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# System justification, work ethic, and just-world beliefs: A motivated reasoning perspective

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**System justification, work ethic, and just-world beliefs: A motivated reasoning  
perspective**

by

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A dissertation submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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**ABSTRACT**

This document summarizes my program of research that utilized a motivated reasoning perspective to examine factors that contribute to prejudice, discrimination and victim blame. After briefly introducing the work, I start with a review of motivated reasoning, and in particular system justification theory, as a theoretical backdrop with which to examine work ethic and just-world beliefs. Study 1 examined the effects of individual differences in endorsement of work ethic, applicant race, and resume quality on thoughts, impressions, and support for hiring in response to an individual applying for a job. Results indicated that when participants high in work-ethic beliefs were presented with an applicant whose resume quality was low and who was also Black, they were motivated to use the resume quality information as an additional piece of evidence to justify disadvantaged group status. Studies 2 and 3 examined the role of an applicant's sexual orientation, source of infection, and participants' beliefs regarding whether sexual orientation as a choice in predicting support for admittance to a free prescription drug coverage program for individuals with HIV/AIDS. These studies found that when infection was uncontrollable, participants who believe that sexual orientation is a choice were less likely to support admittance for the gay (vs. heterosexual) applicant. In other words, these participants appear to have used the sexual orientation of the gay applicant as a way to explain infection (when infection was uncontrollable), thereby reducing the threat to their just world beliefs and justifying the system where gay men are a disadvantaged group. Study 3 also examined motivation to control prejudice as a competing motive that overrode these effects. Finally, Studies 4 and 5 examined individual differences in endorsement of just-world beliefs as a moderator of the effect of

justice primes on victim blame (Studies 4 and 5) and derogation (Study 5) in response to someone who has been laid off from their job. Results showed that priming justice-related values influenced both those low and high in endorsement of just-world beliefs, such that the justice-related primes resulted in increased system justification tendencies (i.e., greater victim blame and derogation) among those high in just-world beliefs. However, among those low in just-world beliefs, priming justice-related values resulted in reduced victim blame and derogation, indicating that the primes made these participants more aware of their beliefs that the system is not just. Together these studies help demonstrate the effects that motivated reasoning, and in particular the motive to system-justify, has on responses to others facing a wide variety of circumstances.

## CHAPTER 1: INTRODUCTION

The role of personal motives and goals on cognitive processes has been an issue of debate in psychology for decades. During the 1970s, the notion that cognition is influenced by motivation was widely criticized by researchers who claimed that motivational effects could be explained away in non-motivational terms. For example, Miller and Ross (1975) argued that self-serving biases could be attributed to beliefs that those self-serving conclusions were more likely, rather than being the result of biased processing, consistent with the prevailing perspective that dominated research on social cognition during that time. Specifically, information processing was thought to occur similarly to the way computers function, including the processes of encoding, storage, and retrieval of information (see Schneider, 1991 for a review).

As the debate continued into the 1980s, there was greater acknowledgment of the role of affect in information processing (e.g., Schwarz & Clore, 1983), resulting in an increase in research on motivated reasoning (a.k.a. motivated cognition; Kruglanski & Freund, 1983). This work has repeatedly found that people's motives, whether chronic or situationally invoked, or accuracy or directionally driven, influence the processing of information in a variety of ways (Kunda, 1990; Kruglanski, 1990; Kruglanski, 1996; Kruglanski & Ajzen, 1983). Specifically, people's motives are thought to influence how and which cognitive processes and representations are utilized when processing information (Kruglanski & Freund, 1983; Kunda, 1987; Sorrentino & Higgins, 1986). Motivated reasoning has now been studied within a large number of domains, including in work on attitudes (Chaiken, Liberman, & Eagly, 1989; Kruglanski & Thompson, 1999), impression formation (Cialdini, Trost & Newsom, 1995; Darley & Gross, 1983),

self-perception (Dunning, Leuenberger, & Sherman, 1995), political ideology (Jost, Glaser, Kruglanski, & Sulloway, 2003a), and stereotype activation and application (Kunda & Sinclair, 1999; Kunda & Spencer, 2003). Such a perspective has resulted in some major changes in how social scientists look at these important issues. For example, work on the motive to justify the system (e.g., governmental, economic, social, etc.) has added greatly to our understanding of attitudes toward members of advantaged and disadvantaged groups (Jost & Burgess, 2000; Jost, Pelham, Sheldon, & Sullivan, 2003b; Kay et al., 2009; Phelan & Rudman, 2011).

Although research utilizing this motivated reasoning perspective is growing, I believe there are areas that could benefit from this perspective but have been overlooked. For example, in the current work I propose that a motivated reasoning perspective can be useful in interpreting the results of my program of research on the effects of work ethic and just-world beliefs. Specifically, I propose that a system-justification (a form of motivated reasoning) perspective can help to understand the effects of work ethic and just-world beliefs on victim blame, derogation and prejudice.

In the following chapters I start with a review of relevant literature, including literature on motivated reasoning (Chapter 2), system justification, work ethic, and just-world beliefs (Chapter 3). In Chapters 4 through 6 I present my program of research, including five studies examining the effects of work ethic (Study 1; Chapter 4) and just-world beliefs (Studies 2 to 5; Chapters 5 and 6) from a motivated reasoning perspective. The final chapter (Chapter 7) discusses how the studies contribute to the current literature and provides suggestions for future research.

Chapter 2 begins with a discussion of chronic information processing motives as they relate to cognition. Specifically, chronic information processing motives are general individual differences in how people prefer to process information, such as individual differences in the need for closure (i.e., wanting to come to conclusions quickly; Kruglanski, 1990), preference for consistency (Cialdini et al., 1995), and tolerance for ambiguity (Budner, 1962; Herman, Stevens, Bird, Mendenhall, & Oddou, 2010). I then move on to discuss situational motives, including both accuracy and directional goals. As will be discussed in detail, accuracy goals can be activated by a variety of circumstances, such as when one knows that they will have to justify their conclusions or judgments to another (e.g., Kruglanski & Freund, 1983). Although not always the case, accuracy goals tend to result in less biased processing of information (Pitman & D'Agostino, 1985; Tetlock, 1985), whereas directional goals tend to lead to biased processing aimed at reaching desired conclusions, resulting in outcomes such as self-serving biases (Dunning et al., 1995) and skewed judgments of others (Klein & Kunda, 1992).

In Chapter 3, I start by reviewing the literature on system justification, work ethic, and just-world beliefs, including a discussion on how the constructs are related. I then discuss my program of research examining the effects of work ethic and just-world beliefs on victim blame and derogation, prejudice, and discrimination, including how this research is guided by a motivated reasoning/system justification perspective. Both work ethic and just-world beliefs are associated with other constructs that have been studied from a motivated reasoning perspective, including political ideology (Jost et al., 2003a) and stereotyping (Kunda & Sinclair, 1999). I propose that an examination previous

research, as well as my own program of research, may start a dialogue on the role of motivated reasoning in work ethic and just-world beliefs that can be used to guide future research on these constructs.

After reviewing the relevant literature, I include three chapters consisting of studies examining the effects of work ethic and just-world beliefs on victim blame, derogation, and prejudice from a motivated reasoning/system justification perspective. Study 1 (Chapter 4) presents my work examining the effect of work-ethic beliefs on thoughts and impressions in a hiring situation. Based on a motivated reasoning (i.e., system justification) perspective, the primary hypothesis was that endorsement of work-ethic beliefs would interact with the applicant's race to moderate the effects of previous experience (i.e., resume quality) on thoughts and impressions about the applicant, as well as support for hiring the applicant. Specifically, those low in endorsement of work-ethic beliefs were expected to have more positive thoughts and impressions, and report greater support for hiring, when the applicant's work experience was consistent with the requirements of the position, regardless of applicant race. This would be consistent with research indicating that those low in endorsement of work-ethic beliefs tend to have more positive attitudes towards Blacks, including lower endorsement of beliefs that Blacks violate work-ethic ideals (Biernat, Vescio, & Theno, 1996). However, when previous work experience was inconsistent with the requirements of the position, participants high in endorsement of work-ethic beliefs were expected to report more positive thoughts and impressions, and greater support for hiring, in response to a White applicant (favoritism for the advantaged group; all participants were White) than a Black applicant (derogation of the disadvantaged group).

I argue that these results would be consistent with a system justification perspective for two reasons. First, those who strongly endorse work-ethic beliefs justify both advantaged and disadvantaged group status by reasoning that status is the result of how much effort is put into succeeding. As a result, those who strongly endorse work-ethic beliefs tend to be more prejudiced towards members of typically disadvantaged groups, such as Blacks, and have a stronger favorability bias towards advantaged groups, such as Whites. Second, because work-ethic beliefs are used to justify favoritism toward advantaged groups and derogation of disadvantaged groups, I propose that individuals high in work-ethic beliefs are likely more sensitive to situations where they can utilize those beliefs to justify continued favoritism for advantaged groups and derogation of disadvantaged groups. Together, these arguments led to the prediction that when participants high in work-ethic beliefs are presented with an applicant whose previous work experience did not match the job description, they would be motivated to use this information as an additional piece of evidence to justify continued favoritism toward advantaged groups and derogation of disadvantaged groups, resulting in more negative thoughts and impressions, and less support for hiring, for the Black applicant. Additionally, it was predicted that this would result in favoritism for the advantaged group such that the White applicant would be judged similarly to those applicant's whose qualifications did match the job description, indicating that these participants were motivated to overlook this flaw for members of the advantaged group as a way to justify those advantages.

Studies 2 and 3 (Chapter 5; Murray, Aberson, Blankenship, & Highfield, 2013) utilize just-world theory (Lerner, 1980; Lerner & Simmons, 1966) to make predictions

about reactions to an HIV positive male applying for a free prescription drug coverage program. Specifically, when infection was uncontrollable, I proposed that participants who believe sexual orientation is a choice would be less likely to support admittance to the drug coverage program when the applicant is gay rather than heterosexual. This would be consistent with participants searching for a reason (i.e., sexual orientation) to attribute blame to the victim even when infection was uncontrollable. The second study adds motivation to control prejudice as an additional predictor, with the expectation that the effects just described would only occur among participants who both believe that orientation is a choice and who are also low in motivation to control prejudice.

These hypotheses are consistent with both system justification (Jost & Banaji, 1994) and just world (Lerner, 1977; 1980) perspectives. First, when faced with a threat to just-world beliefs, participants would search for a reason to explain infection in order to maintain these beliefs. Second, participants who believe sexual orientation is a choice would utilize these beliefs to justify the infection when the applicant was gay, including justification of prejudiced responses (i.e., less support for admittance). In other words, these participants would utilize their beliefs that sexual orientation is a choice as a way to justify prejudice, consistent with a system justification perspective. Additionally, I believe this work advances research on motivated reasoning as well as just world and system justification theories. Specifically, there has been little theorizing on how conflicting motives (i.e., just-world beliefs and motivation to control prejudice) influence information processing and to my knowledge there has been little to no discussion of what factors may override the motives to maintain just-world beliefs or justify the system.

Finally, Studies 4 and 5 build upon the previous studies by examining the role of individual differences in endorsement of just-world beliefs and priming of justice-related values in response to an individual who had been laid off from their job and whose group status is unknown (e.g., race unknown). Specifically, these studies examined the potential moderating role of endorsement of just-world beliefs on the effects of priming justice-related values on participant's judgments of a victim. It was expected that among those who strongly endorse just-world beliefs, participants primed with justice-related values would blame (Studies 4 and 5) and derogate (Study 5) the victim to a greater degree than when exposed to the control primes. In other words, activation of justice-related values through priming was expected to increase victim blame and derogation among those who strongly endorse just-world beliefs.

In sum, the following chapters will start with a review of the current literature on motivated reasoning, including a discussion of how chronic and situational motives influence processing in a number of domains (Chapter 2). Second, I discuss the current state of research on system justification, work ethic, and just-world beliefs, as well as the relationship between these constructs (Chapter 3). Third, I present my program of research, including five studies examining the effects of work ethic and just-world beliefs on victim blame and derogation, prejudice, and discrimination from a system justification perspective (Chapters 4-6). Finally, I briefly review the work presented in the five studies and discuss possible directions for future research (Chapter 7).

## CHAPTER II: MOTIVATED REASONING

Motivated reasoning (a.k.a. motivated cognition) refers to the influence that motives and goals have on cognitive processing (Kunda, 1990). Broadly, theories on motivated reasoning propose that one's motives and goals influence how and which cognitive processes are used when making judgments (Kunda, 1990; Kruglanski, 1990; Kruglanski, 1996; Kruglanski & Ajzen, 1983). These goals and motives can be chronic or situationally driven, both influencing cognition at many levels, including how information is encoded, stored, and organized in memory, as well as the process of retrieval of information from memory (Klein & Kunda, 1992; Kruglanski, 1996; Kunda, 1990).

One commonly cited theory that has guided research on motivated reasoning is Kruglanski's lay epistemic theory (1980; 1989), which proposes that motives can be classified along two dimensions: seeking versus avoiding closure, and specific versus non-specific motives. On one end of the seeking versus avoiding closure dimension is the preference to come to conclusions quickly (i.e., seeking closure), and at the other is the preference to avoid coming to a conclusion (i.e., avoiding closure). Where one falls on this dimension can be either situationally induced, such as when time pressure increases closure seeking, or chronic, as with someone who is generally high in need for closure. The second dimension, specific versus non-specific motives, refers to processing information with the goal of either coming to a specific conclusion or not. Non-specific motives are thought to be more focused on accuracy, whereas specific motivations tend to be directional in nature.

In the following sections I will review the work on motivated reasoning by focusing on the effects of both chronic and situational motives on processing information about others. Specifically, I will start off with a discussion of the role of individual differences in how people prefer to process information (i.e., chronic information processing motives) followed by a discussion of situational motives. The review of situational motives will include the role of both accuracy and directional goals and how they lead to processing information in different ways.

### **Chronic Information Processing Motives**

Chronic information processing motives include general individual differences in people's motives when processing information, such as the preference to come to conclusions quickly (i.e., need for closure; Kruglanski, 1990). Research on chronic information processing motives has spurred the creation of several individual difference measures, including need for closure (Kruglanski, Webster, & Klem, 1993; Roets & Van Hiel, 2007), preference for consistency (Cialdini et al., 1995) and tolerance for ambiguity (Budner, 1962; Herman et al., 2010). What all of these measures have in common is that they reflect individual differences in how people prefer to process information.

**Individual differences in chronic information processing motives.** The greatest amount of research on the role of chronic information processing motives (i.e., individual differences in motivated processing) has come from work examining the role need for closure in information processing (e.g., Kruglanski & Webster, 1996). This work proposes that those high in need for closure are more susceptible to primacy and recency effects, tending to “seize” on the first available information from which they can form an opinion, and then “freeze” on evaluation, failing to integrate new information

into their evaluations (Kruglanski & Webster, 1996; Webster & Kruglanski, 1994). Consistent with this perspective, Kruglanski and colleagues have found that closure-motives influence several phenomena in social psychology, including impression formation, persuasion, and stereotyping (Kruglanski & Webster, 1996; Kruglanski et al., 1993). For example, when instructed to form an impression before receiving information about a target, those high in need for closure are more prone to primacy effects, such that their impressions are influenced to a greater degree by information presented early during judgment formation (Webster & Kruglanski, 1994). On the other hand, when they are told to form an impression after they have received information about a target, they are more prone to recency effects (Richter & Kruglanski, 1998).

Although not as extensive, research examining individual differences in preference for consistency (Cialdini et al., 1995), tolerance for ambiguity (Bennett, Herold, & Ashford, 1990), and need for cognition (Cacioppo, Petty, & Kao, 1984; Perlini & Hansen, 2001) have found that they also function as motives that influence how information is processed. For example, those high in preference for consistency are more prone to the foot in the door effect (i.e., commitment to an initial small request leads to consistent responding to additional requests; Cialdini et al., 1995). This work indicates that individual differences in the motive to remain consistent influence how people process commitment requests, and in turn, their willingness to comply with increasingly demanding requests. A study examining the motivational effect of tolerance for ambiguity found that those low in tolerance for ambiguity were more persistent in seeking feedback in a work setting, indicating that their motivation to avoid ambiguity led them to seek information that reduce any feelings of ambiguity (Bennett et al., 1990).

Additionally, work examining the role of individual differences in need for cognition found that those low in need for cognition are more prone to the attractiveness bias (i.e., attractive = good), such that those low in need for cognition attributed more socially desirable traits to attractive individuals than those high in need for cognition (Perlini & Hansen, 2001). In sum, this work demonstrates the power of various motives in how information is processed and how these motives can influence the need to seek out information in various settings.

### **Situational Motives**

Situational motives can influence processing in a number of ways. For example, if motivated to come to an accurate (i.e., correct) conclusion, one might put more effort into processing information when making a judgment (Kunda, 1990; Simmons, LeBoeuf, & Nelson, 2010). On the other hand, if motivated to come to a particular (i.e., directional) conclusion, one may process information in a biased manner that leads to the desired conclusion (Kruglanski, 1996; Kunda, 1990). Several lines of research have demonstrated that various situational factors can lead to motives/goals that influence how information is processed (Dunning et al., 1995; Kruglanski & Freund, 1983; Kunda & Sanitiso, 1989). In the following sections I will review how both accuracy and directional goals influence processing of information about others, including how these goals can lead to biased judgments.

**Accuracy goals.** As implied by its label, accuracy goals result in the use of information processing strategies deemed most likely to lead to a “correct” conclusion (Chen & Chaiken, 1999; Kruglanski & Ajzen, 1983; Kunda, 1990). Specifically, the motivation to be accurate (i.e., non-specific closure) generally results in greater effort

when processing information, which may reduce biases and errors that result from processing in a more quick and less effortful manner (Kunda, 1990; Tetlock, 1985). For example, several studies have found that accuracy motives can decrease primacy effects (Kruglanski & Freund, 1983), as well as the occurrence and magnitude of the fundamental attribution error (Pittman & D'Agostino, 1985; Tetlock, 1985). Of course, the accuracy motive does not necessarily lead to correct or even objective evaluations and even biased people can believe they are acting objectively (Kruglanski, 1980; Kunda, 1990; Pyszczynski & Greenberg, 1987). Instead, accuracy motives tend to reduce the occurrence of these biases, rather than eliminating them.

Many situations can lead to the activation of accuracy goals, such as when one knows they will have to justify their conclusions to others or when decisions will have future consequences. For example, Kruglanski and Freund (1983) manipulated accuracy goals by either informing or not informing participants that they would have to justify their judgments about a job applicant's potential for success. Participants listened to an audio tape describing a job candidate which was manipulated such that either positive or negative information was presented first, priming them to have either a positive or negative impression of the target. When they were led to believe that they would have to justify their judgments about the applicants potential for success, participants were less prone to primacy effects, meaning that the order of the information had less of an effect on participants who knew they would have to justify their opinions.

Research examining the effect of situationally induced accuracy goals on the fundamental attribution error has found that these goals tend to reduce biased judgments (Pittman & D'Agostino, 1985; Tetlock, 1985). For example, one study examined the

effect of situationally induced accuracy goals on the prevalence of the fundamental attribution error (Tetlock, 1985). In this work, participants read an essay that was either for or against affirmative action. The researchers randomly assigned participants to conditions where they were either told that the author was able to choose their position in the essay or that they were assigned a viewpoint (i.e., no choice). Participants were then instructed to give their impressions of the essay writer, with half told that their impressions would be completely anonymous (low accuracy motivation) and half told that they would have to justify their impressions (high accuracy motivation). Those told that their impressions were anonymous demonstrated the fundamental attribution error, in that their impressions were influenced by the stance taken in the essay even when aware that the essay writer did not have a choice in which position they took. On the other hand, those in the high accuracy motivation condition (thought they would have to justify their positions), were much less likely to fall prey to the fundamental attribution error, and thus their impressions were influenced to a much lesser degree when they knew the essay writer had no choice over their position.

**Directional goals.** Although accuracy goals have spurred a great deal of research, the overwhelming majority of work on motivated reasoning has focused on directional goals. When considering the role of directional motives on information processing, it is important to keep in mind that even with directional goals, people still need to feel as if they came to their conclusion in a logical manner (Darley & Gross, 1983; Kunda, 1990). As outlined by Kunda (1990), motivational goals lead people to examine their prior knowledge and beliefs in such a way as to find support for their desired conclusion. However, if they are unable to find the needed information to

support their desired conclusion, the directional motives may have little impact on the final outcome. In other words, no matter how strong the motivation, the effect of motives on cognition is thought to be constrained by reality (except, perhaps, in the case of extreme ideology).

Even with this limitation, directional motives regularly influence how information is processed (Kunda, 1990; Kruglanski, 1996). For example, directional motives can influence the occurrence of self-serving biases (Dunning et al., 1995) and change people's reports of their own self-conceptions (Kunda & Sanitioso, 1989). In the study by Kunda and Sanitioso (1989), participants were led to believe that different personal attributes were associated with a desirable outcome, which in turn led to greater self-reports of possessing those attributes. Specifically, student participants were randomly assigned to read the results of fictitious study reporting that either extroversion or introversion was associated with greater success and were asked to write their opinion about why these results might be true. Participants then completed a supposed second study where they rated themselves on various traits, including extroversion and introversion. They found that participants rated themselves as higher in extroversion or introversion depending on which they were led to believe was associated with success. In other words, participants were situationally motivated to view themselves as extroverted or introverted depending on which they believed was most associated with later success.

Much of the work on situationally driven directional goals has focused on how they can influence judgments of others, such as when another person's abilities and performance will influence one's own outcomes (Klein & Kunda, 1992). For example,

one study manipulated participant's motives to view a target individual as either high or low in ability by telling participants that the target would either be their partner or opponent in a game (i.e., manipulated self-interest; Klein & Kunda, 1992). They found that when participants thought the target would be their partner in the game, they rated them as higher in ability and reported that ability (vs. luck) played a greater role in the outcome of the game. These results demonstrate that even when given the same information about the target, participant's motives influenced their judgments in a way that makes them seem most likely to succeed.

A major focus of the work examining the role of directional goals on judgments of others has been within the stereotypes and prejudice domain. For example, Klein and Kunda (1992) conducted a study where they manipulated whether participants thought they would be interacting with someone with schizophrenia and then had participants complete a measure assessing their stereotypes about schizophrenics. They found that when participants thought they would be interacting with a person with schizophrenia, they endorsed more positive stereotypes about schizophrenics. These results indicate that the participants who knew they would be interacting with someone with schizophrenia were motivated to view schizophrenics more positively (i.e., motivated to believe the interaction would be positive), resulting in positively altering their stereotypes of schizophrenics overall. These findings are consistent with other work by Kunda and colleagues (i.e., Kunda & Sinclair, 1999; Kunda & Spencer, 2003) that has repeatedly demonstrated that motives and goals influence the activation and application of stereotypes.

Finally, although much of the research on the effect of need for closure has focused on individual differences, several studies have examined how situationally inducing need for closure can influence information processing (e.g., Ford & Kruglanski, 1995; Kruglanski et al., 1993). For example, Kruglanski and Webster (1991) situationally induced need for closure by manipulating the level of noise in the environment (noisy vs. quiet; noise induces need for closure), during a task where a group was in charge of making a decision. They found that those in a noisy environment (i.e., high need for closure) were more likely to reject someone voicing a deviating opinion than those in a quiet environment (i.e., low need for closure). In other words, when in a noisy environment, participants were motivated to come to a conclusion quickly and thus rejected dissenting opinions.

As shown here, there are many examples in the literature of directional motives driven by various situational factors. For example, in situations where we have to make judgments about others, directional goals may influence those judgments when the other person's character or abilities may influence our own outcomes (e.g., Klein & Kunda, 1992). Overall, these studies demonstrate that the situation can be very powerful in inducing directional motives that lead to biased processing (Ford & Kruglanski, 1995; Kunda, 1990).

### **CHAPTER III: SYSTEM JUSTIFICATION, WORK ETHIC, AND JUST-WORLD BELIEFS**

In this chapter I review the literature on three types of motivated reasoning, including system justification, work ethic, and just-world beliefs. As part of this review, I discuss the link between each of these motives and political conservatism, stereotypes and prejudice, as well as the extent that these motives are related. Specifically, previous research and theorizing suggests that both work ethic and just-world beliefs are types of a more general system justification motive (e.g., Jost & Hunyady, 2005). In other words, it has been proposed that individual differences in the extent that people endorse work ethic and just-world beliefs reflects differences in the extent that people are motivated to justify the system. After reviewing the relevant literature and discussing the relationship between these constructs, I discuss how a system justification perspective can be utilized to help understand and generate hypotheses for the effects of work ethic and just-world beliefs on victim blame, derogation, and prejudice.

#### **System Justification**

System justification theory proposes that individuals have a general motive to believe that the current system (e.g., economic, social, political) is fair and just (Jost & Banaji, 1994). The theory argues that this motive results in defense the status quo, even in situations where existing social standards are inconsistent with one's beliefs or are non-beneficial to the self (Jost, Banaji, & Nosek, 2004; Jost, Pelham, & Carvallo, 2002). As a result, it is proposed that in order to justify the system, people will attribute characteristics to both themselves and others that are consistent with their social standing, whether they are positive or negative (Jost & Banaji, 1994). Proponents of system

justification theory argue that the motivation to justify the system comes from the desire to decrease any threat or anxiety that may arise from being part of a system that at times can be unfair or undesirable (Jost & Hunyady, 2002; Kay et al., 2008; Kay et al., 2009).

One consequence of the motive to justify the system is that people may endorse stereotypes or support social policy that results in inequality, as a way to avoid the feeling of threat that may come from acknowledging that they are part of an unfair system (Jost & Hunyady, 2002; Kay et al., 2009). In fact, much of the work on system justification has focused how stereotypes are used to justify differences among groups. For example, both men and women tend to attribute the characteristics of ‘nurturing’ to women and ‘autonomous’ to men (Eagly, 1995; Eagly & Steffen, 1984) and in turn these stereotypes are then used to justify the system in which women take primary responsibility for childrearing (Jost & Banaji, 1994).

One of the primary consequences of system justification is reduced support for actions aimed at changing the current system in ways that are aimed at leveling the playing field for members of disadvantaged groups. For example, system justification has been used to help explain why members of low socioeconomic status often oppose social welfare programs (Gilens, 1999; Jost et al., 2004) and has been linked to less support for affirmative action policies (Phelan & Rudman, 2011). This is consistent with work demonstrating that system justification reduces moral outrage and intentions to help those who are disadvantaged (Wakslak et al., 2007). In other words, the system justification motive is associated with reduced support for changing the status quo, even among members of disadvantaged groups (Jost et al., 2003b; Jost et al., 2004; Kay et al., 2009; Wakslak et al., 2007).

**System justification and conservatism.** Another major focus of the research on system justification is the relationship between individual differences in the need to justify the system and support for conservative policies and values (e.g., Jost et al., 2003a). Specifically, system justification has been shown to be tied to political conservatism, with political conservatives tending to score higher on measures of system justification (e.g., Jost, Nosek, & Gosling, 2008). Several studies have also found a link between political conservatism behavior consistent with system justification (Feygina, Jost, & Goldsmith, 2010). For example, one set of studies indicated that the link between political conservatism and denial of global climate change could in part be explained by individual differences in the tendency to engage in system justification (Feygina et al., 2010). Other work has demonstrated that politically conservative members of both advantaged and disadvantaged groups are more likely to show favoritism for the advantaged group in comparison to less conservative individuals, consistent with predictions from system justification theory (Jost et al., 2003a; Jost et al., 2004).

**System justification, stereotyping, and prejudice.** As noted, much of the work on system justification has focused on its role in stereotyping and prejudice among members of both advantaged and disadvantaged groups (Jost & Burgess, 2000; Jost et al., 2003b; Kay et al., 2009; Phelan & Rudman, 2011). This work has repeatedly found that members of both advantaged and disadvantaged groups tend to endorse negative stereotypes about disadvantaged groups and to engage in prejudiced behaviors (Jost & Burgess, 2000; Jost et al., 2002). For example, in one study both Latino and Asian participants displayed outgroup favoritism by tending to pick someone who was White (rather than from their own group) when asked to choose a partner to interact with during

a study (Jost et al., 2002). In other words, they were showing a preference to interact with a member of an advantaged group rather than their own. These results are consistent with other work demonstrating that system justification is associated with reduced support for affirmative action among both members of groups who would and would not receive benefit from it (Phlean & Rudman, 2011).

### **Work-Ethic Beliefs**

Much of the theorizing on the work-ethic beliefs, which at their most basic are beliefs about the link between hard work and success, is based on the work of Weber (1930). Weber argued that traditional work-ethic beliefs, which include the idea that through hard work anyone is capable of success and wealth, are the basis for capitalism. Specifically, work-ethic related values, which emphasize the importance of continuously working hard and the ability for anyone to succeed if they work hard enough, are argued to be strongly related to capitalist ideals and provide moral justification for wealth inequality (Atieh, Brief, & Vollrath, 1987; Weber, 1930). In other words, if anyone can succeed if they work hard enough, lack of success (e.g., being poor) is assumed to be due to personal failings.

Within psychology, work-ethic beliefs are typically conceptualized as an individual difference variable associated with individualism and beliefs about the importance of hard work (Furnham, 1987; Katz & Hass, 1988). Individuals who strongly endorse work-ethic beliefs tend to believe that whether one succeeds or not is due to their own willingness to work hard, and failure to achieve personal and financial success is due to a lack of hard work, rather than other factors, such as prejudice (Biernat et al., 1996; Katz & Hass, 1988). This perspective is consistent with research that has found that

those who strongly endorse work-ethic beliefs tend to be more conservative, have a higher internal locus of control, and tend to place greater importance on self-control generally (Furnham, 1987; Furnham & Bland, 1983; MacDonald, 1971; Mudrack, 1997).

**Work-ethic beliefs and conservatism.** Much of the research on work ethic has focused on the relationship between work-ethic beliefs and support for conservative policies and values (Atieh et al., 1987; Christopher, Zabel, Jones, & Marek, 2008; Feather, 1984; Furnham & Bland, 1983). For example, one study examining the relationship between endorsement of traditional work-ethic beliefs and conservatism found that those who strongly endorse work-ethic beliefs tend to score higher on measures of conservatism and endorsement of conservative values, such as obedience and self-control (Feather, 1984). These findings are consistent with research indicating that those endorsing work-ethic beliefs tend to be less supportive social policies/programs aimed at disadvantaged groups and that are typically rejected by political conservatives, such as welfare programs (Hasenfeld & Rafferty, 1989; MacDonald, 1971; Somerman, 1993). In sum, research has consistently found this link between endorsement of the work-ethic beliefs and conservatism, both in the relationship between the two constructs and with specific social policies.

**Work-ethic beliefs, stereotyping, and prejudice.** Another area that has major focus of research on work-ethic beliefs has been on the relationship between endorsement of work-ethic beliefs, stereotyping, and prejudice. Specifically, multiple researchers have proposed that work-ethic beliefs are used to justify negative attitudes and prejudice towards outgroups (e.g., Katz & Hass, 1988; Kinder & Sears, 1981; Malcomson, Christopher, Franzen, & Keyes, 2006). For example, several studies have demonstrated

that endorsement of work-ethic beliefs is associated with opinions that Blacks deserve their disadvantaged status due to their failure to live up to values associated with work ethic ideals (e.g., hard work; Biernat et al., 1996; Katz & Hass, 1988; Kinder & Sears, 1981). One study (Biernat et al., 1996) had participants rank the importance of various values, including values related to work-ethic beliefs, and then report the extent that Blacks supported the same values. They found that compared to those low in endorsement of work-ethic beliefs, participants high in endorsement of work-ethic beliefs tended to report that Blacks supported work ethic related values, such as hard work, less than Whites. Those high in work-ethic beliefs also reported more negative attitudes towards Blacks, indicating that negative attitudes towards Blacks may be due in part to perceived violation of work ethic related values.

Work-ethic beliefs are also thought to play a role in negative attitudes towards gay men and lesbians, women, homeless persons, and overweight people (Crandall, 1994; Levy, Freitas, & Salovey, 2002; Malcomnson et al., 2006). For example, work-ethic beliefs have been found to be positively related with negative attitudes towards gay men and lesbians, even when controlling for factors such as religious beliefs (Malcomnson et al., 2006). Other work found that work-ethic beliefs were positively related to dislike of overweight people and endorsement of the idea that people are overweight due to lack of willpower (Crandall, 1994). Overall, this work demonstrates that endorsement of work-ethic beliefs is associated with prejudice towards stigmatized groups generally.

### **Just-World Beliefs**

One of the most influential theories on the role of justice-related motives is Lerner's just world theory (Lerner, 1980; Lerner & Simmons, 1966). Lerner proposes

that people are motivated to see the world as fair and just; that good things happen to good people and bad things to bad people. Specifically, the theory proposes that people feel the need to believe that they have control over their own outcomes, such that they will receive rewards and punishments that are consistent with their actions. As a result, when confronted with another person's suffering, we are motivated to come up with a justification for that suffering, allowing for the maintenance of just-world beliefs. One consequence of the need to believe in a just world is that when we are faced with a situation where we cannot blame another's suffering on their actions, we are motivated to search for character flaws that can justify their suffering. In other words, the idea that someone may be suffering for no fault of their own is threatening to the need to believe in a just world, and people will search for any possible reason to explain the others unfortunate outcome.

One of Lerner's original studies examined how participants responded to someone they believed was another participant (a confederate) that appeared to be receiving electric shocks when they made errors in a memory task (Lerner & Simmons, 1966). They found that participants who were given an opportunity to end the shocks rated the victim as more attractive than when they had no control over the shocks. In other words, they degraded the victim (by rating them as less attractive) when they were not given a chance to help them. These findings are consistent with predictions from just world theory, which argues that when you are not able to justify another person's suffering, or able to help them in some way, you instead justify their experience by devaluing them, allowing maintenance of just world beliefs.

Several studies have shown that maintenance of just-world beliefs is associated with a variety of positive outcomes. For instance, greater endorsement of the belief that the world is just has been shown to be associated with better mental health (i.e., decreased reports of depression), increased likelihood to reciprocate the kindness of others, and decreased occurrence of individuals feeling they are themselves victims of discrimination (Dzuka & Dalbert, 2000; Edlund, Sagarin, & Johnson, 2007; Tomaka & Blascovich, 1994). For example, in one study that examined the effects of just-world beliefs in people who are unemployed, those who strongly endorsed the belief in a just world were less likely to ruminate about their current situation and reported less depression (Dalbert, 1997).

**Individual differences in just-world beliefs.** Although just world theory proposes that the need to believe in a just world is universal, there is variance in the degree that people view the world as just. In fact, much of the research stemming from just world theory has focused on the effects of individual differences in endorsement of just-world beliefs. For example, greater endorsement of just-world beliefs has been found to be positively associated with internal locus of control (Lerner, 1980), work-ethic beliefs (Furnham & Rajamanickam, 1992; Ghorpade, Lackritz, & Singh, 2006; Jones, 1997; Mudrack, 2005), political conservatism (Dittmar & Dickenson, 1993; Smith & Green, 1984) and right-wing authoritarianism (Lambert, Burroughs, & Nguyen, 1999).

Individual differences in just-world beliefs have also been shown to influence reactions to people seeking social welfare services. For example, one study used vignettes depicting an individual seeking government benefits and manipulated the amount of effort the individual had put into improving their situation, such as whether

they attended school or currently had a job (Appelbaum, Lennon, & Aber, 2006). They found that among those who strongly endorse just-world beliefs, the more effort the person had put in to improving their situation, the less participants rated them as deserving of the government benefits. The opposite was true for those low in just-world beliefs, where the more effort the person had put in, the more participants thought they were deserving of benefits. The authors proposed that those high in just-world beliefs were less supportive of government benefits when the person had put more effort into improving their situation because still needing help after putting in a great deal of effort was threatening to participants just world beliefs, and as a result participants derogated the target and rated them as less deserving of aid.

Work examining the role of just-world beliefs on victim blame has found that those who strongly endorse just-world beliefs are more likely to blame and derogate innocent victims, including victims of crimes such as robbery, spousal abuse, and sexual assault (Kristiansen & Giulletti, 2006; Montada, 1998; van den Bos & Maas, 2009), as well as victims of diseases such as cancer and AIDS (Braman & Lambert, 2001; Connors & Heaven, 1990). For example, one study examining the role of individual differences in just-world beliefs on responses to female victims of spousal abuse found that females with higher endorsement of just-world beliefs were more likely to blame the victim for the abuse (Kristiansen & Giulletti, 1990).

Another focus of research on just world-beliefs has been on the extent that people believe the world is just for them personally (i.e., personal belief in a just world). From the start of research on the need to believe in a just world, there has been acknowledgement that general belief in a just world and personal belief in a just world

should be differentiated, as personal experiences of injustice are likely to especially threatening (Lerner, 1977). This perspective is consistent with work that demonstrates that people are more likely to deny that injustice or discrimination occurs against one's own group or against the self (Dalbert, 1999; Dalbert & Yamauchi, 1994; Taylor, Wright, Moghaddam, & Lalonde, 1990). Although still relatively limited in scope, research examining the effects of personal belief in a just world has demonstrated that those who strongly endorse personal beliefs in a just world are less likely to report feelings of injustice than those who do endorse personal beliefs in a just world (e.g., Dalbert & Filke, 2007; Peter & Dalbert, 2010). For example, prisoners who strongly endorse personal beliefs in a just world reported less anger and were more likely to agree that they were treated fairly during their experience with the justice system (Dalbert & Filke, 2007).

### **Relationships between System Justification, Work Ethic, and Just-World Beliefs**

Given that system justification, work ethic, and just-world beliefs have all been linked to a number of issues studied in social psychology, including individual differences in political ideology (Christopher et al., 2008; Dittmar & Dickenson, 1993; Furnham, 1987), and responses to innocent victims (Appelbaum et al., 2006; Biernat et al., 1996; Braman & Lambert, 2001; Katz & Hass, 1988; van den Bos & Maas, 2009), it seems likely that these constructs would be related. Consistent with this perspective, a limited body of work has examined the relationship between work ethic and just-world beliefs, as well as how they each relate to system justification (Furnham & Rajamanickam, 1992; Ghorpade et al., 2006). Work examining the relationship between work ethic and just-world beliefs has found moderate positive correlations between the two constructs. For example, one study that examined the extent that work-ethic beliefs

are related to other constructs known to be associated with conservatism, including just-world beliefs, found a moderate positive correlation ( $r = .35$ ) between them, indicating that endorsement of work-ethic beliefs is associated with greater endorsement of just-world beliefs (Christopher et al., 2008). These results are consistent with those found in other studies ( $r_s = .25$  to  $.50$ ) that utilized various measures of work ethic and just-world beliefs (Furnham & Rajamanickam, 1992; Ghorpade et al., 2006; Jones, 1997; Mudrack, 2005).

Although this work demonstrates that there is a relationship between work ethic and just-world beliefs, there has been little focus on what drives the relationship. One exception to this is some discussion of work ethic and just-world beliefs in the literature on system justification theory (Jost et al., 2003a). As noted, system justification theory argues that people are motivated to believe that the system (economic, social, etc.) is fair and legitimate (Jost & Banaji, 1994; Jost & Hunyady, 2005). It has been proposed that work ethic and just-world beliefs can be thought of as reflecting variance in the extent that people are motivated to justify the system (Jost & Hunyady, 2005). Consistent with this perspective, the research presented in Chapters 4-6 attempts to examine work ethic and just-world beliefs from this system justification perspective.

### **The Current Work**

In the following chapters I present a series of five studies aimed at advancement of the research on the work ethic and just-world beliefs by examining them from a motivated reasoning perspective. Although research in the area of motivated reasoning is growing, work ethic and just-world beliefs have been relatively overlooked when it comes to research on these phenomena. The current work attempts to address this issue

by utilizing a system justification (a type of motivated reasoning; Jost & Hunyady, 2002; Kay et al., 2008; Kay et al., 2009) perspective to guide predictions regarding the role of work ethic and just-world beliefs in victim blame, derogation and prejudice.

The first study utilized this perspective to predict the role of work-ethic beliefs in reactions to a job applicant. Specifically, I utilized a system justification perspective to form hypotheses regarding how work-ethic beliefs would influence the effects of applicant race and previous work experience on thoughts and impressions in response to the applicant. Based on this perspective, as well as previous work demonstrating the link between work-ethic beliefs and attitudes towards disadvantaged groups, I predicted that when the applicant's work experience was inconsistent with requirements of the job (i.e., low quality resume), those low in endorsement of work-ethic beliefs would report more negative thoughts and impressions, regardless of the applicant's race. However, among those participants who do strongly endorse work-ethic beliefs, I predicted that when resume quality was low, these participants would respond more negatively to the Black than the White applicant. These predications are consistent with a system justification perspective in that when resume quality was low and the applicant was Black, those who strongly endorse work-ethic values were expected to use resume quality as a way to justify disadvantaged group status. Looking at it from another perspective, these participants would also be demonstrating favoritism towards the advantaged group (by responding more positively to the White applicant) even when the advantaged group member's qualifications did not match the position.

Studies 2 and 3 added to the first in several ways. First, they were aimed at examining the potential role of just-world beliefs as another system-justifying ideology.

Second, these studies examined reactions to two additional typically disadvantaged groups: gay men and people living with HIV and AIDS. Third, Study 3 examined the effect of a potentially conflicting motive with system justification. Specifically, this study examined whether motivation to control prejudice may override the effects of system justification and just-world motives. Finally, I examined these potential motivated reasoning effects within a new domain: healthcare.

Both Studies 2 and 3 examined reactions to an HIV positive male applying for a free prescription drug coverage program. Method of disease transmission (controllable vs. uncontrollable) and the sexual orientation of the applicant (heterosexual vs. gay) were manipulated, with the expectation that beliefs regarding whether sexual orientation is a choice would moderate the effects of method of disease transmission and the applicant's sexual orientation. Specifically, sexual orientation was not expected to influence reactions to the applicant among those who do not believe sexual orientation is a choice. Additionally, participants who believe that sexual orientation is a choice were expected to respond similarly to gay and heterosexual applicants when infection was controllable as there would be no threat to just world beliefs in this situation (i.e., no need to justify infection). However, when infection was uncontrollable, it was expected that those who believe sexual orientation is a choice would use the applicant's sexual orientation to justify responding more negatively to gay than heterosexual applicants. In other words, when infection was uncontrollable and the applicant was gay, these participants would use the applicant's sexual orientation to explain why infection occurred as a route to maintaining their just-world beliefs. These results are consistent with a system justification perspective in that these participants were utilizing their beliefs that sexual

orientation is a choice as a way to justify responding more negatively to a disadvantaged group. In other words, these beliefs allow these participants to justify the disadvantaged group status and the resulting treatment toward gay men.

Studies 4 and 5 examined the effect of priming justice-related values on the role of just-world beliefs and system justification in reactions to an individual who had been laid off from their job. Specifically, these studies examined the effects of individual differences in endorsement of just-world beliefs and activation of justice-related primes on victim blame (Studies 4 and 5) and derogation (Study 5) in response to an individual whose group identity is unknown (e.g., unknown race). The justice primes were expected to enhance the system-justifying tendencies of those who strongly endorse just-world beliefs such that those exposed to the primes would be more likely to blame and derogate the victim in comparison to those not exposed to the justice-related primes.

After presenting the five studies, the final chapter will briefly summarize the findings from this work and discuss how it helps in understanding the link between system justification and work ethic and just-world beliefs. The final chapter will also include a discussion of how this work might guide future research and suggestions for future studies.

## CHAPTER 4: WORK-ETHIC BELIEFS AND HIRING<sup>1</sup>

As reviewed in Chapter 3, work-ethic beliefs include endorsement of the idea that whether one succeeds is due to their own hard work, rather than outside factors such as whether one is a member of a disadvantaged group (Atieh et al., 1987; Weber, 1930). Specifically, work-ethic beliefs are associated with endorsement of a variety of work-related values, such as hard work, delaying gratification, and thrift (Atieh et al., 1987; Furnham, 1984; Weber, 1930). Much of the early theorizing on work-ethic beliefs focused on the link between these beliefs and the development of capitalism, with Weber (1930) proposing that work-ethic beliefs form the basis of capitalistic ideals.

Research on work-ethic beliefs within psychology has primarily focused on the relationship between individual differences in endorsement of work-ethic beliefs and other individual difference level variables, such as conservatism and attitudes toward disadvantaged groups. Particularly relevant to the work presented in this chapter, there has been a growing amount of research linking endorsement of work-ethic beliefs and associated values to stereotyping, prejudice, and discrimination towards Blacks (i.e., Biernat et al., 1996). This work indicates that much of what might drive negative reactions towards various disadvantaged groups, such as Blacks, is the perception that they violate certain values, such as those typically associated with endorsement of work-ethic beliefs (see Chapter 3 for a review).

Although there has been considerable work looking at the effect of work-ethic beliefs and attitudes towards disadvantaged groups (Kinder & Sears, 1981; Levy, West,

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<sup>1</sup> Edited version of: Murray, R. A., & Blankenship, K. L. (2014). *The role of system justification and work-ethic beliefs in hiring decisions*. Manuscript in preparation.

Ramirez, & Karafantis, 2006), as well as work showing relationships between work-ethic beliefs and other constructs (i.e., just-world beliefs and conservatism; Christopher et al., 2008; Furnham & Rajamanickam, 1992; Ghorpade et al., 2006), there has been little discussion of what drives work-ethic beliefs. As noted in Chapter 3, one exception to this is some of the work motivated reasoning. Specifically, work on system justification theory has proposed that work-ethic beliefs are a form of system justifying ideology (Jost et al., 2004; Jost & Hunyady, 2005). In other words, system justification theorists argue that endorsement of work-ethic beliefs is the result of the motive to justify the system.

### **The Current Research**

In this chapter I present a study that attempts to expand upon the work examining the link between work-ethic beliefs and reactions to disadvantaged groups through the use of a motivated reasoning perspective. Specifically, system justification theory was used predict the effect of work-ethic beliefs on reactions toward a disadvantaged group (i.e., Blacks) within a hiring paradigm. As discussed in Chapter 3, I examined work-ethic beliefs as a potential moderator of the effects of previous work experience (consistent vs. inconsistent with the job position) and race (White vs. Black) on reactions to a job applicant. Consistent with a motivated reasoning perspective, I predicted that those who strongly endorse work-ethic beliefs would be more likely to engage in system justification, resulting in more negative reactions toward Black applicants (disadvantaged group), and favorability bias toward White applicants. When participants high in work-ethic beliefs were presented with an applicant whose previous work experience did not match the job description, it was predicted that they would be motivated to use this information as an additional piece of evidence to justify disadvantaged group status,

resulting in more negative thoughts and impressions for the Black applicant. In other words, these participants were expected to use the resume quality information as a way to justify their prejudiced responses, consistent with work linking endorsement of work-ethic beliefs with prejudice towards disadvantaged groups (e.g., Katz & Hass, 1988; Biernat et al., 1996). Additionally, it was expected that these participants would demonstrate favoritism toward the advantaged group such that a White applicant whose previous work experience did not match the job description would be judged similarly to those whose qualifications did match the job description, indicating a motive to overlook this flaw for members of advantaged groups, justifying group status.

### **Hypotheses**

**Hypothesis 1: Main effect for resume quality.** Participants were expected to respond more negatively to job applicants whose resume quality was low (i.e., previous experience is inconsistent with the position) rather than high (i.e., previous experience consistent with the position) with the position.

**Hypothesis 2: Interaction between work-ethic beliefs and applicant race as a moderator of the effect of resume quality.** Among participants who do not strongly endorse work-ethic beliefs, the effect of resume quality was expected to be similar for both White and Black Applicants. However, among participants who do strongly endorse work-ethic beliefs, when resume quality was low, they were expected to respond more negatively to Black rather than White applicants.

## **Method**

### **Participants**

Participants included one-hundred and two White undergraduate students at a large Mid-Western university who completed the study for course credit. Eight participants failed the manipulation check and were not included in the analyses, resulting in a final sample of size ninety-four. Fifty-one percent of the participants were female; ages ranged from 18 to 30 with a mean age of 20.

### **Design and Procedure**

This study utilized a 2(Resume quality: low vs. high) x 2(Race: White vs. Black male) x Work-ethic beliefs (continuous) between subjects design. Participants were brought into the lab and sat at a computer where all manipulations and measures were administered (study materials are presented in Appendix A). At the beginning of the session, all participants completed a consent form that included a description of the study indicating that the study's purpose was to examine how various factors contribute in hiring decisions. The study started with participants reviewing the resume of an individual they believed to be applying for an office manager position (low vs. high quality) as well as a short description of the job responsibilities. Participants were then given 4 minutes to list their thoughts in response to the resume (see Wegener, Downing, Krosnick, & Petty, 1995, for more details on the thought listing task procedure) and then rated their perceptions of the quality of the resume. Next, participants viewed a screen shot of the applicant's Facebook page which included a picture of the applicant (White vs. Black) that served as the race manipulation. A Facebook page was used to manipulate race as it has become common for employers to check social media when

researching potential employees. As such, participants were informed that they would be viewing the Facebook page because it is now commonplace for employers to look up potential employees online in order to get an impression of potential employees that goes beyond the materials provided (i.e., resume).

After reviewing the Facebook page, participants rated their thoughts from the earlier thought listing task as positive, negative, or neutral, reported their impressions of the applicant, and indicated whether they thought the applicant should be hired. Finally, participants completed a measure of their work-ethic beliefs, several demographic questions, and were debriefed.

### **Predictor Variables**

**Resume quality.** Resume quality was manipulated such that in the high quality resume the applicant had previous management experience (vs. no management experience), a BA in Management (vs. an AA in Business Administration), a 3.73 GPA (vs. 3.23 GPA), and graduated with distinction (vs. no honors). All other factors, including previous employers (all food industry) and dates of employment were the same across the two conditions.

**Applicant race.** The applicant's race was manipulated by having participants view a screenshot of what they were told was the applicant's Facebook page. Everything on the Facebook page was identical between conditions except for the race of the male presented in the picture (White vs. Black).

**Work-ethic beliefs.** To measure endorsement of work-ethic beliefs, participants completed the eleven item Protestant Work Ethic scale (Katz & Haas, 1988;  $\alpha = .75$ ). The measure utilizes a 7-point Likert-type scale to indicate agreement with items such as

“People who fail at a job have usually not tried hard enough.” Higher scores indicate stronger endorsement.

### **Dependent Variables**

**Thoughts.** Similar to previous work (i.e., Clark et al., 2009), participants rated the valence of the thoughts they reported in the thought listing task. The thought listing task occurred in between reviewing the resume and viewing the Facebook page, and rating the thoughts occurred after viewing the Facebook page. Participants rated their thoughts as positive, negative, or neutral/unrelated to the applicant. Thought scores were calculated by subtracting negative thoughts from positive thoughts and then dividing by the total number of thoughts, resulting in thought scores that ranged from -1 to 1, with -1 indicating all negative thoughts and 1 all positive thoughts (Wegener et al., 1995).

**Impressions.** After reviewing all the relevant application materials and rating their thoughts, participants completed three questions addressing general impressions of the applicant on 7-point Likert-type scales, with higher scores indicating more positive impressions ( $\alpha = .90$ ).

**Hiring recommendation.** Next, participants completed three questions regarding whether they believe the applicant is qualified for the job and if they would recommend hiring the applicant for the position ( $\alpha = .90$ ). A 7-point Likert-type scale was utilized with higher scores indicating a greater belief that the applicant is qualified and should be hired.

**Demographics and manipulation check.** Participants also completed a number of demographic questions including their age, sex, race, and political identification, in order to examine potential demographic related differences. As part of a manipulation

check, participants were asked what the race was of the applicant and were dropped from analysis if they were incorrect ( $n = 8$ ). Additionally, between reviewing the resume and viewing the Facebook page, participants completed two questions assessing their perceptions of the quality of the resume to ensure that the resume quality manipulation functioned as intended. The questions utilized a 7-point Likert-type scale with higher scores indicating higher perceived resume quality. The manipulation functioned as expected, with participants rating the resume with qualifications that were consistent with the position they were applying for as higher in quality ( $M = 7.0, SD = 1.6$ ) and as better in comparison to the average resume ( $M = 5.3, SD = 1.4$ ),  $t(92) = -5.62, p < .01$ .

### Results

Multiple regression was utilized to test the effects of the 2(Resume quality: Low vs. High) x 2(Race: White vs. Black male) x Work-Ethic Beliefs (continuous) between subjects design on participant's thoughts, impressions, and hiring recommendations. All interactions were examined using the procedures outlined by Aiken and West (1991). Independent variables were centered prior to running the regression analyses, however, all means and standard deviations are presented in their original form for ease of interpretation. The overall fit for the models predicting thought positivity [ $R^2 = .26, F(7, 85) = 4.4, p < .01$ ], impressions [ $R^2 = .20, F(7, 86) = 3.0, p < .01$ ], and hiring recommendations [ $R^2 = .36, F(7, 86) = 6.97, p < .01$ ] were all significant, indicating that it was appropriate to examine main effects and interactions.

The first hypothesis was that there would be a main effect for resume quality, such that participants would respond more positively to applicants when their previous experience was consistent with the position they were applying for. As expected, a significant main effect for resume quality was found on thoughts, [ $b = .25, t(85) = 4.36, p$

< .01,  $sr^2 = .16$ ], impressions [ $b = 1.08$ ,  $t(86) = 3.59$ ,  $p < .01$ ,  $sr^2 = .12$ ], and support for hiring [ $b = 2.08$ ,  $t(86) = 6.29$ ,  $p < .01$ ,  $sr^2 = .29$ ]. Specifically, when the applicant's experience was consistent with the position they were applying for (i.e., high quality) participants reported more positive thoughts and impressions, and were more likely to recommend hiring than when the applicants previous experience was inconsistent (i.e., low quality) with the position (see Table 1 for means and standard deviations).

**Work-Ethic Beliefs as a Moderator.** The second hypothesis was that work-ethic beliefs would moderate the effects of resume quality and applicant race on participant's thoughts, impressions, and support for hiring. Consistent with this hypothesis, there were significant three-way interactions between resume quality, applicant race, and work-ethic beliefs on both thoughts [ $b = .02$ ,  $t(85) = 2.26$ ,  $p < .05$ ,  $sr^2 = .04$ ] and impressions [ $b = .09$ ,  $t(86) = 2.16$ ,  $p < .05$ ,  $sr^2 = .04$ ] (see Figures 1 & 2). Additionally, there was a marginally significant three-way interaction between resume quality, applicant race, and work-ethic beliefs on support for hiring [ $b = .08$ ,  $t(86) = 1.89$ ,  $p = .06$ ,  $sr^2 = .03$ ] (see Figure 3).

To examine the three-way interactions I tested the effects of resume quality and race separately for participants whose endorsement of work-ethic beliefs were one standard deviation below and one standard deviation above the mean ( $M = 49.6$ ,  $SD = 8.4$ ). Among those low in endorsement of work-ethic beliefs, only a main effect of resume quality occurred, such that more positive thoughts [ $b = .25$ ,  $t(85) = 2.77$ ,  $p < .01$ ] and impressions [ $b = 1.09$ ,  $t(86) = 2.53$ ,  $p < .01$ ] resulted from the high, rather than low, quality resume (see Table 2 for means and standard deviations). However, among those are high in endorsement of work-ethic beliefs there was a significant effect of applicant

race on both thoughts [ $b = -.30, t(85) = -2.63, p < .01$ ] and impressions [ $b = -1.16, t(86) = -1.97, p < .05$ ] when resume quality was low, such that thoughts and impressions were more negative when the applicant was Black, rather than White (see Figures 1 and 2; see Table 3 for means and standard deviations). Race of applicant did not influence thoughts [ $b = .15, t(85) = 1.27, p = .21$ ] or impressions [ $b = .36, t(86) = .58, p = .56$ ] when the applicants previous experience was consistent with the position (i.e., high quality resume). In other words, when resume quality was high, race did not influence reactions to the applicant. However, when resume quality was low, race did influence reactions such that these participants reported more negative thoughts and impression in response to the Black (vs. White) applicant.

As noted earlier, there was also a marginally significant 3-way interaction between applicant race, resume quality, and work-ethic beliefs on hiring recommendations. Again, I tested the effects of resume quality and applicant race separately for those low and high in endorsement of work-ethic beliefs. However, with support for hiring the effects were reversed. Among those high in endorsement of work-ethic beliefs, only a main effect of resume quality was found [ $b = 1.80, t(86) = 3.56, p < .01$ ], such that these participants were more likely to support hiring when resume quality was high rather than low (see Table 4 for means and standard deviations). In other words, race did not influence support for hiring among those high in endorsement of work-ethic beliefs (i.e., the Resume quality x Race interaction was non-significant;  $b = 0.28, t(86) = 0.55, p = .58$ ). However, among those low in endorsement of work-ethic beliefs, when resume quality was low there was a significant effect of applicant race [ $b = 1.93, t(86) = 2.65, p < .01$ ] such that these participants reported greater support for hiring

when the applicant was Black rather than White (see Figure 3; see Table 5 for means and standard deviations). In other words, when resume quality was low, participants who do not endorse work ethic beliefs were more likely to support hiring for the Black than the White applicant. Possible explanations for these results will be discussed.

In sum, overall participants responded more positively to the applicant whose qualifications were consistent with position they were applying for (i.e., high quality resume) than when their qualifications were inconsistent (i.e., low quality resume) with the position. However, among participants who strongly endorse work-ethic beliefs, when resume quality was low they reported more negative thoughts and impressions when the applicant was Black rather than White. In other words, these participants appear to have used the Black applicants low quality resume to justify these more negative thoughts and impressions. These results are consistent with work linking endorsement of work-ethic beliefs with both endorsement of negative stereotypes and prejudice towards disadvantaged groups, including Blacks. However, these effects were somewhat reversed when it came to support for hiring, with the Resume quality x Race interaction occurring for those low, rather than high, in endorsement of work-ethic beliefs. As will be discussed, the effect of the interaction was also opposite for these participants, such that when resume quality was low, participants who are low in endorsement of work-ethic beliefs responded more positively to the Black, rather than White, applicant.

## **Discussion**

As reviewed at the beginning of this chapter and in Chapter 3, endorsement of work-ethic beliefs is associated with the belief that success is due to how hard a person

works, rather than other factors outside of one's control (e.g., racism; Biernat, et al., 1996; Katz & Hass, 1988). Research on endorsement work-ethic beliefs has demonstrated that those who strongly endorse work-ethic beliefs tend to be more conservative (Christopher et al., 2008; Furnham & Bland, 1983) and are more likely to engage in stereotyping and prejudice (Biernat et al., 1996; Katz & Hass, 1988; Malcomson et al., 2006). However, little work has examined what drives endorsement work-ethic beliefs. The primary goal of the first study was to help address the question of what drives endorsement of work-ethic beliefs by utilizing a motivated reasoning (system justification) perspective. Specifically, this perspective was used to help understand the effects of endorsement of work-ethic beliefs on reactions toward disadvantaged groups (i.e., Blacks).

As expected, there was a main effect for resume quality such that participants responded more positively (more positive thoughts, impressions, and greater support for hiring) when resume quality was high (i.e., consistent with the position they were applying for). This effect was qualified by a three-way interaction between resume quality, race of the applicant, and endorsement of work-ethic beliefs. Endorsement of work-ethic beliefs qualified the effects of resume quality and race such that there was a significant resume quality by race interaction among those who strongly endorse work-ethic beliefs, but not among those who do not endorse work-ethic beliefs. Specifically, those who strongly endorse work-ethic beliefs reported more negative thoughts and impressions when the applicant was Black rather than White.

These results are consistent with what was expected from a motivated reasoning/system justification perspective. Specifically, based on system justification theory (Jost & Banaji, 1994) and research suggesting that endorsement of work-ethic

beliefs is a form of system justification (Jost & Hunyady, 2005), it was expected that those who strongly endorse work-ethic beliefs would be more likely to engage in system justification by responding more negatively to the Black (rather than White) applicant when their resume was inconsistent with the job position. These participants appear to be using resume quality to justify disadvantaged group's status as well as their own prejudice. In other words, by responding to the Black applicant more negatively, they support the current system in which members of certain groups, in this case Blacks, are treated differently simply based on their group status.

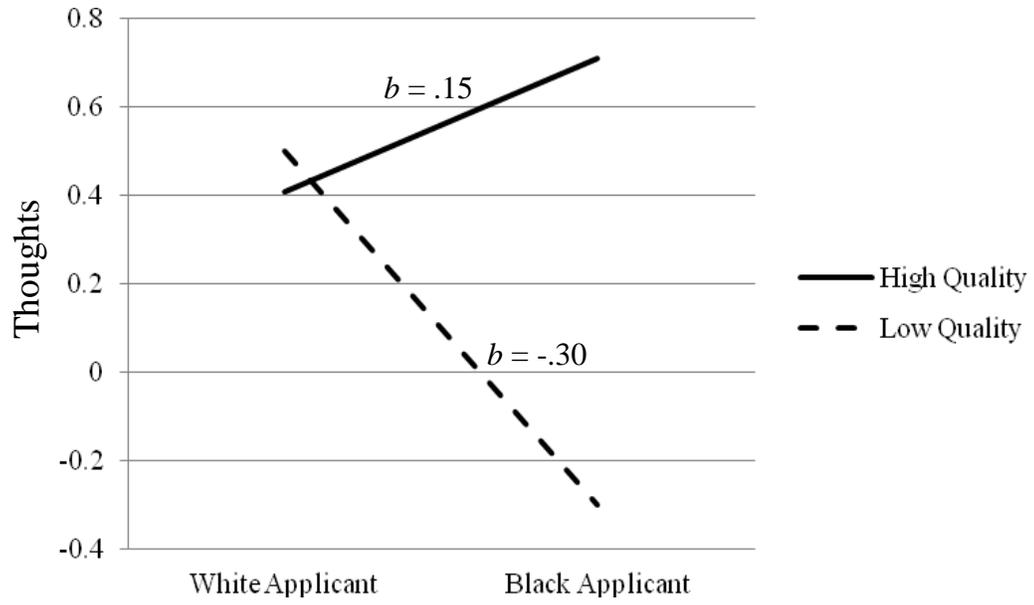
Interestingly, when it came to hiring recommendations I found somewhat opposite effects. Participants low in endorsement of work-ethic beliefs were more likely to recommend hiring when the applicant was Black rather than White when resume quality was low, and participants high in endorsement of work-ethic beliefs responded showed no difference in their hiring recommendations across applicant race. One possible explanation for these results is that there may be a competing motive in play. In other words, it is possible that some other factor is motivating participants to report greater support for hiring for the Black (vs. White) applicant relative to their thoughts and impressions. For example, participants low in endorsement of work-ethic beliefs may be responding more positively to the Black applicant because of their beliefs that hard work does not always lead to positive outcomes (i.e., their awareness that the system is not just), and in turn they are adjusting their support for hiring accordingly. On the other hand, participants high in work-ethic beliefs may be experiencing an alternative motive, such as the motivation to avoid prejudice, resulting in them responding equally to Black

and White applicants when resume quality is low, even though their thoughts and impressions were more negative for the Black applicant.

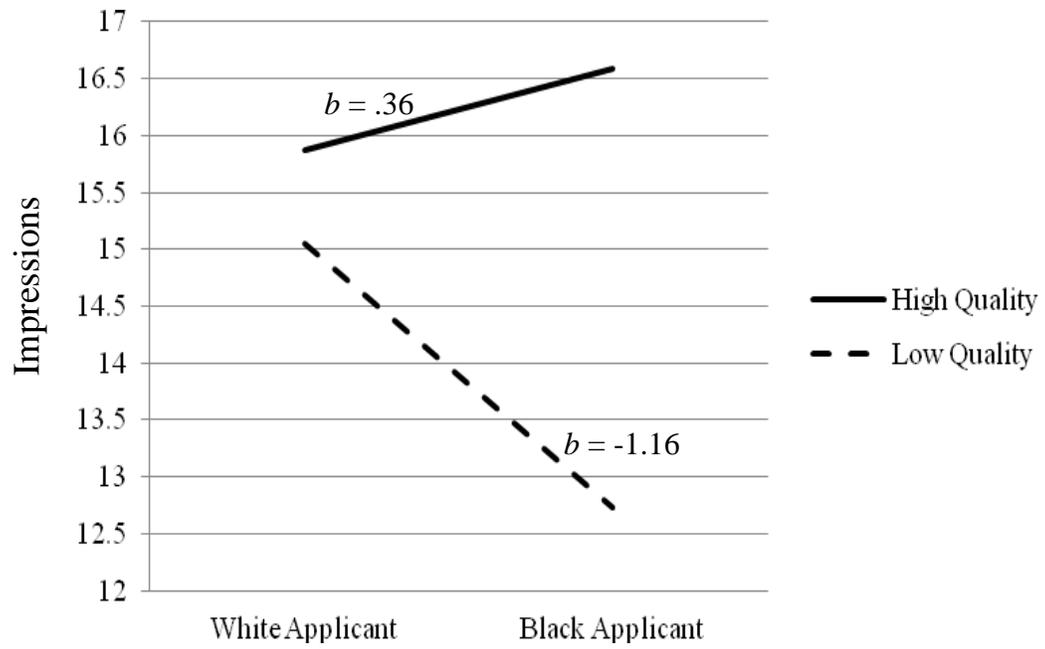
This study represents an important first step in examining the role of motivated reasoning (e.g., system justification) in response to members of disadvantaged groups. Consistent with my system justification derived hypothesis, when resume quality was low participants who strongly endorse work-ethic beliefs were able to use the applicants low quality resume to justify more negative thoughts and impressions towards the disadvantaged group member (Black applicant), while responding positively to the advantaged group member (White applicant). Although this only applied to thoughts and impressions, it is possible that competing motives were at play which prevented these participants' thoughts and impressions from influencing hiring recommendations as expected. Study 3 attempts to address this possibility through work examining reactions to additional disadvantaged groups: gay men and people living with HIV/AIDS.

Studies 2 and 3 utilize this same motivated reasoning (system justification) framework to examine the effect of just-world beliefs in response to an HIV positive male applying for a free prescription drug coverage program. Both the method of disease transmission (controllable vs. uncontrollable) and the sexual orientation of the applicant (heterosexual vs. gay) were manipulated through a vignette describing the applicant. Utilizing system justification and just world theories, it was predicted that the effects of method of disease transmission and the applicant's sexual orientation would be moderated by participants beliefs regarding whether sexual orientation is a choice. Specifically, it was expected that when infection was uncontrollable, participants who believe orientation is a choice would respond more negatively to gay (rather than

heterosexual) applicants. In other words, when infection was uncontrollable it was expected that participants would search for a reason to explain why infection occurred (just-world theory), and those who believe that sexual orientation is a choice would utilize the applicants sexual orientation (when the applicant was gay) to justify infection. These results are also consistent with the perspective that just-world beliefs are a form of system justification, in that through justifying infection through the applicant's sexual orientation, participants are able to justify disadvantaged group status for gay men.



*Figure 1.* Interaction between Resume Quality and Applicant Race on Thoughts among Participants High in Endorsement of Work-Ethic Beliefs



*Figure 2.* Interaction between Resume Quality and Applicant Race on Impressions among Participants High in Endorsement of Work-Ethic Beliefs

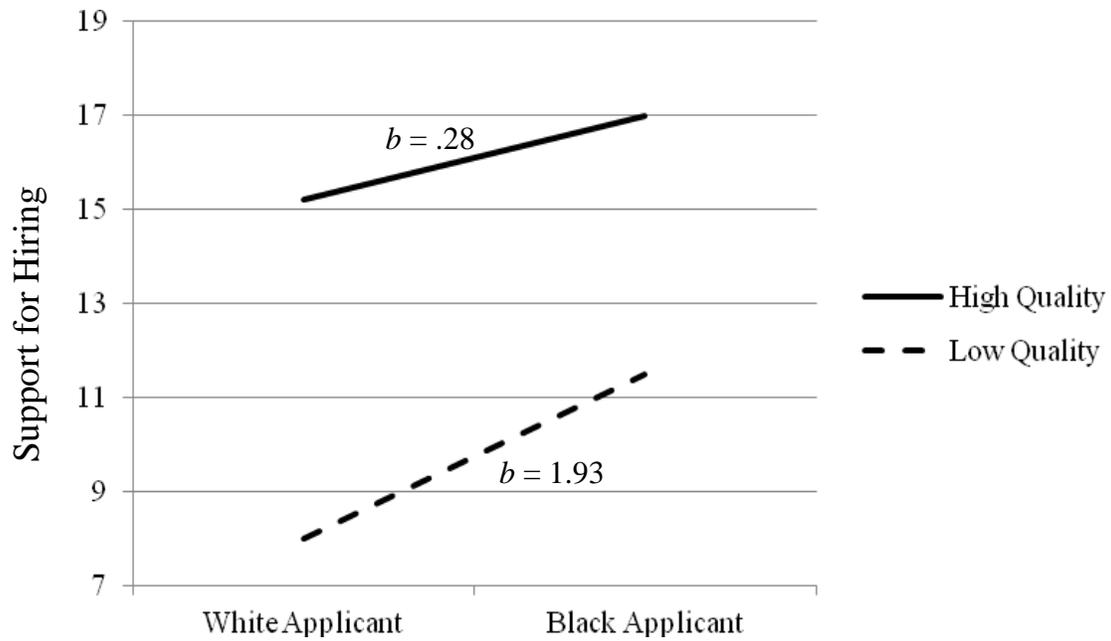


Figure 3. Interaction between Resume Quality and Applicant Race on Support for Hiring among Participants Low in Endorsement of Work-Ethic Beliefs

**Table 1***Means and Standard Deviations for Study 1 Variables by Resume Quality*

Variable	Low Quality		High Quality	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Thoughts*	-0.01	0.6	0.5	0.5
Impressions*	13.8	3.1	15.9	2.9
Support for Hiring*	12.0	3.6	16.0	3.0

*Note: \*  $p < .05$*

**Table 2**

*Means and Standard Deviations for Study 1 Variables by Resume Quality for  
Participants Low in Endorsement of Work-Ethic Beliefs*

Variable	Low Quality		High Quality	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Thoughts*	-0.3	0.6	0.4	0.5
Impressions*	12.7	3.9	16.1	3.1
Support for Hiring*	10.0	3.7	16.0	2.1

*Note: \*  $p < .05$*

**Table 3**

*Means and Standard Deviations for Study 1 Variables by Applicant Race for Participants High in Endorsement of Work-Ethic Beliefs when Resume Quality was Low*

Variable	White Applicant		Black Applicant	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Thoughts*	0.5	0.5	-0.3	0.9
Impressions*	15.3	1.5	10.0	1.4
Support for Hiring	11.0	5.6	11.0	4.2

*Note: \*  $p < .05$*

**Table 4**

*Means and Standard Deviations for Study 1 Variables by Resume Quality for  
Participants High in Endorsement of Work-Ethic Beliefs*

Variable	Low Quality		High Quality	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Thoughts*	0.2	0.8	0.6	0.4
Impressions*	13.2	3.2	16.3	2.8
Support for Hiring*	11.0	4.5	16.2	3.7

*Note: \*  $p < .05$*

**Table 5**

*Means and Standard Deviations for Study 1 Variables by Applicant Race for Participants Low in Endorsement of Work-Ethic Beliefs when Resume Quality was Low*

Variable	White Applicant		Black Applicant	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Thoughts	-0.2	0.3	-0.4	0.8
Impressions	12.3	5.7	13.0	2.9
Support for Hiring*	8.0	3.6	11.5	3.3

*Note: \*  $p < .05$*

## CHAPTER 5: JUST-WORLD BELIEFS AND ATTITUDES TOWARD PEOPLE LIVING WITH HIV/AIDS<sup>2</sup>

HIV/AIDS is a stigmatizing health condition whose victims face a range of negative reactions including avoidance, discrimination, and violence (Gostin, 1990; Herek, 1999; Neumann, Hulsbeck, & Seibt, 2004). Reactions to individuals with HIV/AIDS are not only reflections of the severity of the disease or risk of transmission, but also due to the associations of HIV/AIDS with homosexuality and drug use (e.g., Herek & Capitanio, 1999a; Valdiserri, 2002). In fact, the first known cases of HIV infection in the United States occurred in the 1980's with the media commonly calling it a "gay disease" (Herek & Capitanio, 1999a). Even as the public learned that HIV could infect anyone exposed to infected blood, many still blame the gay community for the spread of the disease (Herek & Capitanio, 1999b). The present research utilizes a motivated reasoning (system justification) perspective and just world theory to explore how the stigmas associated with being HIV positive influences how individuals react to people living with HIV/AIDS.

Because of the intense stigma faced by people living with HIV/AIDS, an important question is how this stigma influences the healthcare that people living with HIV/AIDS receive. Unfortunately, patients who feel stigmatized are less likely to reveal their HIV status to others, including health professionals (Rintamaki, Davis, Skripkauskas, Bennett, & Wolf, 2006; Vanable, Carey, Blair, & Littlewood, 2006).

Those who reveal their HIV status often feel stigmatized and discriminated against by

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<sup>2</sup> Edited version of Murray, R. A., Aberson, C. L., Blankenship, K. L., & Barry Highfield, J. J. (2013). Beliefs that sexual orientation is a choice and motivation to control prejudice moderates method of disease transmission and sexual orientation effects on reactions to HIV positive men. *Basic and Applied Social Psychology*, 35, 272-285.

health professionals (Schuster et al., 2005; Tyer-Viola, 2007). In fact, some health care providers openly admit intentions to refuse health care to those infected with HIV. For example, one study found that roughly half of nurse practitioners and obstetricians, as well as a quarter of plastic surgeons reported that they would refuse HIV-positive patients (Sears & Ho, 2006).

As reviewed in Chapter 3, just world theory proposes that due to the motivation to maintain just-world beliefs, when people cannot attribute a negative outcome to a specific undesirable behavior, they instead try to find an undesirable characteristic of the individual that could justify his/her negative experience. Because of its ability to help in understanding reactions to people in situations where there is no clear link between a persons' behavior and the negative event experienced, just world theory appears to be particularly useful when considering responses to people living with HIV/AIDS, especially when cause of infection is either unknown or uncontrollable. Specifically, it was expected that when making judgments about an individual infected with HIV when there is no specific negatively viewed behavior associated with infection (e.g., unsafe sex), people would likely look for a supposed character flaw or stigma associated with the person (e.g., homosexuality) to explain why he/she became infected. By looking for an alternative reason to explain negative events that occurred outside of another's control, it is possible to maintain just-world beliefs and at the same time justify the system.

It is important to keep in mind, however, that people feel the need to believe that their conclusions are rational, despite evidence that their decisions are often driven by self-serving biases (Kunda, 1990; Kunda & Sinclair, 1999). That is, an individual's motives play a significant role in how information is processed. This perspective may

help us understand how the need to believe in a just world influences reactions to people living with HIV/AIDS. First, it was predicted that the need to believe in a just world influences reactions to people living with HIV/AIDS such that when infection was controllable (e.g., occurring through unsafe sex), people would attribute infection to a specific negatively viewed behavior. This attribution drives negative responses to both gay and heterosexual targets. However, when infection was uncontrollable (e.g., occurring through blood transfusion), participants cannot simply attribute infection to the victim's negative behavior. In order to preserve just-world beliefs they look for an alternative reason, such as a supposed character flaw, to explain why this negative event (HIV infection) occurred. When evaluating a heterosexual target whose infection was uncontrollable, it may not be possible to generate a rational explanation for why infection occurred, which may result in more favorable responses to heterosexual targets. In contrast, when evaluating gay targets, people may use the stigma associated with homosexuality to justify why infection occurred, allowing them to maintain their just world beliefs.

These predictions are also consistent with a system justification perspective. In fact, system justification theorists have proposed that just-world beliefs are a form of system justification based on the idea that through maintenance of just-world beliefs one is able to reason that any disparities between groups is due to actual differences between groups, rather than un-just causes such as prejudice (Jost et al., 2003a; Jost & Hunyady, 2005). In this case, when infection was uncontrollable and the applicant is gay, using the applicant's sexual orientation to explain how infection occurred helps to justify the system in which gay men are a disadvantaged group.

## **Effects of Perceptions of Control on Attitudes toward People Living with HIV/AIDS**

Several studies have explored the role of onset controllability in attitudes toward people living with HIV/AIDS. In general, when onset was controllable (e.g., infection occurring through unsafe sex or drug use), participants viewed the target less favorably than when onset was uncontrollable (Cobb & De Chabert, 2002; Herek & Capitanio, 1999b; Senior, Weinman, & Marteau, 2002). Although several studies have examined controllability effects, relatively few have examined whether sexual orientation moderates onset controllability effects. In other words, are controllability effects the same for evaluations of gay and heterosexual men? One study examining the role of onset controllability in attitudes toward people living with HIV/AIDS found that participants responded more negatively to gay, rather than heterosexual, men when infection occurred through unprotected sex (i.e., controllable; Dooley, 1995). However, in another study where method of disease transmission was manipulated (blood transfusion vs. unsafe sex), participants only responded more negatively to gay men when infection was uncontrollable (i.e., blood transfusion; Seacat et al., 2007). One of the goals of the current work is use a motivated reasoning perspective to help clarify the effects of onset controllability and sexual orientation in response to people living with HIV/AIDS.

### **Perceptions of Choice and Attitudes toward Gay Men**

Although previous research has attempted to address how controllability of disease transmission affects reactions to people living with HIV/AIDS, to my knowledge, there is presently no research that addresses how beliefs regarding whether sexual orientation is a choice (i.e., controllable vs. uncontrollable) influences these reactions.

Whether sexual orientation is a choice remains widely debated. Some individuals assert that sexual orientation is a choice and is immoral whereas others argue that sexual orientation is either genetic or formed early in childhood (Herek, 2002). Individuals who believe sexual orientation is a choice tend to endorse more prejudiced attitudes toward gay men and lesbians than those who believe orientation is not a choice (Haslam & Levy, 2006; Haslam, Rothschild, & Ernst, 2002; Jayaratne et al., 2006).

### **The Current Research**

The primary goal of the present research was to utilize a motivated reasoning (system justification) perspective to help understand the effects of sexual orientation and method of disease transmission in reactions to people living with HIV/AIDS. Specifically, Studies 2 and 3 examined the effects of applicant sexual orientation (gay vs. heterosexual), method of disease transmission (controllable vs. uncontrollable), and participant's beliefs regarding whether sexual orientation is a choice in response to people living with HIV/AIDS applying for a free prescription drug coverage program.

Given the relationship between perceptions of choice and prejudice towards gay men and lesbians, as well as the association between gay men and HIV infection, it was hypothesized that when participants cannot blame infection on a specific behavior, those who believe sexual orientation is a choice would place greater blame and responsibility on gay men infected with HIV than heterosexual men. However, when infection can be attributed to the target's behavior (e.g., unsafe sex), it was predicted that participants would have more negative reactions to those targets than when infection was uncontrollable (e.g., blood transfusion), regardless of applicant sexual orientation. Consistent with both a just world theory and system justification perspective, when

infection was uncontrollable (e.g., occurring through blood transfusion), participants would be unable to form judgments based on the target's behavior and were expected to instead search for a supposed character flaw to explain why the target became infected. Specifically, it was expected that when the target is a gay man, participants who believe orientation is a choice will focus on the target's sexual orientation to explain infection, consistent with predictions from just world theory, and will in turn react more negatively to gay than heterosexual targets. Using sexual orientation to explain infection also helps to justify continued disadvantaged group status for gay men, consistent with a system justification perspective.

In other words, it was predicted that an individual's perceptions of homosexuality would moderate the interaction between applicant sexual orientation and method of disease transmission. When infection was uncontrollable, it was expected that individuals who believe sexual orientation as a choice would be more likely to use homosexuality to rationalize negative outcomes. For those who do not believe orientation is a choice, it would be difficult to rationalize blaming someone for their HIV infection solely based on their sexual orientation when they believe that sexual orientation is uncontrollable.

As will be discussed in detail, Study 3 also explored whether a motivated reasoning-type variable, in this case motivation to control prejudice, could serve as an additional moderator of the proposed sexual orientation by controllability by choice interaction. It was expected that only those who believe sexual orientation is a choice and who are also low in motivation to control prejudice would respond more negatively to gay than heterosexual targets when infection was controllable.

## Study 2 Hypotheses

**Hypothesis 1: Main effect for method of disease transmission.** Participants would respond more negatively to targets when their HIV infection was controllable than when it was uncontrollable.

**Hypothesis 2: Perceptions of choice as a moderator.** When infection was controllable, these participants would respond negatively to both gay and heterosexual men. However, when infection was uncontrollable, participants who believe sexual orientation is a choice would respond more negatively to gay than heterosexual men.

## Study 2

### Participants

Three-hundred and forty-three heterosexual participants completed the study. Participants were either students at a public university in the Western United States ( $n = 99$ ) or part of a convenience sample recruited online ( $n = 256$ ; note that all participants completed the study online).<sup>3</sup> Eighty-eight participants failed one or both of the manipulation checks and were not included in the analyses.<sup>4</sup> The final sample included 267 participants, 79 from the university and 188 recruited online. None of the participants in the final sample indicated that they were HIV positive or had AIDS. The majority of participants were students (62.2%); seventy-five percent were female, and ages ranged from 18 to 66 with a mean age of 29.

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<sup>3</sup> No significant differences existed between students and non-students, and only attitudes toward gay men differed ( $t(250) = -2.14, p = .034, d = 0.30$ ) between the participation pool and the internet sample, with internet sample expressing more negative attitudes toward gay men. Because of the similarity across samples, collapsing was determined to be appropriate.

<sup>4</sup> Including participants in the analyses who failed the manipulation check yielded non-significant results.

## Design and Procedure

The present study utilized a 2(Sexual orientation: heterosexual vs. gay) X 2(Method of disease transmission: controllable vs. uncontrollable) X 2(Orientation as a choice: true vs. false) between subjects design. After reading a description of the study and indicating their consent to participate, participants were told that they would be reading about a person applying for a health care program and that their opinions were wanted regarding whether the person should be admitted to the program (see Appendix B for study materials). Next, they read a vignette depicting an HIV positive man named Mike applying to a free prescription drug coverage program for people with HIV/AIDS. The vignette indicated the age (25), sex (male), sexual orientation of the applicant (heterosexual vs. gay) as well as how he became infected (unsafe sex vs. exposure to infected medical equipment). It also stated that the program has very limited funding and cannot accept everyone who applies. The content of the vignettes served to manipulate both sexual orientation and method of disease transmission, with each participant randomly assigned to one of the four vignettes. After reading the vignette, participants completed measures of support for admittance to the prescription drug coverage program and attitudes towards gay men. Finally, participants reported whether they believe sexual orientation is a choice and completed a brief demographic questionnaire.<sup>5</sup>

## Predictor Variables

**Sexual orientation.** Participants were randomly assigned to read a vignette that described the applicant as either a heterosexual or a gay man.

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<sup>5</sup> No significant gender effects on study outcomes (all  $F$ 's < 2.62,  $p$ 's > .10).

**Method of disease transmission.** Method of disease transmission was also manipulated in the vignette such that infection was described as occurring through either unsafe sex (i.e., controllable condition) or through exposure to infected medical equipment while working in a hospital (i.e., uncontrollable condition).

**Orientation as a choice.** Participants indicated whether they believe sexual orientation is a choice by answering either “True” or “False” to the statement “Sexual orientation is a choice.” Only seventy-three participants responded that sexual orientation is a choice, a limitation that is addressed in the discussion. To ensure that the manipulations did not influence participants’ reports of whether sexual orientation is a choice, a factorial logistic regression with applicant sexual orientation and method of disease transmission was utilized to predict responses to whether sexual orientation is a choice. All effects were non-significant ( $p$ 's > .28), indicating that the manipulations had no effect on participants’ reports of sexual orientation as a choice.

### **Additional Predictor**

**Attitudes toward gay men.** Participants also completed the 10-item attitudes towards gay men scale (ATG; Herek, 1984). While not a primary variable of interest, it was included to address the possibility that attitudes towards gay men, rather than beliefs regarding whether sexual orientation is a choice, would moderate the orientation and transmission effects (see Hegarty & Golden, 2008, and Moreno & Bodenhausen, 2001). Responses were recorded using a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*), with higher scores indicating more negative attitudes toward gay men ( $\alpha = .94$ ).

## Dependent Variables

**Support for admittance to the drug coverage program.** After reading the vignette, participants responded to three questions where they reported their support for admitting the person described in the vignette to the prescription drug coverage program. Items were answered using a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*), with higher scores indicating greater support for admittance ( $\alpha = .69$ ).

**Manipulation checks.** At the end of the study, two questions addressed whether participants experienced the manipulations in the vignettes as intended. The first question asked the participant to recall the sexual orientation of the person portrayed in the vignette, with options to select heterosexual, gay, bisexual, or unsure. The second question asked them to recall how infection occurred, with the option to select unsafe sex, exposure to infected medical equipment, or unsure.

## Results

A 2(Sexual orientation: heterosexual vs. gay) x 2(Method of disease transmission: controllable vs. uncontrollable) x 2(Orientation as a choice: true vs. false) between subjects Analysis of Variance (ANOVA) tested the hypothesis that among participants who believe orientation is a choice, when infection was uncontrollable reactions would be more negative when the applicant was gay rather than heterosexual. Prior to analyses, the support for admittance variable was subjected to a reflected square root transformation to correct for negative skew. All means and standard deviations reported are from the untransformed variable for ease of interpretation. The overall fit of the model predicting support for admittance to the prescription drug coverage program was

significant,  $F(1,259) = 3.68, p < .01, \eta^2 = .09$ , indicating that it was appropriate to examine main effects and interactions.

Based on predictions derived from just world theory, the first hypothesis was that participants would respond more negatively when infection was controllable (e.g., unsafe sex) than when infection was uncontrollable (e.g., exposure to infected medical equipment). Consistent with this hypothesis, there was a main effect for transmission,  $F(1,259) = 13.87, p < .01, \eta^2 = .05$ , reflecting that participants were less likely to support admittance when infection was controllable ( $M = 11.0, SD = 2.4$ ) rather than uncontrollable ( $M = 12.2, SD = 2.3$ ).

**Perceptions of choice as a moderator.** The second hypothesis predicted that when infection occurred through exposure to infected medical equipment, participants who see sexual orientation as a choice would express more negative reactions to gay than heterosexual applicants. Consistent with this hypothesis, there was a significant three-way interaction on the support for admittance variable,  $F(1, 259) = 5.46, p = .02, \eta^2 = .02$ .

To investigate the three-way interaction contrast effects within ANOVA were utilized to explore the effects of transmission and applicant sexual orientation separately for participants who do and do not believe that sexual orientation is a choice. First, there was a simple main effect for method of disease transmission demonstrating that method of disease transmission influenced reactions both for participants who believe sexual orientation is a choice,  $t(259) = 2.01, p = .049, d = 0.33$ , and for those who do not,  $t(259) = 3.91, p < .001, d = 0.57$ , consistent with Hypothesis 1. Both groups reported greater support for admittance when infection occurred due to exposure to infected medical

equipment ( $M = 11.8, SD = 2.3; M = 12.3, SD = 2.3$ , respectively) than when infection occurred through unsafe sex ( $M = 11.0, SD = 2.6; M = 11.0, SD = 2.3$ , respectively). No other main effects were significant (all  $F$ 's  $< 2.60$ ,  $p$ 's  $> .10$ ).

Next, I examined the interaction between transmission and applicant sexual orientation separately for participants who do and do not believe orientation is a choice. As predicted, the interaction between transmission and applicant sexual orientation was non-significant,  $t(259) = 0.50, p = .48, d = 0.0$ , among those who do not believe orientation is a choice, indicating that sexual orientation of the applicant does not influence their support for admittance. However, among participants who do believe that sexual orientation is a choice, when infection was uncontrollable these participants reported less support for admittance when the applicant was gay rather than heterosexual,  $t(259) = -2.42, p = .02, d = 0.92$ . (sexual orientation did not influence support for admittance when infection was controllable;  $t(259) = 0.79, p = .43, d = 0.23$ ). In other words, among participants who believe that orientation is a choice, it appears that when infection was uncontrollable and the applicant was gay, these participants use the applicant's sexual orientation to justify infection.

**Attitudes toward gay men.** Finally, an additional set of analyses was conducted to examine the possibility that attitudes towards gay men, rather than perceptions regarding orientation as a choice, would moderate the effects of orientation and method of disease transmission. If this were the case, it would be expected that adding attitudes toward gay men to the model would result in a significant three-way interaction between orientation, method of disease transmission, and attitudes toward gay men, and that the original three-way interaction with perceptions regarding orientation as a choice would

drop to non-significance. Because attitudes towards gay men are measured using a continuous scale this model was tested using multiple regression. Within this model the three-way interaction between applicant orientation, method of disease transmission and attitudes toward gay men was non-significant [ $b = -.008$ ,  $t(255) = -1.18$ ,  $p = .236$ ].

Additionally, the three-way interaction between applicant orientation, method of disease transmission, and perceptions regarding orientation as a choice remained significant [ $b = -.20$ ,  $t(255) = -2.64$ ,  $p < .01$ ], supporting the original hypothesis.

## **Discussion**

These findings are consistent with both a just world and system justification perspective. First, method of disease transmission influenced support for admittance for both participants who do and do not believe sexual orientation is a choice. This is consistent with just world theory, such that when an individual can attribute a negative event (e.g., becoming HIV positive) to a negatively viewed behavior (e.g., unsafe sex) that people will respond more harshly towards them. Additionally, when the event cannot be attributed to a negative behavior, just world theory predicts that people will search for an alternative reason to explain the outcome, such as a supposed character flaw (e.g., homosexuality). However, people also feel the need for their explanations to seem rational (Kunda, 1990; Kunda & Sinclair, 1999). Consistent with this hypothesis, only participants who believe orientation is a choice were less likely to support admittance for gay than heterosexual applicants, indicating that when the applicant was gay these participants used the applicant's sexual orientation to explain infection when they were unable to attribute infection directly to behaviors of the applicant. For participants who believe sexual orientation is a choice, attributing infection to the applicant's sexual

orientation helps maintain their just-world beliefs. Additionally, by attributing infection to the applicant's sexual orientation these participants justify the system in which gay men are treated as a disadvantaged group.

While the results of Study 2 are promising, one possible limitation was the large number of participants who failed the manipulation checks. Although this is a concern, it is important to note that in the manipulation checks the participants were given several possible responses (e.g., in response to the target's sexual orientation they could choose heterosexual, gay, bisexual, or unsure) and thus only a small portion of participants who completed the study were likely to have passed by chance. To address the high manipulation check failures and ensure that participants were reading the vignettes carefully, in Study 3 participants were informed that they would be asked about the vignette later in the study. Additional detail was also added to the vignettes, including making it more explicit whether infection was controllable.

A second potential limitation is the low number of participants ( $n = 73$ ) who reported that they believe that sexual orientation is a choice. Because participants were required to respond either “true” or “false” to whether they believe sexual orientation is a choice, it is possible that some variability in the construct was left unmeasured (see Haslam & Levy, 2006). To address these issues, Study 3 used a continuous rather than categorical response scale and changed the measure to include multiple questions addressing participants' thoughts regarding sexual orientation as a choice. These changes should capture variability in the construct more accurately and including multiple items will allow for assessing reliability.

Additionally, when infection was uncontrollable, the present study described infection as having occurred through exposure to infected medical equipment, whereas previous work has described uncontrollable infections as occurring through blood transfusion (e.g., Seacat et al., 2007). Although both are low in likelihood, transmission through blood transfusion may be a more salient manipulation as participants likely understand what a blood transfusion is but may have difficulty conceptualizing how exposure would occur through infected medical equipment. In Study 3, the vignettes were changed to depict uncontrollable infection as occurring through blood transfusion rather than exposure to infected medical equipment.

### **Study 3**

Study 3 had two primary goals. The first was to replicate the findings from Study 2 while attempting to address some potential limitations of that study (i.e., manipulation check failures). Specifically, in Study 3, a continuous (rather than categorical) measure of participants' beliefs regarding sexual orientation as a choice was utilized with the expectation that this would more accurately capture variability in the construct. In an attempt to address the high manipulation check failures found in Study 2, additional detail to the vignettes was added and participants were informed that they would be asked questions about the vignettes later in the study. Additionally, the vignettes were changed such that infection occurred through blood transfusion rather than through infected medical equipment in the uncontrollable infection condition, consistent with previous work (e.g., Seacat et al., 2007).

The second goal was to explore motivation to control prejudice as a potential moderator of the effects found in Study 2. Specifically, it was predicted that motivation

to control prejudice may serve as a competing motive that would override the motives to system justify and maintain just-world beliefs. If one is strongly motivated to control prejudice, they may avoid using the applicant's sexual orientation to justify infection, even if doing so would serve system justification and just world motives. When infection cannot be attributed to negatively viewed behavior (i.e., unsafe sex), it was expected that those low in motivation to control prejudice, and who believe orientation is a choice, would use the target's sexual orientation—when the target is gay—to explain infection in an effort to maintain just-world beliefs. However, for those who believe orientation is a choice, but who also are high in motivation to control prejudice, it was expected that their motivation to not appear prejudiced would result in them responding similarly to both gay and heterosexual targets, overriding the motives to system justify and maintain just-world beliefs.

### **Motivation to Control Prejudice**

A large body of research indicates that motivation to control prejudiced responses is an important predictor of attitudes and reactions toward other stigmatized groups, such as Blacks (e.g., Butz & Plant, 2009; Dunton & Fazio, 1997). For example, those who are highly motivated to control prejudice toward Blacks tend to report more positive interactions and attitudes toward Black individuals (Plant, Devine, & Peruche, 2010). Focusing on sexual orientation, people high rather than low in motivation to control prejudice based on sexual orientation tend to report less biased attitudes toward gay men and lesbians (Gailliot, Plant, Butz, & Baumeister, 2007; Lemm, 2006).

Given the evidence suggesting that stereotyping of stigmatized groups can be influenced by various motivations (see Kunda & Sinclair, 1999), I propose that

motivation to control prejudice is another form of motivated reasoning, with those high in motivation to control prejudice making considerable effort to avoid responding in a prejudiced manner, regardless of if they are in fact biased against the group in question. In Study 3, it was expected that motivation to control prejudice would moderate the effects in Study 2 such that among those who believe sexual orientation is a choice, only those that are low in motivation to control prejudice would show more biased reactions to gay applicants. In other words, motivation to control prejudice was expected to serve as a competing motive that would override the effects of the motives to system justify and maintain just-world beliefs. Among participants who believe orientation is a choice, and who are responding to an applicant who did not have control over their infection, only those who are also low in motivation to control prejudice will be less likely support admittance to the prescription drug coverage program. Those who believe sexual orientation is a choice, but who are also high in motivation to control prejudice, were expected to respond similarly to those who do not believe orientation is a choice.

### **Study 3 Hypothesis**

**Hypothesis: Motivation to control prejudice as a moderator of Study 2 effects.** Participants who are unmotivated to control prejudice and who believe orientation is a choice will be less likely to support admittance when infection is uncontrollable and the applicant is gay (rather than heterosexual) in comparison to their motivated to control prejudice counterparts. Participants who do not believe orientation is a choice or who are motivated to control prejudice will respond similarly to both gay and heterosexual applicants.

## **Participants and Design**

Four-hundred and sixty nine heterosexual participants completed the study. Forty-nine participants who failed the manipulation check were excluded, resulting in a final sample size of 420. The majority of participants were from a large Mid-western university ( $n = 393$ ). Additionally, the sample included 27 participants from a moderately sized university on the West Coast. All participants completed the study online and received course credit for their participation. Sixty-one percent of the participants were female; ages ranged from 18 to 46 with a mean age of 20.

## **Procedure**

Similar to Study 2, participants first read a vignette about an HIV positive male applying for a prescription drug coverage program. After reading the vignette, participants completed measures of their support for admittance to the prescription drug coverage program, attributions of responsibility, control, and blame, beliefs regarding whether sexual orientation is a choice, and attitudes towards gay men. Additionally, participants completed a measure of their motivation to control prejudiced responses (see Appendix C for study materials).

## **Predictor Variables**

**Applicant sexual orientation and method of disease transmission.** As in Study 2, the study started by having participants read a vignette about an HIV positive male applying for a prescription drug coverage program. The vignettes were updated to address potential issues in the first study, described above. First, the vignette for the uncontrollable condition was changed such that infection occurred through blood transfusion, as opposed to exposure via infected medical equipment in Study 2.

Additionally, more detail was included in the vignettes, focusing on adding more information about how infection occurred. For example, in the uncontrollable infection condition the vignette explicitly said that infection was beyond the target's control. The added detail to the vignettes roughly doubled their length. Finally, the age of the applicant was increased from 25 to 28 for two reasons. First, increasing the age resulted in a greater difference between the average age of the participants completing the study ( $M = 19.6, SD = 2.6$ ) and the applicant. It was expected that increasing the age of the applicant might make it less likely for participants to perceive the applicant as a fellow college student, thus decreasing perceived similarity between participants and the applicant.

**Perceptions regarding sexual orientation as a choice.** Participants completed a 3-item measure of beliefs regarding sexual orientation as a choice using a 5-point Likert-type response scale, with higher scores indicating greater support for the belief that sexual orientation is a choice ( $\alpha = .88$ ).

**Motivation to control prejudiced responses.** After reporting their beliefs regarding sexual orientation as a choice, participants completed the motivation to control prejudiced reactions scale (Dunton & Fazio, 1997). The measure includes 17-items such rated on a 5-point Likert-type scale, with higher scores indicating greater motivation to control prejudiced responses ( $\alpha = .81$ ). Although most questions on the scale refer to prejudice in general, some items originally referred to interactions with Black men. Consistent with previous studies that have used this scale when examining prejudice based on sexual orientation (e.g., Jellison, McConnell, & Gabriel, 2004) those items were modified to reflect prejudice toward gay men. For example, the item "I feel guilty when I

have a negative thought or feeling about a black man” was changed to “I feel guilty when I have a negative thought or feeling about a gay man.”

### **Dependent Variable**

As in Study 2, participants reported support for admittance to the prescription drug coverage program ( $\alpha = .81$ ).

### **Results and Discussion**

Study 3 utilized multiple regression to test the study hypotheses using a 2(Sexual orientation: heterosexual vs. gay) x 2(Method of disease transmission: controllable vs. uncontrollable) x Orientation as a choice (continuous) x Motivation to control prejudice (continuous) design. Prior to the analyses all dependent variables were tested for normality and it was determined all were within normal bounds for skew and kurtosis, thus no transformations were needed.

It was predicted that whether participants’ perceptions regarding sexual orientation as a choice would influence reactions towards people living with HIV/AIDS would be determined based on their motivation to control prejudice. In other words, it was predicted that motivation to control prejudice would be an additional limitation to using the targets sexual orientation to explain why infection occurred when infection cannot be attributed to a specific behavior (i.e., unprotected sex). Specifically, motivation to control prejudice was expected to serve as a moderator of the effects found in Study 2, such that the effects found in Study 2 would only occur among those low in motivation to control prejudice. In other words, when motivation to control prejudice is low, participants who believe orientation is a choice were expected to report less support for admittance when infection was uncontrollable and the target is gay, rather than

heterosexual. When motivation to control prejudice is high, it was predicted that perceptions regarding sexual orientation as a choice would no longer be a significant predictor of support for admittance. Regardless of their beliefs regarding whether sexual orientation is a choice, it was expected that among those who are highly motivated to control prejudice, the only significant predictor for reactions would be method of disease transmission—sexual orientation was not expected to influence reactions among these participants.<sup>6</sup>

Multiple regression procedures were used to test for the proposed four-way interaction between motivation to control prejudice, beliefs regarding orientation as a choice, method of disease transmission, and applicant sexual orientation. All interactions were examined by utilizing the strategies for probing interactions in multiple regression as outlined by Aiken & West (1991). Although all independent variables were centered for the regression analyses, all means and standard deviations are presented in their original form for ease of interpretation. The overall fit of the model predicting support for admittance to the prescription drug coverage program was significant [ $R^2 = .32$ ,  $F(15, 404) = 12.62$ ,  $p < .01$ ], indicating that it was appropriate to move forward with examining main effects and interactions within the model.

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<sup>6</sup> There was significant negative relationship between motivation to control prejudice and beliefs regarding sexual orientation as a choice,  $r = -.24$ ,  $p < .01$ , with greater motivation to control prejudice associated with the tendency to believe that sexual orientation is a choice. Although the weak correlation does indicate that the constructs are relatively distinct, the significant correlation also indicates that one may inform the other in a biased way. That is, perhaps, those who believe sexuality is a choice tend to be less motivated to control their bias towards gay men and lesbians. Alternatively, it could be that lack of a motivation to be viewed as prejudiced increases the likelihood that people will feel comfortable reporting that they believe sexual orientation is a choice.

Consistent with Study 2, there was a main effect for transmission [ $b = 1.81, t(404) = 11.16, p < .01, sr^2 = .210$ ] such that participants were less likely to support admittance when infection was controllable (unsafe sex;  $M = 16.3, SD = 3.7$ ) rather than uncontrollable (blood transfusion;  $M = 20.0, SD = 2.9$ ). Additionally, there was a main effect for participants' beliefs regarding sexual orientation as a choice [ $b = -.08, t(404) = -2.48, p < .01, sr^2 = .010$ ], indicating that the more strongly participants endorse the belief that sexual orientation is a choice, the less likely they are to support admittance, regardless of the applicants sexual orientation or method of disease transmission.<sup>7</sup>

These main effects were qualified by a significant four-way interaction between motivation to control prejudice, beliefs regarding orientation as a choice, method of disease transmission, and applicant sexual orientation [ $b = .01, t(404) = 2.24, p < .05, sr^2 = .008$ ]. As shown in the simple slopes analyses discussed next, this interaction reflects the finding that those low in motivation to control prejudice and who believe orientation is a choice are less likely to support admittance when infection was uncontrollable (i.e., occurring through blood transfusion) and the target was gay rather than heterosexual.

To examine the four-way interaction, I started by looking at participants with motivation to control prejudice scores one standard deviation below (low motivation;  $M = 45.3$ ) and one standard deviation above (high motivation;  $M = 61.4$ ) the mean. Among those high in motivation to control prejudice, the only significant predictor of support for

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<sup>7</sup> The main effect of participants' beliefs regarding sexual orientation as a choice was also qualified by two significant two-way interactions not discussed due to them also being qualified by the significant three-way interaction. Specifically, there was a significant two-way interaction between applicants sexual orientation and participants' beliefs regarding whether sexual orientation is a choice [ $b = -.08, t(404) = -2.66, p < .01$ ], as well as between participants' beliefs regarding sexual orientation as a choice and motivation to control prejudice [ $b = .01, t(404) = 2.14, p < .05$ ].

admittance was a main effect of method of disease transmission [ $b = 1.79, t(404) = 7.82, p < .01$ ]. Participants high in motivation to control prejudice were less likely to support admittance when infection occurred through unsafe sex ( $M = 15.9, SD = 2.9$ ) than when infection occurred through blood transfusion ( $M = 20.7, SD = 2.8$ ). However, among participants low in motivation to control prejudice, a significant three-way interaction between beliefs regarding orientation as a choice, method of disease transmission, and applicant sexual orientation was found on support for admittance [ $b = -.09, t(404) = -2.12, p < .05$ ], similar to Study 2. To explore this interaction, the effects of method of disease transmission and applicant sexual orientation were examined separately for those one standard deviation below (do not believe orientation is a choice;  $M = 10.7$ ) and above (strongly believe that orientation is a choice;  $M = 21.4$ ) the mean on beliefs regarding orientation as a choice.

Among those who are low in motivation to control prejudice and *do not* believe orientation is a choice, only method of disease transmission influenced support for admittance [ $b = 1.56, t(404) = 2.94, p < .01$ ]. Participants low in motivation to control prejudice and who do not believe orientation is a choice were less likely to support admittance when infection occurred through unsafe sex (i.e., controllable;  $M = 13.4, SD = 6.0$ ) than when infection occurred through blood transfusion (i.e., uncontrollable;  $M = 23.5, SD = 7.1$ ). These effects occurred regardless of the applicant's sexual orientation. However, among participants low in motivation to control prejudice and who *do* believe sexual orientation is a choice, when infection was uncontrollable these participants were less likely to support admittance for gay ( $M = 14.8, SD = 4.6$ ) than heterosexual ( $M = 22.0, SD = 3.7$ ) applicants [ $b = -1.15, t(404) = -2.74, p < .01$ ] (See Figure 6; sexual

orientation did not influence reactions when infection was controllable [ $b = -.09, t(404) = -.26, p = .80$ ]<sup>8</sup>.

To summarize, overall participants were less likely to support admittance to the prescription drug coverage program when infection was controllable, rather than uncontrollable. However, among participants who are low in motivation to control prejudice and who believe that sexual orientation is a choice, when infection was uncontrollable these participants were less likely to support admittance to the prescription drug coverage program for gay (rather than heterosexual) applicants. For those who believe orientation is a choice but who are also high in motivation to control prejudice, there was no difference in reactions to gay and heterosexual applicants. Consistent with expectations based on a motivated reasoning perspective, when infection could not be attributed to a specific negatively viewed behavior, the applicant's sexual orientation was only used to justify infection when participants believe that orientation is a choice and they are unmotivated to control prejudiced responses.

An additional finding that was not reflected in the study hypotheses was the main effect for participants' beliefs that sexual orientation is a choice. Participants who believe orientation is a choice were less likely to support admittance to the prescription drug coverage program regardless of the how infection occurred or the applicants sexual orientation. One possible explanation is that participants who believe orientation is a

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<sup>8</sup> In Study 3 similar effects using negative attributions (e.g., control, responsibility and blame) were found. Specifically, there was a four-way interaction [ $b = .01, t(404) = 2.24, p < .05, sr^2 = .003$ ] revealing that when infection was uncontrollable, participants low in motivation to control prejudice and who believe orientation is a choice made more negative attributions (e.g., that the applicant is to blame for their illness) [ $b = 2.64, t(404) = 3.48, p < .01$ ] when the applicant was gay ( $M = 31.2, SD = 12.8$ ) rather than heterosexual ( $M = 17.0, SD = 4.3$ ).

choice are also more strongly endorse negative stereotypes about people living with HIV/AIDS (e.g., homosexuality, engaging in unsafe sex or drug use) and that these stereotypes influence judgments regardless of the characteristics of the person infected or how infection occurred. Future work may want to address this possibility.

### **General Discussion**

The primary goal of these studies was utilize a motivated reasoning perspective to help understand the role of target sexual orientation and method of disease transmission in reactions to people living with HIV/AIDS. Although there was consensus in previous research that the sexual orientation of people living with HIV/AIDS can influence reactions towards them, under what conditions sexual orientation is a factor was unclear. The present work helped to clarify the role of sexual orientation and method of disease transmission in reactions to people living with HIV/AIDS, guided by predictions from system justification and just world theory.

Study 2 demonstrated that when people can attribute infection to negatively viewed behavior on the part of the applicant, people use that information to explain and justify infection, consistent with predictions from just world theory. However, when infection was uncontrollable, participants who believe orientation is a choice responded more negatively to gay than heterosexual applicants. This suggests that when infection was uncontrollable, these participants used the applicant's sexual orientation—that they believe to be a personal choice—to explain why the person became infected. By using the applicants' sexual orientation (when the applicant was gay), participants are able to maintain their just-world beliefs by coming up with an explanation for why infection occurred. At the same time, by attributing infection to the gay applicant's sexual

orientation, participants are able to justify the system in which gay men are a disadvantaged group. Because of the need for conclusions to appear rational, even when dealing with threats to just-world beliefs, it appears that participants who do not believe orientation is a choice were unable to use the applicant's sexual orientation as a way to explain infection.

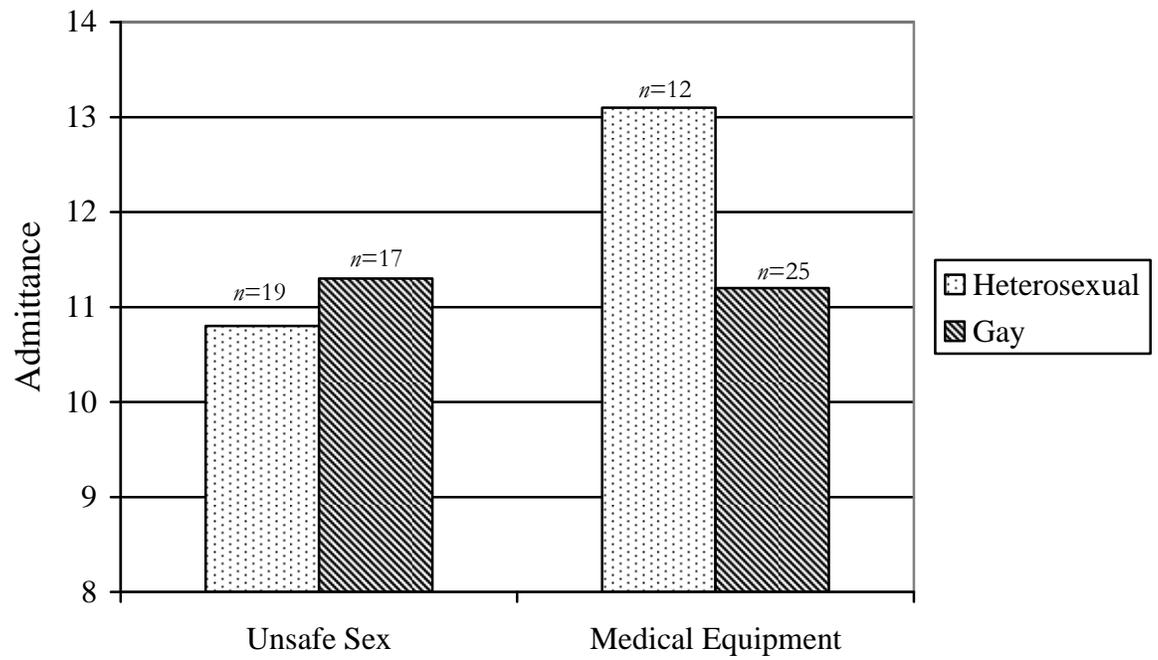
Study 3 replicated these results while showing that motivation to control prejudice based on sexual orientation moderates the effects found in Study 2. In other words, the three-way interaction between applicant sexual orientation, method of disease transmission, and participants' beliefs regarding whether sexual orientation is a choice found in Study 2 occurred among those low in motivation to control prejudice, but not those high in motivation to control prejudice. Participants high in motivation to control prejudice responded more negatively to applicants when infection was controllable rather than uncontrollable, regardless of their views regarding sexual orientation as a choice or the applicant's sexual orientation. Participants who are both low in motivation to control prejudice and who believe sexual orientation is a choice responded negatively to both gay and heterosexual applicants when infection was controllable. However, when infection was uncontrollable these participants responded more negatively to gay than heterosexual applicants, consistent with the study predictions. This is consistent with the prediction that those who believe orientation is a choice, but who are also high in motivation to control prejudice, would be constrained by the need for their conclusions to be rational and thus unable to justify responding more negatively to gay than heterosexual targets. In other words, motivation to control prejudice appears to have served as a competing motive that overrode the needs to maintain just-world beliefs and justify the system.

Together these studies helped to clarify the role of method of disease transmission and sexual orientation in reactions to people living with HIV/AIDS, guided by predictions from relevant theory. Importantly, these findings shed light on the issues of prejudice and discrimination toward people living with HIV/AIDS, and in particular, the challenges faced by non-heterosexual people living with HIV/AIDS. In Study 3, when infection was uncontrollable gay applicants faced more negative attributions and less support for admittance than heterosexual applicants from those who are low in motivation to control prejudice and who believe sexual orientation is a choice. Of particular importance here is support for admittance to the prescription drug coverage program. People living with HIV/AIDS who do not receive proper health care are at risk for serious medical conditions that can be avoided with a consistent supply of medication. Others deeming people living with HIV/AIDS as less deserving of health care based on their sexual orientation could have serious long-term ramifications.

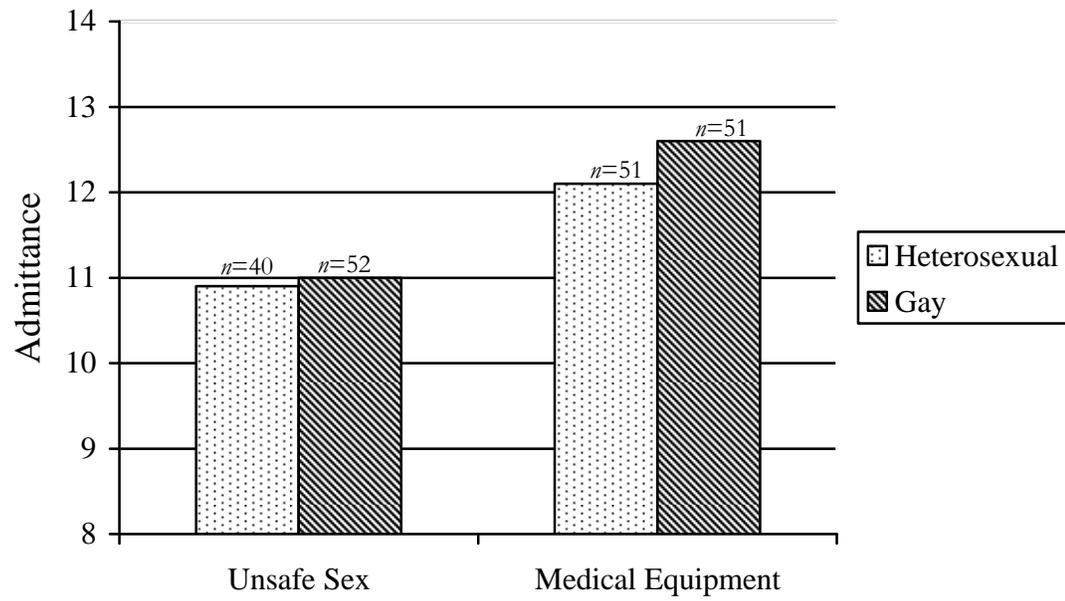
These studies also help addressing the overall goal of my program of research which is to add to current understanding of the role of motivated reasoning in victim blame, derogation, and prejudice. Specifically, they added to the first by examining the role of just-world beliefs as another form of system-justifying ideology that contributes to victim blame, derogation, and prejudice. Additionally, Study 3 examined the effects of potentially competing motives. Specifically, the results of Study 3 indicate that motivation to control prejudice may serve as a competing motive that can override the motive to maintain just-world beliefs and to justify the system.

Finally, Studies 4 and 5 add to the first three studies in several ways. First, it examines reactions to an individual who has been laid off from their job and whose group

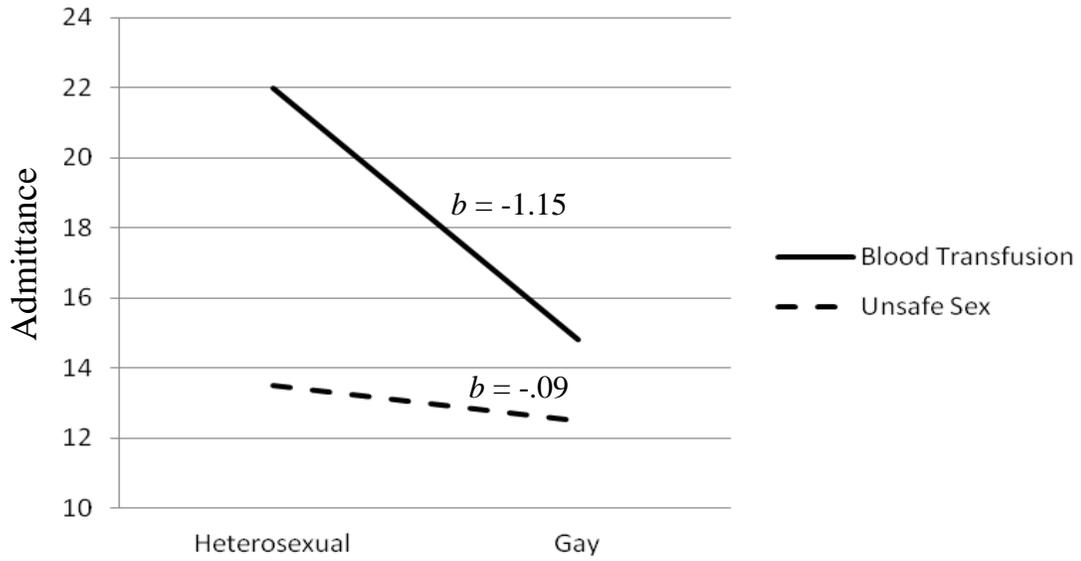
identity is unknown (e.g., unknown race). Second, it adds to the work in the Studies 2 and 3 by measuring individual differences in endorsement of just-world beliefs. Finally, it examines the effects of priming justice-related values on system justifying tendencies. Priming justice-related values was expected to intensify system justifying tendencies among those who strongly endorse just-world beliefs, with these participants responding even more negatively to the victim when they had not been primed. However, among those low in endorsement of just-world beliefs, it was less clear how the primes may influence them. As will be discussed in detail in Chapter 6, one possibility was that the prime would have no effect among those low in endorsement of just-world beliefs. Another possibility was that priming justice-related values may result in participants who are low in endorsement of just-world beliefs being made more aware of their beliefs that the world/system is not just, resulting in responding more positively to the victim than when not exposed to the justice-related primes.



*Figure 4.* Admittance as a Function of Applicant Sexual Orientation and Method of Transmission Among Participants who Believe Orientation is a Choice - Study 2.



*Figure 5.* Admittance as a Function of Applicant Sexual Orientation and Method of Transmission Among Participants who Believe Sexual Orientation is Not a Choice - Study 2.



*Figure 6.* Admittance as a Function of Applicant Sexual Orientation and Method of Transmission among Participants who Believe Sexual Orientation is a Choice and whom are Low in Motivation to Control Prejudice - Study 3.

## CHAPTER 6: JUST-WORLD BELIEFS, JUSTICE-RELATED PRIMES, AND VICTIM BLAME<sup>9</sup>

How we interact with the world around us is in large part dependent on what we believe are the basic rules and principles that guide how the world works (i.e., our worldview). Various theories such as just-world theory (Lerner, 1980), system justification (Jost & Banaji, 1994), and the worldview verification model (Major, Kaiser, O'Brien, & McCoy, 2007) propose that central to our worldviews are beliefs regarding whether the world is fair and just. Specifically, these perspectives suggest that people are motivated to believe that good things happen to good people and bad things happen to bad people. Unfortunately, we are often confronted with demonstrations of unjustified negative occurrences happening to seemingly good people, such as when we see a news story on a senseless crime.

The purpose of the current work is to examine the role certain values may play in just-world beliefs, and how activation of these values influences responses to an innocent victim. It is proposed that one potential source and subsequent driving force of one's just-world beliefs may be the development of moral beliefs including (but not limited to) the values of equality, justice, and entitlement. Moreover, activation of these values may influence attributions for others' circumstances, depending on an individual's dispositional belief that the world is just.

Values have been described as an abstract ordering of beliefs that serve as trans-situational guides and ideals for evaluative and behavioral concerns (Feather, 1975;

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<sup>9</sup> Edited version of Murray, R. A., Uggla, R. D., Blankenship, K. L., & Craig, T. Y. *Worldviews and values: Belief in a just world moderates the effect of priming justice related values on victim blame and derogation*. Manuscript submitted for publication.

Rohan, 2000; Schwartz & Bilsky, 1987, 1990). Rokeach (1968, 1973) suggested that the association between one's judgments and one's values is an important consideration in how individuals interact with their world. Strongly held value-based opinions have been shown to influence the ability to fairly judge valid information that contradicts such beliefs (Lord, Ross, & Lepper, 1979; Skitka & Mullen, 2008). As such, the development and subsequent implementation of motivational states such as the values of equality, justice, and entitlement may play an important role in subsequent perceptions of victim responsibility and justice in general. Therefore, the current work will examine the role that justice-related values, activated outside of awareness, play in person perception.

Evidence has demonstrated that nonconscious activation and pursuit of important values, like justice, can motivate and direct perceptions in the same ways that consciously activated values do (e.g., Bargh & Chartrand, 2000). For example, activating the value of honesty via a supraliminal priming task can lead participants to report less socially desirable more honest answers to socially sensitive questions than participants not primed with honesty (Rasinski, Visser, Zagatsky, & Rickett, 2005). Similarly, simply activating the concept of justice by exposing participants to a picture of the Roman goddess of justice prior to a word completion task led participants to complete more word stems associated with justice than participants not primed with the justice picture (Karremans & Van Lange, 2005; Study 2).

Thus, it appears that priming the concept of justice can lead to increases in activation of justice-related concepts. Activation of these concepts should then guide people's interpretation of information, such as attributions made about the victim of an unfortunate outcome. However, it appears that no research to date has examined how

activation and application of justice-related concepts may be moderated by an individual's just-world beliefs. As reviewed in Chapter 3, individuals may vary in how much they endorse the belief that the world is just. For example, some individuals may hold on to the belief that the world is just, initially developed in adolescence (Lerner, 1977), and use it as a guide for perceiving the world around them, whereas others may see little utility in viewing the world as just and dismiss it altogether. In addition, individuals who are high in endorsement of just-world beliefs may also view the concept of justice differently than those whose are low in endorsement of just-world beliefs. For example, participants high in endorsement of just-world beliefs tend to endorse statements supporting procedural and distributive justice more than participants low in endorsement of just-world beliefs (Lucas, Alexander, Firestone, & Lebreton, 2007). It is possible that activating justice-related concepts may increase people's motives to interpret information in a way that is consistent with their just-world beliefs.

Applying this reasoning to the current research, values associated with justice, when activated outside of awareness, may guide how one interprets an event. However, these effects may be moderated by an individual's endorsement of just-world beliefs. As reviewed in Chapter 3, instances of injustice are perceived as threats to those high in just-world beliefs (Major et al., 2007). However, for those low in endorsement of just-world beliefs, perceiving injustice is instead seen as a confirmation that the world is not just. This moderating effect may be especially pronounced in a context where violation of a just world is ambiguous. In other words, activation of justice-related values in a context where it is unclear whether the person experiencing the unjust event is a "good" person (i.e., a victim) or if the person "got what they deserved" may be an appropriate context to

test these hypotheses. Prior beliefs are more likely to guide judgments in ambiguous situations (Lord et al., 1979). Further, when the target of a judgment is ambiguous, primes may interact with prior beliefs and thoughts to magnify judgments (Asch, 1948; Higgins, 1996). Under these conditions, the effect of the prime on victim blame and derogation may be magnified by just-world beliefs.

For example, Dion and Dion (1987) examined the influence of just-world beliefs in an impression formation setting. After reading a description of a person, participants who strongly endorse just-world beliefs rated the person described as more socially desirable, having a more socially desirable personality, and having a higher positive life-outcome when the description was paired with a photograph of an attractive, rather than unattractive, person. Participants low in endorsement of just-world beliefs were not influenced by the type of photograph. In other words, belief in a just world moderated the effect of attractiveness on judgments.

Although participants low in endorsement of just-world beliefs were not influenced by the photograph, some research suggests that participants low in endorsement of just-world beliefs can be influenced by a contextual prime. For example, Murray, Spadafore, and McIntosh (2005) primed participants with either rape-related words or neutral words prior to reading an ambiguous scenario about two people on a date. Participants who strongly endorse just-world beliefs rated the female character more negatively when primed with the rape-related words than the neutral prime condition. For participants low in endorsement of just-world beliefs, however, the victim was derogated *less* in the prime than control conditions. Thus, it appears that individuals

high and low in endorsement of just-world beliefs may tend to interpret ambiguous situations differently, even when there is little initial threat to their just-world beliefs.<sup>10</sup>

### **The Current Research**

The current research examined moderating role of just-world beliefs on the effect of priming values associated with belief in a just world (e.g., equality, justice and entitlement) on participants' judgments of a victim. Specifically, it was expected that a supraliminal prime of justice-related values would interact with participants' just-world beliefs. When activated, these values were expected to combine with just-world beliefs and guide how the scenario was interpreted, thereby influencing participants' impressions of the victim.

Among participants who strongly endorse just-world beliefs, priming justice-related words may increase victim blame in the context of an ambiguous scenario. That is, participants would report that the victim was more responsible for the outcome and as having more negative character attributes when primed with justice-related words relative to the neutral prime condition. This would suggest that when activated, justice-related values would increase the tendency of people high in endorsement of just-world beliefs to

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<sup>10</sup> Readers may be wondering why participants low in endorsement of just-world beliefs were not influenced by a cue in Dion and Dion (1987), but not in the Murray et al. (2005). One reason may be that in the Dion and Dion (1987), participants low in endorsement of just-world beliefs were actually influenced by the photograph, but corrected for that influence in their judgments (Wegener & Petty, 1997; Wilson & Brekke, 1994). However in Murray et al. (2005; as with many supraliminal priming studies), participants may not have been aware of the word prime (cf. Petty, DeMaree, Brinol, Horcajo, & Strathman, 2008), which would make correction of that prime difficult as best (Wegener & Petty, 1997). This would particularly be the case if participants low in endorsement of just-world beliefs did view the concept of justice differently than those high in endorsement of just-world beliefs because the different definitions of justice may be guiding the effect of the prime on judgments in different directions.

blame the victim. In other words, it was expected that priming justice-related values would enhance system-justifying tendencies among those who strongly endorse just-world beliefs, resulting in more negative reactions to the victim.

For participants low in endorsement of just-world beliefs, the predictions were less clear. On the one hand, activation of justice-related values may not influence perceptions of the victim differently than in the neutral prime condition. These results would be consistent with that of Dion and Dion (1987), whereby participants low in endorsement of just-world beliefs were not sensitive to the attractiveness of the photo in forming impressions. However, if one were to believe that participants low in endorsement of just-world beliefs are just as susceptible to the activation of justice-related values, these participants should show a *decrease* in victim blame relative to the control conditions. This would suggest that people low in endorsement of just-world beliefs, when primed, are just as influenced by the value prime, but the concepts associated with the values may be applied differently when making assessments of blame. If this is the case, participants low in endorsement of just-world beliefs may experience an increase in awareness of their beliefs that the world is not just, resulting in more positive reactions to the victim than when not primed with justice-related values. In sum, understanding the extent to which values related to just-world beliefs are automatically activated is critical if theorists are to better understand worldview verification effects.

## Study 4 Hypothesis

**Hypothesis: Just-world beliefs as a moderator of priming effects on victim blame.** When primed with justice-related values, participants high in endorsement of just-world beliefs will blame the victim to a greater degree than when not primed with justice-related values. Among those who are low in endorsement of just-world beliefs, priming justice-related values will either decrease or have no effect on victim blame.

## Study 4

### Participants

Participants included eighty-two introductory psychology students at a Western university who completed the study for course credit<sup>11</sup>.

### Design and Procedure

Study 4 utilized a 2(Prime: justice values vs. control) X Endorsement of just-world beliefs (continuous) between-participants design. Participants were brought into a lab and seated in front of a computer where all manipulations and measures were administered. Participants were told they would be participating in two unrelated studies. The purpose of the first study (i.e., the priming phase) was to examine “word meaning recognition.” For the priming portion, a synonym choice paradigm (Rasinski et al., 2005) was utilized. Half of the participants were presented with the three values consistent with the idea of justice and three filler words, for a total of six words. Each word was followed by three similar words in a multiple-choice format. The remaining half of the participants were presented with three words unrelated to justice and three filler words, with each word followed by three similar words in a multiple-choice format. Participants

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<sup>11</sup> Demographic information (e.g., participant sex) was not collected for the studies in this project.

were asked to read each target word and then select which of the three similar words was most similar to the target word. For example, participants were first presented with the target word “Justice,” followed by the words “compensation,” “evenness,” and “truth”. Participants then selected the word that is most semantically similar to the target word.

In the second part of the study, participants read a scenario about a student from the University of Alabama named Tom. In the scenario, Tom is described as an average student who got along well with others, but at times made people uncomfortable. Upon graduating, Tom took a position at a local retail store, where he befriended the store manager. The manager moved Tom into a managerial trainee position, but when the store manager was promoted, he transferred in another manager from a nearby store instead of moving Tom into the position and eventually Tom was laid off from the retail store. The scenario was developed by the authors and was designed to be ambiguous with regard to whether Tom was a nice person, thus making it ambiguous as to whether a “just world” was violated. That is, it is ambiguous whether Tom was a good or bad person who experienced an unfortunate outcome. This provides an ideal context for the priming manipulation and prior beliefs to influence participants’ responses to the victim (Lord, et al., 1975; Murray, et al., 2005; Srull & Wyer, 1979). Additionally, unlike Studies 1 through 3, the scenario does not directly threaten beliefs that the system is fair. This ambiguity allows for examining the role of activating justice related concepts on system justification outside of situations that induce threat.

After reading the scenario, participants were asked to rate how responsible and deserving Tom was for the outcome as a means of measuring participants’ level of victim blame. Finally, participants completed a measure of their endorsement of just-world

beliefs. Upon completion of the various measures, participants completed a funnel debriefing that probed them for suspicion of the study's purpose, were thanked for their participation and excused.

### **Predictor Variables**

**Value priming.** The priming manipulation was modeled after Rasinski et al (2005). For this study, half of the participants were given three target words related to justice (e.g., justice, entitlement, equality), whereas the other half were given words unrelated to justice (e.g., home, march, hammer). Each target word and its respective three options were presented in random order.

**Belief in a just world.** After the priming manipulation and the scenario, participants completed the seven-item global belief in a just world scale (Lipkus, 1991), a common measure of the extent to which people believe the world is just. Scores on the seven items were summed to complete a total score, which was used as a predictor variable in subsequent analyses ( $\alpha = .76$ ), with higher scores indicating greater endorsement of just-world beliefs.

### **Dependent Variable**

**Victim blame.** Following the scenario, participants were asked to respond to three questions ( $\alpha = .81$ ) assessing the extent that Tom could be blamed for being laid off, with higher scores indicating greater blame.

### **Results**

Participants' blame scores were submitted to a simultaneous regression analysis, with endorsement of just-world beliefs scores (continuous), priming (control vs. justice values dummy coded as -1 = control and +1 = justice) and the interaction between the

two as the predictor variables. Scores on endorsement of just-world beliefs were centered by subtracting the mean from each person's score (Aiken & West, 1991; see also Cohen, Cohen, West & Aiken, 2003), thus making the predicted values interpretable. The overall fit for the model predicting blame [ $R^2 = .12$ ,  $F(3, 78) = 3.47$ ,  $p = .02$ ] was significant, indicating that it was appropriate to examine the hypothesized interaction.

Results revealed a significant Prime X Endorsement of just-world beliefs interaction, [ $b = .08$ ,  $t(78) = 2.74$ ,  $p < .01$ ,  $sr^2 = .08$ ; see Figure 1], revealing just-world beliefs moderated the influence of the justice prime on participants' blaming of Tom. Specifically, decomposition of this interaction by recentering endorsement of just-world belief scores at one standard deviation above ( $M = 34.9$ ; high in endorsement of just-world beliefs) and one standard deviation below the mean ( $M = 21.7$ ; low in endorsement of just-world beliefs; Aiken & West, 1991) indicated that participants low in endorsement of just-world beliefs, blamed Tom for the outcome less in the prime ( $M = 3.2$ ,  $SD = 1.8$ ) than the control ( $M = 4.9$ ,  $SD = 1.9$ ) condition [ $b = -.21$ ,  $t(78) = 3.0$ ,  $p < .05$ ]. This suggests that, consistent with Murray et al. (2005), participants low in endorsement of just-world beliefs were influenced by the prime, resulting in reports of less blame for Tom.

In contrast, participants who strongly endorse just-world beliefs blamed Tom more in the prime ( $M = 5.0$ ,  $SD = 1.6$ ) than the control ( $M = 4.1$ ,  $SD = 1.7$ ) condition, [ $b = .48$ ,  $t(78) = 3.07$ ,  $p < .05$ ]. That is, participants who strongly endorse just-world beliefs, when presented with an ambiguous situation and primed with justice-related concepts, tended to blame the victim at a higher level than when not exposed to the justice prime. Thus, belief in a just world moderated the influence the value prime on

perceptions of victim blame. Specifically, these results support the prediction that participants were sensitive to the justice prime regardless of their endorsement of just-world beliefs. Put another way, activation of justice-related values exacerbated the difference between the ways those high and low in endorsement of just-world beliefs respond to perceived inequality.<sup>12</sup>

## Discussion

These results are a meaningful first step toward understanding how differences in endorsement of just-world beliefs may influence the effect activation of justice-related values on responses to an innocent victim. Although previous work indicates that priming justice increases activation of justice-related concepts, research had yet to examine the potential moderating role of endorsement of just-world beliefs. Based on previous research and theorizing described earlier, a Prime X Just-world beliefs interaction was expected on participants' blame scores. That is, for individuals relatively high in just-world beliefs, exposure to the justice prime was expected to lead to greater victim blame than in the neutral prime condition. For individuals relatively low in just-world beliefs, one of two possibilities was expected. The first possibility was that

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<sup>12</sup> Some may be wondering whether people were more likely to choose one answer over another for each of the prime words on the priming task. Examination of the choices revealed that for the word justice, participants chose the term evenness ( $n = 18$ ) and truth ( $n = 17$ ) equally as being most similar to justice, but more than the term compensation ( $n = 5$ ),  $\chi^2(2, n = 40) = 7.8, p < .05$ . For the word entitlement, the terms merit ( $n = 15$ ) and right ( $n = 20$ ) were chosen equally, with liberty ( $n = 5$ ) chosen the least,  $\chi^2(2, n = 40) = 8.75, p < .05$ . Finally, for the term equality, the term fairness ( $n = 24$ ) was chosen more often than balance ( $n = 14$ ), which was chosen more than impartiality ( $n = 2$ ).  $\chi^2(2, n = 40) = 18.2, p < .01$ . More importantly, endorsement of just-world beliefs did not moderate the results  $\chi^2(2, n = 40) = 1.62, p = .45$ ,  $\chi^2(2, n = 40) = 1.6, p = .5$ ,  $\chi^2(2, n = 40) = 3.31, p = .19$ , for justice, entitlement, and equality, respectively). These results suggest that belief in a just world did not influence participants' responses on the priming manipulation.

exposure to the justice prime may not influence perceptions of victim blame, which would indicate that individuals low in endorsement of just-world beliefs are not sensitive to the justice prime. The second possibility was that exposure to the justice prime may lead to decreased victim blame relative to the control condition. In other words, activation of justice may occur for participants low in just-world beliefs and can still be applied to their judgments.

Consistent with the study hypothesis, among those high in endorsement of just-world beliefs, exposure to the justice prime resulted in greater victim blame than when exposed to neutral primes. In other words, priming justice-related values increased system justifying tendencies among those who are high in endorsement of just-world beliefs, resulting in greater victim blame. Results also indicated that priming justice-related values also influences victim blame for those low in endorsement of just-world beliefs. Specifically, priming justice-related values resulted in reduced victim blame among these participants, in comparison to a neutral prime. Among these participants, it appears that priming justice-related values may have made them more aware of their beliefs that the world/system is not just, resulting in reduced victim blame. These results suggest that just-world beliefs may determine how values guide interpretation of ambiguous information and that participants both low and high in just-world beliefs are sensitive to the justice prime.

### **Study 5**

Study 4 helped to clarify the potential moderating role of endorsement of just-world beliefs on the effect of justice-related primes on victim blame. Of course, these results should also translate into a measure of the victim's character. That is, in addition

to just-world beliefs moderating the effect of the justice prime on victim blame, there should be similar effects on measures of the victim's character. As such, the purpose of Study 5 is to replicate the effects found in Study 4 and to examine whether assessments of the victim's character are subject to the same pattern of results.

### **Study 5 Hypothesis**

**Hypothesis: Just-world beliefs as a moderator of the effect of priming on character assessment.** When primed with justice-related values, participants high in endorsement of just-world beliefs will attribute greater blame and report more negative character attributions (i.e., derogate the victim) than when primed with justice-related values. Among those who are low in endorsement of just-world beliefs, priming justice-related values will decrease blame and result in more positive character attributions.

### **Participants**

Ninety-one introductory psychology students at a Western university participated in a 2(Prime: justice values vs. control) X Just-world beliefs (continuous) between-participants design.

### **Design and Procedure**

Participants were given the same cover story and materials as in Study 4, with one exception. Specifically, after completing measures of victim blame, participants completed a measure assessing Tom's character using items taken from the personal attribute inventory scale (Parish, Bryant & Shirazi, 1976).

### **Predictor Variables**

**Just-world beliefs.** Participants completed the same just-world beliefs scale as in Study 4 ( $\alpha = .74$ ).

**Value priming.** Participants completed the same priming manipulation as in Study 4.

### **Dependent variables**

**Victim blame.** As in Study 4, participants were asked to report how responsible Tom was for being laid off from work. A second item asked the extent to which participants felt being laid off from work was the result of Tom's own doing. The two items were moderately correlated ( $r = .58$ ) and were combined to create an index of victim responsibility.<sup>13</sup>

**Victim derogation.** Following the priming manipulation, the scenario, and the blame measure, participants were asked to rate Tom's character. Specifically, participants rated Tom on the dimensions of irresponsibility, carelessness, impatience, greed, and selfishness (1 = *not at all characteristic of Tom*; 9 = *very characteristic of Tom*;  $\alpha = .71$ ).

### **Results and Discussion**

**Victim blame.** Similar to Study 4, victim blame scores were submitted to a simultaneous regression analysis, with just-world belief scores (centered), the value prime (value vs. control dummy coded as -1 = control and +1 = value), and the interaction between the two as predictor variables. The overall fit for the model predicting blame [ $R^2 = .11$ ,  $F(3, 87) = 3.59$ ,  $p < .05$ ] was significant, indicating that it was appropriate to examine the hypothesized interaction. The analysis revealed the predicted Prime X Just-world beliefs interaction [ $b = .69$ ,  $t(87) = 2.24$ ,  $p < .05$ ,  $sr^2 = .05$ ]. That is, participants low in endorsement of just-world beliefs ( $M = 21.3$ ) rated Tom less

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<sup>13</sup> The item measuring whether the outcome was a result of Tom's own doing used in Study 1 was inadvertently omitted in Study 2.

responsible for the outcome in the prime ( $M = 3.1$ ,  $SD = 1.7$ ) than in the control condition ( $M = 4.0$ ,  $SD = 1.9$ ), [ $b = -.38$ ,  $t(87) = 2.37$ ,  $p < .05$ ]. In contrast, participants high in endorsement of just-world beliefs ( $M = 34.9$ ) rated Tom more responsible for the outcome in the prime ( $M = 5.8$ ,  $SD = 1.9$ ) than the control condition ( $M = 4.6$ ,  $SD = 2.0$ ) [ $b = .49$ ,  $t(87) = 2.65$ ,  $p < .05$ ]. Thus, a replication of Study 4 occurred, with participants both relatively high and low in endorsement of just-world beliefs being sensitive to the justice prime.

**Victim derogation.** Next, victim derogation scores were submitted to a simultaneous regression analysis, with endorsement of just-world beliefs, the priming manipulation, and the interaction as predictor variables. The overall fit for the model predicting derogation [ $R^2 = .09$ ,  $F(3, 87) = 2.81$ ,  $p < .05$ ] was significant, indicating that it was appropriate to examine the hypothesized interaction. Results revealed a significant Prime X Just-world beliefs interaction, [ $b = .49$ ,  $t(87) = 2.82$ ,  $p < .01$ ,  $sr^2 = .08$ ], revealing that just-world beliefs moderated the effect of the prime on participants' victim derogation scores. Specifically, participants low in endorsement of just-world beliefs, rated Tom more positively in the prime ( $M = 5.7$ ,  $SD = 1.3$ ) than the control condition ( $M = 6.6$ ,  $SD = 1.6$ ), [ $b = .25$ ,  $t(87) = 1.99$ ,  $p < .05$ ]. In contrast, participants high in endorsement of just-world beliefs rated Tom more negatively in the prime ( $M = 5.1$ ,  $SD = 1.7$ ) than the control condition ( $M = 4.2$ ,  $SD = 1.7$ ), [ $b = .30$ ,  $t(87) = 2.23$ ,  $p < .05$ ]. Thus, similar to the blame measure, participants' just-world beliefs moderated the effect of the prime on judgments of the victim's character.

**Mediational analyses.** It was expected that victim blame would account for the interactive effects of Prime and Just-world beliefs on victim derogation (captured by the

Prime X Just-world beliefs term). A mediational analysis using bootstrapping procedures outlined by Shrout and Bolger (2002; using the syntax presented by Preacher & Hayes, 2004) was conducted to examine the indirect effect and the associated 95% confidence interval of victim blame on victim derogation. The bootstrapping analyses randomly drew cases from the sample data (with replacement) and created 5000 bootstrap data sets of equal size to the original sample. Each data set supplied an estimate of the indirect (mediational) effect of the potential mediator. The Prime X Just-world beliefs interaction was treated as the distal variable and the Prime X Blame interaction was treated as a potential mediator, with derogation as the dependent variable. Lower order effects of Prime, Just-world beliefs, and Blame were treated as covariates. Confidence intervals were created to examine whether the population value of each indirect effect differed from zero (i.e., whether the 95% confidence interval for the indirect effects excluded zero). Results showed that the Prime X Blame interaction term did mediate the interactive effect of Prime and Just-world beliefs on derogation ( $b = .02$ , 95% *CI*: .01 to .04). The direct effect of the Prime X Just-world beliefs interaction was no longer significant [ $b = .04$ ,  $t(85) = .88$ ,  $p = .43$ ]. In other words, activation of justice-related values increased perceptions of victim blame, which then influenced victim derogation.

### **General Discussion**

The present research tested the hypothesis that endorsement of just-world beliefs would moderate the effects of a justice-related prime on participants' responses to an unjust event. Across two studies, when primed with justice-related values it appears that participants who strongly endorse just-world beliefs likely acted to protect their just-world beliefs by blaming and derogating the victim more than when not primed with

justice values. Conversely, participants low in endorsement of just-world beliefs showed the opposite trend when primed with these values, reporting lower levels of victim blame and derogation compared to those not primed with justice values. These findings suggest that justice-related values may act to guide how the participants interpreted the ambiguous scenario information (see Feather, 1994). Specifically, the activation of justice-related values through the priming task appears to alter the extent that participants engage in system justification.

The aforementioned findings suggest several things. First, the influence of individuals' just-world beliefs on the judgments of others may be mediated by worldview-related values (i.e. justice, deservingness, entitlement). This reasoning is consistent with current models of justice reasoning, which suggest that people are more likely to consider justice when self-relevant values like equality and social justice are made salient (Skitka, 2003). Secondly, justice-related values, when activated, may affect people who differ in the extent that they endorse just-world beliefs based on the strength of those beliefs. When primed with justice-related values, those who are high in endorsement just-world beliefs tend to blame and derogate the victim to a greater degree than when not primed with justice-related values, finding them more deserving of their fate. In other words, when primed with justice-related values, participants who strongly endorse just-world beliefs appear to engage in system justification to a greater degree, resulting in more negative reactions to the victim. On the other hand, individuals low in endorsement of just-world beliefs, when primed with justice-related values, tended to show lower levels of victim blame and derogation, finding the victim less deserving of their fate. Among these participants, it appears that priming justice-related values may

remind them of their beliefs that the world is not just, resulting in responding more positively to the victim (i.e., lowering the tendency to system-justify).

This work also adds to the overall program of research by examining the role of system justification motives (in this case, just-world beliefs) in a situation where these beliefs had not been directly threatened (unlike Studies 1-3). As was reviewed, the description of Tom in the vignette was designed to be ambiguous as to whether he was a good or bad person, thus it was unclear whether a just world had been violated. Although it is possible this ambiguity produced some level of threat on its own, people are often faced with situations where they have to make a judgment about another's circumstances without having information that would allow them to judge the individual's character. These studies help address the role of system justification related motives in situations where it is unclear whether justice-related beliefs have been violated.

### **Limitations and Future Directions**

Despite showing initial evidence that just-world beliefs can moderate priming effects on judgments, a number of questions remain. First, one could argue that because participants were exposed to the value prime manipulation prior to completing the measure of endorsement of just-world beliefs, the manipulation may have resulted in differences in the extent that participants report endorsement of just-world-beliefs. Such an effect would be reflected in a difference in participants' endorsement of just-world beliefs scores differing by the value prime. However, the results of an independent *t*-test revealed that the prime did not create differences in participants' endorsement of just-world beliefs scores in Study 4 ( $M_{control} = 27.8$ ,  $SD = 7.1$ ;  $M_{justice} = 28.9$ ,  $SD = 6.1$  for high,  $t(80) = -.76$ ,  $p = .45$ ) or Study 5 ( $M_{control} = 28.5$ ,  $SD = 7.1$ ;  $M_{justice} = 27.8$ ,  $SD = 6.7$ ,

$t(89) = .50, p = .62$ ). Thus, across both studies, the justice prime did not influence endorsement of just-world beliefs. Therefore, while possible, it is unlikely that the prime influenced participants' endorsement of just-world beliefs.

Another question revolves around the mechanism behind the effects of the prime. Studies 4 and 5 suggest that participants both low and high in endorsement of just-world beliefs are sensitive to the justice prime, but the prime leads participants to form judgments of the same information in different directions depending on adherence to the belief in a just world. Although the results from Studies 4 and 5 cannot directly speak to the issue of mechanism, how one of a number of processes may be occurring is addressed below.

First, the mechanism may be the typical assimilation and contrast effects seen in many priming studies (see DeCoster & Claypool, 2004 for a review). That is, participants high in endorsement of just-world beliefs may have their judgments assimilated in a direction consistent with the justice prime. This assimilation results in increases in victim blame and derogation seen in the present studies among those who strongly endorse just-world beliefs. However, participants low in endorsement of just-world beliefs may have their judgments contrasted away from the justice prime, which is reflected in their judgments being less harsh than in the control group. Of course, the above explanation assumes that participants' definitions of justice are consistent across participants' levels of endorsement of just-world beliefs. That is, activation of the same semantic content associated with the concept of justice would have to occur in order for participants high in endorsement of just-world beliefs to have their judgments become more consistent with the prime, while others low in endorsement of just-world beliefs

have their judgments become inconsistent with the prime (Higgins, Rholes, & Jones, 1977).

Alternatively, the results from the present studies could be the result of assimilation for participants both low and high in endorsement of just-world beliefs. Exposure to the justice-related prime may create a context where the meanings of justice are even more salient and more likely to guide subsequent judgments. Exposure may also magnify the interpretation of the concepts associated with the prime, which would lead to the effects found in Studies 4 and 5. Based on this reasoning, it is expected that participants would perceive justice differently depending on the combination of their endorsement of just-world beliefs scores and the justice prime.

Participants low in endorsement of just-world beliefs were expected to be more likely to endorse concepts of fairness and equality following the justice rather than neutral prime. On the other hand, participants high in endorsement of just world-beliefs were expected to be less likely to endorse concepts of fairness and equality following the justice prime rather than the neutral prime. In other words, if it is the case that justice may mean different things to different people depending on their level of endorsement just-world beliefs (as in Lucas et al., 2007), participants low in endorsement of just-world beliefs, when primed with the justice-related values, may also be assimilating to the justice prime, but the content associated with justice may be different from that for participants high in endorsement of just-world beliefs. This effect may be seen as the judgments of equality and fairness for participants low in endorsement of just-world beliefs being even more extreme in the direction of fairness and equality than in the opposite direction where they would be contrasting with justice.

To test this possibility, 181 participants first completed the global beliefs in a just world scale (Lipkus, 1991) and then completed either the justice prime or neutral prime word meaning task used in Studies 4 and 5. Following the prime, participants were presented with the word “Justice” and were asked to rate how much of their view of justice was related to the words “fairness” and “equality” on a 9 point scale (1 = *inconsistent with my idea of justice*; 9 = *consistent with my idea of justice*). The two scores were correlated ( $r = .57, p < .01$ ) and were averaged to create a single index.

The overall fit for the model predicting perceptions of justice [ $R^2 = .12, F(3, 177) = 4.93, p < .01$ ] was significant, indicating that it was appropriate to examine the hypothesized interaction. The results of the 2(Prime: neutral vs. justice) X Endorsement of just-world beliefs score regression revealed the predicted interaction [ $b = -.27, t(177) = -3.57, p < .01, sr^2 = .08$ ]. Participants low in endorsement of just-world beliefs rated justice as more consistent with the concepts of fairness and equality in the justice-prime ( $M = 6.6, SD = 1.3$ ) than in the neutral prime ( $M = 5.8, SD = 1.3$ ) conditions, [ $b = -.21, t(177) = 2.62, p < .01$ ]. In contrast, among participants who strongly endorse just-world beliefs, there was no difference in perceptions of justice between the justice ( $M = 6.2, SD = 1.5$ ) and neutral prime ( $M = 6.9, SD = 1.4$ ) conditions, [ $b = -.16, t(177) = -1.49, p = .14$ ], but the predicted scores are in a direction consistent with justice being less consistent with fairness and equality in the prime than control conditions. Thus, it appears that the justice prime changed the relation between just-world beliefs and participants’ perceptions of justice, suggesting this as a possible mechanism for the results found in Studies 4 and 5. Future work should examine this possibility in more detail.

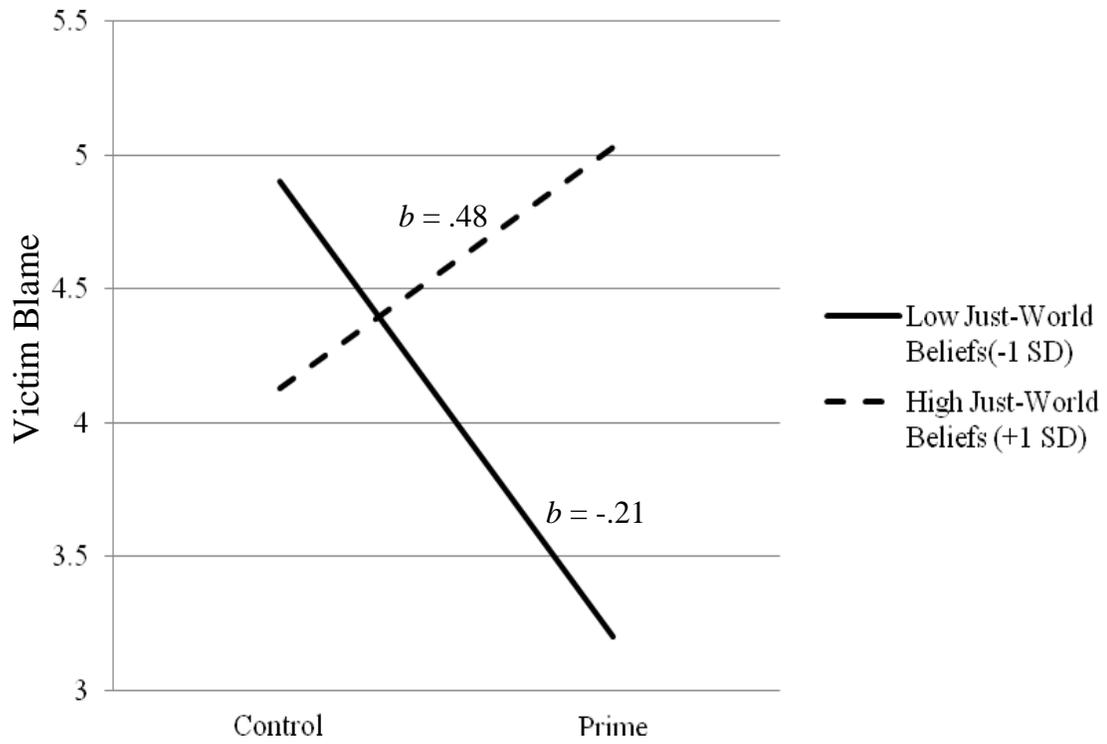


Figure 7. Individual differences in just-world beliefs as a moderator of the effect of prime condition on victim blame - Study 4.

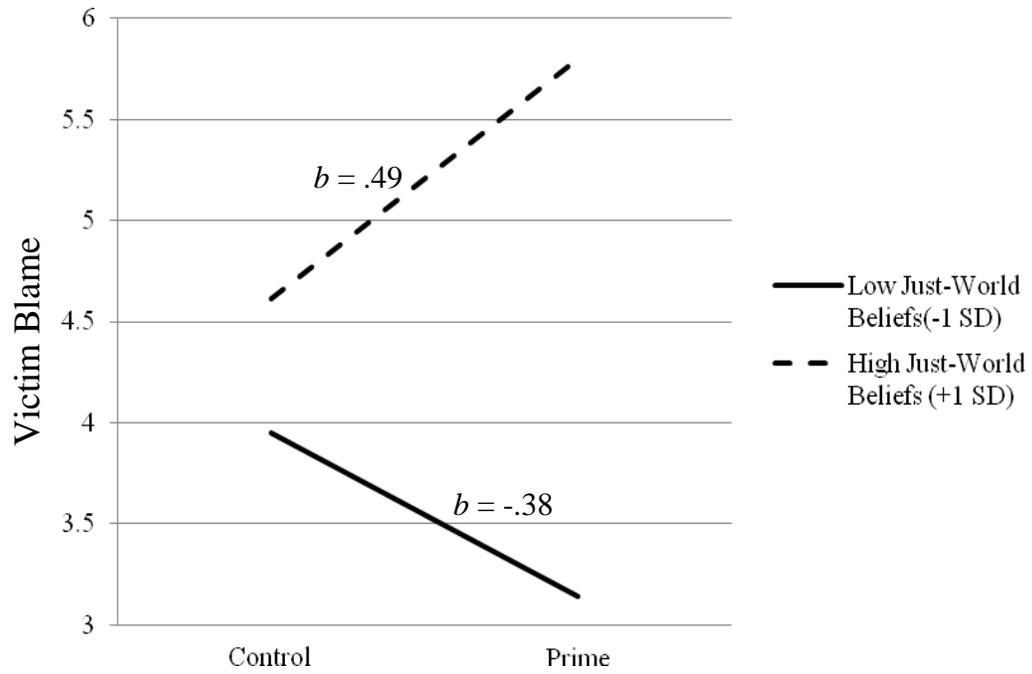
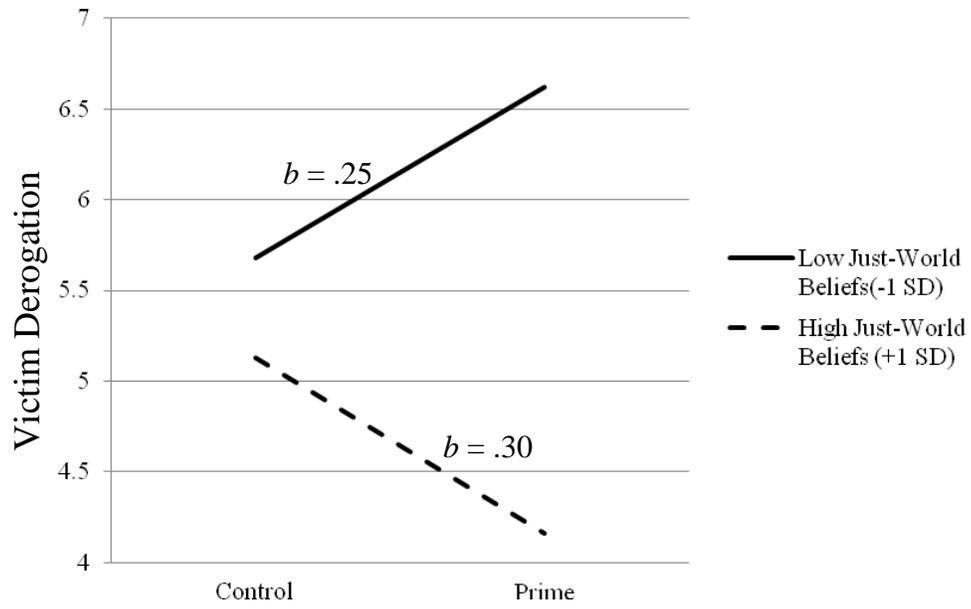


Figure 8. Individual differences in just-world beliefs as a moderator of the effect of prime condition on victim blame - Study 5.



*Figure 9.* Individual differences in just-world beliefs as a moderator of the effect of prime condition on victim derogation - Study 5.

## CHAPTER 7: GENERAL DISCUSSION

The primary goal of the five studies presented was to utilize a motivated reasoning perspective to help advance research on work ethic and just-world beliefs. Specifically, system justification theory was utilized to help understand the effects of work ethic and just-world beliefs on prejudice, discrimination, and victim blame. Together these studies examine reactions to individuals in a wide variety of situations, including applying for a job, seeking healthcare assistance, and having been laid off from a job. Across these situations, I examined what role work ethic and just-world beliefs play in responses to these individuals, ranging from prejudice and discrimination based on race or sexual orientation, to victim blame, even when group membership is unknown.

### **Summary of Results**

Study 1 explored the potential moderating role of work-ethic beliefs and applicant race in responses to an individual applying for a job. As predicted, among participants low in endorsement of work-ethic beliefs, only resume quality influenced their thoughts and impressions in response to the applicant, such that they responded more positively when resume quality was high. On the other hand, among those high in endorsement of work-ethic beliefs, when resume quality was low these participants reported more negative thoughts and impressions in response to the Black, rather than White, applicant. These results were consistent with the study hypotheses such that participants high in endorsement of work-ethic beliefs appear to have used the applicants race to justify more negative reactions to the Black applicant when resume quality was low.

As reviewed in Chapter 4, this pattern of effects only occurred for participant's thoughts and impressions. One possible explanation for this is that there may be

competing motives influencing participants' reactions. For example, those low in endorsement of work-ethic beliefs may have reported greater support for hiring the Black, rather than White, applicant when resume quality was low because of their beliefs that hard work does not always lead to outcomes consistent with one's efforts (i.e., their awareness that the system is not just). Among those high in endorsement of work-ethic beliefs, it's possible that another competing motive, such as the motivation to control prejudiced responses, stopped these participants from letting their more negative thoughts and impressions for the Black applicant (when resume quality was low) influence their support for hiring.

Studies 2 and 3 examined reactions to individuals applying for a free prescription drug coverage program based on the applicant's sexual orientation (Gay vs. Heterosexual male), how infection occurred (Controllable vs. Uncontrollable), participant's beliefs regarding whether sexual orientation is a choice (Studies 2 and 3), and motivation to control prejudice (Study 3). In Study 2, when infection was uncontrollable (i.e., exposure to infected medical equipment) participants who believe that sexual orientation is a choice reported less support for admission to the prescription drug coverage program when the applicant was gay, rather than heterosexual. In other words, when infection was uncontrollable, it appears that these participants used the applicant's sexual orientation (when the applicant was gay) to justify why infection occurred. Study 3 found that this effect was moderated by motivation to control prejudiced responses such that these participants only responded more negatively to the gay (vs. heterosexual) applicant whose infection was uncontrollable when they were also low in motivation to

control prejudice. In other words, it appears that the motivation to control prejudice overrode any system-justifying motives (i.e., maintenance of just-world beliefs).

Finally, Studies 4 and 5 examined the effects of individual differences in endorsement of just-world beliefs and priming justice-related values (vs. a control) on reactions to an individual who had been laid off from their job. As reported, these studies found that priming justice-related values among those who are high in endorsement of just-world beliefs resulted in increased system-justifying tendencies (i.e., victim blame and derogation). On the other hand, among those low in endorsement of just-world beliefs, priming justice-related values resulted in reduced victim blame and derogation, indicating that the prime may have increased participant's awareness of their belief that the world is not just, resulting in more positive reactions to the victim. Additionally, Studies 4 and 5 added to Studies 1-3 by examining the role of system justification related motives in a situation where justice-related concepts had not been directly threatened (i.e., it was ambiguous as to if the individual deserved their fate).

### **Limitations and Future Directions**

Although this work adds to current understanding of the role of motivated reasoning when making judgments of others, there are limitations to the current work and many ways this research could be expanded upon. Probably the biggest limitation is that the link between system justification and both work ethic and just-world beliefs was not directly tested. Based on previous research and theorizing that suggests that individual differences in endorsement of work ethic and just-world beliefs reflect differences in people's motivation to justify the system (i.e., Jost & Hunyady, 2005), I utilized a system justification perspective to derive study hypotheses, but the general motive to justify the

system was not directly measured. Future work should directly test the link between the motive to justify the system and individual differences in work ethic and just-world beliefs.

One way to address this question would be to test whether individual differences in the motive to justify the system would mediate of the effects of work ethic and just-world beliefs on responses to individuals facing various negative outcomes (i.e., using the method outlined by Baron and Kenny, 1986). If individual differences in the general motive to justify the system mediated these effects, it would support the idea that work ethic and just-world beliefs are in fact types of system-justifying motives.

Another route to testing the mediational role of individual differences in system justification would be to a two study experimental approach as outlined by Spencer, Zanna, and Fong (2005). Specifically, they argue that in cases where it is easily possible to measure and manipulate the proposed mediating process (in this case, system justification), it is advantageous to use a two-study experimental approach to test for mediation. The first study would test whether the original manipulated independent variable (i.e., threat to just-world beliefs as in Studies 2) affects the hypothesized mediator (i.e., individual differences in system justification). The second study would then manipulate the hypothesized mediator (e.g., manipulating the need to justify the system as in Study 2) and test its effect on the dependent variable (i.e., support for admittance to the prescription drug coverage program). The key to this approach is that the researcher has to establish that both the measurement and manipulation of the mediator is tapping into the same variable, which can present a challenge. However, the

main advantage to this approach is that it includes experimentally manipulating, rather than simply measuring, the potential mediator in an attempt to test causality.

Future work may also want to examine the role of individual differences in the motive to justify the system as well as system justification associated motives on reactions to members of other disadvantaged groups (i.e., women) as well as individuals known to have advantaged group status (i.e., white males). Examining the role of these motives may be particularly interesting when considering responses to women who face various negative circumstances. For example, it seems likely that those prone to system justifying tendencies would be more likely to respond negatively to a woman who had been laid off from her job when the job was a non-traditional female occupied role (i.e., construction worker) rather than traditional role (i.e., nurse). Responding more negatively to (i.e., blaming) a woman in a non-traditional role who loses that position may serve to support and justify the system where certain roles remain male dominated.

Another area that future work may want to examine is how different motives interact, including what other motives (in addition to the motive to avoid prejudiced responses) may reduce or intensify the motive to system-justify. For example, it seems likely that those high in preference for consistency would be more prone to system justifying tendencies due to the fact that by justifying the system one is able to defend against arguments for change, thereby maintaining consistency. The first step would be to measure individual differences in preference for consistency and system justification. If the two are in fact moderately to strongly correlated, the next step would be to test whether individuals high in preference for consistency are more prone to justify the system through actions such as victim blame. For example, a paradigm similar to Study

3 could be utilized, with preference for consistency as the potential moderator of the effects of applicant sexual orientation and method of disease transmission on support for admittance to the prescription drug coverage program. Here it would be expected that when infection was uncontrollable, participants high in preference for consistency would be less likely to support admittance when the applicant was gay, rather than heterosexual, and that this effect would be more pronounced than among those low in preference for consistency.

I believe the current work represents a first step in demonstrating the utility of a motivated reasoning perspective in examining the effects of both work ethic and just-world beliefs in how people process information about others. However, as noted in Chapter 1, I believe there are several areas that could benefit from this motivated reasoning perspective that have not yet been explored. For example, some of the differences in how people prefer to process information that are discussed in Chapter 2, including preference for consistency and tolerance for ambiguity, have to my knowledge yet to have been examined from this motivated reasoning perspective. Future research may benefit from utilizing a motivated reasoning perspective in examining the effects of individual difference factors such as these in a wide variety of domains, such as person perception, judgment and decision making, and political behavior.

Finally, future work may want to how the motive to justify the system influences outcomes outside of responses to victims of negative circumstances. For example, although previous work has examined the relationship between individual differences in the motive to justify the system and political ideology (e.g., Jost et al., 2003a), to my knowledge no research has examined how manipulating the extent that this motive is

active (i.e., through primes) may influence justice-related outcomes, such as voting behavior.

## **Conclusion**

Together the five studies presented here utilize a motivated reasoning perspective to help examine various factors that contribute to prejudice, discrimination, and victim blame. Specifically, based on previous work suggesting that work ethic and just-world beliefs are forms of system-justifying motives, system justification theory was utilized to predict the role of work ethic and just-world beliefs on how people form impressions and make judgments about others. Although future work should test for a direct link between system justification and both work ethic and just-world beliefs, the present work represents an important first step by examining the effects of these beliefs from a system justification perspective.

In addition to helping understand the role of motivated reasoning in how information is processed, the results of the current work raise important questions as to what effect the desire to justify the system can have on how individuals respond to members of disadvantaged groups (e.g., gay men) or individuals facing negative life circumstances (e.g., job loss). For example, Studies 2 and 3 examining reactions to people living with HIV/AIDS shed light on a potentially serious issue for health care providers. Given the importance of quality healthcare in order to prevent serious complications for people living with HIV/AIDS, it is important to insure that stigma and bias do not influence patient care. Health care providers should be aware of how attitudes regarding sexual orientation (including beliefs regarding sexual orientation as a choice) and method of disease transmission can influence how people respond to people

living with HIV/AIDS. With this knowledge, they can design programs aimed at preventing bias from influencing patient care. For example, it may be advisable to keep information that can trigger bias out of patient records, such as how infection occurred, and employers could implement training programs with the goal of increasing motivation to avoid prejudice and bias with patients.

In sum, the current work helps demonstrate the important role that motives can have on how people process information about others, including in situations where judgments formed can seriously influence outcomes for another, such as when determining whether someone should receive a job or healthcare assistance. Although the research presented here didn't directly test the link between system justification and both work ethic and just-world beliefs, it presents an important first step by utilizing system justification theory to guide relevant predictions. Future work should attempt to directly test the proposed link, as well as also focus on examining how additional motives can influence how information is processed, including how these motives may interact to influence behavior.

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**APPENDIX A: WORK-ETHIC BELIEFS AND HIRING – STUDY MATERIALS****Work Ethic Beliefs and Hiring: Study Instructions**

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**VERY IMPORTANT --- PLEASE READ  
CAREFULLY**

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First, you will review a resume for a person applying for an office manager position. If this person is hired, they will manage approximately 10 employees, monitoring employee productivity. Additionally, they will be responsible for recruitment and training of new employees. Please think carefully about the applicant's qualifications for this position of office manager while reviewing the resume. You will be asked about this information later.

## Work Ethic Beliefs and Hiring: Low Quality Resume

██████████, Des Moines, IA 50317 • 515-450-██████ • ██████████@gmail.com

### Experience

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08/2008 - Current      Applebee's      Des Moines, IA  
**Server**

Greeted guests at their tables, received their orders, and provided fast and courteous service. Made sure to observe tables carefully in order to meet every customers' needs.

---

07/2007 – 08/2008      McDonalds      Des Moines, IA  
**Cashier/Cook**

Primary duties included operating a register, counting down tills at the end of shifts, preparing meals for customers, including sandwich preparation and operating the fryer.

---

05/2007 – 07/2007      Red Lobster      Des Moines, IA  
**Host**

Greeted guests, showed them to their tables, and provided menus. Coordinated seating in the dining area to ensure fast and courteous service. Scheduled reservations and prepared for large groups.

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### Education

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**AA in Business Administration from Northeast Iowa Community College, 2007**

- GPA 3.23

### References

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References are available on request.

## Work Ethic Beliefs and Hiring: High Quality Resume

██████████, Des Moines, IA 50317 • 515-450-██████████ • ██████████@gmail.com

### Experience

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08/2008 - Current      Applebee's      Des Moines, IA

#### **Restaurant Manager**

Directed restaurant operations, including employee scheduling and setting/obtaining sales goals. Duties also included employee training, managing customer relations, and monitoring food quality to ensure a positive dining experience for every guest.

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07/2007 – 08/2008      McDonalds      Des Moines, IA

#### **Shift Supervisor**

Primary duties included operating a register, counting down tills at the end of shifts, monitoring other employees, and ensuring that the grill area was performing quickly and efficiently.

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05/2007 – 07/2007      Red Lobster      Des Moines, IA

#### **Management Internship**

Experience in all areas of the restaurant, including working at least one shift in each crew member position (such as wait staff, cook, and bartender) in addition to observing and working with management. Had the opportunity to manage a group of employees under the guidance of an experienced manager. Training in effectively interacting with customers, employees, and higher-level management.

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### Education

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#### **BA in Management from Iowa State University, 2007**

- GPA 3.73
- Graduated with Distinction

### References

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References are available on request.

## Work Ethic Beliefs and Hiring: Thought Listing Task Instructions

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Thought listing task:

We are also interested in what you were thinking about while reviewing the resume. On the remainder of this page are lines provided for your thoughts and ideas. Write down the first idea that comes to your mind on the first line; begin on a separate line for the second thought/idea, a separate line for the third idea, etc. You should only try to write down only those ideas you were thinking about while reviewing the resume. Please write your thoughts and ideas as complete as possible...a phrase is sufficient. Don't worry about spelling and grammar. We have provided more space than we think most people will need to ensure that everyone would have plenty of room to write all of their ideas down, so don't worry if you don't fill every line. Please be completely honest and list all of the thoughts you had.

---

## Work Ethic Beliefs and Hiring: Resume Quality Ratings (Manipulation Check)

Please answer the following questions about the quality of the resume you reviewed:

1.) Using the scale below please rate the quality of the resume

Very low quality						Very high quality
1	2	3	4	5	6	7

2.) How do you think this resume rates in comparison to an average resume?

Significantly below average						Significantly above average
1	2	3	4	5	6	7

### Work Ethic Beliefs and Hiring: Impressions and Hiring Recommendations

Now that you reviewed the applicant's materials, please answer the following questions.

In general, how good or bad of an employee do you think the applicant might be?

Bad						Good
1	2	3	4	5	6	7

In general, how positive or negative would you say your impression of the applicant is?

Very negative						Very positive
1	2	3	4	5	6	7

How favorable or unfavorable is your impression of the applicant?

Very unfavorable						Very favorable
1	2	3	4	5	6	7

Please indicate the extent to which you agree or disagree with the following statements:

1.) I would recommend hiring this applicant.

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

2.) This applicant is qualified for the job position described.

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

3.) Hiring this applicant would be a risk for the employer.

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

### Work Ethic Beliefs and Hiring: Protestant Work Ethic Scale

Please indicate the extent to which you agree with the following statements. Use the scale provided.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

1. Most people spend too much time in unprofitable amusements.
2. Our society would have fewer problems if people had less leisure time.
3. Money acquired easily is usually spent unwisely.
4. Most people who don't succeed in life are just plain lazy.
3. Anyone who is willing and able to work hard has a good chance of succeeding.
6. People who fail at a job have usually not tried hard enough.
7. Life would have very little meaning if we never had to suffer.
8. The person who can approach an unpleasant task with enthusiasm is the person who gets ahead.
9. If people work hard enough they are likely to make a good life for themselves.
10. I feel uneasy when there is little work for me to do.
11. A distaste for hard work usually reflects a weakness of character.

**Work Ethic Beliefs and Hiring: Demographics and Manipulation Check**

Please complete the following questions:

What is your age? \_\_\_\_\_

What is your sex? Male Female

What is your class level? Freshman Sophomore Junior Senior Graduate

What is your ethnicity?

White African-American Hispanic/Latino Asian/Asian American Native American  
Biracial Other

Is English your first language? Yes No

How would you describe your socio-economic status?

Lower Class Lower-Middle Class Middle Class Upper-Middle Class Upper Class

How would you describe your political ideology?

Very Conservative Conservative Middle of the road Liberal Very Liberal

What political party, if any, are you a member of?

Democrat Republican Independent Green Other None

In the study that you just completed, what was the job applicant's race?

White African-American

**APPENDIX B: JUST-WORLD BELIEFS AND ATTITUDES TOWARD PEOPLE  
LIVING WITH HIV/AIDS – STUDY MATERIALS**

**Just-World Beliefs and Attitudes toward People Living with HIV and AIDS: Study  
2 Vignettes**

**Exposure to Infected Medical Equipment: Low Onset Controllability**

**Condition**

Mike is a 25-year-old (*gay/heterosexual*) male recently diagnosed with HIV, the virus that leads to AIDS. *Mike became infected with HIV while working at a hospital where he was accidentally stuck with a needle that had been used on an HIV positive patient.* Mike does not have health insurance to pay for prescriptions needed to slow the progression of the disease so he is applying to a program that provides free prescription drug coverage for people with HIV and AIDS. However, the program has very limited funding and cannot accept everyone who applies.

**Infection through Unsafe Sex: High Onset Controllability Condition**

Mike is a 25-year-old (*gay/heterosexual*) male recently diagnosed with HIV, the virus that leads to AIDS. *He believes that he was exposed to HIV when he chose to have unprotected sex with someone he later learned was HIV positive.* Mike does not have health insurance to pay for prescriptions needed to slow the progression of the disease so he is applying to a program that provides free prescription drug coverage for people with HIV and AIDS. However, the program has very limited funding and cannot accept everyone who applies.

*Note.* Text in italics is manipulated across conditions.

**Just-World Beliefs and Attitudes toward People Living with HIV and AIDS:**

**Questions Regarding Admittance to the Prescription Drug Coverage Program**

**(Study 2)**

Please indicate how much you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree Somewhat	Neither agree nor disagree	Agree Somewhat	Strongly Agree
1. Mike should be admitted to the program for prescription drug coverage.	1	2	3	4	5
2. Other people deserve to be admitted to the prescription drug program more than Mike	1	2	3	4	5
3. Mike deserves to receive free prescription drug coverage.	1	2	3	4	5

**Just-World Beliefs and Attitudes toward People Living with HIV and AIDS:**

**Questions Regarding Admittance to the Prescription Drug Coverage Program**

**(Study 3)**

Please indicate how much you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. Mike should be admitted to the program for free prescription drug coverage.	1	2	3	4	5
2. Mike deserves to receive free prescription drug coverage.	1	2	3	4	5
3. Others deserve free prescription drug coverage more than Mike.	1	2	3	4	5
4. Admitting Mike to the free prescription drug coverage program would be wrong.	1	2	3	4	5
5. Mike is entitled to receive free prescription drug coverage.	1	2	3	4	5

### Just-World Beliefs and Attitudes toward People Living with HIV and AIDS:

#### Attitudes toward Gay Men (Studies 2 and 3)

Below are 10 statements regarding gay men. Please read each statement and decide to what extent you agree or disagree with it, then circle the corresponding number to the right of the statement.

	Strongly Disagree	Disagree Somewhat	Neither agree nor disagree	Agree Somewhat	Strongly Agree
1. Male homosexual couples should be allowed to adopt children the same as heterosexual couples	1	2	3	4	5
2. I think male homosexual couples are disgusting	1	2	3	4	5
3. Male homosexual couples should not be allowed to teach school	1	2	3	4	5
4. Male homosexuality is a perversion	1	2	3	4	5
5. Male homosexuality is a natural expression of sexuality in men	1	2	3	4	5
6. If a man has homosexual feelings, he should do everything he can to overcome them	1	2	3	4	5
7. I would not be too upset if I learned that my son was a homosexual	1	2	3	4	5
8. Sex between two men is just plain wrong	1	2	3	4	5
9. The idea of male homosexual marriages seems ridiculous to me	1	2	3	4	5
10. Male homosexuality is merely a different kind of lifestyle that should not be condemned	1	2	3	4	5

**Just-World Beliefs and Attitudes toward People Living with HIV and AIDS: Beliefs**

**Regarding Sexual Orientation as a Choice (Study 2)**

Please circle whether you believe the following statement is true or false:

1. Sexual orientation is a choice      True      False

**Just-World Beliefs and Attitudes toward People Living with HIV and AIDS: Beliefs**

**Regarding Sexual Orientation as a Choice (Study 3)**

Please indicate how much you agree or disagree with each of the following statements:

	Strongly Disagree	Disagree Somewhat	Neither agree nor disagree	Agree Somewhat	Strongly Agree
1. Gay men choose to be gay.	1	2	3	4	5
2. Gay men have little control over their sexual orientation.	1	2	3	4	5
3. Gay men can become heterosexual if they try hard enough.	1	2	3	4	5

**Just-World Beliefs and Attitudes toward People Living with HIV and AIDS:**

**Demographic Information and Manipulation Check (Study 2)**

Please complete the following demographic questions:

Age: \_\_\_\_\_

Sex: Male Female

Sexual Orientation: Heterosexual Lesbian or gay male Bisexual Other

Are you a college student? Yes No

If yes what is your class level? Freshman Sophomore Junior Senior Graduate

Do you know a friend, family member, or good acquaintance who is HIV+ or has AIDS?

Yes No Do not wish to answer

Do you know someone else who is HIV+ or has AIDS?

Yes No Do not wish to answer

Do you know someone who has died from AIDS?

Yes No Do not wish to answer

Are you HIV+ or have AIDS?

Yes No Do not wish to answer

In the past four years have you had sexual intercourse\* with a person of the opposite sex?

Yes No Do not wish to answer

In the past four years have you had unprotected sex\* with a person of the opposite sex?

Yes No Do not wish to answer

In the past four years has anyone coerced or forced you to have sex?

Yes No Do not wish to answer

In the past four years have you had sexual intercourse with a person of the same sex?

Yes No Do not wish to answer

In the past four years have you had unprotected sex with a person of the same sex?

Yes No Do not wish to answer

Have you ever been tested for HIV?

Yes No Do not wish to answer

Have you ever been tested for a sexually transmitted disease?

Yes No Do not wish to answer

Have you ever worried that you may have gotten HIV from someone?

Yes No Do not wish to answer

\*Sexual intercourse and sex above includes both vaginal and/or anal intercourse.

Please answer the following questions about the person described in the vignette:

What is Mike's sexual orientation? Heterosexual Gay Bisexual Not sure

How did Mike become infected with HIV?

Unprotected sex Exposure to infected medical equipment Not sure

**Just-World Beliefs and Attitudes toward People Living with HIV and AIDS:**

**Demographic Information and Manipulation Check (Study 3)**

Please complete the following demographic questions:

What is your age? \_\_\_\_\_

What is your sex? Male Female

What is your class level? Freshman Sophomore Junior Senior Graduate

What is your ethnicity?

White African-American Hispanic/Latino Asian/Asian American Native American  
Biracial Other

How would you describe your socio-economic status?

Lower Class Lower-Middle Class Middle Class Upper-Middle Class Upper Class

How would you describe your political ideology?

Very Conservative Conservative Middle of the road Liberal Very Liberal

What political party, if any, are you a member of?

Democrat Republican Independent Green Other None

What is your sexual orientation? Heterosexual Lesbian or gay male Bisexual Other

What is your marital status? Single Married Domestic Partnership or Civil Union  
Separated Divorced

Do you have children? Yes No

Do you have health insurance? Yes No Unsure

Do you support the movement for a public health care option? Yes No Unsure

Do you support President Obama's push for health care reform? Yes No Unsure

Do you know a friend, family member, or good acquaintance who is HIV+ or has AIDS?

Yes No Do not wish to answer

Do you know someone else who is HIV+ or has AIDS?

Yes No Do not wish to answer

Do you know someone who has died from AIDS? Yes No Do not wish to answer

Are you HIV+ or have AIDS? Yes No Do not wish to answer

In the past four years have you had sexual intercourse with a person of the opposite sex?

Yes No Do not wish to answer

In the past four years have you had unprotected sex with a person of the opposite sex?

Yes No Do not wish to answer

In the past four years have you had sexual intercourse with a person of the same sex?

Yes No Do not wish to answer

In the past four years have you had unprotected sex with a person of the same sex?

Yes No Do not wish to answer

Have you ever been tested for a sexually transmitted disease?

Yes No Do not wish to answer

Have you ever been tested for HIV? Yes No Do not wish to answer

Have you ever worried that you may have gotten HIV from someone?

Yes No Do not wish to answer

**Please answer the following questions about the person described in the vignette:**

What is Mike's sexual orientation? Heterosexual Gay

How did Mike become infected with HIV? Unprotected Sex Blood Transfusion

**APPENDIX C: JUST-WORLD BELIEFS, JUSTICE RELATED PRIMES, AND  
VICTIM BLAME – STUDY MATERIALS**

**Just-World Beliefs, Justice Related Primes, and Victim Blame: Value Priming Task  
(Studies 4 and 5)**

This brief study is related to word meaning. Communication is a complicated process and even simple words can have slightly different meanings to people. The current study is interested in how people think about particular words, or what those words mean to people. On this page, you will be presented with a series of words, and each word will be followed by three other words that were similar to the first word. Your task is to read each word carefully and circle one of the three following words seem most similar to the first word. Please keep in mind that there are no right or wrong answers—all of the three words are similar to the first word—and you are simply to indicate which of those words seems most similar to you.

**Blend**

- a) mix
- b) combine
- c) infuse

**Equality**

- a) balance
- b) fairness
- c) impartiality

**Justice**

- a) compensation
- b) evenness
- c) truth

**Common**

- a) average
- b) natural
- c) simple

**Table**

- a) bench
- b) agenda
- c) put aside

**Entitlement**

- a) merits
- b) right
- c) liberty

**Prepare**

- a) develop
- b) formulate
- c) plan

## Just-World Beliefs, Justice Related Primes, and Victim Blame: Neutral Priming

### Task (Studies 4 and 5)

This brief study is related to word meaning. Communication is a complicated process and even simple words can have slightly different meanings to people. The current study is interested in how people think about particular words, or what those words mean to people. On this page, you will be presented with a series of words, and each word will be followed by three other words that were similar to the first word. Your task is to read each word carefully and circle one of the three following words seem most similar to the first word. Please keep in mind that there are no right or wrong answers—all of the three words are similar to the first word—and you are simply to indicate which of those words seems most similar to you.

#### Blend

- a) mix
- b) combine
- c) infuse

#### Common

- a) average
- b) natural
- c) simple

#### Home

- a) house
- b) city
- c) family

#### Table

- a) bench
- b) agenda
- c) put aside

#### March

- a) month
- b) parade
- c) step

#### Prepare

- a) develop
- b) formulate
- c) plan

#### Hammer

- a) tool
- b) nail
- c) saw



### Just-World Beliefs, Justice Related Primes, and Victim Blame: Victim Blame

#### (Study 5)

*Instructions:* Please provide your opinion of Tom using the scales provided below.

In your view, how responsible was Tom for his current job status?

1	2	3	4	5	6	7	8	9
<i>Not at all</i>							<i>Very much</i>	
<i>Responsible</i>							<i>Responsible</i>	

How much do you feel Tom's current job status was the result of Tom's own doing?

1	2	3	4	5	6	7	8	9
<i>Very little</i>							<i>A great deal</i>	

### Just-World Beliefs, Justice Related Primes, and Victim Blame: Victim Derogation

#### (Study 5)

*Instructions:* Now that you have read about Tom, we would like you to rate him on a number of characteristics. Using the scale provided below, please write a number that best represents the extent to which you think Tom has the following characteristics.

1	2	3	4	5	6	7	8	9																																											
Not at all							Very																																												
Characteristic							Characteristic																																												
of Tom							of Tom																																												
___	alert	___	obnoxious	___	unintelligent	___	impatient	___	careless	___	weak	___	rational	___	resourceful	___	clear-thinking	___	dependable	___	initiative	___	self-controlled	___	confident	___	self-centered	___	irresponsible	___	determined	___	confused	___	trusting	___	kind	___	greedy	___	conscientious	___	warm	___	undependable	___	cheerful	___	hasty	___	selfish

**Just-World Beliefs, Justice Related Primes, and Victim Blame: Global Belief in a  
Just World Scale (Studies 4 and 5)**

*Instructions:* Please rate the extent to which you agree with the following statements.  
Please use the scale provided.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

\_\_\_\_\_ I feel that people get what they are entitled to have.

\_\_\_\_\_ I feel that a person's efforts are noticed and rewarded.

\_\_\_\_\_ I feel that people earn the rewards and punishments they get.

\_\_\_\_\_ I feel that people who have met with misfortune have brought it on themselves.

\_\_\_\_\_ I feel that people get what they deserve.

\_\_\_\_\_ I feel that rewards and punishments are fairly given.

\_\_\_\_\_ I basically feel that the world is a fair place.