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How fair is economic inequality? Belief in a just world and the legitimization of economic disparities in 27 European Countries**Running Head: BELIEF IN A JUST WORLD AND FAIR INEQUALITY****Abstract**

This paper aims to examine the role of Belief in a Just World (BJW; Lerner, 1980) in the legitimization of economic inequality. Using data from 27 European countries (N=47,086), we conducted multilevel analyses and found that BJW positively predicted the legitimization of economic inequality, measured by three indicators: the perceived fairness of the overall wealth inequality, and the fairness of the earnings made by the Top 10% and the Bottom 10% of society. These results persisted after controlling for individual- and country-level variables. Moreover, the BJW effect was stronger on the legitimization of the Bottom 10% incomes, compared to the legitimization of the Top 10%. We also found that economic inequality at the country-level reduced the BJW effect on legitimization of inequality. Finally, BJW displayed a negative indirect effect on support for redistribution, via the legitimization of economic inequalities.

Key words: Belief in a Just World, economic inequality, legitimization of inequalities, blaming the poor, European Social Survey

The rise of inequalities in recent decades (e.g., Human Development Report, 2019; Keeley, 2015), together with the acknowledgment of its serious consequences for health and well-being (Buttrick & Oishi, 2017; Picket & Wilkinson, 2015), have made them a major concern for world leaders and academics. Importantly, research has shown that most of these inequalities are not only underestimated (e.g. Norton & Ariely, 2011), but are also reinforced by legitimizing ideologies that make inequality seem fair by blaming the poor and enhancing the rich (see, for example, Dorey, 2010; Horowitz & Dovidio, 2017; Durante & Fiske, 2017; Jost, et al., 2005). Although previous studies have examined the role of different sets of ideologies in legitimizing economic inequality, such as Meritocracy (García-Sánchez et al., 2019), Neoliberalism (Azevedo et al. 2019), or Economic System Justification (Goudarzi et al., 2020), the role of a broader ideology, such as the Belief in a Just World—a motivation to perceive the world as fair, a world in which people get what they deserve (BJW; Lerner, 1980)—has been less studied.

In short, in this paper we will test whether BJW plays a unique predictive role in understanding the legitimation of economic inequalities. Specifically, using data from 27 European countries (European Social Survey, 2018), we will examine and compare the association of BJW and the perception of fairness of the overall wealth inequality, as well as the perceived fairness of the incomes earned by the Top and Bottom 10% of the population. We will take into account individual (gender, age, religiosity, political orientation, income and years of education) and country-level variables (i.e., Human Development Index) that may affect the legitimation of inequality. Furthermore, we also will examine the possibility that the legitimation of economic inequalities mediates the association between BJW and support for redistribution.

Theoretically, this paper represents an important extension of the study of BJW and the legitimation of economic inequalities. Firstly, despite BJW being related to an overall

justification of the status quo, there is little information about how it is related to the current economic disparities. In this paper, we will provide robust evidence that BJW can be applied to the economic arena by making people legitimate more economic inequality. Secondly, we will approach the legitimation of economic inequality from two different and complementary perspectives: on the one hand, the overall legitimation of economic inequality, which captures an abstract evaluation of the social issue; and, on the other, the legitimation of the incomes at the Top and Bottom 10% of society, which captures the social comparison perspective embedded in inequality evaluations. These indicators will allow us to compare the asymmetries of the association between BJW and the legitimation of inequality, and assess whether BJW is more oriented toward blaming the disadvantaged or enhancing the advantaged. Thirdly, we will test, if and how, the previous association between BJW and the legitimation of inequality differs according to the degree of social inequality in each country studied. Fourthly, we suggest that the association between BJW and the legitimation of inequality may have practical implications for the individuals' responses to inequality, namely for the support for redistributive policies.

Belief in a Just World and the Legitimation of Inequality

The legitimation of social inequality relies on the overall belief that the current state of affairs—and other social arrangements—are appropriate, proper and just (Tyler, 2006). The formation of such beliefs are based on different, yet complementary social psychological processes, including both intergroup dynamics (e.g., prejudice, discrimination, see Durante et al., 2013), as well as individual dispositions (e.g., social dominance) or psychological motivations (e.g., system justification) (see Costa-Lopes, et al., 2013). These theoretical frameworks have provided a fertile ground to explain social inequalities focusing on specific disadvantaged minority groups (e.g., Cozzarelli, et al, 2001; Pratto et al., 2013), such as the

low socioeconomic groups, ethnic/religious minorities or women. However, less research has focused on the legitimation of the economic system (Jost, et al., 2003).

BJW can be a core concept to best understand individuals' motivation for legitimating inequalities. BJW—"the belief that people get what they deserve or, conversely, deserve what they get" (Lerner & Simmons, 1966, p. 204)—was proposed as a core human need, fundamental in allowing people to continue to keep their faith that the world will be fair to them (personally or their social group), despite all the injustices people are confronted with in their daily lives (Lerner, 1980). This is because in a just world "good things happen to good people" (Lerner, 1987, p. 110) and "bad things happen to bad people" (Lerner, 1998, p. 251). Thus, both unjust advantage and disadvantage are threats to BJW and may motivate individuals to legitimize these perceived injustices. "Something good happening to a bad person" or "something bad happening to a good person" is cognitively dissonant with a just world assumption and influences the reasoning process of what might have caused the outcome. As a motivated reasoning process (Kunda, 1990), the justice need makes people arrive at a desired conclusion that preserves the perception of justice (Lerner, 1980).

Results of several empirical studies have supported the motivation to legitimize both the privileges and disadvantages of groups and individuals. The first study testing the assumptions of BJW theory showed that participants evaluated that a target who had been randomly rewarded was considered the one that had contributed most to the task (Lerner, 1965). Conversely, the target that had not been randomly rewarded was considered the one that had contributed least. This result was interpreted as showing a motivation to perceive rewards as deserved, which means a motivation to associate good outcomes with peoples' good deeds, and bad outcomes with peoples' bad deeds. We believe this could be the mechanism underlying the legitimation of the economic standing of both rich and poor individuals. Positive associations have been found between the BJW measures and a negative

evaluation of the low socioeconomic status groups (Furnham & Gunter, 1984; Harper et al., 1990; Harper & Manasse, 1992; Reichle et al., 1998; Smith 1985). In the same line, Correia et al. (2018) found, using probabilistic representative samples of Portuguese citizens, that the more the participants endorsed BJW, the more they blamed the Portuguese people for the situation that had led them to the economic crisis of 2008 and the bailout of 2011. The studies investigating the association between BJW and positive attitudes towards privileged people are far less numerous than the ones focused on people that are discriminated against. Despite of it, interestingly, they refer to economic privileges. Research has found BJW positively associated with praising the wealthy (Smith, 1985) and with celebrity worship (McCutcheon, 2003). These findings seem to support the idea that BJW is associated with a perception of societal rewarding systems as fair. As far as we know, only one study has specifically addressed the relationship between BJW and the legitimation of economic inequalities overall (Smith, 1985). Its results showed that BJW was positively correlated with the probability of perceiving inequalities as just, inevitable and immutable; and negatively correlated with the perception of the extension of inequalities.

Furthermore, the measurement of BJW as an individual difference measure, showed the association between BJW and a negative assessment of a great diversity of victimization and disadvantaged situations, such as accidents, illnesses, disabilities, rape or unemployment (see Hafer & Bègue, 2005, and Montada, 1998 for reviews). In sum, the empirical evidence shows that BJW is associated both with negative attitudes towards relatively disadvantaged people and positive attitudes towards relatively privileged people. Accordingly, in our study we expected (H1) a positive association between BJW and the legitimization of inequality, over and above individual control variables (i.e., gender, age, religiosity, political orientation, income and years of education). Particularly, we expected to find BJW playing a unique

predictive role in the legitimation of the overall wealth inequality (H1a); and the legitimation of incomes made by the Top 10% (H1b) and the Bottom 10% of society (H1c).

Moreover, we predicted (H2) that the BJW effect would be stronger for the perceived fairness of the Bottom 10% (blaming the poor), compared to the perceived fairness of the Top 10% incomes (enhancing the rich). Firstly, because “bad is stronger than good” (Baumeister, et al., 2001), the association between “bad things and bad people” could be expected to be stronger than the association between “good things and good people”. Secondly, because thinking about people with low resources might create greater dissonance (i.e., “innocent victim”) than thinking about people with high resources (i.e., “deserving wealthy”), people could justify more the low incomes of the poor (vs. the high incomes of the wealthy) as a way to restore the sense of justice (Correia, Pereira, & Vala, 2018).

Economic inequality as moderator of the BJW effect on the legitimation of inequalities

Another important research line within the BJW framework is the study of the factors increasing the threat to BJW, and the motivation to reestablish it by the legitimation of injustices. Some of these factors, besides the individual measure of the perceiver’s BJW, are the innocence and the persistent suffering of the disadvantaged people and the fact that participants belong to the same disadvantaged group (see Correia et al., 2018, for a review).

At the societal level, country income inequality indicates more difficulties in relieving the suffering of the poorer groups. Karagiannaki (2013) shows a strong positive correlation between levels of inequality and levels of poverty in countries with high to middle levels of income. In other words, the higher the gap between the Bottom and the Top, the harder the living conditions of the poor. Moreover, there is a negative relation between inequality and social mobility (Andrews & Leigh, 2009). Thus, people living in high unequal contexts have harsher living conditions and may have fewer possibilities of changing their status. Unequal

societies also increase the salience of social class, which activates a sense of threat for individuals' status (Solt, et al., 2017). This state of threat increases psychological discomfort—dissonance—, which might end up increasing the motivation to justify the status quo (Friesen, et al., 2018; Jost, et al., 2015). For instance, inequality can lead people to underestimate their own social standing (Lindemann & Saar, 2014), and make them feel they are less wealthy (Sánchez-Rodríguez, et al., 2019). Inequality actually augments social class signals that lead people to engage in social comparisons and create greater social distance between groups (i.e., rich and poor) (Kraus, et al., 2017). In sum, these findings suggest that economic inequality relies on social comparison and exacerbates individuals' status threat and anxiety (Paskov, et al., 2013).

Therefore, we expected that in countries where inequality is higher, the BJW effects on the legitimization of inequality might be stronger, as the need to justify it could be higher. We thus expected economic inequality (Gini index) to strengthen the positive association between BJW and the legitimization of inequality (H3): the legitimization of the overall wealth inequality (H3a); and the legitimization of the high incomes of the Top 10% (H3b) and the low incomes of the Bottom 10% (H3c).

In addition, we explored whether BJW had an indirect effect on attitudes toward redistribution via legitimization of economic inequality. Since this legitimization varies in accordance with the individuals' perspective (i.e., overall evaluation, Top 10% or Bottom 10%), we fitted a parallel multilevel mediation model to identify which perspective passed the BJW effect to support redistribution more effectively. Given that support for redistribution is usually linked to the social safety net, it is likely that legitimating the low income at the Bottom 10% plays a more important role than the other perspectives. We then tested whether there is an indirect effect between BJW on attitudes toward redistribution through legitimization of economic inequality (overall wealth inequality, Top and Bottom 10%): the

indirect BJW effect on attitudes toward redistribution might be stronger through the legitimization of the low incomes of the Bottom 10% (the “blaming the poor” path) than through the legitimization of high incomes of the Top 10% (the “enhancing the rich” path).

The Present Research

We examined the BJW effect on the legitimization of economic inequality measured by three indicators that capture different dimensions of the same construct, such as the legitimization of the overall wealth inequality, and the legitimization of both the high incomes of the Top 10% and the low incomes of the Bottom 10%. We reasoned that the legitimization of economic inequality depends on the perspective that people have on this phenomenon. In other words, whether they think of inequality as a broad, abstract issue, or pay attention to specific groups (e.g., the wealthy vs. the disadvantaged).

We tested our hypotheses by using survey data from the 9th wave of the European Social Survey (European Social Survey, 2018), released in June 2020. This survey collects random representative samples from 27 European countries¹ about different social, economic, and political issues. The 9th wave of the ESS included a special rotating module on procedural justice and fairness, which fitted the testing of our hypotheses. We stated our hypotheses and analyses plan before having access to the whole dataset, but omitted a formal preregistration in a public repository because of the data having already been collected and we did not establish in advance all the details of our analytical strategy (e.g., outliers exclusion, control variables, etc.).

Furthermore, the above survey also includes information about individual variables (gender, age, religiosity, political orientation, income and years of education) that might also affect the legitimization of the Top 10% and Bottom 10% and that will be used as control

¹ The countries were: Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czechia, Germany, Estonia, Spain, Finland, France, United Kingdom, Croatia, Hungary, Ireland, Italy, Lithuania, Latvia, Montenegro, Netherlands, Norway, Poland, Portugal, Serbia, Sweden, Slovenia, Slovakia

variables in our analysis. Therefore, we will test the predictive power of BJW over and above those individual variables.

Method

Participants

The sample was composed by 47,086 participants ($M_{age} = 51.13$ years, $SD = 18.63$, $Min = 15$, $Max = 90$; 53.80% female), interviewed in 27 European countries ($N_{average} = 1896$, $Min_{Cyprus} = 781$, $Max_{Italy} = 2745$). Data was collected between August 2018 and May 2019; and is publicly available at the ESS website – European Research Infrastructure (See Table S1 for sample size and descriptive statistics per country).

Measures

Legitimation of economic inequality. The legitimation of inequality was measured by using three different, yet complementary, indicators of economic inequality legitimation: the perceived fairness of the overall level of wealth inequality; the perceived fairness of incomes received by people at the Top 10% and by people at the Bottom 10% in each country. We argue that these three indicators capture different dimensions of the legitimation of economic inequality. On the one hand, the fairness attributed to wealth disparities is a straightforward general evaluation of how the resources are distributed. On the other, inequality is both a relative and relational phenomenon and, therefore, the perceived fairness attributed to one side of the social ladder (i.e., the Top 10%) implies a social comparison with the other side (i.e., the Bottom 10%). In fact, before evaluating the fairness of the Top 10% and Bottom 10%, participants were shown the actual data from both groups.

The legitimation of overall levels of wealth inequality was measured by a single item, in which individuals had to report how fair differences in wealth in their country are. To do so, participants used a 9-point scale ranging from “extremely unfair small differences” (–4), “Fair

differences” (0), to “extremely unfair large differences” (4). We reverse coded these values, so that positive values meant more legitimization of wealth inequality²

The second and third indicators were the legitimization of the incomes received by the people at the Top 10% and the Bottom 10% of the social ladder, respectively. After showing a figure depicting the actual earnings of the people at the Top and Bottom 10% of the distribution of income, participants were asked to answer the following questions: “Please think about the Top 10% [Bottom 10%] of employees working full-time in [country], earning more [less] than [amount per month or per year]. In your opinion, are these incomes unfairly low, fair, or unfairly high? Please think generally about people earning of income.” Participants had to rate how fair those incomes were by using a 9-point scale ranging from “extremely unfair low incomes” (–4), “fair incomes” (0), to “extremely unfair high incomes” (4). For the legitimization of incomes at the Top 10%, we reverse scored the scale, so that positive values meant higher perceived legitimization of higher incomes. For the legitimization of incomes at the Bottom 10%, we kept the values as they were, since positive values already indicated higher legitimization of Bottom 10% incomes² (see Supplementary material for figures and the exact wording used to measure these indicators).

Belief in a just world. We used three indicators related to individuals’ perceptions about the fairness of outcomes people get in life. ESS took these items from the widely used General Belief in a Just World scale (Dalbert et al., 1987). This three-item version has already been used with representative national samples (Correia et al., 2018). Items were measured in a 5-point Likert scale from 1 “Agree strongly” to 5 “Disagree strongly”. The wording of items was: “I

² We assume that people who reported that the overall wealth inequality as “extremely unfair small differences in wealth” legitimate even more inequality than those who say it is just “fair”, because they expect that inequality should be larger than it actually is. Similarly, when people reported the income fairness of the Top 10% as “extremely unfair low incomes”, it means they expect that the Top 10% incomes should be higher, indicating more legitimization of their incomes than when people just say that those are “fair” incomes. In contrast, when people reported the fairness of the Bottom 10% incomes as “extremely unfair high incomes”, it means that people legitimate lower incomes more than those who say it is “fair”—they think that the poor should earn less money than they actually earn.

think that, by and large, people get what they deserve”; “I am confident that justice always prevails over injustice”; “I am convinced that, in the long run, people will be compensated for injustices”. The items showed adequate internal consistency ($\alpha_{\text{Chronbach}} = 0.75$; $.55 \leq r_{\text{item-total}} \leq .74$), and a multilevel confirmatory factor analyses provided a perfect model fit, which suggests appropriate psychometric properties for this measure. Items were reverse coded and computed as a mean score, so that higher values meant more BJW endorsement.

Support for redistribution. In line with previous literature, we used a commonly used proxy indicator for individuals’ attitudes toward measures aimed at reducing inequality through redistributive policies (Clark & Senic, 2010). Participants were asked to mark their level of agreement with the following statement: “The government should take measures to reduce differences in income levels”. This indicator was measured in a 5-point Likert scale ranging from 1 “Agree strongly” to 5 “Disagree strongly”. Scores were reversed, so that higher values meant stronger support for redistribution.

Economic inequality. We used the Gini coefficient, which is a measure of income distribution that ranges from perfect equality (everyone has the same resources, 0), to perfect inequality (one person has all the resources, 100). This data was taken from EUROSTAT (2020), which computes data for all European countries based on the European Statistics on Income and Living Conditions (EU SILC). For robust checks, we also used two other indicators of inequality and social exclusion at the country level, such as the income quintile ratio (80/20 index), and the index of people at risk of poverty and social exclusion (AROPE). This information is reported in the supplementary material (Tables S2, S3 and S4).

Covariates. Considering that both the legitimation of economic inequality, as well as the support for redistribution varies as a function of individual differences and contextual factors, we controlled for the following variables in our analyses:

Belief in equality of opportunities. It is related to the overall credence that everyone has a fair chance to get access to education and job opportunities. This measure was computed as the mean score of two indicators (“Overall, everyone in [country] has a fair chance of achieving the level of education they seek”, “Overall, everyone in [country] has a fair chance of getting the jobs they seek”, $r(45,370) = .59, p < .001$). Participants had to rate to what extent such sentences applied to their countries in an 11-point scale from 0 “Does not apply at all” to 10 “Applies completely”.

Political ideology. A single item asked individuals to place themselves on a scale ranging from 0 “Left” to 10 “Right”.

Religiosity. People were asked to rank themselves, regardless of their particular religion, by saying how religious they would say they were, by using an 11-point scale ranging from 0 “Not at all religious” to 10 “very religious”.

Socioeconomic Status (SES). We accounted for SES by income, and by level of education. SES by income was captured by a single item asking people about the sum of the net incomes received by all sources in their household. A card was provided with 10 options listing ten income range categories that broadly represent the current deciles of household income in the country. Higher values meant higher household income. As for SES by education, it was measured as the number of years of education completed by participants. We also controlled for Gender (1 = female, 0 = male) and age (in years).

Human Development Index. Economic inequality indicators draw a picture of resources distribution—or concentration—, but do not say anything about the amount of resources that are available. This makes a difference, since inequality can have a different influence in poorer or richer countries. We thus controlled for the Human Development Index, which was coined by the United Nations Development Programme (UNDP, 2019) to capture, in a single measure,

three indicators: the income per capita (gross domestic product), and the indexes of life expectancy and education in a given country.

Analytical strategy

We fitted three multilevel regression models, one per each dependent variable: perceived fairness of the overall wealth inequality, and the perceived fairness of the relative incomes made by the Top 10% and the Bottom 10% of society. In each model, we included BJW as the main predictor, and controlled for covariates both at the individual- and societal-level. We also included the main effect and cross-level interaction of objective economic inequality on the association between BJW and the legitimation of economic inequality (the step-by-step for building each model is reported in Tables S2-S4 in the supplementary material).

In the second stage of our analytical strategy, in an exploratory vein, we fitted a multilevel mediation analysis (of the type 1-1-1), in which all variables were measured at the individual level (Zhang, et al., 2009). In these analyses, we also controlled for other individual level variables, as well as for contextual variables, such as inequality and human development. All the analyses reported in this paper were supported by R software (R Core Team, 2019) and the lme4 (Bates et al., 2015) and lavaan packages (Rosseel, 2012). The R code to reproduce our analyses is available in the supplementary material: [ANONYMOUS-LINK-FOR-PEER-REVIEW]:

https://osf.io/dj59w/?view_only=f60607c92319441a957f12217b7f82bb.

Results

Preliminary analyses

A first view of our data revealed that, on average, through the three indicators of the legitimation of inequality, participants perceived inequality as unfair, given all mean scores were below zero. However, the degree of legitimation attributed to each indicator varied in

accordance with what they focused on when assessing such inequalities. Thus, we observed that participants legitimated the incomes of the Top 10% group ($M = -0.77$, $SD = 1.79$), more than the legitimation of the Bottom 10% incomes ($M = -2.35$, $SD = 1.68$), $t(66,271) = 117.71$, $p < .001$. In addition, the legitimation of the overall wealth inequality was positively correlated with legitimation of incomes at the Top 10%, $r(41,618) = .283$, $p < .001$; and legitimation of incomes at the Bottom 10%, $r(42,979) = .104$, $p < .001$. The comparison between these two correlation coefficients (Diedenhofen et al., 2015) showed that the association between the legitimation of the overall wealth inequality and the legitimation of Top 10% incomes was stronger than with the legitimation of Bottom 10% incomes ($Z = 28.338$, $p < .001$) Furthermore, we found a positive association between the legitimation of the Top and Bottom 10%, $r(42,531) = .152$, $p < .001$ (see Table 1 for descriptive statistics and correlation coefficients).

[Table 1 about here]

On the other hand, we also observed that support for redistribution was negatively correlated to all three indicators of legitimation of inequality; yet it was positively associated with BJW. To test the association between BJW and socioeconomic indicators at the societal level, we fitted a multilevel regression model with BJW as the outcome variable and country-level economic inequality indicators as predictors. We found that BJW was positively predicted by the Gini index, $b = 0.021$, $p = .021$; after controlling for the Human Development Index, $b = 1.360$, $p = 0.155$, and individual level covariates, such as individuals' ideologies, socioeconomic status, and gender (see Table S5 for full information related to these cross-level effects).

BJW and the legitimation of economic inequality

As shown in Table 2, we confirmed our hypothesis H1, regarding the BJW effect on the legitimation of economic inequality. In other words, we found that BJW positively predicted the legitimation of overall wealth inequality (H1a); the legitimation of the Top 10% incomes

(H1b) and the legitimization of the Bottom 10% incomes (H1c). Therefore, the higher the belief that people receive what they deserve, the higher the legitimization of economic inequality. These findings were upheld after accounting for covariates both at the individual (i.e., religiosity, income, education, gender, political ideology and equality of opportunity beliefs) and at the country-level (i.e., Human Development Index).

Other individual variables were also relevant for predicting the legitimacy of inequality. On the one hand, ideological variables, such as the belief in equality of opportunities and political ideology, were consistently associated with the legitimization of wealth inequality; the legitimization of the Top 10% incomes and the legitimization of the Bottom 10% incomes. People were thus more likely to legitimate economic inequality when placing themselves on the right side of the political spectrum, and when they believed that everyone has a fair chance of getting decent jobs and education opportunities. We also found that socioeconomic status (i.e., income and education) negatively predicted the legitimization of overall wealth inequality; but positively predicted the legitimization of the Top 10% incomes. Socioeconomic status was not linked to the legitimization of the Bottom 10% incomes.

[Table 2 about here]

Asymmetry of BJW on legitimating the incomes of the Top 10% and the Bottom 10%

To test the hypothesis that the BJW effect will be stronger at legitimating the incomes of the Bottom 10% (blaming the poor) than legitimating the incomes of the Top 10% (enhancing the rich), we used the test proposed by Parternoster et al (1998)³ to compare regression coefficients obtained in Model 2 and 3 depicted in Table 2. We confirmed our hypothesis (H2) that the BJW effect on legitimating the incomes made by the Bottom 10% ($b = 0.221$), was

³ Parternoster et al. (1998) suggest the differences between two regression coefficients can be tested by using the following formula: $Z = \frac{B1-B2}{\sqrt{SE_{B1}^2+SE_{B2}^2}}$

higher—5.39 times more— than the BJW effect on legitimating the incomes made by the Top 10% ($b = 0.041$), and this difference was statistically different from zero ($Z = -11.057, p < .001$).

The moderating role of objective inequality on the link between BJW and the legitimization of inequality

In relation to our cross-level interaction hypothesis, we found support for the moderating role of economic inequality in the association between BJW and the legitimization of economic inequality, yet this interaction was the opposite of what we had predicted. Economic inequality actually reduced—rather than increased—the positive association between BJW and the legitimization of economic inequality. Thus, we found a significant interaction between BJW and the legitimization of the overall wealth inequality (H3a) ($b = -0.008, p = .017$), so that the positive effect between BJW and the legitimization of the overall wealth inequality was weaker in more unequal countries (1SD above the mean of the Gini coefficient), $b = 0.13, SE = 0.02, t = 6.18, p < .001$; compared to less unequal countries (1SD below the mean of the Gini coefficient), $b = 0.20, SE = 0.02, t = 9.07, p < .001$ (see Figure 1, Panel A).

As for the legitimization of the Top 10% incomes, we also found that economic inequality moderated the BJW effect (H3b), ($b = -0.006, p = .015$), but also in the opposite direction of what we had expected. Simple slopes analysis shows that there was a positive association between BJW and legitimization of the Top 10% incomes in countries with less economic inequality (–1SD from the Gini coefficient mean), $b = 0.07, SE = 0.02, t = 4.18, p < .001$; and at average levels of economic inequality, $b = 0.04, SE = 0.01, t = 3.56, p < .001$. This association, however, was no longer significant in more unequal countries (1SD above the Gini coefficient mean), $b = 0.02, SE = 0.02, t = 1.02, p = 0.30$ (see Figure 1, Panel B).

[Figure 1]

We also found support for the moderating role of socioeconomic inequality in the relationship between BJW and the legitimation of the Bottom 10% incomes. But again, this effect was the opposite of our hypothesis (H3c). Analyses of simple slopes showed a stronger positive effect of BJW on the legitimation of the Bottom 10% incomes in countries with lower economic inequality, $b = 0.24$, $SE = 0.02$, $t = 15.52$, $p < .001$; compared to countries at average levels of inequality, $b = 0.22$, $SE = 0.01$, $t = 19.55$, $p < .001$; and with higher economic inequality, $b = 0.20$, $SE = 0.02$, $t = 13.41$, $p < .001$ (see Figure 1, Panel C). These findings were replicated by using other indicators of structural inequality and social exclusion, such as the index of income distribution 80/20 and the index of people at risk of poverty and social exclusion (AROPE). Details of these replications are reported in the supplementary material.

Multilevel Mediation Analyses

As exploratory analyses, we conducted multilevel mediation analyses to test the indirect BJW effect on support for redistribution via each indicator of legitimation of income inequality, namely, the legitimation of overall wealth inequality, of Top 10% incomes, and of the Bottom 10%. We found that there were both direct and indirect negative BJW effects on support for redistribution. We observed a total negative effect of BJW, $b = -0.099$, $95\%CI[-0.111, -0.087]$, $p < .001$; that is, the higher the BJW, the less individuals supported the government to reduce inequalities.

However, BJW also had indirect effects on Support for redistribution throughout all three indicators of legitimation of economic inequality. Thus, in the same line as our previous analyses, BJW positively predicted the legitimation of inequality; which, in turn, negatively predicted support for redistribution. Specifically, we found a negative indirect BJW effect on support for redistribution via legitimation of wealth inequality, $b = -0.007$, $95\%CI[-.008, -.005]$, $p < .001$; via legitimation of the Top 10% incomes, $b = -.002$, $95\%CI[-.003, -.001]$, $p <$

.001; and via legitimation of the Bottom 10% incomes, $b = -.019$, 95%CI[-.022, -.017], $p < .001$ (see Figure 2 for the statistical diagram).

[Figure 2 about here]

In relation to the differences between indirect effects, we compared whether the paths through the legitimation of the Bottom 10% and the Top 10% were statistically different from zero. We thus found that the indirect BJW effect on support for redistribution via the legitimation of the Bottom 10% incomes explained the 19.4% of the total BJW effect. This was 9.5 times the indirect effect estimated via the legitimation of the Top 10% incomes, which only accounted for 1.8% of the total BJW effect. Moreover, differences between these indirect effects were statistically significant in accordance with the Parternoster test, $Z = 16.915$, $p < .001$.

Discussion

In this paper, using representative samples from 27 European countries, we investigated and obtained support for the predictive role of BJW in understanding the legitimation of economic inequalities. Our findings place BJW as an important variable to study legitimation of economic inequalities and have several interesting theoretical implications for the BJW theory.

Firstly, we tested and compared the association of BJW and the perception of fairness of the overall wealth inequality, as well as the perceived fairness of the incomes earned by the Top and Bottom 10% in 27 European countries. The results showed BJW was a significant predictor of the legitimation of economic inequalities, over and above other individual (gender, age, religiosity, political orientation, income and years of education) and societal variables (Gini index, Human Development Index).

Secondly, and as expected, we found the BJW effect on perceived fairness of the Bottom 10% (blaming the poor) to be stronger compared to the perceived fairness of the Top

10% incomes (enhancing the rich). The current research contributes to highlight the asymmetry of BJW, which is in the same line as the general finding that “bad is stronger than good” (Baumeister et al., 2001).

Although some studies investigated the association between good/bad outcomes and good/bad deeds of people (Callard et al., 2006; Callan, et al. 2009), the strength of those effects were not compared in these previous studies. Only recently, one paper has explicitly researched the positive negative symmetry issue of the BJW (Kaliuzhna, 2020), but the results were not conclusive. Kaliuzhna (2020) found that their BJW was stronger when people assessed both prospective and retrospective positive situations (i.e., be rewarded after doing good deeds) than when they assessed negative situations (i.e. be punished as a result of doing bad things). In Study 4, however, the author found that the prospective negative situation (do a bad deed – get punished) was endorsed more than the prospective positive situation (do a good deed – be rewarded). Ours are aligned with the latter findings, since we found a stronger BJW effect on legitimating the low income of the poor than on legitimating the high incomes of the wealthy. As such, besides positive-negative evaluations, additional factors such as the time perspective or even the specific content of the situation could also affect the asymmetry of BJW.

These previous findings can be explained from two perspectives. On the one hand, positive-negative asymmetry in BJW can depend on the kind of justice that people assess: an immanent (retrospective) justice, where people perceive fairness in events that have just happened; or an ultimate (prospective) justice in which forthcoming events are expected to settle any previous injustice (Furnham, 2003). In contrast, people can engage in motivated reasoning for favorable events (e.g., self-serving or optimistic biases), which strengthens the role of positive over negative evaluation (e.g. Miller & Ross, 1975).

The asymmetrical BJW effect on legitimating economic inequality can also be associated with how such inequality is framed in terms of social groups. Perceived economic inequality implies an active comparison between the rich and the poor, focusing on the Top 10% vs. the Bottom 10%. It thus activates different stereotypes that inform people how to react to inequality. For instance, Bruckmüller et al. (2017) have shown that participants legitimated the inequality less when they perceived the disadvantaged as having too few resources (vs. having enough). Similarly, when people looked at the advantaged (vs. the disadvantaged), they were more likely to support redistribution (Chow & Galak, 2012; Lowery, et al, 2012). Being exposed to inequality on a daily basis makes people more aware of social class differences, which leads them to tolerate less inequality (García-Castro et al., 2020). Therefore, the legitimation of inequality can also be driven by how people perceive it in terms of social groups.

Thirdly, we found that the importance of BJW in predicting legitimation of economic inequality is moderated by country levels of economic inequality. The presence of cross-level interaction represents, as far as we know, an innovation in the study of BJW. The direction of the moderation was consistent and took place in the three indicators of structural inequalities. However, it was contrary to our expectations. We had predicted that the economic inequality of a country would increase the positive association between BJW and legitimation of economic inequality. But we found the opposite: country level economic inequality reduced the BJW effect on legitimation of inequality (and this seems to be a robust finding, since it was replicated with different indicators: the Gini index, the income quintile ratio (index 80/20), and the AROPE index, available in the supplementary material).

At first glance, this result seems to contradict the theory. The traditional BJW theory research line has focused more on individual motivational aspects for justifying disadvantage (Correia et al., 2018, for a review). From this perspective, we would predict that the impact of

BJW on legitimation should be stronger in more unequal countries, because people living there are supposedly suffering more greatly and, therefore, would need BJW to buffer it. However, another research line involving socionormative factors in the legitimation of social inequalities, and indirectly involving BJW, may help to explain our results. It has been shown that the need to legitimize inequalities is necessary, above all, in more egalitarian social contexts (Pereira et al., 2009) and in more democratic countries (Ramos et al., 2019). In these contexts, the presence of inequalities is more dissonant and, therefore, people need to use legitimizing ideologies to justify such inequalities (Jost et al., 2008). In this sense, and knowing that BJW can also be seen as a legitimizing ideology, this legitimizing role may be more important in most egalitarian countries.

In this regard, structural economic disparities can provide a normative framework that moderates the relevance of BJW on the legitimation of economic inequality. For instance, it is more difficult to justify the disadvantaged situation of the poor in less (vs. more) unequal countries, because in less unequal countries people have more opportunities to get ahead. As such, the role of BJW can become more relevant (have stronger effects) in less unequal countries because inequality depicts a more dissonant situation in more (vs. less) consolidated welfare systems. Nonetheless, although people reported higher BJW scores in more unequal countries, the BJW effect has become more prominent in less unequal countries as a way to restore the dissonance of seeing “unfairness in —relatively— fairer places”.

Last, but not least, we found that the association between BJW and the legitimation of inequalities may predict attitudes to redistribution. Thus, the legitimation of inequality was found to mediate the relationship between BJW and justice promoting behavior. This highlights the critical role of BJW for understanding individuals’ support of income redistribution policies and explains the process by which this occurs. In this analysis, we again found support for the asymmetry of BJW, in that the indirect BJW effect on support for

redistribution via the legitimation of the Bottom 10% was stronger than the indirect effect estimated via the legitimation of the Top 10% incomes. This finding reinforces the idea that opposition for redistribution is mainly driven by negative evaluation of the poor (Cozzarelli et al, 2001). As such, people seem to oppose redistribution because they believe the poor do not deserve to benefit from social welfare.

As with most research, the current study has some limitations. The constructs were assessed with few items, some of them with only one. Also, the correlational design of this study limits the nature of the conclusions that can be drawn about the causal and sequential relations found. As for the samples, even though they were randomly chosen, they still represent only a limited number of countries (27), and from a specific region of the world (Europe, the richest and most equal region). Another limitation is the lack of a formal and public preregistration of our research to reassure the confirmatory part of our results. Although we stated our hypotheses before analyzing the data, it would have been important to preregistered them to control for the “researchers degrees of freedom” provided by this kind of research designs.

However, our findings still present compelling evidence of the BJW role on legitimating inequalities, since we successfully replicated the main effects using different indicators of inequality legitimation and through large and diverse samples. These findings were upheld even after controlling for both individual and contextual factors that are usually associated with inequality legitimation. In addition, the relatively small, but consistent, effect sizes we found in our models explaining legitimation of inequality point out important issues (Cortina & Landis, 2009). For instance, in the context of political attitudes toward inequality, small and cumulative effect sizes can translate into significant social mobilization that influences governmental decisions. Similarly, the BJW effect on the legitimation of inequality

also suggests that this association is consistent enough to be properly captured in spite of many factors that can be associated with people's judgments.

In the case of economic inequality, to conclude, the fundamental need of justice may also paradoxically lead to the legitimization of injustices: economic inequalities are fair; the disadvantaged deserve to be poor and the wealthy deserve to be rich. In a context in which the negative impacts of inequalities for society as a whole are already well known, what is still to be found is how we can prevent the negative impact of BJW on the legitimization of inequalities. Just world theory (Lerner, 1980) proposes that the increase of self-efficacy to redress the situation might be the key to mobilize the need for justice in efforts to support the changing of the effective conditions that produce and maintain injustice. Some research has shown that for people endorsing strong self-efficacy to promote justice in the world, personal BJW was associated positively with helping attitudes (Correia, et al., 2016). As such, self- and political efficacy can neutralize the BJW effects on legitimating inequality, and even motivate continued work to achieve justice in our societies. Future studies should address this new avenue of research.

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Tables and Figures

TABLES

Table 1. Descriptive statistics and correlations between variables used in the study.

<i>Variables</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
<i>1. Legitimation of wealth inequality</i>		0.283***	0.104***	-0.126***	0.070***	0.106***	0.078***	0.012*	-0.013*	-0.011	0.006	-	-	43876	-1.05	2.42
<i>2. Legitimation of Top 10%</i>	0.499**		0.152***	-0.130***	0.018**	0.060***	0.051***	-0.046***	0.102***	0.090***	-0.022***	-	-	42914	-0.77	1.82
<i>3. Legitimation of Bottom 10%</i>	0.267	0.297		-0.203***	0.121***	0.170***	0.080***	-0.041***	0.045***	0.043***	-0.021***	-	-	44490	-2.41	1.71
<i>4. Support for redistribution</i>	-0.169	-0.099	-0.643***		-0.080***	-0.194***	-0.197***	0.045***	-0.181***	-0.110***	0.087***	-	-	46201	3.92	0.97
<i>5. Belief in the Just World</i>	-0.113	-0.115	-0.055	0.140		0.239***	0.099***	0.112***	0.009	-0.071***	-0.028***	-	-	44502	2.92	0.86
<i>6. Beliefs in equality of opportunities</i>	0.321	0.232	0.633***	-0.727***	0.060		0.149***	-0.033***	0.119***	0.071***	-0.059***	-	-	45372	5.47	2.26
<i>7. Political ideology</i>	0.302	0.268	0.191	-0.124	0.077	0.394*		0.120***	0.061***	-0.035***	0.011	-	-	39950	5.03	2.26
<i>8. Religiosity</i>	-0.059	-0.477*	-0.507**	0.495**	0.292	-0.545**	-0.105		-0.122***	-0.126***	0.192***	-	-	46573	4.56	3.15
<i>9. SES by income</i>	-0.080	-0.071	0.550**	-0.616***	-0.061	0.477*	-0.077	-0.362		0.326***	-0.238***	-	-	37713	5.21	2.78
<i>10. SES by education</i>	0.214	0.279	0.691***	-0.515**	-0.091	0.591**	0.123	-0.524**	0.435*		-0.220***	-	-	46408	12.89	4.08
<i>11. Age</i>	0.312	0.116	-0.358	0.522**	0.037	-0.351	0.118	0.337	-0.637***	-0.226		-	-	46864	51.13	18.63
<i>12. Gini coefficient (2018)</i>	-0.136	0.204	-0.423*	0.419*	0.323	-0.518**	-0.189	0.117	-0.556**	-0.365	0.369	-	-	-	-	-
<i>13. Human Development Index (2018)</i>	0.069	-0.046	0.763***	-0.571**	0.021	0.658***	0.109	-0.409*	0.552**	0.666***	-0.439*	-0.509**	-	-	-	-
<i>N</i>	27	27	27	27	27	27	27	27	27	27	27	27	27			
<i>Mean</i>	-1.04	-0.79	-2.45	3.93	2.91	5.43	5.04	4.64	5.19	12.84	51.19	29.90	0.89			
<i>SD</i>	0.77	0.45	0.58	0.24	0.19	0.78	0.41	1.06	0.63	1.07	2.66	4.62	0.04			

Note: Pearson correlation. *** $p < .001$, ** $P < .01$, * $P < .05$. Individual level data are shown above the diagonal, and societal level variable are shown below the diagonal.

Table 2. Multilevel regression analyses (unstandardized coefficients) for individuals legitimacy of overall wealth inequality (M1), legitimacy of Top 10% incomes (M2), and legitimacy of Bottom 10% incomes

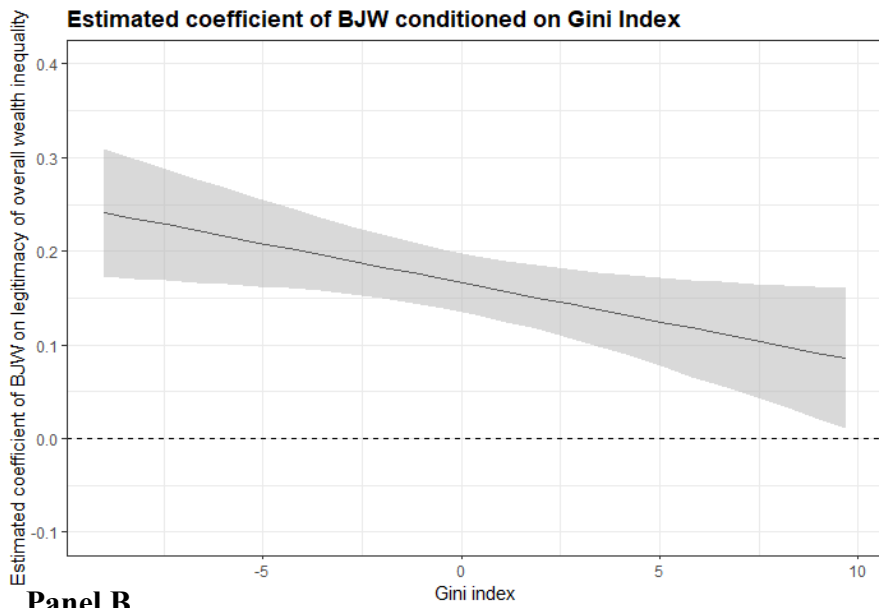
<i>Predictors</i>	Legitimacy of overall wealth inequality			Legitimacy of Top 10% incomes			Legitimacy of Bottom 10% incomes		
	<i>b (SE)</i>	<i>95% CI</i>	<i>p</i>	<i>b (SE)</i>	<i>95% CI</i>	<i>p</i>	<i>b (SE)</i>	<i>95% CI</i>	<i>p</i>
(Intercept)	-0.832 (0.161)	-1.146 – - 0.517	<0.001	-1.358 (0.086)	-1.528 – - 1.189	<0.001	-2.382 (0.084)	-2.546 – - 2.218	<0.001
<i>Individual level variables (group-mean centered)</i>									
Beliefs in the just world	0.166 (0.016)	0.134 – 0.1 98	<0.001	0.041 (0.012)	0.017 – 0.065	0.001	0.221 (0.011)	0.199 – 0.243	<0.001
Beliefs in equality of opportunities	0.066 (0.007)	0.053 – 0.0 79	<0.001	0.025 (0.005)	0.015 – 0.034	<0.001	0.066 (0.005)	0.057 – 0.075	<0.001
Political ideology	0.050 (0.006)	0.039 – 0.0 62	<0.001	0.025 (0.004)	0.016 – 0.033	<0.001	0.033 (0.004)	0.025 – 0.041	<0.001
Religiosity	0.005 (0.005)	- 0.004 – 0.0 14	0.299	-0.004 (0.003)	- 0.010 – 0.003	0.260	-0.003 (0.003)	- 0.009 – 0.003	0.307
SES by income	-0.014 (0.005)	-0.024 – - 0.004	0.007	0.052 (0.004)	0.045 – 0.060	<0.001	-0.003 (0.004)	- 0.010 – 0.004	0.437
SES by education	-0.014 (0.004)	-0.021 – - 0.007	<0.001	0.023 (0.003)	0.018 – 0.029	<0.001	-0.002 (0.002)	- 0.007 – 0.003	0.468
Gender (Female)	-0.035 (0.026)	- 0.087 – 0.0 16	0.180	-0.085 (0.020)	-0.124 – - 0.046	<0.001	-0.135 (0.018)	-0.171 – - 0.099	<0.001
Age	-0.002 (0.001)	-0.003 – - 0.000	0.028	0.001 (0.001)	- 0.001 – 0.002	0.291	0.000 (0.001)	- 0.001 – 0.001	0.983
<i>Societal level variables (grand-mean centered)</i>									
Beliefs in the just world	-1.372 -1.108	- 3.544 – 0.8 00	0.216	-0.262 (0.567)	- 1.373 – 0.849	0.644	0.149 (0.553)	- 0.934 – 1.232	0.788
Beliefs in equality of opportunities	0.642		0.087	0.075		0.696	0.034		0.856

	(0.376)	- 0.094 – 1.3 78		(0.192)	- 0.301 – 0.451		(0.187)	- 0.333 – 0.401	
Political ideology	0.390 (0.429)	- 0.452 – 1.2 31	0.364	0.318 (0.220)	- 0.113 – 0.748	0.149	0.146 (0.214)	- 0.274 – 0.566	0.497
Religiosity	0.218 (0.223)	- 0.219 – 0.6 56	0.328	-0.209 (0.114)	- 0.434 – 0.015	0.067	-0.154 (0.111)	- 0.372 – 0.064	0.167
Human Development Index (2018)	-1.826 -5.213	- 12.043 – 8. 391	0.726	-2.637 -2.666	- 7.862 – 2.588	0.323	7.203 -2.599	2.108 – 12.29 8	0.006
Gini index (2018)	0.039 (0.052)	- 0.064 – 0.1 42	0.457	0.033 (0.027)	- 0.020 – 0.085	0.219	-0.013 (0.026)	- 0.064 – 0.038	0.614
BJW (L1) x Gini (L2)	-0.008 (0.004)	-0.015 – - 0.001	0.017	-0.006 (0.003)	-0.012 – - 0.001	0.015	-0.005 (0.002)	-0.010 – - 0.000	0.045
Random Effects									
Residual variance (Within countries)		5.00			2.76			2.43	
Residual variance (Between countries)		0.63			0.16			0.15	
ICC		0.11			0.06			0.06	
N (country level)		27			27			27	
N (individual level)		30118			29664			30368	
Marginal R ² / Conditional R ²		0.039 / 0.147			0.046 / 0.099			0.095 / 0.149	

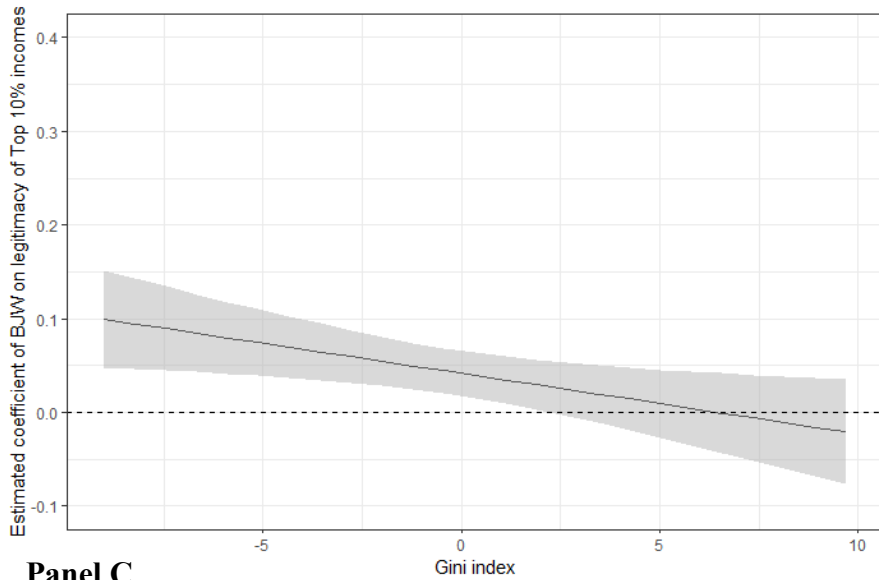
Note: Models were fitted by using Restricted Maximum Likelihood; Marginal R² accounts for the variance explained by the fixed factors, and Conditional R² indicates the proportion of explained variance of the total model, including both fixed and random factors (Nakagawa & Schielzeth, 2013).

FIGURES

Panel A



Panel B



Panel C

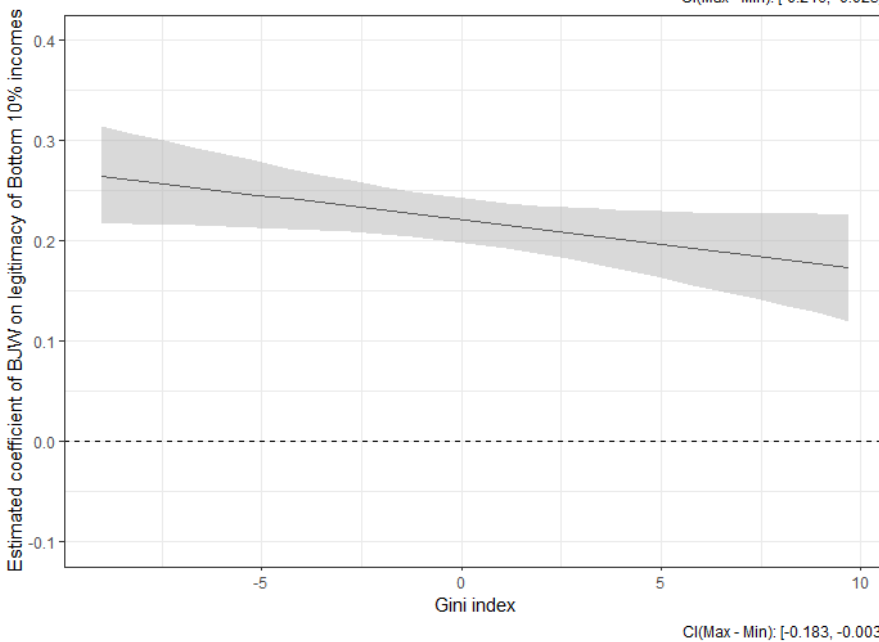


Figure 1. Estimated coefficient of BJW conditioned by Gini index for legitimization of overall wealth inequality (Panel A), the incomes of the Top 10% (Panel B), and the Bottom 10% (Panel C).

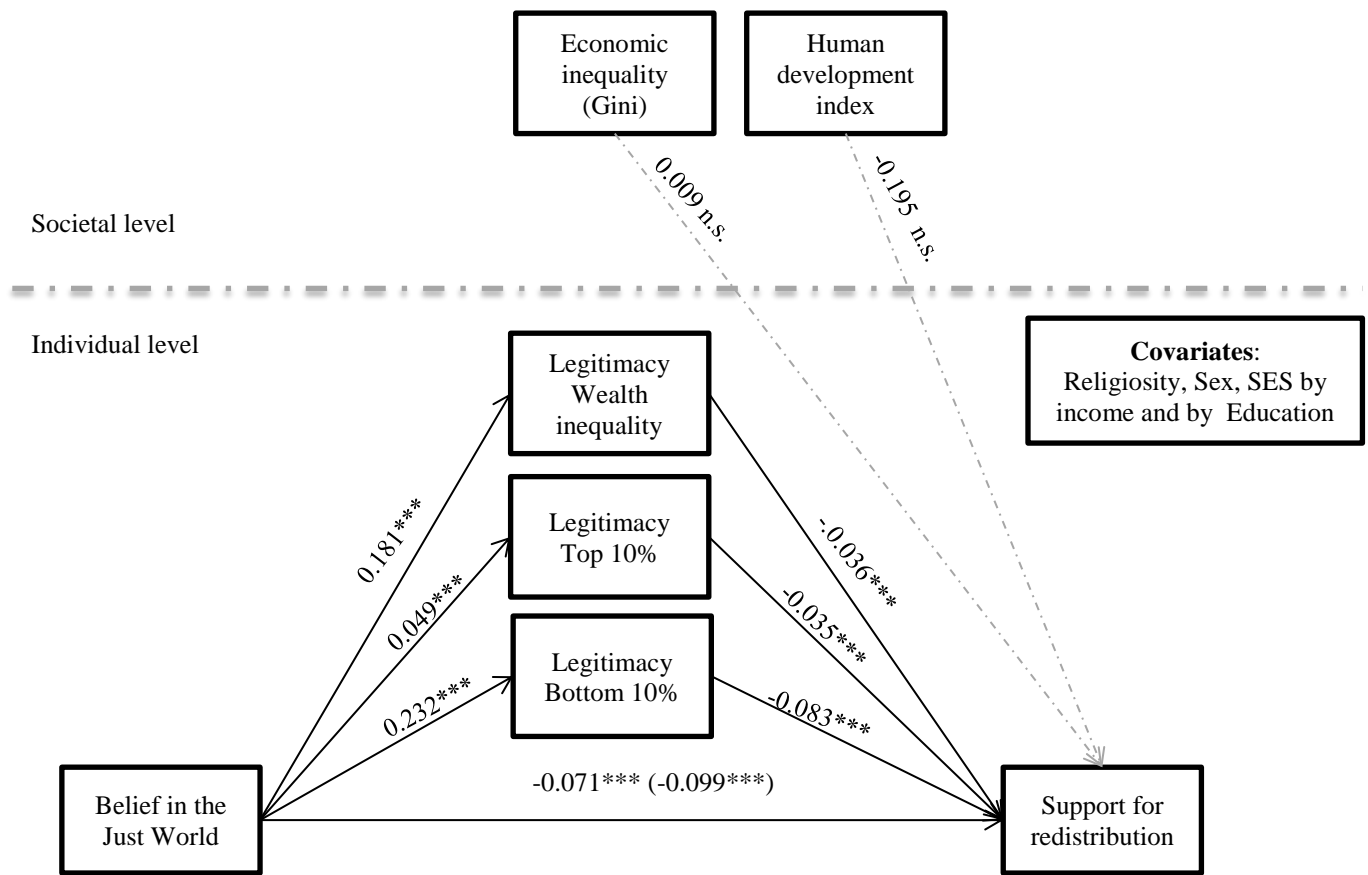


Figure 2. Multilevel mediation analyses testing the indirect effect of BJW (X) on Support for redistribution (Y), via Legitimacy of wealth inequality (M1), Legitimacy of Top 10% incomes (M2), and Legitimacy of bottom 10% (M3)