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Can moral convictions against gender inequality overpower system justification effects? Examining the interaction between moral conviction and system justification

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It has been shown that disadvantaged groups who endorse system-justifying beliefs tend to internalize their state of inferiority by expressing ingroup derogation and opposing collective action for change. In the present research, we recruited women – as disadvantaged group – from different countries (the United States, the United Kingdom, Italy) and examined whether their moral conviction against gender inequality, as an absolute stance that does not tolerate any violation, may interact with and overpower system-justifying beliefs. Results from three studies provided support for our hypotheses. First, when women held strong moral conviction, they expressed higher identification with their disadvantaged ingroup and, in turn, higher collective action intentions, independent of system-justifying beliefs. Second, when women held weak moral conviction, higher system-justifying beliefs reduced women's ingroup identification and, in turn, undermined their collective action intentions. This support is found across different contexts of gender inequality (the gender leadership gap, the gender pay gap, and the gender power imbalance), using different methodological approaches (online survey, online experiment, laboratory experiment). Implications, limits, and future directions are discussed.

Despite feminist efforts, gender inequality is a significant and persistent problem globally. Unequal opportunities for women have effects on their bargaining power in the household, in the workplace, and at the level of the state. This inequality shapes a pattern of circular causation in which women face enormous difficulties in altering gender norms and stereotypes which, in turn, limit their access to, and control over, social and material resources (Shannon, Bauman, & Mullen, 2019). Given the extent of gender inequality in the world and its social implications, one may ask why women appear to tolerate a system that perpetuates it. Why do they not act on this felt injustice more often? In this paper, we pit two seemingly opposite motivations against each other that either motivate social change or

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social stability. These opposite motivational forces help explain both why gender inequality is such a persistent problem, and what may be needed towards solving it.

In terms of the problem, people can hold strong *system justification beliefs* that serve as justifications for existing social, economic, and political arrangements, such as gender inequality (Jost & Banaji, 1994). A common way in which people justify the system is by legitimating the social order and seeing individuals as deserving the outcomes and treatments they receive (Jost & Hunyady, 2005). As a consequence, holding stronger system justification beliefs imply little reason for social change and may thus demotivate efforts towards social change. According to Jost et al. (2017), for example, individuals who are high in system justification – that is, those who are highly motivated to justify the existing structure of inequalities between groups in society – are unlikely to participate in collective action for social change. Instead, they are more likely to engage in collective action for social stability. Indeed, Osborne, Jost, Becker, Badaan, and Sibley (2019) showed that system justification is negatively associated with system-challenging collective action, but positively associated with system-supporting collective action.

In terms of a solution, however, *moral convictions against gender equality* should generally motivate efforts towards social change, as such convictions are experienced as strong attitudes that reflect the core values and norms that one is motivated to protect (Skitka, 2010). Indeed, moral conviction is an important predictor of political engagement and activism (Lodewijkx, Kersten, & van Zomerén, 2008; Waldron, Baron, Frese, & Sabini, 1988; see also Milbrath & Goel, 1977; Tyler & McGraw, 1983). Furthermore, because moral convictions are experienced as absolute stances that must be defended (Skitka et al., 2008; Skitka, Bauman, & Sargis, 2005), no violation can be tolerated (Tetlock, 2002). Indeed, violated moral convictions against inequality have been identified as a core motivation for participating in collective action for social change (van Zomerén, Postmes, & Spears, 2012; van Zomerén, Postmes, Spears, & Bettache, 2011; van Zomerén, Kutlaca, & Turner-Zwinkels, 2018; van Zomerén, 2013).

However, neither theoretical models nor empirical studies have included *both* moral convictions against inequality and system justification as opposite motivations for system-challenging collective action. Furthermore, no research to date has focused on their potential *interaction*. This is important because the moralized nature of moral convictions against gender inequality may help to overcome the demotivational effect of system justification. Indeed, previous research shows that moral conviction is uniquely experienced as a strong attitude on moralized issues that tolerates no exceptions (Skitka et al., 2008, Skitka et al., 2005) and promotes the perception of injustice and identification with the disadvantaged group (e.g., van Zomerén et al., 2018; van Zomerén, 2013). As such, we believe that moral conviction may be a unique motivation that can overpower system justification and thus reflect part of a psychological solution to the problem of persistent gender inequality.

To test this new, interaction-based hypothesis, we conducted three studies, designed to provide converging evidence across different research methods (online survey, online experiment, and laboratory experiment). We recruited samples of women from the United States (Study 1), the United Kingdom (Study 2), and Italy (Study 3), who were confronted with the gender leadership gap, the gender pay gap, and the gender power imbalance, respectively.

System justification undermines social change

People who hold system-justifying beliefs are motivated to justify the institutions and arrangements in society, often coming to see group-based inequalities as legitimate. A

critical assumption of the system justification theory (Jost, Becker, et al., 2017) is that perceptions of legitimacy are widespread not only among members of advantaged groups, but also among members of disadvantaged groups (Jost, Becker, et al., 2017; see also Jost & van der Toorn, 2012). Although this might seem counterintuitive, there is abundant evidence (see Jost, Banaji, & Nosek, 2004 for a review) that even the disadvantaged may engage in system justification, despite their personal and collective interests. This is because system justification satisfies basic epistemic, existential, and relational needs (Jost, Federico, & Napier, 2009; Jost, Gaucher, & Stern, 2015). That is, believing that the current status quo is the most representative of the way things should be and that prevailing structures in society are legitimate helps people to reduce sources of uncertainty, to manage threat and to uphold a sense of socially shared reality (Jost, Ledgerwood, & Hardin, 2008). Indeed, engaging in system justification confers palliative benefits, such as an increased satisfaction with the status quo, positive affect, happiness, and perceived control over future outcomes (Jost, Langer, et al., 2017; Napier & Jost, 2008; Osborne & Sibley, 2013; see Jost, Langer, Pelham, Sheldon, & Ni Sullivan, 2017 for a detailed discussion).

Because of its palliative function, system justification dampens identification with the disadvantaged and thus reduces support for ameliorating inequality (Jost et al., 2017; Osborne et al., 2019). There is evidence that the extent to which people legitimate the social system predicts the preservation of the current status quo and the maintenance of group-based inequalities, even if it means justifying one's own state of disadvantage (see Jost et al., 2003). For example, relative to men, women tend to evaluate themselves as less intellectually capable (Pomerantz & Ruble, 1998), to pay themselves less for the same labour (Jost, 1997), and to express sexism against women (Glick & Fiske, 2001). Calogero and Jost (2011) demonstrated that exposure to benevolent and complementary forms of sexism increases state of self-objectivation, self-surveillance, and body shame among women but not among men. In five related studies, Jost et al. (2003) pointed out that people who are disadvantaged in economic and social hierarchies tend to justify the social order that disfavors them and to legitimize the social system as well as its authorities. Jost and Thompson (2000) found that African Americans who hold system-justifying beliefs express decreased self-esteem and decreased ingroup favoritism relative to European Americans (see also Ashburn-Nardo, Knowles, & Monteith, 2003; Banaji, Greenwald, & Rosier, 1997; Spicer & Monteith, 2001). Similarly, Jost and Burgess (2000) found that, as the perceived legitimacy of the system increases, women and other disadvantaged groups exhibit less ingroup favoritism and more ambivalence towards ingroup members than men and other advantaged groups.

Taken together, these and other results (e.g., Jost & Hunyady, 2005; Major & Skitka, 2002; Schmader, Major, Eccleston, & McCoy, 2001) suggest that system-justifying beliefs are powerful tools for motivating social stability and thus undermine social change. Indeed, studies carried out in diverse settings demonstrated that the endorsement of system-justifying beliefs is negatively associated with political mobilization (Osborne & Sibley, 2013), feminist collective action (Becker & Wright, 2011), and nondisruptive as well as disruptive protest intentions (Jost, Gaucher, & Stern, 2012). High system justifiers are less likely to support the redistribution of social resources (Jost, 2015; Wakslak, Jost, Tyler, & Chen, 2007) and pro-environmental policies (Greenhill, Leviston, Leonard, & Walker, 2014). They favour the maintenance of gender status hierarchies (Brown & Diekmann, 2013) and are suspicious of activists who challenge the current status quo (Diekmann & Goodfriend, 2007). Furthermore, Osborne et al. (2019; Study 1), using nationally representative data from New Zealand, demonstrated that system justification

correlates negatively with ingroup identification for the low-status group (i.e., Maori). In turn, lower ingroup identification undermines system-challenging collective action, operationalized as protest marches and public demonstrations supporting the rights of Maori. However, none of these studies have examined whether moral convictions against gender inequality, as a unique motivational factor promoting social change over stability (Skitka, 2010), may overpower such effects of system justification.

The unique motivational power of moral conviction

Rather than beliefs about the system as a whole, moral convictions represent strong attitudes on an issue that reflects one's core values and norms (Skitka et al., 2008), such as one's stance on gender inequality. This attitude about whether something is (im)moral persists over time and influences the way in which people build their judgements and behave (Skitka & Mullen, 2002). Once people have developed a moral conviction on an issue, they are motivated to act to protect it (Tetlock, Kristel, Elson, Green, & Lerner, 2000) and to implement behavioural strategies aimed at its defence (Skitka, Bauman, & Mullen, 2004). For instance, Skitka et al. (2005) found that moral conviction increased participants' preference for social distance from attitudinally dissimilar others, and that they prefer to maintain greater physical distance between themselves and attitudinally dissimilar others. In another study, Skitka et al. (2005) found that moral conviction reduced participants' cooperativeness in attitudinally heterogeneous groups and participants' ability to generate procedural solutions to resolve disagreements.

Moral conviction can be distinguished from attitude strength particularly because of its status as motivational guide and justification for action (there are other factors as well, e.g., its perceived universality, objectivity, and autonomy; Skitka et al., 2008). Being morally convinced leads people to express judgements about whether something is right or wrong and to behave in accordance with such (moral) judgements. In a related vein, moral conviction has been identified as a core motivation for collective action participation (van Zomeren, 2013; van Zomeren et al., 2018). Results from two studies conducted by van Zomeren et al. (2012) with Dutch and Italian participants showed that holding a moral conviction about inequality fosters both collective action tendencies and actual behaviour through increased identification with a relevant group. Moreover, van Zomeren et al. (2011) found that people with moral convictions against social inequality were motivated to act collectively in support of the victims of social inequality. Specifically, in two studies conducted in the Netherlands and Hong Kong, the authors found that being morally convinced against social inequality increases identification with the disadvantaged and, in turn, enhances collective action intentions against social inequality.

We therefore hypothesize that moral conviction may have a unique motivational power (because of its moral connotation and associated intolerance for any exception and/or violation; Skitka et al., 2008, Skitka et al., 2005; Tetlock, 2002) that can counter the undermining effect of system justification on collective action. By focusing on the interaction between moral conviction and system justification, this research contributes to and moves beyond the scope of existing models of collective action (Jost et al., 2017; van Zomeren et al., 2011)¹. Furthermore, this research contributes to advancing

¹ This research moves even beyond recent meta-analytic findings (Agostini & Van Zomeren, manuscript under review) that the average motivational effect of moral conviction was stronger than the average demotivational effect of system justification.

knowledge about when disadvantaged groups (i.e., women in that context) are more (or less) likely to contest their mistreatment.

Hypotheses

To answer the question of whether moral conviction could overpower system justification, we examined system justification and moral conviction against gender inequality as opposite motivational drives for collective action engagement – high system justification leads to derogate the disadvantaged and undermines collective action for social change (Jost et al., 2017; Osborne et al., 2019; see Jost et al., 2004 for a review), whereas strong moral conviction against inequality leads to support the victims of inequality and enhances collective action for social change (van Zomeren et al., 2018; van Zomeren, Postmes, & Spears, 2012; van Zomeren, Postmes, Spears, & Bettache, 2011).

Specifically, we investigated whether the undermining effect of system justification on identification with women (the disadvantaged ingroup) and, then, on collective action against gender-based disparities may depend on the extent to which moral conviction against gender inequality is strong or weak. Thus, we examined a moderated mediation model in which the effect of system justification (the independent variable X) on collective action (the dependent variable Y) is mediated by identification with women (the mediator M), while, importantly, moral conviction against gender inequality (the moderator M) moderates the association between system justification and ingroup identification. Based on the assumption that moral conviction is experienced as an absolute stance that does not tolerate any violation (Skitka et al., 2008, Skitka et al., 2005; Tetlock, 2002), we propose that moral conviction against gender inequality can overpower the demotivational effect of system justification by motivating ingroup identification and thus collective action. In keeping with this argument, we formulated our hypotheses as follows:

Hypothesis 1. (H1): When women have strong moral conviction against gender inequality, they will identify with the disadvantaged ingroup and, consequently, will act collectively against gender-based disparities independent of system justification;

Hypothesis 2. (H2): When women have weak moral conviction against gender inequality, high (vs. low) system justification will demotivate women to identify with the disadvantaged ingroup and, consequently, to act collectively against gender-based disparities.

We examined these hypotheses in three studies that recruited women from the United States (Study 1), the United Kingdom (Study 2), and Italy (Study 3). In Study 1, we conducted an online survey aimed at obtaining initial evidence for the interactive effect of system justification and moral conviction on women's ingroup identification and, then, on their collective action intentions against the gender leadership gap. In Study 2, we extended Study 1 by manipulating system justification and focusing on the context of the gender pay gap. Finally, in Study 3, we replicated Studies 1 and 2 among an experimentally created group in the laboratory and focusing on the context of the gender power imbalance. For each study, the sample size was determined using G*power. Based on

Aguinis, Beaty, Boik, and Pierce's (2005) review, we assumed a regression model with three predictors (two main effects and one interactive effect) explaining a proportion of variance (f^2) of .05. The sample size associated with a conventional statistical power of .80, a probability level of alpha of .05, and an expected f^2 of .05, would require about 159 participants.

STUDY 1: THE GENDER LEADERSHIP GAP IN THE UNITED STATES

Method

Participants and procedure

In total, 183 women living in the United States were recruited online via Prolific and received monetary compensation for participating. Participants indicated whether they were against the gender leadership gap or in favour of it. Because of the focus on moral conviction *against* gender inequality in this research, those who expressed favourable attitudes towards the gender leadership gap ($n = 23$) were excluded. The final sample consisted thus of 160 participants aged 18–65 years ($M_{\text{age}} = 35.35$, $SD = 12.36$). In the questionnaire, we first measured moral conviction against the gender leadership gap. Then, participants were presented with an essay describing the gender leadership gap in the United States. This essay stated that although women earn more than 59% of all master's degrees (National Center for Educational Statistics, 2018) and account for 52.5% of the college-educated workforce (U.S. Bureau of Labor Statistics, 2018), they lag behind men in terms of their representation in top leadership positions. In a broad range of fields, the presence of women in top leadership positions remains stuck at 5–30% (Center for American Progress, 2018). The following pages contained measures of system justification, identification with the ingroup, and collective action intentions against the gender leadership gap. All measures employed 7-point response scales ranging from 1 = *not at all* to 7 = *very much*. Descriptive statistics and correlations between the key measures are presented in Table 1.

Materials

Moral conviction

Following Skitka et al. (2008), participants completed three items reflecting their absolute stance on the issue of the gender leadership gap ($\alpha = .83$). The items are as follows: 'To

Table 1. Study 1 – Descriptive statistics and correlations

	<i>M</i>	<i>SD</i>	(1)	(2)	(3)	(4)
(1) System Justification 95% CI	2.40	1.23	I			
(2) Moral Conviction 95% CI	5.04	1.48	–.37*** [–0.52, –0.23]	I		
(3) Ingroup Identification 95% CI	6.28	.89	–.29*** [–0.41, –0.13]	.27*** [0.12, 0.42]	I	
(4) Collective Action 95% CI	4.30	1.85	–.56*** [–0.69, –0.43]	.46*** [0.33, 0.60]	.33*** [0.18, 0.47]	I

Note. *** $p < .001$.

what extent is your opinion on the gender leadership gap a reflection of your core moral beliefs and convictions?', 'To what extent is your opinion on the gender leadership gap connected to your beliefs about fundamental right and wrong?', and 'To what extent is your opinion on the gender leadership gap based on moral principle?'

System justification

Participants were asked to read an essay about the issue of the gender leadership gap in the United States. This essay described the enormous gap between American women and men in top leadership positions by showing that, in a broad range of fields, the presence of women in top leadership positions remains stuck at 5–30%. After reading the text, participants completed three items (Jost & Burgess, 2000) designed to measure the extent to which they perceived the gender leadership gap as legitimate ($\alpha = .70$). The items are as follows: 'How fair or unfair is the gender leadership gap?', 'How justifiable or unjustifiable is the gender leadership gap?', and 'How legitimate or illegitimate is the gender leadership gap?'

Ingroup identification

Participants completed three items (van Zomeren et al., 2011) assessing their identification with women as disadvantaged ingroup members ($\alpha = .86$). The items are as follows: 'I identify with women', 'I feel strong ties with women', and 'I feel a bond with women'.

Collective action

Collective action intentions against the gender leadership gap were measured with six items ($\alpha = .96$) adapted from previous studies of van Zomeren et al. (2011). The items are as follows: 'In order to stop the gender leadership gap, I would like to participate in a demonstration', 'In order to stop the gender leadership gap, I would like to sign a petition', 'In order to stop the gender leadership gap, I would like to engage in actions', 'In order to stop the gender leadership gap, I would like to participate in some form of collective action', 'In order to stop the gender leadership gap, I would like to do something together with other people', and 'In order to stop the gender leadership gap, I would like to participate in raising a collective voice'.

Results

We expected that when moral conviction against the gender leadership gap is strong, women would be motivated to identify with the ingroup and, in turn, to act collectively against the gender leadership gap regardless of high or low system justification (*H1*). Conversely, when moral conviction against the gender leadership gap is weak, high (vs. low) system justification would demotivate women's ingroup identification and, in turn, their collective action intentions against the gender leadership gap (*H2*). These hypotheses were tested through a moderated mediation model (Figure 1), using Hayes's (2013) PROCESS macro (Model 7) with 5,000 bootstrap samples and 95% confidence intervals.

Figure 1. Study I – Moderated mediation model

As predicted, the two-way interaction between system justification and moral conviction on ingroup identification was significant, $b = .08$, $SE = .03$, $t(1, 156) = 2.31$, $p = .02$, 95% CI [0.0118, 0.1492], accompanied by an R^2 of .03, $F(1, 156) = 5.35$, $p = .02$. The simple slopes analysis (Figure 2) revealed that system justification reduced ingroup identification when women held weak moral conviction, $b = -.25$, $SE = .07$, $t(1, 156) = -3.60$, $p < .001$, 95% CI [-0.3871, -0.1130], whereas no significant relation between system justification and ingroup identification was found when women held strong moral conviction, $b = -.01$, $SE = .09$, $t(1, 156) = -.13$, $p = .90$, 95% CI [-0.1824, 0.1595].

Moderated mediation analysis revealed that ingroup identification was a significant mediator for women with weak moral conviction, $b = -.09$, $SE = .04$, 95% CI [-0.1883, -0.0174], but not for women with strong moral conviction, $b = -.004$, $SE = .03$, 95% CI [-0.0686, 0.0598]. This corroborated our expectation that system justification demotivates women with weak moral conviction, but does not demotivate women with strong moral conviction against the gender leadership gap.

Figure 2. Study I – Interaction between System Justification and Moral Conviction on Ingroup Identification

For the remainder of the model, system justification had a negative effect on ingroup identification, $b = -.13$, $SE = .06$, $t(3, 156) = -2.21$, $p = .03$, 95% CI $[-0.2475, -0.0140]$. Moral conviction had a positive effect on ingroup identification, $b = .10$, $SE = .05$, $t(3, 156) = 2.15$, $p = .03$, 95% CI $[0.0086, 0.1988]$. Ingroup identification had a positive effect on collective action, $b = .38$, $SE = .15$, $t(2, 157) = 2.52$, $p = .01$, 95% CI $[0.0813, 0.6719]$. Thus, there was a significant indirect effect of system justification on collective action through ingroup identification, $b = -.05$, $SE = .03$, 95% CI $[-0.1111, -0.0035]$. The direct and negative effect of system justification on collective action emerged, $b = -.75$, $SE = .11$, $t(2, 157) = -6.90$, $p < .001$, 95% CI $[-0.9586, -0.5321]$. The total effect of the proposed model achieved statistical significance, $Index = .03$, $SE = .02$, 95% CI $[0.0028, 0.0706]$.

Discussion

The results provided first support for the prediction that moral conviction against the gender leadership gap can overcome the undermining effect of system justification. These results revealed that system justification reduced ingroup identification only when moral conviction was weak, whereas no significant relation between system justification and ingroup identification was found when moral conviction was strong. Identification, in turn, predicted women's collective action intentions. Furthermore, moderated mediation analysis revealed that ingroup identification was a significant mediator of the association between system justification and collective action for women with weak moral conviction, but not for women with strong moral conviction. These findings support our hypotheses suggesting that when women held strong moral conviction against the gender leadership gap, they were more identified with the ingroup and, then, more willing to act collectively independent of system justification (*H1*). Instead, when women held weak moral conviction against the gender leadership gap, high (vs. low) system justification reduced their identification with the ingroup and, then, their collective action intentions (*H2*).

These findings move beyond previous theorizing and research, but also confirm such work in two ways. First, consistent with Jost et al. (2017) and Osborne et al. (2019), system justification negatively predicted collective action against the gender leadership gap not only directly but also indirectly through decreased identification with women. Thus, the perceived legitimacy of the gender leadership gap was negatively related to women's identification with the disadvantaged ingroup and their intentions to engage in collective action. Second, consistent with van Zomeren et al. (2011), van Zomeren et al. (2012), van Zomeren et al., (2018), identification with the disadvantaged ingroup was positively predicted by moral conviction, indicating that being morally convinced against the gender leadership gap helped women to identify with their disadvantaged ingroup.

However, Study 1 used a correlational design and hence does not allow inferring causation. Study 2 therefore aimed to replicate support for our hypotheses in an experimental setting in which we manipulated system justification. We made this particular choice because system justification manipulations exist in the literature and are conceptually plausible (e.g., justifying the system in response to an external trigger). Moral conviction, however, and precisely because of its presumed unique moral status and motivational power, is conceptualized as rather stable over time, and hence not amenable to experimental manipulation.

STUDY 2: THE GENDER PAY GAP IN THE UNITED KINGDOM

Method

Participants and procedure

In Study 2, 204 women living in the United Kingdom were recruited online via Prolific and received monetary compensation for their participation. As in Study 1, women who expressed favourable attitudes towards the gender pay gap ($n = 27$) were excluded. The final sample consisted thus of 177 women aged 18–74 years ($M_{\text{age}} = 35.41$, $SD = 11.97$). In the questionnaire, we first measured moral conviction against the gender pay gap. In line with Study 1, we asked participants to read an essay about the issue of the gender pay gap in the United Kingdom. This essay described the significant difference in median pay between British women and men, which results in a gender pay gap of 9.1% (Office for National Statistics, 2018). After the text, we manipulated participants' perceptions of legitimacy (i.e., high system justification condition) versus illegitimacy (i.e., low system justification condition) of the gender pay gap by written instructions. The following pages contained measures of system justification, identification with the ingroup, and collective action intentions against the gender pay gap. Again, all measures employed 7-point response scales ranging from 1 = *not at all* to 7 = *very much*. Descriptive statistics and correlations between the key measures are presented in Table 2.

Materials

Moral conviction

As in Study 1, participants completed three items measuring their moral conviction on the issue of the gender pay gap ($\alpha = .81$).

System justification

Participants were randomly presented with an essay describing the gender pay gap in the United Kingdom as either legitimate (i.e., high system justification condition) or illegitimate (i.e., low system justification condition). In the high system justification condition, participants read that *'women earn less because of choices they make. Specifically, three good reasons of the pay gap have been identified: (a) women choose to work in lower-paid sectors such as healthcare, (b) women don't negotiate for better pay. Women don't ask for raises because of their lack of assertiveness and agentic*

Table 2. Study 2 – Descriptive statistics and correlations

	M	SD	(1)	(2)	(3)	(4)
(1) System Justification 95% CI	–	–	I			
(2) Moral Conviction 95% CI	5.77	1.31	–.14 [–0.14, 0.01]	I		
(3) Ingroup Identification 95% CI	6.32	.90	–.14 [†] [–0.58, 0.01]	.34*** [0.20, 0.48]	I	
(4) Collective Action 95% CI	4.26	1.72	–.05 [–0.40, 0.19]	.37*** [0.24, 0.51]	.37*** [0.23, 0.51]	I

Note. [†] $p = .06$; *** $p < .001$.

behavior, (c) women choose to work part-time or take time out of the workforce to care for family members'. This manipulation was based on previous studies (see Jost, 2001) in which participants' perceptions of legitimacy of socio-economic inequality were experimentally induced by providing them with two good reasons why some people are less economically successful than others. In the low system justification condition, participants read that 'women earn less simply because they are women. Specifically, three main reasons for the pay gap have been identified: (a) industry and occupational segregation, with women predominating in lower-paid sectors such as healthcare, (b) women are penalized when they negotiate for better pay. When women ask for raises, they are more likely to be unsuccessful and to be turned down for being too pushy, (c) women are subjected to gender discrimination and unconscious bias'.

Manipulation check

Participants completed the same three items used in Study 1 for system justification ($\alpha = .80$).

Ingroup identification

Identification with the disadvantaged ingroup members was measured with the same three items used in Study 1 ($\alpha = .85$).

Collective action

Finally, and in line with Study 1, collective action intentions against the gender pay gap were measured through six items ($\alpha = .94$).

Manipulation check

A one-way ANOVA was conducted to check the effectiveness of the manipulation of perceived legitimacy of the gender pay gap. The experimental conditions of high (versus low) system justification to which participants were assigned represented the fixed factor into the analysis model, whereas the perceived legitimacy of the gender pay gap was the criterion. Results showed that there was a significant main effect on perceptions of legitimacy of the gender pay gap, $F(1, 175) = 4.41, p = .04, \eta^2 = .03$. Specifically, women perceived the gender pay gap as more legitimate in condition of high system justification (coded 1; $n = 87; M = 1.943, SE = .11$) relative to condition of low system justification (coded 0; $n = 90; M = 1.611, SE = .11$).

Results

We expected that when moral conviction against the gender pay gap is strong, women would be motivated to identify with the ingroup and, in turn, to act collectively against the gender pay gap in both conditions of high and low system justification (*H1*). Conversely, when moral conviction against the gender pay gap is weak, the condition of high (vs. low) system justification would demotivate women's ingroup identification and, in turn, their collective action intentions against the gender pay gap (*H2*). These hypotheses were tested through a moderated

mediation model (Figure 3), using Hayes's (2013) PROCESS macro (Model 7) with 5,000 bootstrap samples and 95% confidence intervals.

As expected, the two-way interaction between system justification and moral conviction on ingroup identification was significant, $b = .24$, $SE = .10$, $t(1, 173) = 2.44$, $p = .02$, 95% CI [.0449, 0.4296], accompanied by an R^2 of .03, $F(1, 173) = 5.92$, $p = .01$. In line with Study 1, the simple slopes analysis (Figure 4) revealed that system justification reduced identification with the ingroup when women held weak moral conviction, $b = -.49$, $SE = .18$, $t(1, 173) = -2.71$, $p = .01$, 95% CI [-0.8460, -0.1328], whereas no significant relation between system justification and identification with the ingroup was found when women held strong moral conviction, $b = .11$, $SE = .17$, $t(1, 173) = .65$, $p = .52$, 95% CI [-0.2303, 0.4566]. Further as in Study 1, moderated mediation analysis revealed that ingroup identification was a significant mediator for women with weak moral conviction, $b = -.35$, $SE = .17$, 95% CI [-0.6989, -0.0487], but not for women with strong moral conviction, $b = .08$, $SE = .11$, 95% CI [-0.1389, 0.2998].

For the remainder of the model, no effect of system justification on ingroup identification was found, $b = -.18$, $SE = .13$, $t(3, 173) = -1.41$, $p = .16$, 95% CI [-0.4293, 0.0721]. Moral conviction had a positive effect on ingroup identification, $b = .21$, $SE = .05$, $t(3, 173) = 4.33$, $p < .001$, 95% CI [0.1151, 0.3076]. Ingroup identification had a positive effect on collective action, $b = .71$, $SE = .14$, $t(2, 174) = 5.21$, $p < .001$, 95% CI [0.4408, 0.9781]. Thus, the indirect effect of system justification on collective action through ingroup identification was not significant, $b = -.12$, $SE = .09$, 95% CI [-0.3190, 0.0481]. The direct effect of system justification on collective action was not significant, $b = .001$, $SE = .24$, $t(2, 174) = .003$, $p = .99$, 95% CI [-0.4817, 0.4831]. The total effect of the proposed model achieved statistical significance, $Index = .17$, $SE = .08$, 95% CI [0.0082, 0.3365].

Discussion

The results from Study 2 corroborated results from Study 1, and hence, our prediction that moral conviction against the gender pay gap can overcome the undermining effect of

Figure 3. Study 2 – Moderated mediation model

Figure 4. Study 2 – Interaction between System Justification and Moral Conviction on Ingroup Identification

system justification. As predicted, we found that high (vs. low) system justification reduced ingroup identification when moral conviction was weak, whereas no significant relation between system justification and ingroup identification was found when moral conviction was strong.

Specifically, moderated mediation analysis revealed that when moral conviction against the gender pay gap was strong, women were more identified with the ingroup and, then, more willing to act collectively against the gender pay gap, regardless of whether they were in the high or low system justification condition (*H1*). Instead, when moral conviction against the gender pay gap was weak, women exhibited decreased ingroup identification and, then, higher collective action intentions against the gender pay gap in condition of high (vs. low) system justification (*H2*).

Unlike in Study 1, system justification was generally unrelated with ingroup identification and collective action. This could be due by the experimental nature of this study. Indeed, unlike previous research (Osborne et al., 2019), this study used an experimental, rather than correlational, design. Yet as in Study 1, and in line with van Zomeren et al. (2011), van Zomeren et al. (2012), van Zomeren et al., (2018), moral conviction positively predicted ingroup identification, so that being morally convinced against the gender pay gap seemed to motivate women to identify with their disadvantaged ingroup.

Study 3 aimed to replicate support for our hypotheses further with a different national context and sample. We also used a different experimental procedure to avoid reliance on a single operationalization of system justification in the context of gender inequality.

STUDY 3: THE GENDER POWER IMBALANCE IN ITALY

Method

Participants and procedure

A total of 262 women living in Italy took part in Study 3. They were university students and received course credits for their participation. Parallel to Studies 1 and 2, those who expressed favourable attitudes towards gender inequality ($n = 19$) were excluded. The

final sample consisted thus of 243 participants aged 18-34 years ($M_{\text{age}} = 20.14$, $SD = 1.79$). This study was introduced as a study focused on people's performance on logical and spatial tasks that contained a questionnaire section with measures of moral conviction, system justification, ingroup identification, and collective action intentions. Again, we first measured moral conviction against gender inequality. Then, we created a power differential in a way that women faced a position of low power relative to men and manipulated participants' perceptions of legitimacy (i.e., high system justification condition) versus illegitimacy (i.e., low system justification condition) of the gender power imbalance by spoken instructions. The following pages contained measures of system justification, identification with the ingroup, and collective action intentions against the gender power imbalance. All measures employed 7-point response scales ranging from 1 = *not at all* to 7 = *very much*. Descriptive statistics and correlations between the key measures are presented in Table 3.

Materials

Moral conviction

As in Studies 1 and 2, participants completed three items measuring their moral conviction on the issue of gender inequality ($\alpha = .78$).

Cover story

Participants were led to believe that the research project focused on people's performance on logical and spatial tasks. They were told that 'because people's performance in these tasks can predict performance, for example, at school or in the workplace, it's important to understand individual differences in logical and spatial abilities'.

Gender power imbalance

Drawing on previous studies examining power differential in group relations (see Haines & Jost, 2000), we defined the gender power imbalance in terms of outcome control. Thus, participants were asked to solve a logical-spatial task, which required the construction of a Lego model by assembling colourful plastic bricks, gears, and various other parts. They had to connect Lego blocks in a way that gears turn smoothly, without the use of written

Table 3. Study 3 – Descriptive statistics and correlations

	<i>M</i>	<i>SD</i>	(1)	(2)	(3)	(4)
(1) System Justification 95% CI	–	–	1			
(2) Moral Conviction 95% CI	5.65	1.26	.12 [–0.01, 0.12]	1		
(3) Ingroup Identification 95% CI	4.23	1.59	–.11 [–0.46, 0.04]	.002 [–0.13, 0.13]	1	
(4) Collective Action 95% CI	3.39	1.85	–.17** [–0.58, –0.08]	.18** [0.05, 0.30]	.26*** [0.14, 0.38]	1

Note. ** $p < .01$; *** $p < .001$

and pictorial instructions. Participants were led to believe that their performance would be videotaped and that the level of their logical and spatial abilities would be dependent to men's judgements.

System justification

After artificially creating the power differential disavouring women, participants were randomly assigned to one of two experimental conditions aimed to manipulate perceptions of legitimacy (i.e., high system justification condition) or illegitimacy (i.e., low system justification condition) of the gender power imbalance. In the high system justification condition, participants were told that *'women were placed in a position of low power relative to men because they are generally less able than men to resolve logical and spatial problems'*. Thus, the gender power imbalance was explained in terms of *'men's competence in performing on logical and spatial tasks'*. This manipulation was based on existing findings in literature showing that being competent as a reason for acquiring power is associated with very high levels of legitimacy (Ellemers, Wilke, & van Knippenberg, 1993; see Haines & Jost, 2000). In the low system justification condition, by contrast, participants were told that *'women were placed in a position of low power relative to men simply because they are women'*. Thus, the gender power imbalance was explained in terms of *'gender beliefs and preference for the male gender'*.

Manipulation check

As in Studies 1 and 2, participants were asked to complete three items for system justification ($\alpha = .94$).

Ingroup identification

Participants rated their identification with the disadvantaged ingroup through the same three items used in Studies 1 and 2 ($\alpha = .86$).

Collective action

Finally, we measured collective action intentions against the gender power imbalance by asking participants to complete the same six items used in Studies 1 and 2 ($\alpha = .97$).

Manipulation check

A one-way ANOVA was conducted to check for the effectiveness of the manipulation of perceived legitimacy of the gender power imbalance. The experimental conditions of high (versus low) system justification to which participants were assigned represented the fixed factor into the analysis model, whereas the perceived legitimacy of the gender power imbalance was the criterion. Results showed that there was a significant main effect on perceptions of legitimacy of the gender power imbalance, $F(1, 241) = 13.72, p < .001, \eta^2 = .05$. Specifically, women perceived the gender power imbalance as more legitimate in condition of high system justification (coded 1; $n = 121$; $M = 3.603$, $SE = .15$) relative to condition of low system justification (coded 0; $n = 122$; $M = 2.847$, $SE = .14$).

Results

We expected that when moral conviction against gender inequality is strong, women would be motivated to identify with the ingroup and, in turn, to act collectively against the gender power imbalance in both conditions of high and low system justification (*H1*). Conversely, when moral conviction against gender inequality is weak, the condition of high (vs. low) system justification would demotivate women's ingroup identification and, in turn, their collective action intentions against the gender power imbalance (*H2*). These hypotheses were tested through a moderated mediation model (Figure 5), using Hayes's (2013) PROCESS macro (Model 7) with 5,000 bootstrap samples and 95% confidence intervals.

As in Study 1-2, the two-way interaction between system justification and moral conviction on ingroup identification was significant, $b = .37$, $SE = .16$, $t(1, 239) = 2.29$, $p = .02$, 95% CI [0.0511, 0.6881], accompanied by an R^2 of .02, $F(1, 239) = 5.22$, $p = .02$. Simple slopes analysis (Figure 6) revealed that system justification reduced identification with the ingroup when women held weak moral conviction, $b = -.81$, $SE = .29$, $t(1, 239) = -2.81$, $p = .005$, 95% CI [-1.3761, -0.2410], whereas no significant relation between system justification and identification with the ingroup was found when women held strong moral conviction, $b = .12$, $SE = .29$, $t(1, 239) = .42$, $p = .67$, 95% CI [-0.4428, 0.6863].

Further as in Study 1-2, moderated mediation analysis revealed that ingroup identification was a significant mediator for women with weak moral conviction, $b = -.23$, $SE = .10$, 95% CI [-0.4607, -0.0538], but not for women with strong moral conviction, $b = .03$, $SE = .09$, 95% CI [-0.1432, 0.2113]. This means that system justification demotivated women with weak moral conviction but did not demotivate women with strong moral conviction.

For the remainder of the model, no effect of system justification on ingroup identification was found, $b = -.34$, $SE = .20$, $t(3, 239) = -1.69$, $p = .09$, 95% CI [-0.7431, 0.0563]. No effect of moral conviction on ingroup identification was found, $b = .03$, $SE = .08$, $t(3, 239) = .31$, $p = .76$, 95% CI [-0.1340, 0.1844]. Ingroup identification had a positive effect on collective action, $b = .28$, $SE = .07$, $t(2, 240) = 3.93$, $p < .001$, 95% CI [0.1416, 0.4264]. Thus, the indirect effect of system

Figure 5. Study 3 – Moderated mediation model

Figure 6. Study 3 – Interaction between System Justification and Moral Conviction on Ingroup Identification

justification on collective action through ingroup identification was not significant, $b = -.10$, $SE = .07$, 95% CI $[-0.2492, 0.0166]$. The direct and negative effect of system justification on collective action emerged, $b = -.51$, $SE = .23$, $t(2, 240) = -2.24$, $p = .03$, 95% CI $[-0.9643, -0.0624]$. The total effect of the proposed model achieved statistical significance, $Index = .11$, $SE = .06$, 95% CI $[0.0096, 0.2253]$.

Discussion

Results from Study 3 replicated results of Studies 1 and 2 among an experimentally created disadvantaged group in the laboratory: high (vs. low) system justification reduced ingroup identification when moral conviction against gender inequality was weak, whereas no significant relation between system justification and ingroup identification was found when moral conviction against gender inequality was strong. As in Study 1-2, moderated mediation analysis revealed that when women held strong moral conviction, they tended to identify with the ingroup and, then, to participate in collective action in both conditions of high and low system justification (*H1*). Instead, when women held weak moral conviction, they exhibited decreased identification with the ingroup and, then, collective action intentions in condition of high (vs. low) system justification (*H2*). Study 3 thus offered further support for these predictions, which replicated across three studies and independent of the specific sample, context, and methods used. This suggests that moral conviction can indeed overcome the undermining effect of system justification.

We note that system justification was unrelated with ingroup identification, as in Study 2, and negatively related with collective action, as in Study 1. Also, no association between moral conviction and ingroup identification was found in Study 3². Such differences between studies could be attributed to the different experimental procedures used or to

² One possible explanation could be the conceptual mismatch between these constructs: we indeed examined whether moral conviction on the (broader) issue of gender inequality influences identification with the victims of the (specific) gender power imbalance. Therefore, the lack of significant association between moral conviction and ingroup identification could be caused by the fact that these constructs differ in the level of specificity at which they describe gender-based disparities.

the specific gender context we focused on. We are therefore hesitant to draw conclusions based on these findings, but instead draw conclusions based on the key findings that were replicated across the studies, and thus despite any differences in context of method used.

GENERAL DISCUSSION

Through the present research, we aimed to investigate whether moral conviction against gender inequality can be a solution to the problem of system justification – namely, its demotivating effects on women's (motivation for) collective action against gender inequality. This is important because it provides new insights into whether being morally convinced against gender inequality helps women to resist the detrimental effect of system justification. In and across three studies, focusing on different contexts of gender inequality (the gender leadership gap, the gender pay gap, and the gender power imbalance) in different countries (the United States, the United Kingdom, and Italy), we consistently found that when women held strong moral conviction against gender inequality, they expressed greater ingroup identification and, in turn, greater collective action intentions, regardless of whether system justification was high or low. Conversely, when women held weak moral conviction against gender inequality, high (vs. low) system justification reduced women's identification with the ingroup and, in turn, their collective action intentions. Put differently, system justification demotivated women in taking collective action against gender-based disparities *only* when their moral conviction against gender inequality was weak.

Implications

These results contribute to and move beyond previous theoretical models and findings in two ways. First, they confirm that as system-justifying beliefs – that is, beliefs motivating people to imbue the social system with legitimacy – increase, people are likely to derogate those who are disadvantaged in society and to favour the stability of prevailing societal arrangements (see Jost et al., 2004 for a review), while undermining system-challenging collective action (Osborne et al., 2019). For instance, Jost et al. (2012) found that system justification reduced support for collective action against ingroup disadvantage. Specifically, in Study 1, the authors found that students with high system justification were less likely to act collectively against the governmental bailout of Wall Street. In Study 2, May Day protesters in Greece with a system-justifying stereotype were less willing to act collectively. Conversely, in Study 3, low system justification facilitated collective action engagement among members of a British teachers' union. Furthermore, Osborne et al. (2019) proposed and found that, for low-status group members, system justification triggered a series of responses – such as a decreased ingroup identification – that demotivated collective action for social change.

Second, our findings confirm that moral conviction, as a unique moral motivation, promotes system-challenging collective action (van Zomeren et al., 2011, 2012, 2018). For example, it has been shown that the greater people's moral conviction against social inequality, the greater their motivation to identify with the victims of social inequality and to participate in collective action aimed at promoting social change (van Zomeren et al., 2011). Also, in Study 1, van Zomeren et al. (2012) found that holding strong moral conviction against increased tuition fees predicted identification with the student union, which in turn predicted collective action tendencies against an increase in tuition fees.

Study 2 corroborated findings from Study 1 by showing that being morally convinced on the 'right to know' motivated participants to identify with Greenpeace and in turn, to sign a Greenpeace petition. In addition, our results agree with those reported by Mullen and Skitka (2006) that moral conviction led people to adjust their perceptions of legitimacy or illegitimacy.

Besides confirming previous findings, the present research moves beyond existing studies and theoretical models (Jost et al., 2017; Osborne et al., 2019; van Zomeren et al., 2011, 2012) in at least three ways. First, by focusing on the two-way interaction between moral conviction and system justification that is absent from existing theoretical models, we show that when moral conviction against gender inequality is strong, system justification may not prevent motivation to press for social change – women high in moral conviction against gender inequality may be motivated to press for social change even if they perceive gender inequality as legitimate. Second, unlike previous studies, we manipulate system justification in terms of high versus low perceived legitimacy of gender inequality, which enables us to establish a causal relation between key constructs. Third, we focus on a different context of inequality (i.e., gender inequality) and sample (i.e., women), suggesting that existing findings and models may apply to this context as well.

Against this backdrop, we interpret our results as confirming a psychological problem for those who seek social change (i.e., system justification), and as offering a potential psychological solution (i.e., moral conviction). Indeed, given that moral convictions against gender inequality seem able to overpower system justification, it seems important for those who seek social change to seek to foster such convictions in the broader population (i.e., attitude moralization) or seek to emphasize its illegitimacy as to prevent system justification processes from taking place.

Limitations and future directions for research

Because we showed converging evidence pre-existing (Studies 1 and 2) and experimentally created (Study 3) groups when system justification was either measured (Study 1) or manipulated (Studies 2 and 3), the pattern of results we found seems quite supportive of our prediction that holding strong moral convictions against gender inequality can overcome the detrimental influence of system justification. However, more research is needed to investigate whether the current results can be extended to other manifestations of social inequality, system justification, and moral conviction, such as those revolving around classism, racism, or sexual orientation-based discrimination. This would enhance their robustness as well as their theoretical and practical relevance.

Moreover, most studies in this field have relied on intentions or willingness to engage in collective action rather than on actual behaviour (but see De Cristofaro et al., 2019; Lodewijkx et al., 2008). Addressing this issue, future research could focus on people's collective action behaviour and examine whether the current findings extend to people's actual behaviour. Both conceptually and empirically, however, we would expect results to generalize to behaviour (although with a smaller effect size). Conceptually, there is plenty of evidence to support the simple hypothesis that intentions translate into behaviour, and empirically meta-analytic findings suggest smaller motivational effects for behavioural measures, but positive and reliable effects nevertheless (van Zomeren et al., 2008).

Another road for future research is to develop the current interaction approach in more detail, for example by including other core motivations for collective action, such as group- and system-based injustice and anger, and group efficacy beliefs (e.g., van Zomeren

et al., 2018). We focused in the present research on group identification as key mediator of the relation between system justification and collective action because a core idea from the literature is that people are motivated to act collectively on the psychological basis of their group identity (van Zomeren et al., 2008). As the main goal of the present research was to examine whether moral conviction against gender inequality can withstand system justification, we examined the interactive effect of moral conviction and system justification on ingroup identification and then collective action intentions. We see this as a logical first step towards better understanding the interaction between moral conviction and system justification, and see it as the next logical step to include other core motivations in this line of thought (Jost et al., 2017; Osborne et al., 2019; van Zomeren et al., 2011).

Finally, we encourage researchers to also test the interaction between moral conviction and system justification among *men* (as advantaged outgroup members). Gender equality is not only an inalienable human right but also a necessary foundation for a peaceful and sustainable world with full human potential that brings strong benefits for women, men, and people of all gender identities (UN Gender & Equality, 2018). As such, it is imperative to uncover when, why, and how people, disadvantaged and advantaged, become motivated to express solidarity and mutual support as well as intentions to challenge existing gender-based disparities.

Conclusion

Based on previous findings that moral conviction against inequality and system justification are key motivators for social change and social stability, respectively, this research examined their joint effect on identification with women (as disadvantaged group members) and, in turn, collective action intentions. Three studies documented converging evidence for our hypotheses that, first, when their moral convictions were strong, women expressed greater ingroup identification and, in turn, greater collective action intentions, independent of system justification. Second, when their moral convictions were weak, higher system justification reduced women's ingroup identification and, in turn, their collective action intentions. These results suggest that moral convictions about gender inequality can overpower system justification beliefs and thus advance our knowledge of factors and processes that help disadvantaged group members to challenge (versus accept) group-based disparities in the context of gender inequality.

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Conflicts of interest

The Authors declare that there is no conflict of interest.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and national research committee and with

the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

Informed consent

Informed consent was obtained.

Data availability

Data will be made available on request.

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