Long-term focus and prosocial–antisocial tendencies interact to predict belief in just world

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ABSTRACT

According to justice motive theory, individuals need to believe that the world is a just place where people generally get what they deserve (Lerner, 1977). Individuals are thought to need belief in a just world (BJW) in part because it gives them the confidence required to invest in long-term goals. However, BJW can only provide confidence that individuals will reap the rewards of their investments if they invest in their goals through prosocial means (e.g., Hafer, 2000). The current study provides evidence for this argument. Specifically, we examined individual differences in BJW, long-term goal focus, and prosocial–antisocial tendencies to test the hypothesis that higher long-term focus would be associated with higher BJW, but only amongst those who are also high in prosocial (low in antisocial) tendencies. This hypothesis was tested four times using four measures of prosocial–antisocial tendencies. Simple slopes analyses revealed the predicted pattern of results for three of the four measures. Our findings (a) provide novel support for the idea that BJW aids in the prosocial pursuit of long-term goals, and (b) have implications for individual variation in BJW.

1. Introduction

According to justice motive theory, people need to believe that the world is a just place in which individuals get what they deserve (Lerner, 1977). Theorists claim that people need to believe in a just world, in part, because belief in a just world (BJW) gives people the confidence in the world that they require to invest in long-term goals. More specifically, Hafer (2000) proposed that BJW helps people to invest in long-term goals through prosocial means. Hafer and colleagues (2000, 2002; Hafer, Bègue, Choma, & Dempsey, 2005) found initial support for this claim in studies of reactions to victims who presumably threaten BJW. In the present research, we add to these studies by using individual differences in the strength of people's BJW, rather than reactions to victims, as the dependent variable.

According to Lerner (e.g., Lerner, 1977), children develop a need to believe in a just world as they learn to forgo immediate gratification and hold out for larger, longer-term rewards. In order to invest in long-term rewards, people need to trust that the world is a just place in which individuals get what they deserve. If the world is a place where individuals get what they deserve, then people's investments in future goals will pay off. Because people need to believe in a just world, they defend BJW in the face of threats to the belief—threats such as victims who are not responsible for their suffering or "innocent victims."

Support for the notion that BJW aids in long-term goal investment comes from several sources. Correlational studies show that, the more confident people are that their goals will be met, and the more they invest in and focus on long-term goals, the stronger their chronic BJW (Dette, Stöber, & Dalbert, 2004; Hafer, 2000, Study 3; Otto & Dalbert, 2005; Sutton & Winnard, 2007; Xie, Liu, & Gan, 2011). In experimental work, Callan, Shead, and Olson (2009) found that a threat to BJW led to a greater preference for smaller, immediate rewards than larger, longer-term rewards (see also Callan, Shead, & Olson, 2011).

There is also evidence that people defend BJW when it is threatened, in part, because BJW is important for long-term investment. For example, research suggests that people with a strong focus on long-term goals—due to either situational pressures or individual differences—evaluate a victim who threatens BJW more negatively than do people with less long-term focus (Bal & van den Bos, 2012; Hafer, 2000). The rationale for these effects is that focussing on long-term goals should engage or strengthen the need to believe in a just world, thus prompting one to defend the belief when it is threatened by a given victim. Negatively evaluating the victim...
defends BJW by rendering the victim’s suffering less undeserved and unjust. Additional work by Callan, Harvey, and Sutton (2014) suggests that negative evaluations of a victim who threatens BJW leads to a greater preference for larger, longer-term rewards compared to smaller, immediate rewards.

The research we have described so far suggests that people need to believe in a just world because the belief provides the confidence required to invest in long-term goals. However, BJW should only aid investment in long-term goals if people desire to achieve their goals through prosocial means. After all, in a just world, only positively-valued behavior (e.g., prosocial striving) is rewarded with positively valued outcomes (e.g., one’s long-term goals). Therefore, people should need to believe in a just world, not because BJW helps them to invest in long-term goals per se, but because BJW helps them to invest in long-term goals through prosocial means. In support of this claim, Hafer and colleagues (Hafer, 2002, Study 6; Hafer et al., 2005) found evidence that people who temporarily or chronically focus on both long-term goals and prosocial means show a greater tendency to defend BJW when the belief is threatened. For example, in Hafer et al. (2005), participants were presented with an innocent victim of illness (strong threat to BJW) or a victim who was responsible for the illness (weak threat to BJW). Individual differences in long-term goal focus and in prosocial–antisocial tendencies interacted to predict BJW-defense. Specifically, when the victim was innocent, a stronger, chronic long-term focus was associated with greater victim blame, but only amongst participants who were low in antisocial (high in prosocial) tendencies. No interaction was present in the weak threat amongst participants who were low in antisocial tendencies in predicting BJW, such that greater long-term focus, prosocial–antisocial tendencies interacted to predict BJW-defense.

In the present study, we build on Hafer et al. (2005) to examine additional evidence that people need to believe in a just world because BJW aids in the prosocial pursuit of long-term goals. We examine this function of BJW using individual differences in the strength of BJW as the dependent variable, rather than reactions to victims (BJW-defense) as in Hafer et al. (2005). Our argument is as follows. Individuals who intend to invest in long-term goals through prosocial means should be more motivated to maintain BJW so that they can feel secure in making these investments. Efforts to maintain BJW, such as seeking out evidence that the world is just or vigilantly defending against threats to BJW, likely strengthen the belief over time (for discussion of the link between individual differences in BJW and BJW-defense, see Hafer & Bègue, 2005; Lerner & Clayton, 2011). Therefore, one would expect to find an interaction between individual differences in long-term goal focus and prosocial–antisocial tendencies in predicting BJW, similar to the interaction that Hafer et al. (2005) found using reactions to an innocent victim as the dependent variable.

In the current study, we assessed individual differences in long-term goal focus, prosocial–antisocial tendencies, and BJW. We expected an interaction between long-term goal focus and prosocial–antisocial tendencies in predicting BJW, such that greater long-term focus would predict stronger BJW, especially for people with high prosocial (low antisocial) tendencies.

2. Method

2.1. Participants

Participants were 442 undergraduate psychology students (333 women; M_age = 20.73, SD_age = 4.27) from a midsize Canadian university. Students received course credit for their participation.

2.2. Procedure

The data were collected in four mass-testing sessions, each of which took about 1 h. For each session, students completed questionnaires for several unrelated studies. With regards to the present study, all students completed the same measure of BJW and long-term focus, and from two to four measures of prosocial–antisocial tendencies. Each prosocial–antisocial scale had its pros and cons; thus, we tested our hypothesis four times, once for each of the four measures. Sample sizes for our tests therefore vary, because not everyone completed all four measures of prosocial–antisocial tendencies.

2.3. Measures

2.3.1. Belief in a just world

We used Lipkus’s (1991) 7-item Global Belief in a Just World Scale to assess individual differences in BJW (e.g., “I feel that people get what they deserve”). Each item was rated on a scale ranging from 1 = strongly disagree to 6 = strongly agree. Higher mean scores indicate stronger BJW (α = .81).

2.3.2. Long-term focus

Participants completed the 16-item University Investment Orientation Scale (Hafer, 2000), which assesses the degree to which students think about and invest in long-term goals, and their confidence in reaching long-term goals (e.g., “My university experience is a means to fulfilling my goals for the future”). The items are rated on a scale ranging from 1 = strongly disagree to 5 = strongly agree, with six items reverse-keyed. Higher mean scores indicate greater long-term focus (α = .81).

2.3.3. Prosocial–antisocial tendencies

Four scales assessed prosocial–antisocial tendencies. For Rushton and Chrisjohn’s (1981) Self-Report Delinquency Scale, respondents rate the frequency with which they have engaged in each of 20 antisocial behaviors, such as stealing from a store or taking illegal drugs (1 = never, 5 = very often). Higher mean scores indicate greater antisocial tendencies (α = .77). For the honesty–dishonesty morality subscale of the revised Morally Debatable Behaviors Scale (Katz, Santman, & Lonero, 1994), respondents rate the extent to which each of 13 antisocial behaviors, such as accepting a bribe or cheating on one’s taxes, is justifiable (1 = never justified, 10 = always justified). Higher mean scores indicate greater antisocial tendencies (α = .89).

Participants also completed the 20-item Mach IV measure of Machiavellianism (Christie & Geis, 1970; e.g., “It is wise to flatter important people”). Each item was rated on a scale ranging from 1 = strongly disagree to 7 = strongly agree, with 10 items reverse-keyed. Higher mean scores indicate greater antisocial tendencies and lower scores indicate greater prosocial tendencies (α = .76).

The Attitudes Toward Cheating Scale (Gardner & Melvin, 1988) consists of 34 items assessing students’ attitudes toward academic cheating (e.g., “Cheating on college tests is morally wrong”). Items are rated on a scale ranging from 1 = strongly agree to 5 = strongly disagree, with 20 items reverse-keyed. Higher mean scores indicate greater antisocial tendencies and lower scores indicate greater prosocial tendencies (α = .85).

3. Results

Table 1 shows descriptive statistics for all variables. Note that, although the range of scores on the delinquency, attitudes toward cheating, and honesty–dishonesty scales are somewhat truncated...
Table 1
Descriptive statistics.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief in a Just World</td>
<td>442</td>
<td>3.25</td>
<td>0.80</td>
<td>1.29</td>
<td>6.00</td>
</tr>
<tr>
<td>University Investment</td>
<td>442</td>
<td>3.90</td>
<td>0.52</td>
<td>2.29</td>
<td>5.00</td>
</tr>
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<td>Delinquency</td>
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<td>1.57</td>
<td>0.37</td>
<td>1.00</td>
<td>3.40</td>
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<td>Honesty–Dishonesty Morality</td>
<td>240</td>
<td>2.66</td>
<td>1.29</td>
<td>1.00</td>
<td>7.54</td>
</tr>
<tr>
<td>Machiavellianism</td>
<td>316</td>
<td>3.62</td>
<td>0.66</td>
<td>1.90</td>
<td>6.20</td>
</tr>
<tr>
<td>Attitudes Toward Cheating</td>
<td>239</td>
<td>2.60</td>
<td>0.34</td>
<td>1.62</td>
<td>3.50</td>
</tr>
</tbody>
</table>

Note: Higher scores on the measures of prosocial–antisocial tendencies indicate greater antisocial tendencies. Min = minimum value in the data; Max = maximum value in the data. For University Investment Orientation, Delinquency, and Attitudes Toward Cheating, possible scores range from 1 to 5. For Belief in a Just World, possible scores range from 1 to 6. For Machiavellianism, possible scores range from 1 to 7. For Honesty–Dishonesty Morality, possible scores range from 1 to 10.

Table 2
Correlation matrix.

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>BJW</th>
<th>UIO</th>
<th>Delinq</th>
<th>HDM</th>
<th>Mach</th>
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<td></td>
<td></td>
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</tr>
<tr>
<td>(BJW)</td>
<td></td>
<td>(442)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Univ. Investment</td>
<td>−.17</td>
<td>.15**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation (UIO)</td>
<td></td>
<td>(442)</td>
<td>(442)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delinquency (Delinq)</td>
<td>.31*</td>
<td>−.05</td>
<td>−.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(442)</td>
<td></td>
<td>(442)</td>
<td>(442)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honesty–Dishonesty Morality (HDM)</td>
<td>.17**</td>
<td>−.09</td>
<td>−.09</td>
<td>.42***</td>
<td></td>
<td></td>
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<tr>
<td>(240)</td>
<td></td>
<td>(240)</td>
<td>(240)</td>
<td>(240)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machiavellianism</td>
<td>.20**</td>
<td>−.09</td>
<td>−.10</td>
<td>.31**</td>
<td>.24**</td>
<td></td>
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<td>(114)</td>
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<td>Attitudes Toward Cheating</td>
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<td>−.16</td>
<td>−.20*</td>
<td>.27***</td>
<td>.45**</td>
<td>.28**</td>
</tr>
<tr>
<td>Cheating</td>
<td>(239)</td>
<td>(239)</td>
<td>(239)</td>
<td>(239)</td>
<td>(113)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Higher scores on the measures of prosocial–antisocial tendencies indicate greater antisocial tendencies. For sex, 0 = women, 1 = men. N is in parentheses.

* p < .05
** p < .01
*** p < .001

at the high end, there is adequate variability for all of these measures.

Table 2 shows the correlation matrix for all variables. All measures of prosocial–antisocial behavior were positively correlated with one another. Also, participant sex was correlated with several of the predictors, and was thus controlled for in our hypothesis tests.

We tested our hypothesis with four hierarchical regressions. BJW was regressed onto sex, the measure of long-term focus (centered), and one of the measures of prosocial–antisocial tendencies (centered) on the first step, and onto the interaction between long-term focus and prosocial–antisocial tendencies on the second step.1 There was a significant interaction between long-term focus and Machiavellianism, $b = −.32, t(311) = −2.58, p = .01, r^2 = .02$, and between long-term focus and attitudes toward cheating, $b = −.72, t(234) = −2.23, p = .03, r^2 = .02$. The interaction between long-term focus and self-reported delinquency was marginal, $b = −.35, t(437) = −1.72, p = .09, r^2 = .01$. The interaction involving BJW and honesty–dishonesty was nonsignificant, $b = .04, t(235) = .49, p = .62, r^2 = .001$.

Significant and marginal interactions were followed up with tests of simple slopes (Aiken & West, 1991). The slope of the regression line predicting BJW from long-term focus was tested at high and low levels (±1 SD) of prosocial–antisocial tendencies. As seen in Fig. 1, when the prosocial–antisocial measure was Machiavellianism, the greater participants’ chronic long-term focus, the stronger their BJW, but this relation only occurred for individuals with lower

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1 There were significant main effects for both sex and long-term focus in two of the four analyses (greater BJW for men, and greater BJW with greater long-term focus). Of the measures of prosocial–antisocial tendencies, only attitudes toward cheating demonstrated a significant main effect (lower BJW with more favorable attitudes toward cheating). There were no other significant main effects.
antisocial (higher prosocial) tendencies, \( b = .49, \ t(311) = 4.20, \ p < .001 \), and not for those with higher antisocial (lower prosocial) tendencies, \( b = .07, \ t(311) = .71, \ p = .47 \). As seen in Fig. 2, when the prosocial-antisocial measure was attitudes toward cheating, the greater participants’ long-term focus, the stronger their BJW, but again this relation only occurred for individuals with lower antisocial (higher prosocial) tendencies, \( b = .39, \ t(234) = 2.66, \ p = .008 \), and not for those with higher antisocial (lower prosocial) tendencies, \( b = -.09, \ t(234) = -.61, \ p = .54 \). Fig. 3 shows the analogous interaction between long-term focus and delinquency. The greater participants’ long-term focus, the stronger their BJW, but only for individuals lower in antisocial tendencies, \( b = .39, \ t(437) = 3.62, \ p < .001 \), not for those higher in antisocial tendencies, \( b = .13, \ t(437) = 1.28, \ p = .20 \).

4. Discussion

Researchers have argued that BJW aids individuals in pursuing long-term goals through prosocial means (e.g., Hafer, 2000; Hafer et al., 2005). We attempted to find support for this argument by testing the hypothesis that long-term focus predicts BJW, but only amongst participants higher in prosocial (lower in antisocial) tendencies. For three of the four tests of this hypothesis, the predicted interaction was significant or marginally significant and showed the expected pattern of results. Specifically, stronger long-term focus predicted stronger BJW, but only for participants higher in prosocial (lower in antisocial) tendencies.

Our findings provide evidence that one of the functions of BJW is to help individuals invest in long-term goals through prosocial means. If BJW serves this function, then individuals who plan to invest in long-term goals through prosocial means should be more motivated to maintain BJW, and these efforts likely strengthen BJW over time. Our findings are consistent with this logic. Given that individuals are likely to defend beliefs that serve a valued function, our findings are also consistent with the proposition that individuals defend BJW (which might ultimately strengthen the belief) because BJW helps people engage in prosocial pursuit of long-term goals (see Hafer, 2002; Hafer et al., 2005).

Our findings help explain why individuals vary in BJW. Researchers have proposed a number of ways that individuals benefit from believing that the world is just (see Dalbert, 2001; Hafer & Sutton, in press). However, it is likely that different individuals derive similar benefits from different systems of belief. For example, our findings imply that it is primarily individuals who are focused on pursuing long-term goals and are high in prosocial (low in antisocial) tendencies who are motivated to maintain BJW. Presumably, BJW is of greater benefit to these individuals in their life pursuits. In the future, researchers should examine other exceptions to the rule that BJW is beneficial to psychological functioning (see Laurin, Fitzsimmons, & Kay, 2011).

Although our findings were relatively consistent across measures of prosocial-antisocial tendencies, the predicted interaction was not observed when our hypothesis was tested using the honesty–dishonesty morality scale. The scale correlated highly with the other measures of prosocial-antisocial tendencies and so it is unlikely to measure a construct entirely separate from that measured by the other scales. In the future, researchers should use additional measures of prosocial-antisocial tendencies to better understand what aspects of these tendencies moderate the association between long-term focus and BJW. Researchers should also attempt to replicate our interactions with additional measures of long-term focus.

One limitation of our findings is that the study was correlational, thus we cannot make causal conclusions. The desire to invest in long-term goals through prosocial means might lead to a stronger BJW, as previously discussed. Conversely, having strong BJW might also make individuals more willing to engage in the prosocial pursuit of long-term goals. In future, researchers should examine prosocial goal pursuit and individual differences in BJW using longitudinal designs in order to investigate potential causal associations between variables.

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References


