for the relationship between justice and forgiveness. *Personality and Individual Differences*, *43*(4), 881–890. <https://doi.org/10.1016/j.paid.2007.02.015>

- Strelan, P., & Sutton, R. M. (2011). When just-world beliefs promote and when they inhibit forgiveness. *Personality and Individual Differences, 50*(2), 163–168. <https://doi.org/10.1016/j.paid.2010.09.019>
- Sutton, R. M., & Winnard, E. J. (2007). Looking ahead through lenses of justice: The relevance of just-world beliefs to intentions and confidence in the future. *British Journal of Social Psychology, 46*(3), 649–666. <https://doi.org/10.1348/014466606X166220>
- Strömwall, L., Alfredsson, H., & Landström, S. (2013). Blame attributions and rape: Effects of belief in a just world and relationship level. *Legal and Criminological Psychology, 18*(2), 254–261. <https://doi.org/10.1111/j.2044-8333.2012.02044.x>
- Sutton, R., & Douglas, K. (2005). Justice for all, or just for me? More evidence of the importance of the self-other distinction in just-world beliefs. *Personality and Individual Differences, 39*(3), 637–645. <https://doi.org/10.1016/j.paid.2005.02.010>
- Sutton, R., Douglas, K., Wilkin, K., Elder, T., Cole, J., & Stathi, S. (2008). Justice for Whom, Exactly? Beliefs in Justice for the Self and Various Others. *Personality and Social Psychology Bulletin, 34*(4), 528–541. <https://doi.org/10.1177/0146167207312526>
- Sutton, R., Stoeber, J., & Kamble, S. (2017). Belief in a just world for oneself versus others, social goals, and subjective well-being. *Personality and Individual Differences, 113*, 115–119. <https://doi.org/10.1016/j.paid.2017.03.026>
- Turner Depalma, M., Madey, S., Tillman, T., & Wheeler, J. (1999). Perceived Patient Responsibility and Belief in a Just World Affect Helping. *Basic and Applied Social Psychology, 21*(2), 131–137. <https://doi.org/10.1207/S15324834BA210205>

- Underwood, B., & Moore, B. (1982). Perspective-taking and altruism. *Psychological Bulletin*, *91*(1), 143–173. <https://doi.org/10.1037/0033-2909.91.1.143>
- van Den Bos, K., & Maas, M. (2009). On the Psychology of the Belief in a Just World: Exploring Experiential and Rationalistic Paths to Victim Blaming. *Personality and Social Psychology Bulletin*, *35*(12), 1567–1578.  
<https://doi.org/10.1177/0146167209344628>
- van Prooijen, J., & van Den Bos, K. (2009). We Blame Innocent Victims More Than I Do: Self-Construal Level Moderates Responses to Just-World Threats. *Personality and Social Psychology Bulletin*, *35*(11), 1528–1539.  
<https://doi.org/10.1177/0146167209344728>
- Vonderhaar, R., & Carmody, D. (2015). There Are No “Innocent Victims”: The Influence of Just World Beliefs and Prior Victimization on Rape Myth Acceptance. *Journal of Interpersonal Violence*, *30*(10), 1615–1632.  
<https://doi.org/10.1177/0886260514549196>
- Weiner, B., Perry, R., & Magnusson, J. (1988). An Attributional Analysis of Reactions to Stigmas. *Journal of Personality and Social Psychology*, *55*(5), 738–748.  
<https://doi.org/10.1037/0022-3514.55.5.738>

## Appendix A: Recruitment Flyer



### Attitudes towards sexual behaviour

You are invited to participate in a study that will explore people's attitudes and judgements towards sexual behaviour and sexually transmitted diseases.

You will be asked to complete an online survey containing a number of measures relating to perceptions about various sexual activities.

First year Psychology students will obtain course credit.

If you are interested complete the survey by April 1<sup>st</sup> 2020.

For any questions contact: [REDACTED]

## Appendix B: Explanatory Statement

### PARTICIPANT INFORMATION SHEET

**PROJECT TITLE:** Attitudes towards sexual behaviour

**HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER:** H-2020/11

**PRINCIPAL INVESTIGATOR:** Dr Peter Strelan

**STUDENT RESEARCHER:** Harula Mollas

**STUDENT'S DEGREE:** Honours in Psychology



Dear Participant,

You are invited to participate in the research project described below.

#### **What is the project about?**

This research project is about people's attitudes towards sexual behaviour. We are interested to see how people respond to other people's sexual activities, especially when one contracts a sexually transmitted disease.

#### **Who is undertaking the project?**

This project is being conducted by Harula Mollas. This research will form the basis for her degree of Honours in Psychology at the University of Adelaide under the supervision of Dr Peter Strelan. University of Adelaide participants in their first year of Psychology will receive course credit after completing the online survey.

#### **Why am I being invited to participate?**

You are being invited as you are a first year Psychology student, or you are interested in the study and volunteer your time to complete the survey. Participants should be 18 years of age or above. Participants' level of English should be fluent.

#### **What am I being invited to do?**

You are being invited to read a short vignette, and complete a number of measures relating to attitudes and beliefs about sexual behaviour.

#### **How much time will my involvement in the project take?**

The questionnaire will take approximately 10 minutes to complete. Course credit will be given to first year Psychology students at the University of Adelaide.

#### **Are there any risks associated with participating in this project?**

Although there are no foreseeable risks in this project, some participants may feel confronted or intimidated when reading about sexual activities or sexually transmitted diseases. The vignette may also trigger past memories or experiences, which may then cause distress, shame or anger. If you feel uncomfortable at any point during this survey, you may stop the survey. If you experience any psychological harm or distress, please call Lifeline (13 11 14), visit the counselling services at the University of Adelaide (8313 5663), or see your GP/psychologist/counsellor.

#### **What are the potential benefits of the research project?**

The potential benefits of the research project would be helping us improve interactions between people. People's attitudes towards one another are fundamental in forming relationships and maintaining a cohesive society. Moreover, first year Psychology students will receive course credit.

**Can I withdraw from the project?**

Participation in this project is completely voluntary. You can withdraw from the study at any time if you feel like you need to do so.

**What will happen to my information?**

You will not be required to provide your name or any personal information. First year Psychology students will have the option to provide their student identification number in order for them to obtain course credit. Therefore, your scores will be de-identified.

The information and project records will be stored securely in the supervisor's hard drive, located in Hughes, room 709, North Terrace Campus. The data will be kept for 5 years, according to the National Statement on Ethical Conduct in Human Research.

The information will be anonymous, and no specific individual's scores will be published separately. The study is based on the summary of all participants' results.

The results of the study will be available to you if you wish so. First year Psychology students will receive the final report on their university email in September 2020.

Your information will only be used as described in this participant information sheet and it will only be disclosed according to the consent provided, except as required by law.

**Who do I contact if I have questions about the project?**

If you have any questions about the project, you can contact the supervisor or the research student of the study. [REDACTED]

**What if I have a complaint or any concerns?**

The study has been approved by the Human Research Ethics Committee at the University of Adelaide (approval number H-2020/11). This research project will be conducted according to the NHMRC National Statement on Ethical Conduct in Human Research 2007 (Updated 2018). If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the Principal Investigator. If you wish to speak with an independent person regarding concerns or a complaint, the University's policy on research involving human participants, or your rights as a participant, please contact the Human Research Ethics Committee's Secretariat on:

Phone: +61 8 8313 6028

Email: [hrec@adelaide.edu.au](mailto:hrec@adelaide.edu.au)

Post: Level 4, Rundle Mall Plaza, 50 Rundle Mall, ADELAIDE SA 5000

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

**If I want to participate, what do I do?**

If you would like to participate, complete the online survey in one sitting, and press submit at the end.

Yours sincerely,  
*Harula Mollas*

## Appendix C: Survey

What is your age?

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What is your gender?

- Male (1)
- Female (2)
- I don't identify with either of the above (3)

What is your Research Participation System (RPS) ID? *(for first year Uni of Adelaide Psychology students only)*

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What is your student identification number? *(for first year Psychology students only)*

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Q1 Before we ask about your attitudes to sexual behaviour, we first want to get some background information about you.

These questions ask about how fairly you think you are treated in general.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I feel that the world treats me fairly (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I get what I deserve (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that people treat me fairly in life (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I earn the awards and punishments I get (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that people treat me with the respect I deserve (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I get what I am entitled to have (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my efforts are noticed and rewarded (23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that when I meet with misfortune, I have brought it upon myself (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 These questions ask about how fairly you think other people are treated in general.



[Non-Innocent Scenario]

Please read the following vignette. Your attitudes towards sexual behaviour will be measured based on this text.

Sam has recently been diagnosed positive with HIV after having sexual intercourse with a friend. Sam has never been a fan of using condoms, although he/she knew the risks he/she ran. Last time Sam was tested for a sexually transmitted disease (STD), he/she tested positive.

[Innocent Scenario]

Please read the following vignette. Your attitudes towards sexual behaviour will be measured based on this text.

Sam has recently been diagnosed positive with HIV after having sexual intercourse with a friend. Sam has always been careful with his /her sexual life, and has always used protection. Last time, the condom Sam used broke, so he/she was infected even though he/she had taken measures to prevent a sexually transmitted disease (STD).



Q4 What is your opinion about people with HIV.

	Strongly disagree (8)	Disagree (9)	Somewhat disagree (10)	Neither agree nor disagree (11)	Somewhat agree (12)	Agree (13)	Strongly agree (14)
Those who have HIV should not be blamed for the disease (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Those who have HIV are just innocent victims (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 How much would you be willing to give to help Sam if you had \$100 spare?  
(Move the slider accordingly)

0      25      50      75      100

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Amount (\$) ( )

A horizontal slider bar with a blue vertical marker at the 50 position. The bar is labeled 'Amount (\$) ( )' on the left.

Q6 Hypothetically, what percentage of a \$10,000 grant should be used for treating patients like Sam at a hospital?

0   10   20   30   40   50   60   70   80   90   100

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Percentage (%) ( )

A horizontal slider bar with a blue vertical marker at the 50 position. The bar is labeled 'Percentage (%) ( )' on the left.

Q7 Indicate below how much you would help Sam if you could.

	Not at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)
How much would you support Sam if you could? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you help Sam in some way if possible? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 The following statements measure your attitudes towards Sam.

(Please move the slider accordingly)

	Introverted	Extroverted
	0 2 3 5 7 8 10	
( )		

	Unfriendly	Friendly
	0 2 3 5 7 8 10	
( )		

	Untrustworthy	Trustworthy
	0 2 3 5 7 8 10	
( )		





Q10 These statements measure deservingness.

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Sam deserves what has happened to him/her (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HIV sufferers should not expect any sympathy from the rest of the population (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By large, those with HIV probably deserve it (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 These questions measure levels of victim-blame.

	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)
If you met Sam, how much do you think you would like him/her? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How much do you think the incident was Sam's fault? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How much do you sympathise with Sam? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is Sam responsible for the disease? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12 These questions relate to perspective-taking.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Sam's behaviour makes sense (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sam's behaviour is appropriate (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sam's behaviour is justifiable (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13 I can see things from Sam's perspective

	None at all (11)	A little (12)	A moderate amount (13)	A lot (14)	A great deal (15)
(1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 How similar would you say Sam's attitude and personality characteristics are to your own?

	Very different (1)	Different (2)	Neither similar nor different (3)	Similar (4)	Very similar (5)
(1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 How likely do you think it is that you have contracted, or that you will contract, a STD?

	Extremely unlikely (1)	Somewhat unlikely (2)	Neither likely nor unlikely (3)	Somewhat likely (4)	Extremely likely (5)
(1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16 These statements also measure perceptive taking.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree not disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (8)
I would not have put myself in Sam's situation (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not have allowed this to happen to me (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This sort of thing happens to other people, not to me (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If this happened to me, it wouldn't be my fault (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If this happened to me, I wouldn't deserve it (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If this happened to me, it would be just bad luck (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for completing the survey!

If you have experienced any psychological distress or discomfort, please call Lifeline (13 11 14), visit the counselling services at the University of Adelaide (8313 5663), or see your GP/psychologist/counsellor.

If you wish to receive the results of the study, please provide your email address below.

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