

# “We get what we deserve”: the belief in a just world and its health consequences for Blacks

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**Abstract** This study explored whether individual differences in the endorsement of the belief that the world is a just place (i.e., the just world belief) would predict individual differences in resilience/vulnerability to the negative health consequences of discrimination. One-hundred and thirty Blacks participated in a vital check and completed a computer-based questionnaire that included measures of the just world belief, perceived discrimination, physical and mental health, and the presence/absence of chronic illnesses. Endorsement of the just world belief was not associated with self-reported physical/mental health; however, it moderated the effects of perceived discrimination on the number of chronic illnesses and systolic blood pressure. These findings suggest that Blacks who believe that the world is a just place where they get what they deserve may be at a particularly higher risk for the negative health consequences of discrimination. Theoretical and clinical implications of the findings are discussed.

**Keywords** Blacks · Perceived discrimination · Health disparities · The just world belief · Individual differences

## Introduction

The experience of discrimination is a major factor contributing to racial health disparities (Smedley et al., 2003). The associations between the experience of discrimination

and poorer physical and mental health have been well-documented (Dolezsar et al., 2014; Pascoe & Smart Richman, 2009). Research has also shown that racial minorities often experience increased blood pressure in reaction to experiences of discrimination experimentally induced in labs (see Schmitt et al., 2014), indicating a causal relationship between discrimination and health. Taken together, the evidence supporting the negative health consequences of discrimination is strong. However, not all individuals are susceptible to the negative consequences of discrimination to the same degree (Major & O’Brien, 2005). The present study aimed to identify individuals who are at a particularly higher risk for the racial health disparities attributed to the experience of racial discrimination by drawing upon social psychology theories of cultural ideologies.

## The just world belief

There are several cultural ideologies that are shared in many Western cultures, such as Protestant work ethic, meritocracy, and permeability (Jost & Hunyady, 2005; Major et al., 2002). For example, Protestant work ethic emphasizes people’s hard work for achieving success. For another example, meritocracy emphasizes a society ruled by those with education, skills, and abilities. We posit that these cultural ideologies have one commonality: they are based on an idea that the world is a just place, where people get what they deserve (e.g., a success for those who work hard and a failure for those who do not work hard) and deserve what they get (e.g., ruling power for those with abilities and skills). In other words, the belief that the world is a just place (i.e., the just world belief) underlies other cultural ideologies. According to the just world theory, people are motivated to maintain the belief in a just world because it provides stability and meaning for their lives (Hafer & Begue, 2005; Kay et al.,

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2009; Lerner & Miller, 1978). Research has further shown that the endorsement of the just world belief is associated with indices of psychological well-being, including, but not limited to, positive affect, optimism, and lower levels of depression (Dalbert, 1998; Hafer, 2000; Ritter et al., 1990; Tomaka & Blascovich, 1994).

However, prior research has also documented some negative consequences of the endorsement of the just world belief, specifically in that belief in the world as a just place legitimizes the existing status quo and social hierarchy within a society as fair and just: if the world is a just place, then those people who are at the bottom of the social hierarchy may not have been trying hard enough or talented enough to better their own circumstances (Hafer & Choma, 2009; Jost & Hunyady, 2005; Major, 1994). Consequently, a strong endorsement of the just world belief can result in increased prejudice toward and discrimination against disadvantaged social groups, including racial minorities (Connors & Heaven, 1990; Cozzarelli et al., 2001; Crandall & Martinez, 1996).

### Consequences of the just world belief among racial minorities

Given that the belief in a just world can justify negative perceptions and treatment of socially disadvantaged groups, social identity theory predicts that members of disadvantaged social groups are less likely than members of advantaged social groups to endorse the just world belief (Schmitt et al., 2003; Turner & Reynolds, 2003). However, according to system justification theory, members of disadvantaged social groups are still motivated to endorse such self-defeating beliefs (Jost et al., 2003, 2004) because people have a fundamental need for order, understanding, and control (Fiske, 2002; Kay et al., 2009; Pittman & Zeigler, 2007). Additionally, according to social dominance theory, system-justifying ideologies are also promoted and accepted as “cultural” or “dominant” ideologies in our society by both the advantaged as well as the disadvantaged in order to minimize conflict between groups (Pratto et al., 1994; Sidanius & Pratto, 1993).

#### *Psychological consequences*

As these theories suggest, there are benefits for the socially disadvantaged to endorsing the just world belief. However, research has shown that the consequences of endorsing such beliefs are more negative than positive for them. First and foremost, members of disadvantaged social groups who strongly endorse the just world belief tend to believe that discrimination against them is legitimate and to minimize the injustice happening to them (Hafer & Olson, 1989; see also Jost et al., 2004). Second, there are occasions in which even those who strongly endorse the just world belief face obvious

discrimination. In such cases, they are more likely to be threatened by the encounter than those who do not strongly endorse the belief. Such evidence comes from studies that show cultural ideologies, such as Protestant work ethic (Dover et al., 2015) and meritocracy (Major et al., 2007), are positively associated with psychological threat reactions when people face discrimination. This occurs due to at least two reasons. First, members of disadvantaged groups who strongly, as opposed to weakly, endorse such cultural ideologies are more likely to attribute their experience of negative events to internal characteristics (e.g., their lack of abilities, personality flaws), which, in turn, result in lower self-esteem (Major et al., 2003a, b). In contrast, attributing the experience of negative events to discrimination can protect individuals’ self-esteem by discounting one’s culpability in producing the negative events (Major et al., 2003a, b; see also Crocker & Major, 1989). Second, the experience of discrimination challenges their core beliefs that people are treated fairly (Major et al., 2003a, b).

#### *Physiological consequences*

Differences in the experience of psychological threats in reaction to discrimination between those who do and do not endorse certain cultural ideologies have also been found to manifest, at least temporarily, in differences in their physiological reactions. For instance, greater perceived sexism was associated with higher blood pressure for women who strongly endorsed meritocracy beliefs. In contrast, for women who did not endorse such beliefs, there was no association between perceived sexism and blood pressure (Eliezer et al., 2011). Likewise, Latino men who strongly endorsed the Protestant work ethic showed cardiovascular responses associated with threat reactions (i.e., increased total peripheral resistance and decreased cardiac output; Blascovich, 2008) when facing racial discrimination. In contrast, those who do not endorse the Protestant work ethic showed cardiovascular responses associated with challenge reactions (i.e., increased cardiac output and decreased total peripheral resistance) when facing discrimination (Dover et al., 2015). Finally, both Latinos facing racial discrimination and White women facing sexism showed greater physiological threat reactions when they strongly endorsed system-justifying beliefs, as compared to when they weakly endorsed such beliefs (Townsend et al., 2010).

### The present study

Given that the idea that the world is a just place where people get what they deserve and deserve what they get could be considered as one of the most fundamental ideas that underlie many dominant cultural ideologies in the Western culture, the

present study focused on investigating whether the endorsement of the just world belief would moderate the effects of the experience of discrimination on long-term health consequences among Blacks. We hypothesized that, among Blacks who strongly endorse the just world belief, greater experience of discrimination would be associated with poorer physical and mental health. In contrast, among Blacks who weakly endorse this belief, there would be no difference in physical and mental health between those who report experiencing more discrimination and those who report experiencing less discrimination.

The current study differs from existing research on the cultural ideologies in that it examines longer-term health consequences of the just world belief. Because repeated experiences of high blood pressure and cardiovascular responses found in the previous studies in relation to the experience of discrimination can have longer-term health consequences (Brondolo et al., 2003; McEwen & Stellar, 1993; Seeman et al., 1997), there is a likely path through which the belief in a just world influences long-term health status. The present study also adds to the growing literature of racial bias and health disparities in that it focuses on within-race disparities in reactions to discrimination. By addressing who and why some Blacks are at a particularly increased risk for the negative consequences of discrimination-driven racial health disparities, the current study provides further insight into the mechanisms underlying the discrimination-health disparities link.

## Method

### Participants

Participants were 130 self-identified Blacks (56.2 % women, age  $M = 49.21$ ,  $SD = 8.40$ ) who were recruited through flyers or purposive referral sampling (see Table 1 for their demographic characteristics) in the metropolitan area of Richmond, Virginia. The eligibility criteria were: (1) 35 years old or older; (2) self-identified as Black/African American; (3) able to come into a lab for approximately 1 hour; (4) had a permanent address and a personal phone number. There were nine participants who indicated their race as other than Black/African American (five American Indian/Alaska native, two Asian/Pacific Islander, three Caucasian/White) during the laboratory session even though they self-identified as Black/African American during the screening. These individuals were excluded from all analyses, resulting in 121 analyzable cases (57.0 % women, age  $M = 48.97$ ,  $SD = 8.58$ ).

### Procedure

Up to two participants were scheduled in a single session, which was run at two university centers that serve the com-

**Table 1** Participant characteristics

|                                  | Mean (SD) or frequency (proportion) |
|----------------------------------|-------------------------------------|
| Age                              | 49.21 (8.40)                        |
| Gender                           |                                     |
| Women                            | 69 (57.0 %)                         |
| Education                        |                                     |
| ≤8th grade                       | 5 (5.0 %)                           |
| 9th–10th grade                   | 19 (15.7 %)                         |
| 11th–12th grade                  | 17 (12.0 %)                         |
| Graduated from high school       | 19 (15.7 %)                         |
| Completed some college           | 30 (24.8 %)                         |
| Graduated from college           | 20 (16.5 %)                         |
| Completed a post graduate degree | 10 (8.3 %)                          |
| Income                           |                                     |
| ≤\$20,000                        | 52 (43.0 %)                         |
| \$20,000–\$39,999                | 25 (20.7 %)                         |
| \$40,000–\$59,999                | 28 (23.1 %)                         |
| \$60,000–\$89,999                | 8 (6.6 %)                           |
| ≥\$90,000                        | 8 (6.6 %)                           |
| Marital status                   |                                     |
| Single                           | 55 (45.5 %)                         |
| Single, but I have a partner     | 16 (13.2 %)                         |
| Married                          | 21 (17.4 %)                         |
| Divorced                         | 14 (11.6 %)                         |
| Separated                        | 9 (7.4 %)                           |
| Widowed                          | 6 (5.0 %)                           |

munity by one of nine trained Black research assistants. After consenting, participants' systolic blood pressure, diastolic blood pressure, and heart rate were assessed. Next, participants went through an assessment of pain sensitivity and tolerance. A pressure algometer was pressed behind the first knuckle of the index finger of participants' dominant hand. For pain sensitivity, participants were instructed to say "now" when they began to feel the pressure as painful. For pain tolerance, participants were instructed to say "now" when they felt that they could no longer tolerate the pain. Next, participants completed a computer-based questionnaire at their own pace. The questionnaire included a series of measures designed to assess their beliefs and attitudes, experience of discrimination, and physical and mental health. Upon completion of the questionnaire, participants underwent vital check and pain assessment again. Finally, photographs were taken for later analysis of their facial features, and participant skin tone was objectively assessed using a spectrometer. Participants were fully debriefed and then received \$40 at the end of the study. The study design and procedure were approved by the Virginia Commonwealth University IRB. In the following section, only the measures that are the focus of the present study are discussed.

## Measures

### *Perceived discrimination*

Five items were selected from two separate measures to assess personal-level discrimination (Branscombe et al., 1999; Levin et al., 2002). Example items include “I feel like I am personally a victim of society because of my race” and “I personally have been a victim of racial discrimination.” Participants responded to each item on a scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). These items were chosen over more frequently used measures in health disparities research, which tend to result in many zero values (Bastos et al., 2010; Krieger & Berkman, 2000; Williams et al., 2003), to better capture variability in perceived discrimination among Blacks. The five items have high internal consistency ( $\alpha = .84$ ). The composite score of the five items has a normal distribution in this sample, *skewness* =  $-.12$  ( $SE = .21$ ), *kurtosis* =  $-.58$  ( $SE = .42$ ).

### *Just world belief*

An eight-item Belief in Just World scale (Lipkus et al., 1996) was used to assess people’s belief in the world as a just place. Example items include “I feel that the world treats people fairly” and “I feel that people get what they deserve.” Participants’ responses to the eight items on a scale ranging from 1 (Strongly disagree) to 5 (Strongly agree) were averaged to compute a single score ( $\alpha = .81$ ).

### *Self-reported physical and mental health*

Participants’ self-reported physical and mental health during the past 4 weeks was assessed with a modified version SF-8 Health Survey (Ware et al., 2001). SF-8 consists of eight items that are each designed to assess one of the eight subscales from widely-used SF-36: general health; physical functioning; role limitations due to physical problems; pain; energy; social functioning; emotional well-being; and role limitations due to emotional problems. The first four items and the latter four items were averaged to compute a composite score for physical health ( $\alpha = .85$ ) and for mental health ( $\alpha = .76$ ), respectively. The scale ranged from 0 to 100, with higher numbers indicating better health. SF-8 has been found to be reliable and valid (Bost et al., 2007; Turner-Bowker et al., 2003).

### *Number of chronic illnesses*

Participants indicated the presence/absence of each of five chronic diseases/conditions common among US Black adults: diabetes, hypertension, cholesterol, asthma, and

cancer (Murphy et al., 2013). The presence of a given disease was coded as 1, and the absence of the disease was coded as 0. Thus, the total number of chronic illnesses ranged from 0 to 5 with higher numbers indicating *poorer* physical health.

### *Blood pressure*

Systolic and diastolic blood pressure was assessed using a Panasonic EW3109W Portable upper arm blood pressure monitor before and after the questionnaire. Because values obtained at two time points were highly correlated with one another (systolic:  $r = .73$ , and diastolic:  $r = .72$ ), the average value was computed for each type of blood pressure. It should be noted that there is evidence supporting that systolic blood pressure is considered a better indicator of cardiovascular risk than diastolic blood pressure (Strandberg & Pitkala, 2003).

## Analysis overview

The hypotheses were tested with each of the five outcomes: self-reported physical health, self-reported mental health, the number of chronic illnesses, systolic blood pressure, and diastolic blood pressure. Specifically, a series of multiple regressions was conducted to test the hypothesis with an exception of the number of chronic illnesses, for which a Poisson regression was conducted. In these analyses, a main effect of perceived discrimination, a main effect of the just world belief, and an interaction between the two variables were entered into the model. Perceived discrimination and just world belief were grand-mean-centered before entered into the model. Age, household income, and education were also included in the model as control variables as they were significantly associated with some of the outcomes. Specifically, age was associated with mental health ( $r = .18$ ,  $p = .05$ ) and the number of chronic illnesses ( $r = .21$ ,  $p = .02$ ). Household income and education were associated with physical ( $r = .21$ ,  $p = .02$  and  $r = .25$ ,  $p = .01$ , respectively) and mental health ( $r = .23$ ,  $p = .01$  and  $r = .16$ ,  $p = .08$ , respectively).

## Results

Table 2 presents descriptive statistics for major variables. Consistent with the previous research on cultural ideologies, there was a significant negative association between perceived discrimination and the just world belief: the more Blacks believed the world to be a just place, the less likely they were to report the experience of discrimination.

**Table 2** Means, SD, and correlations among the major variables

|                               | 1      | 2    | 3     | 4     | 5     | 6      | 7     |
|-------------------------------|--------|------|-------|-------|-------|--------|-------|
| Perceived discrimination      | –      |      |       |       |       |        |       |
| Just world belief             | –.50** | –    |       |       |       |        |       |
| Self-reported physical health | –.02   | .05  | –     |       |       |        |       |
| Self-reported mental health   | –.22*  | .11  | .66** | –     |       |        |       |
| Chronic illnesses             | –.07   | .19* | –.31* | –.15  | –     |        |       |
| Systolic blood pressure       | .04    | .03  | –.10  | .00   | .29** | –      |       |
| Diastolic blood pressure      | .04    | –.02 | –.13  | –.10  | .14   | .72**  | –     |
| <i>M</i>                      | 3.19   | 2.71 | 64.63 | 74.59 | 1.05  | 130.65 | 83.94 |
| <i>SD</i>                     | .95    | .70  | 21.10 | 25.61 | 1.09  | 15.89  | 10.90 |

*N* = 121

\*  $p < .05$ ; \*\*  $p < .01$

Unlike some previous studies reporting a negative association between perceived discrimination and physical health (Borrell et al., 2006; Ryan et al., 2006; Williams et al., 2003), perceived discrimination was not associated with self-reported physical health in this sample. However, there was a negative association between perceived discrimination and self-reported mental health.

### Self-reported physical health

Inconsistent with our prediction, none of the main effect of perceived discrimination ( $B = .78$ ,  $SE = 2.39$ ,  $p = .74$ ), the main effect of just world belief ( $B = 2.54$ ,  $SE = 3.34$ ,  $p = .45$ ), or the interaction between the two ( $B = -3.23$ ,  $SE = 2.51$ ,  $p = .20$ ) predicted self-reported physical health.

### Self-reported mental health

A multiple regression revealed a marginally significant main effect of perceived discrimination ( $B = -4.21$ ,  $SE = 2.30$ ,  $p = .07$ ), such that Blacks who reported experiencing higher levels of discrimination reported poorer mental health than Blacks who reported experiencing lower levels of discrimination. However, neither the main effect of just world belief ( $B = 1.12$ ,  $SE = 3.22$ ,  $p = .73$ ) nor the interaction between perceived discrimination and just world beliefs was significant ( $B = .35$ ,  $SE = 2.42$ ,  $p = .89$ ).

### The number of chronic illnesses

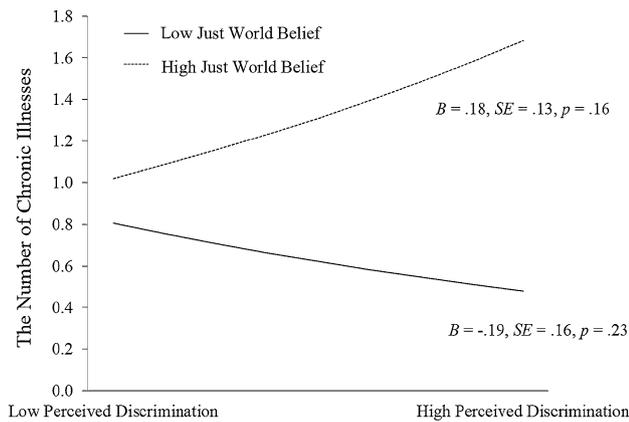
A Poisson regression revealed no main effect of perceived discrimination ( $B = -.004$ ,  $SE = .11$ ,  $p = .97$ ). However, the main effect of just world belief was significant ( $B = .37$ ,  $SE = .15$ ,  $p = .02$ ), such that Blacks who strongly endorsed the just world belief have a greater number of chronic illnesses than Blacks who weakly

endorsed the belief. This significant main effect was, however, qualified by a significant interaction between perceived discrimination and just world belief,  $B = .27$ ,  $SE = .14$ ,  $p = .05$ . In order to probe the interaction, we conducted simple slopes analyses of perceived discrimination at  $\pm 1$  *SD* from the mean on the beliefs in the just world (Fig. 1). Neither simple slopes for those who strongly nor weakly endorsed the just world belief was significantly different from zero ( $B = .18$ ,  $SE = .13$ ,  $p = .16$  and  $B = -.19$ ,  $SE = .16$ ,  $p = .23$ , respectively). However, the pattern of the findings was consistent with our prediction, such that, among Blacks who strongly endorse the just world belief, as perceived discrimination increased, the number of chronic illnesses tended to also increase. In order to further examine the significant interaction, we conducted follow-up simple slopes analyses by examining the effects of the just world belief at different levels of perceived discrimination (i.e., by treating perceived discrimination as a moderator). The analysis revealed that, among Blacks who reported high levels of perceived discrimination, as the endorsement of the just world belief increased, the number of chronic illnesses also increased ( $B = .62$ ,  $SE = .22$ ,  $p = .01$ ). In contrast, among Blacks who reported low levels of perceived discrimination, there was no association between the just world belief and the number of chronic illnesses ( $B = .13$ ,  $SE = .18$ ,  $p = .48$ ). Taken together, these findings suggest that Blacks who strongly believe that the world is a just place are more susceptible to the negative health consequences of discrimination.

### Blood pressure

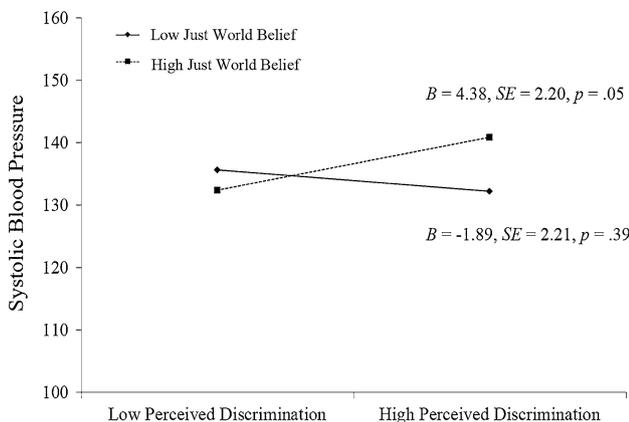
#### Systolic blood pressure

Neither the main effect of perceived discrimination ( $B = 1.24$ ,  $SE = 1.77$ ,  $p = .48$ ) nor the main effect of the just world belief ( $B = 1.97$ ,  $SE = 2.47$ ,  $p = .43$ ) was



**Fig. 1** An interactive effect of perceived discrimination and just world belief predicting the number of chronic illnesses

significant. However, consistent with our prediction, the interaction between the two was significant ( $B = 4.42, SE = 1.86, p = .02$ ). Simple slopes analyses of perceived discrimination at  $\pm 1 SD$  from the mean on just world beliefs (Fig. 2) revealed that, among Blacks who strongly endorse the just world belief, as perceived discrimination increased, systolic blood pressure also increased ( $B = 4.38, SE = 2.20, p = .05$ ). In contrast, among Blacks who weakly endorse the beliefs, there was no association between perceived discrimination and systolic blood pressure ( $B = -1.89, SE = 2.21, p = .39$ ), supporting our hypothesis. Follow-up analyses of simple slopes for the just world belief at different levels of perceived discrimination (i.e., treating perceived discrimination as a moderator) also revealed similar results. There was a trend such that, among Blacks who reported high levels of perceived discrimination, as the endorsement of the just world belief increased, systolic blood pressure also increased ( $B = 6.12, SE = 3.24, p = .06$ ). In contrast, among Blacks who reported low levels of perceived discrimination, there was no association between the just world belief and systolic



**Fig. 2** An interactive effect of perceived discrimination and just world belief predicting systolic blood pressure

blood pressure ( $B = -2.19, SE = 2.79, p = .43$ ). The findings from both sets of simple slopes analyses suggest that, as predicted, Blacks who report higher levels of discrimination and strongly believe that the world is a just place are more susceptible to higher systolic blood pressure.

*Diastolic blood pressure*

There were no main effects of perceived discrimination ( $B = .78, SE = 1.24, p = .53$ ) or the just world belief ( $B = .54, SE = 1.74, p = .76$ ) for diastolic blood pressure, nor was there an interaction between the two ( $B = .34, SE = 1.30, p = .79$ ).

**Discussion**

The evidence supporting the negative health consequences of the experience of racial discrimination is rather strong (Gee, 2002; Pascoe & Smart Richman, 2009; Williams, 1999). However, a number of studies in the literature of racial discrimination and health disparities that take into account individual differences in resilience/vulnerability to the experience of discrimination are still limited. The present study contributes to this literature by drawing upon social psychology research and theories of cultural ideologies and investigating whether differences in the endorsement of the just world belief would predict differences in resilience/vulnerability to the negative health consequences in reactions to racial discrimination among Blacks.

The findings of the present study partially supported our prediction: the number of chronic illnesses and blood pressure (particularly systolic blood pressure), but not self-reported physical and mental health assessed with the SF-8, were predicted by the interaction effect of perceived discrimination and the just world belief. More specifically, Blacks who strongly believed that the world is a just place and report experiencing high levels of discrimination were more likely than other Blacks to suffer from a greater number of chronic illnesses, as indicated by the patterns of the findings from two sets of simple slopes analyses. Turning to systolic blood pressure, among Blacks who strongly endorsed the just world belief, higher levels of perceived discrimination was associated with higher blood pressure. In contrast, among Black who weakly endorsed the just world belief, perceived discrimination and systolic blood pressure were unrelated. The number of chronic illnesses and systolic blood pressure among Blacks who reported more discrimination but weakly endorse the belief in the just world were as low as (if not lower) than among Blacks who reported less discrimination, which is indicated by the solid lines in Figs. 1 and 2. These findings suggest

that weak endorsement of the just world belief may serve as a protective factor for Blacks who experience racial discrimination. In other words, Blacks who recognize that there are injustices against them and that they are not responsible for their disadvantaged life circumstances are more resilient not only psychologically (Crocker & Major, 1989; Major et al., 2003a, b) but also physically in the current society where there is still a great amount of discrimination (Pager & Shepherd, 2008; Quillian, 2006; Sue et al., 2008). These findings are consistent with prior research investigating the effects of the dominant cultural ideologies, many of which are based on the idea that world is a just place, on temporary physiological reactions immediately following exposure to discrimination (Dover et al., 2015; Eliezer et al., 2011; Matthews et al., 2005; Townsend et al., 2010). The present study is the first, to our knowledge, to provide evidence that differences in temporary physiological reactions to discrimination between people who strongly versus weakly endorse the just world belief are also reflected in long-term chronic illnesses and systolic blood pressure among Blacks.

Why weren't there moderating effects of the just world belief on the association between perceived discrimination and self-reported health? One potential explanation for the null findings for self-reported *physical* health in the present study is that the negative consequences of perceived discrimination among those who strongly endorse the just world belief may manifest in illnesses that people are unable to physically sense on a daily basis, such as hypertension and high cholesterol. Consequently, the number of chronic illnesses or objectively assessed blood pressure might have been better able to capture the actual states of physical health than the SF-8. Additionally, the modified version of the SF-8 used in the present study was designed to assess one's physical health during a relatively short duration of time (i.e., the past 4 weeks). This may also limit our ability to capture symptoms of controllable chronic illnesses of which consequences are rather subtle and manifest during a longer-term. Turning to the null findings for self-reported *mental* health, there are several positive psychological consequences of the endorsement of the just world belief, as discussed earlier, such as fulfillment of the fundamental need for order, understanding, and control (Fiske, 2002; Kay et al., 2009; Lerner & Miller, 1978; Pittman & Zeigler, 2007). These positive psychological consequences might have canceled out the negative psychological consequences of the endorsement of the just world belief. These explanations for the null findings are speculative; thus, they should be tested in future research.

Some may argue that the present study simply replicated research on John Henryism and health (Haritatos et al., 2007; Lehto & Stein, 2013; Subramanyam et al., 2013). However, there are several critical conceptual differences

between the just world belief and John Henryism. First, John Henryism is defined as a strong *behavioral* predisposition to engage in active coping with stressors (James et al., 1983). Thus, its focus is on behavioral tendency rather than cognitive tendency (i.e., how people perceive and interpret their situations), which is the focus of the just world belief. Second, according to the John Henryism hypothesis, the negative association between socioeconomic status (SES) and hypertension would be accentuated among Blacks who endorse John Henryism because repetitive and chronic *engagement* in active coping can increase allostatic loads on the body (James et al., 1983). In contrast, according to research on system-justifying beliefs, people who strongly endorse the just world belief are at a greater risk for poorer health due to the experience of psychological threat in reaction to discrimination.

Although the present study uniquely adds to the existing health disparities research, it is not without some limitations. First, the present study did not assess potential mechanisms that underlie negative consequences of the just world belief (e.g., tendency to make an internal attribution for their misfortunes, perceptions of threats to their core beliefs). Future research should make an explicit effort to assess such mechanisms. Second, the sample in the present study was relatively small; thus, we were unable to fully examine the potential moderating effects of demographic characteristics (as opposed to simply controlling them). It is possible that the nature of moderating effects of the just world belief could be different between low versus high SES individuals, as some previous studies of John Henryism have shown (Bonham et al., 2004; Logan et al., 2014; Subramanyam et al., 2013). Finally, the cross-sectional nature of the present study does not allow us to make causal inferences among perceived discrimination, the just world belief, and health. However, as noted earlier, several previous experimental studies have already successfully established the causal relations among these three constructs by examining the *temporary* physiological threat reactions immediately following the experience of discrimination (Dover et al., 2015; Eliezer et al., 2011; Matthews et al., 2005; Townsend et al., 2010). To further strengthen the arguments for causal relations, future studies that aim to replicate the current findings with different samples or examine the association using longitudinal data are encouraged.

Despite these limitations, the present study has important theoretical implications for health disparities research. By taking into account individual differences in resilience/vulnerability to the experience of discrimination, we were able to identify individuals among Blacks who are at a particularly high risk for the negative consequences of health disparities. Such advancement in our knowledge also has clinical implications, because utilizing findings that answer the

question of “whom,” such as from the present study, will ultimately result in more efficient delivery of interventions that aim to reduce health disparities. The findings from the present study also provide some insights into the contents of potential interventions. As stated earlier, Blacks who strongly endorse the just world belief are likely to be threatened by the experience of discrimination for at least two reasons: an attribution of the experience of a negative event to internal characteristics (Crocker & Major, 1989; Major et al., 2003a, b) and a challenge to their core belief that people are treated fairly in the world (Major et al., 2003a, b). Thus, interventions should address these underlying mechanisms. More specifically, in order to address the first mechanism, interventions may focus on modifying individuals’ cognitive framing from “I am responsible for the negative events that happen to me” to “some of the negative events are due to racism, and I am not responsible for those events.” In order to address the second mechanism, intervention may also focus on educating Blacks who strongly endorse the just world belief regarding the current status of racial issues in the United States—cultivating the belief that unfair and unjust things can happen to undeserving people.

**Conflict of Interest** Nao Hagiwara, Courtney J. Alderson and Jessica M. McCauley declared that they have no conflict of interest.

**Human and Animal Rights and Informed Consent** All procedures followed were in accordance with ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from all patients for being included in the study.

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