Are Just-World Beliefs Compatible with Justifying Inequality? Collective Political Efficacy as a Moderator

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Abstract   Previous research demonstrates that the belief in a just world is often accompanied by the justification of social inequality and by low socio-political participation (e.g., Jost and Hunyady, Curr Direct Psychol Sci 14:260–265, 2005). However, studies provide evidence that the relations may be moderated by individual differences such as a person's self-efficacy expectations to promote justice and equality (Mohiyeddini and Montada, Responses to victimization and belief in a just world, 1998). At the societal level, collective political efficacy has consistently been found to foster political participation (cf. Lee, Int J Public Opin Res 22:392–411, 2010). In our study, we tested whether collective political efficacy may attenuate the negative social impact of the belief in a just world: It is predicted that when collective political efficacy is low, a strong belief in a just world would increase the motivation to justify inequality. By contrast, when collective political efficacy is high, the belief in a just world would not increase, but potentially decrease the motivation to justify inequality. In turn, justification of inequality is expected to negatively affect socio-political participation. Data from 150 university students were analyzed using moderated structural equation modeling. In our study, the expected moderating effect of collective political efficacy on the relation between belief in a just world and justification of inequality was established empirically. When collective political efficacy was high, justification of inequality did not inevitably increase with the belief in a just world. In addition, the impact of belief in a just world on justice-promoting behavior was mediated by justification of inequality. Implications for theory and future research are discussed.

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Theoretical Background

Feelings of injustice have often been found to stimulate individuals to become involved in social and political activities (e.g., Bekkers, 2005; Klandermans, 1997; Simon & Klandermans, 2001; van Zomeren, Postmes, & Spears, 2008). The struggle for social justice is regarded as a key motive for voluntary collective action. For example, in the case of labor unions in contemporary western societies, the struggle for social justice still serves as one of the ultimate goals of these organizations (Arlt, Schroeder, & West, 2007; Contrepois & Jefferys, 2004). However, as Klandermans (2002) argues, "Collective action is not a very common response to injustice. When confronted with injustice, at best, a minority of the people affected will engage in protest" (p. 887). Furthermore, membership in political interest groups that aim to promote justice (e.g., labor unions, political parties) is in decline. For example, except for the year 2001, German labor unions lost about 4.3% of their members every year between 1992 and 2005 (e.g., Forschungsgruppe Weltanschauungen in Deutschland, 2006; see also Fitzenberger, Kohn, & Wang, 2011).

Instead of promoting political behavior, justice beliefs may actually hamper political participation. According to Lerner's theory (1977), individuals have a strong desire to live in a just world, where everybody gets what he or she deserves. Individuals who think that rewards and punishments reflect an underlying moral order tend to derogate victims of injustice in order to maintain their just-world belief (Rubin & Peplau, 1973). The desire to live in a just world is derived from the need for personal control (Furnham, 2003): People like to make sense of what happens to them and to other people. As Novak and Lerner (1968, p. 147) put it, "people must believe there is an appropriate fit between what they do and what happens to them—their fates."

According to Jost and Hunyady (2005; see also Jost, Banaji, & Nosek, 2004), the belief in a just world can be described as an ideology which serves the purpose of legitimizing existing social and economic arrangements. As such, Belief in a Just World Theory shows a conceptual overlap with System Justification Theory. According to both theories, people are motivated to view the status quo in a given society as just and legitimate (Kay et al., 2009). People with heightened needs to manage uncertainties are considered to be particularly motivated to indulge in system-justifying rationalizations (Napier, Mandisodza, Andersen, & Jost, 2006). In addition, the salience of socio-economic threats may also fuel the desire to justify the status quo in society (Ullrich & Cohrs, 2007). In turn, direct defence of the current regime goes along with the acceptance of socio-political arrangements even if they contain blatant social injustices or inequalities (Jost & Banaji, 1994). As a consequence, just-world beliefs as well as system justification may attenuate the desire for progressive social change and let political protest become less likely (cf. Jost & Hunyady, 2005).

However, as Jost et al. (2010) emphasize, there are important differences between the two constructs: "Although many consequences of system justification and the belief in a just world are the same, the underlying motives are theorized to be somewhat different. Whereas Belief in a Just World Theory concerns the desire for actual justice (…), System Justification Theory concerns the desire for the perception or appearance of justice (…)" (p. 195). When individuals are exposed to blatant social injustice or inequality, their belief in a just world is threatened (Joseph & Stringer, 1998; Malahy, Rubinlicht, & Kaiser, 2009). Following Lerner (1980), individuals may use different coping strategies to preserve or restore their belief in a just world in such a situation. For example, "defensive" strategies include reinterpreting the situation: Individuals may deny injustice or blame victims for suffering injustice (Hafer & Gosse, 2010, p. 81). Individuals may also engage in so-called "rational" strategies and invest resources in order to actively contribute to restore justice.

Thus, Belief in a Just World Theory would predict several responses to injustice threats (e.g., helping or blaming victims), whereas System Justification Theory predicts a single response (e.g., blaming victims to justify the system). Accordingly, the outcomes of system justification will always be politically and socially detrimental since system justification undermines the motivation to strive for social change. By contrast, this should not inevitably be the case for the belief in a just world since individuals may choose between different preservation strategies: Preiser and Wermuth (2003) argued that instead of justifying social injustices and inequalities, individuals may participate in political parties or labor unions in order to express their need for justice within social and political contexts. By doing so, individuals can contribute to restoring or maintaining justice in society.

To date, the issue of "when and for whom various [preservation] strategies will be preferred" (Hafer & Bègue, 2005, p. 147; Hafer & Gosse, 2010) was only addressed within a limited number of studies. In particular, it is still open to question, under which circumstances a strong belief in a just world will have detrimental social consequences, i.e., people justifying unfair or unequal socio-political arrangements rather than actively promoting justice by taking part in collective action. Some studies provide evidence, that the belief in a just world is negatively correlated with socio-political participation (Preiser & Wermuth, 2003; Rubin & Peplau, 1975). In addition, the stronger a person's belief in a just world, the higher the likelihood that the person endorses a right-wing political ideology (e.g., Dittmar & Dickinson, 1993; Jost et al., 2004; for an overview see Furnham, 2003). In turn, Dalbert, Montada, and Schmitt (1987) report that the belief in a just world was negatively correlated with the extent to which individuals favored left-wing parties. Therefore, it can be expected that people with a strong belief in a just world will be less likely to become politically involved in political activities that aim at altering the status quo in society but rather bolster favorable attitudes toward the current socio-political system. However, in a study by Mohiyeddini and Montada (1998) belief in a just world was not correlated with membership in prosocial organizations.

Hence, previous research yielded inconsistent results suggesting that the relation between belief in a just world and justice-promoting behavior may be moderated by personality or situational variables (cf. Hafer & Bègue, 2005; Hafer & Gosse, 2010).

According to Lerner's theory, "people attempt to justify unjust outcomes only when they are unable to engage in behaviors that would restore it directly" (Jost et al., 2010, p. 195). To test this hypothesis, Lerner and colleagues conducted a series of lab experiments in which a 'victim' in an alleged learning experiment received painful electric shocks for giving incorrect responses. The degree to which a participant was able to alter the victim's fate was manipulated. Results indicated that if the participant was unable to stop the suffering, the likelihood of devaluing and rejecting the victim was high. On the other hand, if participants had the opportunity to make sure that the victim was given rewards rather than additional shocks, the majority of participants decided to restore justice by acting to the benefit of the victim (Lerner & Simmons, 1966). Mohiyeddini and Montada (1998) demonstrated that self-efficacy to promote justice moderates the relationship between just-world belief and prosocial behavior. The authors used a laboratory setting to investigate whether self-efficacy expectations may attenuate the negative social impact of the belief in a just world (cf. Furnham, 2003). Mohiyeddini and Montada (1998, p. 52) concluded, that "a strong belief in a just world will motivate blaming or derogating victims when a restoration of justice is (…) impossible or costly". However, as expected, a person's tendency to blame a victim decreases significantly when her/his self-efficacy expectation to promote justice increases. Kay et al. (2009) conducted a series of experiments in which the authors demonstrated that feelings of dependence on the socio-political system foster system justification, and consequently decrease the desire for social change, making political involvement obsolete. To that effect, the more individuals perceive their own welfare and outcomes being controlled by the current socio-political system, the higher their motivation to justify the status quo in society (van der Toorn, Tyler, & Jost, 2011).

Feelings of dependence may be likened to a sense of inefficacy. Within the political arena, political efficacy plays a key role in explaining political behavior. According to Campbell, Gurin, and Miller (1954), political efficacy is defined as "the feeling that individual political action does have, or can have, an impact upon the political process" (p. 187). Previous studies support the conception of political efficacy as two related factors of a singular construct: "Internal political efficacy refers to the perceptions of one's capability to engage in political behaviors, while external political efficacy refers to perceptions that the political system will be responsive" (Manning, Beierlein, Preiser, & Wermuth, 2008, p. 2; cf. Craig & Maggiotto, 1982). Several studies demonstrate that an individual's perception of his/her internal and external political efficacy is positively related to various forms of political behavior (Beierlein & Preiser, 2004; Caprara, Vecchione, Capanna, & Mebane, 2009; Koch, 1993; Krampen, 1991). Therefore, the recognition of one's own capabilities to execute specific political actions is a prerequisite for preventing a person from derogating a victim. When the belief in a just world is threatened, individuals with a high sense of political efficacy may take the opportunity to restore or promote justice by their own actions. As a result, individuals would be able to resume conceiving the world as a just place.

In past research, the importance of perceived individual political capabilities has been emphasized. At a societal level, however, individuals join interest groups in

order to struggle for social justice by collective action instead of acting on their own. Perceptions of collective (internal) efficacy, thus, appear to be relevant in the case of collective mobilization in order to forward collective political demands. As Bandura (1995) puts it,

> "Many of the problems and challenges of life are not only individual but institutional, requiring collective effort to produce significant change. The strength of groups, organizations, and even nations lies partly in people's sense of *collective efficacy* that they can solve the problems they face and improve their lives through unified effort." (p. 454)

To judge one's own reference group as collectively competent or as being politically powerful is assumed to be a decisive antecedent of one's own willingness to participate in group activities (Lee, 2010; Koch, 1993; Yeich & Levine, 1994). By extending one's own political abilities through taking into account the conjoint competence of a group, the subjective probability of success in promoting justice increases. Schwarzer and Jerusalem (as cited in Schwarzer & Schmitz, 1999) created a scale to assess individual perceptions of a group's competence to act. If a person judges his or her own reference group (e.g., council of colleagues, labor union, political party, student organization) as politically efficacious, the likelihood of getting actively involved in political activities within the group increases.

Given the results of studies on the relationship between belief in a just world, efficacy expectations, justification of inequality, and socio-political participation presented above, we come to the following conclusions: Contrary to System Justification Theory, belief in a just world is correlated with, but not congruent with justification of inequality. It may rather lead to different outcomes. In our research, collective political efficacy is proposed to act as a moderator which attenuates the negative social effects of the belief in a just world. We expect that a strong belief in a just world if it is linked to a low level of collective political efficacy will foster the motivation to justify the socio-political system. In turn, a higher motivation to justify the socio-political system will go along with a decreased likelihood to engage in justice-promoting political activities. Thus, justification of inequality is assumed to mediate the relationship between belief in a just world and justice-promoting behavior. At the same time, a high level of political efficacy may compensate the negative effects of the belief in a just world by encouraging justice-promoting behavior. In sum, drawing on previous findings on self-efficacy (Mohiyeddini & Montada, 1998), we expect collective political efficacy to reduce the tendency to justify inequality at the societal level and, in turn, to foster socio-political participation. Furthermore, we expect collective political efficacy to moderate the effects of the belief in a just world on justification of inequality and, in turn, on justice-promoting behavior. The expected moderator effect is depicted in Fig. 1.

Based on the assumptions described above, we specifically predict the following:

Hypothesis 1   (a) The belief in a just world increases justification of inequality. (b) In turn, the belief in a just world decreases socio-political participation.
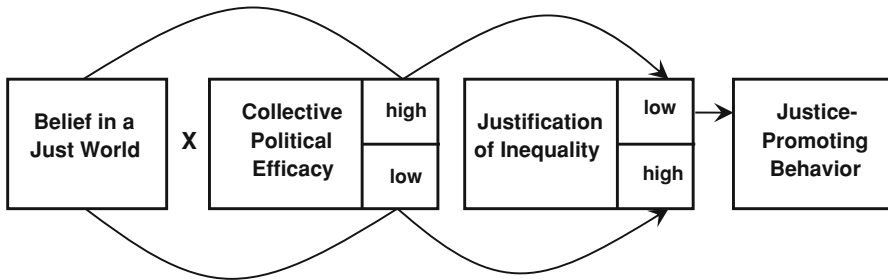
Fig. 1 Illustration of the expected moderator effect of collective political efficacy on the relationship between belief in a just world, justification of inequality, and justice-promoting behavior, respectively (adapted from Wermuth et al., 2008)

Hypothesis 2 (a) Collective political efficacy increases socio-political participation. (b) In turn, collective political efficacy decreases justification of inequality.

Hypothesis 3 Justification of inequality mediates the effects of belief in a just world and collective political efficacy on socio-political participation.

Hypothesis 4 Collective political efficacy moderates the effects of belief in a just world on justification of inequality and socio-political participation: Given low collective political efficacy, the belief in a just world increases justification of inequality, and consequently decreases socio-political participation. Given high collective political efficacy, the belief in a just world does not increase justification of inequality or decrease socio-political participation.

Method

Participants

We recruited 150 university students in the first section of their studies at Goethe University of Frankfurt, Germany ($M = 24$ years of age, $SD = 5.1$). All of them were studying to become teachers; 31 students were male and 118 were female (for one participant, data on gender was not available). The students were enrolled in a mandatory lecture on Educational Psychology.

Procedure

Data were collected in spring 2006. During this time, German student protests over tuition fees and spending cuts for higher education came to a climax (cf. Giguère & Lalonde, 2010). Within the course of one lesson, we provided the participants with a questionnaire and asked them to fill it out. After the participants had answered the questions, we debriefed them and gave them the opportunity to ask questions about the study.

Material

The set of questionnaires consisted of different scales to assess all relevant constructs. For all scales that measured attitudes or beliefs, items were rated on a 6-point Likert scale with endpoints 1 (*not at all true*) and 6 (*completely true*). Internal consistencies for all scales are reported in the "Results" section.

   Belief in a just world was measured using a six-item scale taken from Dalbert et al. (1987; e.g., "I am confident that justice always prevails over injustice"). The scale is a shorter revision of the original questionnaire proposed by Rubin and Peplau (1975). The instrument aims at assessing a general belief in a just world as an unidimensional construct (cf. Furnham, 2003; Maes, 1998). The extent to which a person believes in a just world may range from total acceptance to total rejection of the notion that the world is a just place (Rubin & Peplau, 1975, p. 66).

Justification of Inequality

A seven-item scale developed by Preiser and Wermuth (2003) was used to assess justification of inequality. This scale measures the tendency of considering blatant social injustices to be unavoidable or even legitimate (sample item: "It is impossible to offer everybody the same chances, because inequality does exist among human beings and, thus, is unavoidable"). The items address different kinds of inequalities between advantaged and disadvantaged social groups in Germany (e. g., men and women, citizens with different ethnic backgrounds).

Collective Political Efficacy

There are several approaches to measuring collective efficacy perceptions (Goddard, Hoy, & Woolfolk Hoy, 2004; Yeich & Levine, 1994). Drawing on the work of Schwarzer and Jerusalem (cf. Schwarzer & Schmitz, 1999), we developed a new scale in order to measure collective political efficacy expectations toward political interest groups at the level of individual ratings. The scale consists of 12 items and operationalizes collective efficacy at the local and at the societal level (Sample item: "If we, as students, band together at our university in order to achieve common goals, we will be able to promote our interests despite unfavorable conditions").

Socio-Political Participation

Using a self-report instrument, the extent of social and political participation was measured by the amount of social or political activities carried out by the respondent within the past 12 months. Participants were asked to indicate whether they have carried out a specific activity in the past or not (dichotomous variable). Furthermore, participants had to specify the number of hours they spent carrying out this specific activity. To cover a wide range of social activities and political involvement, various activities were assigned to six clusters of social and political behavior (sample items: "Attended a political seminar offered by one of the student

Table 1 Clusters of socio-political participation with sample indicators

Cluster name	Indicators
1. Justice-promoting behavior at the local level	To act on behalf of disabled, disadvantaged, elderly and/or needy people in one's own neighborhood/community
2. Prosocial behavior at the local level	To teach and train young people within one's own neighborhood/community
3. Interest group membership/self-help groups	To promote environmental protection in one's own neighborhood/community
	To join a student organization at one's own university
4. Justice-promoting behavior at the societal level	To become actively involved in organizations such as Amnesty International, Transparency International, or Terre des Femmes
5. Prosocial behavior at the societal level	To join a nation- or world-wide prosocial organization (e.g., world famine relief)
6. Interest group membership at the societal level	To be an active member of a nation-wide political party, a labor union, a (political) network of students or the like

organizations", "got involved in protest actions in order to promote students' interests"). Table 1 provides an overview of the clusters.

The distribution of self-reported socio-political participation scores was extremely right-skewed and ranged from 0 to 800 h for the past year. In order to compensate for the skewness of the scores, we recoded the number of hours in seven categories of participation level ranging from 0 = "no participation at all," 3 = "average level of participation," to 6 = "above-average level of participation." Two raters who were familiar with research on socio-political participation, independently categorized the participants' self-reported political or social involvement. To determine inter-rater reliability, we calculated a correlation coefficient (r) for the recoded scores. The degree of concordance among raters was sufficiently high ($r = .98$, $p < .01$). Subsequently, we created three scale scores by summarizing scores of participation on the local and the societal level: participation in justice-promoting activities, prosocial behavior, and political interest group participation. In this study, we focus on justice-promoting behavior as a potential positive outcome of the belief in a just world.

Statistical Analysis

To examine the bivariate relations between the constructs of interest, we calculated product-moment correlations (one-tailed, $\alpha = .05$). To test the hypothesized linear and interactive effects of belief in a just world and collective political efficacy on justification of inequality, and eventually on justice-promoting behavior, we conducted nonlinear structural equation modeling (SEM; see Kelava et al., 2011). Nonlinear SEM employs product terms of quantitative predictor variables to model interactive effects, analogous to moderated regression (Aiken & West, 1991). Differently from moderated regression, though, nonlinear SEM analyzes the assumed relations on the level of latent, theoretically error-free variables. Given that the reliability of product terms of observed predictor variables, as used in moderated

regression, can be considerably lower than the reliabilities of the individual variables (Busemeyer & Jones, 1983; Edwards, 2009), moderated regression frequently fails to empirically establish presumed interactive effects in a variety of fields, and may underestimate existing effects (McClelland & Judd, 1993). By contrast, nonlinear SEM offers interaction effect estimates unbiased by measurement error.

We employed the recent QML approach to nonlinear SEM (Quasi-Maximum Likelihood; Klein & Muthén, 2007; see also Kelava et al., 2011), which analyzes interactive effects based on raw data distributions, allows likelihood-ratio tests for interactive effects and provides properly standardized parameter estimates (Klein, 2007). QML is assumed to be more robust against non-normal data than other approaches (Klein & Muthén, 2007) and offers high statistical power to detect interaction effects even in small samples (Kelava et al., 2011; Klein & Muthén, 2007).

To operationalize the three constructs belief in a just world, collective political efficacy and justification of inequality for structural equation modeling, we grouped the items of the respective scales into parcels (cf. Bandalos & Finney, 2001; Little, Cunningham, Shahar, & Widaman, 2002). Using item parcels as observed variables instead of individual items kept the model appropriately simple in relation to the sample size. Whereas item parcels can have pros and cons (cf. Bandalos & Finney, 2001; Little et al., 2002), the focus of the present study was to investigate the constructs' relations, not their internal factorial structure, alleviating concerns about the dimensionality of item parcels. To ensure model identification, three item parcels were used for belief in a just world (sum scores of up to three items each) and collective political efficacy (consisting of three to five items each), respectively, and two for justification of inequality (two and four items). The items were grouped based on content (homogeneous subsets with relatively high inter-item correlations) as well as statistical considerations (allowing for different factor loadings, taking into account varying item-total correlations). Justice-promoting behavior was included as a single observed measure. To allow for an analysis based on raw data, we had to replace a very small number of missing values on the item level (16 missings out of 3600 individual item values, i.e., 0.4%), which was done by substituting the individual person's mean of all remaining items of the respective scale.

The structural model specified both linear effects of belief in a just world and collective political efficacy as well as their interactive effect on justification of inequality, and the linear effect of justification of inequality on justice-promoting behavior. To assess the fit between model and data, common fit measures for linear SEM cannot assess the appropriateness of interactive or nonlinear SEM in their entirety (cf. Klein & Schermelleh-Engel, 2010). Such measures are based on covariances, which do not reflect interactive or nonlinear relations. We therefore employed a hybrid approach by separately assessing the linear and nonlinear parts of our model. To assess the fit of the linear part of the model by means of conventional fit measures, we conducted a separate confirmatory factor analysis of the measurement model of the predictors (belief in a just world and collective political efficacy) using LISREL (Jöreskog & Sörbom, 1996). To assess the

nonlinear part of the model, we employed the QML-provided fit measure that tests whether variance heterogeneity in the observed outcome variables (indicators of justification of inequality, justice-promoting behavior) can be adequately explained by the specified interactive or nonlinear effects in the model (Klein & Schermelleh-Engel, 2010).

Results

According to Hypothesis 1, (a) belief in a just world was expected to be positively correlated with justification of inequality, as both can be seen as system-justifying ideologies. As expected, the two variables were positively associated with each other ($r = .25$, $p < .01$). Regarding the strength of the correlation, the coefficient was rather small, but this can be expected in situations in which moderator effects are present (cf. Hypothesis 4). (b) In turn, we predicted that the belief in a just world is negatively correlated with participation. As expected, belief in a just world was negatively related to justice-promoting behavior ($r = -.15$, $p < .05$).

According to Hypothesis 2, (a) Collective political efficacy is positively related to the extent of socio-political participation. Contrary to expectations, collective political efficacy and justice-promoting behavior were not significantly associated, showing a very weak negative correlation ($r = -.09$, see Table 2). Thus, participants who judged their own collective political capabilities more positively did not universally indicate being more involved in these fields of social or political activities. Again, in the potential presence of moderator effects (cf. Hypothesis 4), linear relations may turn out to be weak.

In the second part of Hypothesis 2, (b) we expected high scores in collective political efficacy to be accompanied by low scores in justification of inequality. A bivariate correlation analysis yielded the assumed negative correlation ($r = -.21$, $p < .01$): Participants with a stronger sense of collective political efficacy were less inclined to justify current socio-economic inequalities.

Table 2 Means (*M*), standard deviations (*SD*), internal consistency (Cronbach's α), and intercorrelations of the observed variables ($N = 150$)

Variable	*M*	*SD*	α	Intercorrelations		
				2	3	4
1. Collective political efficacy	3.94	0.84	.93	−.06	−.21**	−.09
2. Belief in a just world	2.70	0.83	.76		.25**	−.15*
3. Justification of inequality[a]	2.91	0.86	.71			−.14*
Socio-political participation						
4. Justice-promoting behavior	0.49	0.71	–			

Scores can vary between 1 and 6, scores for justice-promoting behavior can vary between 0 and 6. High scores generally indicate more of the construct in question

[a] After deletion of one item (item 2)

* $p < .05$, ** $p < .01$, one-tailed

According to Hypothesis 3, justification of inequality mediates the relationship between belief in a just world, collective political efficacy, and justice-promoting behavior. For individuals who judge existing social inequalities as fair and legitimate, participation on behalf of justice-promotion in society is redundant. According to Hypothesis 4, high collective political efficacy buffers the negative impact of the belief in a just world on justification of inequality and, in turn, on justice-promoting behavior. Hypotheses 3 and 4 were analyzed through the integrated structural equation model.

The QML structural equation modeling analysis of the linear and interactive effects of belief in a just world and collective political efficacy on justification of inequality, and eventually on justice-promoting behavior, yielded the standardized parameter estimates shown in Fig. 2. As expected, belief in a just world had a positive effect on justification of inequality, and collective political efficacy a negative effect, with the interaction effect of justification of inequality and collective efficacy also being negative. Justification of inequality, in turn, had a negative effect on justice-promoting behavior. Regarding the appropriateness of the specified structural equation model, we first tested the linear part of the model separately (measurement model of belief in a just world and collective efficacy) in a confirmatory factor analysis, which indicated good model fit ($\chi^2 = 10.09$, $df = 8$, $p = .26$; RMSEA $= .04$; CFI $= .99$; NNFI $= .99$). Regarding the appropriateness of the nonlinear part of the model, the QML-provided overall test statistic for unexplained variance heterogeneity indicated that the interaction model appropriately explained the nonlinear relations in the data ($z = 1.28$, $p = .10$ one-sided).

Estimated standard errors indicated that the linear effects of belief in a just world and collective political efficacy on justification of inequality were both significant
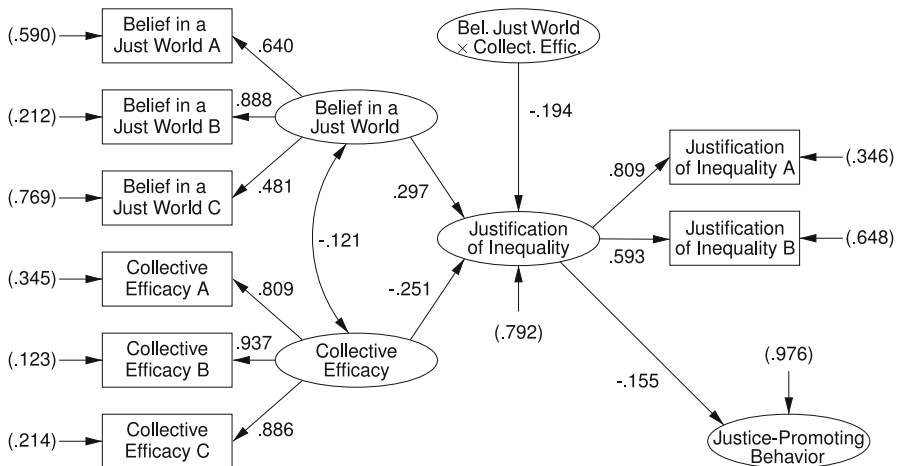
Fig. 2 Structural equation model including linear effects of belief in a just world and collective political efficacy as well as their interactive effect (belief in a just world × collective efficacy) on justification of inequality. The latter mediates the effect on justice-promoting behavior. Coefficients are standardized QML parameter estimates (residual and error variance estimates are in parentheses)

($p < .05$), as well as all estimated loadings of indicator variables on the respective constructs. The negative effect of justification of inequality on justice-promoting behavior narrowly missed significance ($z = 1.46$, $p = .07$ one-sided). To test the interactive effect for significance, we compared the model specifying the interactive effect of belief in a just world and collective political efficacy on justification of inequality against an alternative linear model (without the interaction effect) using a likelihood-ratio test. This indicated that the assumed interaction model fits the data significantly better than a linear model ($\chi^2 = 4.10$, $df = 1$, $p = .04$).

The shape of the interaction effect of the belief in a just world and collective political efficacy on justification of inequality is illustrated in Fig. 3: Given average or below-average values of collective political efficacy, a high belief in a just world goes along with increased justification of inequality. For high scores of collective political efficacy, however, this relation disappears, and the belief in a just world is then more or less unrelated to justification of inequality, corresponding to a buffer effect of collective political efficacy. For very high scores of collective political efficacy, the relation between belief in a just world and justification of inequality may even become negative; indicating that for respondents with a very strong sense of collective political efficacy, a high belief in a just world is associated with decreased justification of inequality.
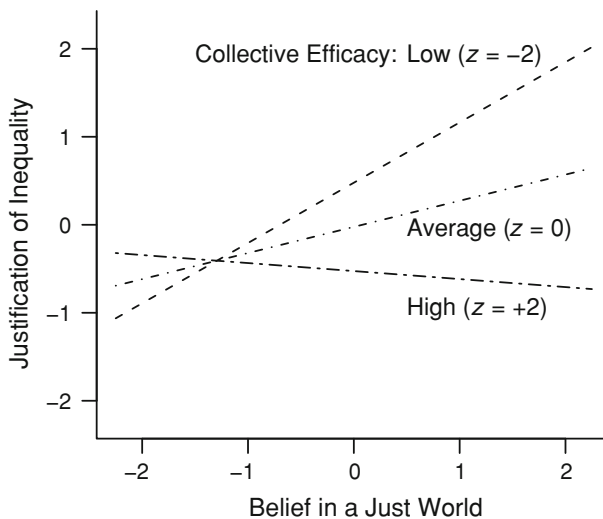
Fig. 3 Interactive effect of belief in a just world and collective political efficacy on justification of inequality, shown for standardized latent variables (z scores): On average, a higher belief in a just world goes along with increased justification of inequality. This relation is more pronounced when collective political efficacy is low ($z = -2$). When collective political efficacy is high ($z = +2$), the positive relation between belief in a just world and justification of inequality disappears, and a higher believe in a just world goes along with decreased justification of inequality

Discussion

Summary

The present study extends previous findings by shedding more light on the question when individuals prefer different strategies to preserve their belief in a just world (cf. Hafer & Gosse, 2010). In accordance with earlier empirical findings, belief in a just world was positively related to justification of inequality. However, the strength of relation between the two constructs varied depending on a person's efficacy expectations. The proposed moderator hypothesis was supported by the empirical data: Structural equation modeling revealed a significant interaction effect of just-world beliefs and collective political efficacy on justification of inequality. Individuals with a strong belief in a just world in combination with a weak sense of collective political efficacy exhibited a strong tendency to justify inequality in society. In contrast, for individuals with a strong sense of collective political efficacy, a high belief in a just world was not accompanied by increased justification of inequality. The pattern found in the current study indicates that the formerly expected positive relation between a just world belief and justification of inequality can actually be reversed for individuals who judge their collective political competencies as high. Following Lerner (1980) as well as Hafer and Gosse (2010), defensive strategies (e.g., reinterpreting the societal status quo by blaming disadvantaged groups for their own situation) would become less likely, if individuals are convinced of their collective capabilities to alter the current system. Beyond earlier research, we also tested whether the effect of the belief in a just world on justice-promoting behavior was mediated by the level of justification of inequality as a system-justifying ideology. Whereas the effect of justification of inequality as a mediator on justice-promoting behavior was negative, it was rather small, not providing unequivocal evidence for a mediator effect. In sum, though, the findings point to the pivotal role of collective political efficacy in determining the consequences of just-world beliefs.

Our study underlines the motivational differences between the two "system-justifying ideologies" as classified by Jost and Hunyady (2005). The present research seems to describe a boundary condition for system justification, which may not have previously been considered (cf. Jost et al., 2010; Jost & Banaji, 1994).[1] As van der Toorn et al. (2011) and Kay et al. (2009) pointed out in their studies, the more a person's feeling of dependence on current authorities or the political system, the stronger his or her motivation to justify socio-political arrangements. By doing so, individuals may continue to perceive the world as predictable, controllable, and fair. With respect to belief in a just world, however, the relation between the justice motive and the motivation to bolster socio-political arrangements appears to be more complex. As expected according to Lerner's (1980; see also Furnham, 2003) theory, the belief in a just world results in socially detrimental outcomes such as justifying social inequality and, in turn, hampering justice-promoting behavior. However, rationalizations such as blaming victims for their fate and defending the

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[1] We thank an anonymous reviewer for this valuable remark.

political system depend on further circumstances. Only when people perceive themselves as politically inefficacious to restore or maintain fair outcomes in society, justification of inequality may function as an adequate preservation strategy. Feelings of collective capability are associated with control beliefs and may thus compensate for or diminish feelings of system dependence to an important extent (cf. Krampen, 1991). As a consequence, the belief in a just world may well go along with an active role in working for social equality and justice.

Limitations and Implications for Future Research

A few limitations have to be taken into account with regard to the scope of our research as well as with regard to methodological considerations. Our findings already suggest a crucial role of collective political efficacy for the relation between belief in a just world and its potential consequences. Particularly from an intervention perspective, it would be desirable to replicate the findings within an experimental setting to allow causal interpretations. Manipulating the level of collective political efficacy as well as the level of belief in a just world seems promising to clarify the assumed moderating role of collective political efficacy. If collective political efficacy determines whether just-world beliefs lead to negative outcomes such as justifying inequality, this would open up the possibility to alleviate negative consequences of the belief in a just world (justification of inequality) by enhancing the level of collective political efficacy. Furthermore, if justification of inequality actually serves as a mediator, justice-promoting behavior should become more likely when the level of collective political efficacy increases.

The proposed experimental manipulation might be challenging to implement, however. Actively manipulating collective political efficacy in a lab experiment is feasible, but the ecological validity of such a setting might be debatable. Particularly, since collective political efficacy and political involvement are tied to specific, pre-existing real-world political organizations (e.g., student organizations, political parties, labor unions), individuals will already have established beliefs about and attitudes toward the political capabilities and political influence of these groups. Thus, collective political efficacy of these groups might be difficult to manipulate (cf. van Zomeren et al., 2008).

Longitudinal field studies might therefore offer a more viable and valid approach to the issue of causality. We assume that the level of collective political efficacy of a political group will vary over time according to a group's perceived capabilities to tackle predominant socio-political problems at a given time. A high expectation of collective political efficacy is just one decisive prerequisite of an individual's involvement in collective action. According to the work of Simon and colleagues, the emergence of a politicized collective identity is also a crucial and powerful predictor of participation in a political interest group (Simon & Klandermans, 2001; Stürmer & Simon, 2004). The politicized collective identity exerts a direct effect on participation in collective action as well as an indirect effect: The salience of a certain political collective identity influences the perceived collective political efficacy of a reference group which, in turn, affects political participation (van Zomeren et al., 2008).

Identifying with a political group becomes more likely in times of perceived political as well as economic threats (Simon & Klandermans, 2001). In the case of university students, introducing tuition fees can be interpreted as a personal threat and the potential outcomes can be perceived as unfair. We expect such real-world incidents to foster an individual's desire for maintaining her or his belief in a just world either by justice-promoting behavior or by endorsing system-justifying ideologies (Jost et al., 2004; Jost & Hunyady, 2005). Future research should address the implications of such real-world incidents on the potential of the proposed moderator effect.

In our mediator hypothesis, we assumed that justifying social inequalities would render active promotion of social justice to become obsolete. However, in our study, the negative effect of justification of inequality on justice-promoting behavior did not reach significance. This result may be due to the shortcomings of our participation measure. Due to our cross-sectional design, we assessed socio-political participation using individuals' ratings of their own past behavior. In general, subjective ratings of past participation may be affected by recall errors and further biases. Furthermore, self-report data of past behavior can cause difficulties regarding the causal interpretation of the findings, particularly when trying to predict behavior from attitudes or beliefs. A longitudinal design could provide more profound insight into the causal relationships among the variables of interest.

In addition to measurement issues regarding participation, actual political behavior is conceptually quite different from attitudinal variables, such as justification of inequality. According to Ajzen's Theory of Planned Behavior, a person's political behavior is determined by his or her intention to perform the respective behavior (Ajzen, 1985; Ajzen & Fishbein, 1980). Thus, socio-political participation probably is the most distal outcome in a long chain of mediating variables. In particular, it is not likely that political behavior only depends on a person's intentions and subjective control perceptions, but it will also depend on factors actually outside of the individual's control (e.g., location, time constraints; cf. Klandermans, 1997). Therefore, from a Theory of Planned Behavior perspective, collective political efficacy could be interpreted as a measure of perceived behavioral control, which could be expected to moderate the relationship between the belief in a just world and intentions toward certain behaviors, whereas the actual behavior itself would be conceptually different.

Furthermore, it might be crucial for our hypothesized moderator effect that there is an appropriate correspondence between justice beliefs, the perceived threat to justice, the measure of efficacy, and the potential outcomes. In the present context, the threat was a collective one, affecting all students (notwithstanding differences in the students' individual financial situation). The efficacy measure also specifically targeted collective political efficacy. In order to achieve a common goal within the political arena (e.g., abolition of tuition fees), means of collective action would increase the likelihood of success. By contrast, a single individual's action could not be expected to be effective in such a context. In the present study, our justice-promoting behavior measure encompassed a great variety of activities and was not limited to tuition-fee related student political activities. However, when trying to predict political behavior by a combination of justice beliefs and collective political

efficacy beliefs, measures of political behavior as outcomes should also specifically target collective justice-promoting behavior relevant to the specific group of participants. In future research, we recommend taking these limitations and suggestions into account.

Taken all together, under what kind of circumstances could we expect collective political efficacy to moderate the relation between belief in a just world and its outcomes? For the results of the present study, it might have been decisive that the student data were collected at a time when the students encountered an important and imminent threat to their sense of justice: Newly introduced tuition fees (cf. Giguère & Lalonde, 2010). Studies cited by Jost and Hunyady (2005, p. 262) provide empirical evidence that these kinds of threats lead "people to increase their use of stereotypes to justify inequality between groups." Many of the students might have felt threatened by the political decision concerning fees. Since their collective political efficacy expectations were high, and since students in general have a strong tradition of protesting, several of our participants will have been encouraged to take action on behalf of restoring justice. If people are able to collectively prevent themselves from harm, from their point of view the system remains legitimate and "just."

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