

Inequality and native bias*

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Abstract

This paper experimentally investigates the relationship between inequality awareness and "native bias," defined as the tendency of citizens to be more generous and open toward their compatriots and less so toward individuals of different nationalities. We analyze donation behavior among a representative sample of 2,403 Italian respondents, who were asked to donate to both Italians and immigrants living in poverty in Italy. The experimental treatments varied in the method used to assign the respondent bonuses (either randomly or based on the characteristics of the respondents), as well as in the information provided on the bonuses received by others. Our results confirm the presence of a strong native bias. However, awareness of the disadvantages of inequality mitigates this bias, as empathy increases inequality aversion.

Keywords: inequality; awareness; survey experiment; immigration; survey experiment
JEL codes: C99; D63; D64; J15

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1 Introduction

This paper investigates how inequality affects a specific type of ingroup bias known as "native bias" (Choi et al., 2022). Even in the absence of competition over resource distribution or shortages, substantial evidence indicates that individuals tend to be less generous with outgroups than with members of their own community (Bernhard et al., 2006; Bowles and Gintis, 2013; Chen and Li, 2009; Magni, 2024). Although the concepts of fairness and equality are intuitively associated with impartial treatment (Branthwaite et al., 1979; Chae et al., 2022), there is a growing body of literature reporting that people respond more to the principles of fairness when inequality affects themselves (Weeden and Kurzban, 2014; Sznycer et al., 2017) or members of their ingroup (Branthwaite et al., 1979; Bian et al., 2018; Magni, 2021), and exhibit different redistributive attitudes depending on the social groups believed to benefit (Alesina et al., 2023; Ballard-Rosa et al., 2017; Muñoz and Pardos-Prado, 2019; Rueda, 2018).

The aim of this paper is to address the causal link between inequality and the native bias, distinguishing between the effects of inequality *per se* and inequality *awareness*, as well as between *vertical* as compared to *horizontal* inequality. We present a survey experiment designed to explore the mechanisms underlying the association between awareness of inequality and prosociality, with a particular focus on differentiating prosociality directed towards the ingroup (natives) from that directed towards the outgroup (immigrants). In our experiment, we exogenously introduce a source of inequality by assigning respondents different bonus amounts. Specifically, our treatments vary in (a) the method of bonus assignment—either random or based on the respondent’s characteristics—and (b) the information provided regarding the bonuses received by other respondents, thereby creating awareness of the unequal distribution of bonuses.

The primary outcome variable is the amount donated to a charity with two missions: one aimed at helping poor individuals of the same nationality as the respondents (natives) and the other supporting poor immigrants residing in the respondents’ country. Our findings reveal a pronounced native bias in all treatments. However, awareness of inequality leads to a significant reduction in this bias, as demonstrated by increased donations, particularly toward immigrants, by those subjects who become aware of being disadvantaged.

We argue that when respondents become aware of inequality, they are more inclined to adopt the perspectives of others and perceive injustice through the eyes of (other) disadvantaged individuals. This enhanced perspective-taking may increase their motivation to act against perceived injustices through redistribution. Specifically, individuals who experience inequality tend to develop greater empathy towards other disadvantaged groups and may revise their beliefs about the causes of poverty—shifting from attributing it to a lack of effort to viewing it as a result of bad luck, caring more about social mobility

and even changing the way they perceive their relative income. Consistently, the analysis of response times shows that individuals exposed to the disadvantages of inequality make donation decisions in favor of immigrants significantly more quickly, suggesting that, when empathy is activated, such choices take the form of "gut reactions", or simply become more instinctive when compared to donations made in favor of natives. The heterogeneity analysis shows that females exhibit a lower native bias, such as left-leaning people. Pre-treatment beliefs regarding the salience of issues such as inequality and discrimination are negatively correlated with native bias, whereas concerns about the presence of immigrants are positively correlated with native bias.

2 Related literature

Recent political developments across diverse contexts have highlighted a striking paradox in the behavior of low-income electorates, who are increasingly aligning with movements that prioritize identity rhetoric over traditional economic self-interest advocating redistribution. This phenomenon is characterized by the deployment of a divisive "us versus them" narrative, a versatile instrument that has been effectively applied to a range of contemporary issues, including immigration, the green economy, and globalization (Cherici, 2025). Consequently, the discourse surrounding economic redistribution appears to have receded in prominence, overshadowed by the mobilizing power of identity-based grievances. This shift suggests a fundamental restructuring of political priorities, wherein the diminishing salience of redistributive policies—often associated with welfare support in favor of immigrants (Magni, 2024)—correlates with a marked intensification of societal polarization.

Concerns over immigrants' use of welfare services have driven recent political campaigns in many countries, such as the United States, France, and Italy. Right-wing populist parties instrumentalize certain ethnic, religious, linguistic, or political minorities as scapegoats for most, if not all, current societal problems, and subsequently construe these groups as dangerous and threatening. This phenomenon manifests as a "politics of fear" (Wodak, 2015) which builds on an evolutionary instinct that causes individuals to perceive diversity as threatening. History provides numerous examples in which people facing social or economic challenges have unfairly blamed marginalized groups, such as immigrants or racial minorities, for their difficulties. This dynamic frequently arises in contexts where ingroups and outgroups compete over scarce resources, often resulting in conflict and scapegoating as mechanisms to divert anger away from the true sources of frustration.

Nationality and ethnicity are characteristics that frequently define groups and can lead to bias against non-natives (Kustov, 2021). Achard and Suetens (2023) demonstrate that ethnic diversity—or an increase in the salience of ethnic minorities—reduces support for redistribution as a consequence of ethnic discrimination; however, these results are context-

dependent and heterogeneous. Similarly, Konov et al. (2025) present a model explaining giving behavior in which allocative preferences are weighted by a specific form of moral salience, namely spatial distance: on average, donations to local beneficiaries are larger. Likewise, Cattaneo et al. (2025) find that the most ethnically distant outgroup receives a smaller portion of cash donations, revealing donors' stronger prejudice toward non-natives.

When outgroup prejudice is widespread—particularly under conditions of resource scarcity (Aksoy and Palma, 2019) and competition—the question of whether and how unequal resource distribution differentially affects prosocial behavior toward ingroups and outgroups remains insufficiently understood (Urbanska et al., 2019).

Earlier works on inequality focused on the distribution of income or other resources among individuals or households, which is commonly referred to as vertical inequality. More recently, attention has shifted toward horizontal inequality, understood as economic, social, and political disparities between different identity groups (e.g., ethnic, regional, religious, cultural) arising from discrimination (Stewart, 2005). These two approaches to inequality address distinct forms of disadvantage: the distribution of resources and the devaluation of identity. Often, these forms of inequality intersect (Kabeer and Santos, 2017), as discriminated groups are subjected to horizontal inequality and also suffer from an unfair distribution of resources. It is this intersection that defines the most severe and frequently the most enduring forms of social exclusion in societies (Kabeer et al., 2010).

Studies on the perception of inequality show that people are systematically biased when estimating the income or wealth distribution in their country and when asked to locate themselves within that distribution (Hauser and Norton, 2017). Page and Goldstein (2016) document that individuals tend to underestimate the actual level of inequality and to overestimate the median income. Cruces et al. (2013) find a systematic tendency for respondents to place themselves near the middle of the income distribution. Interventions that inform individuals about their actual position in the distribution can alter attitudes in favor of redistribution, though they have limited impact on views regarding poverty reduction.

Overall, the relationship between economic inequality and prosocial behavior—including actions that benefit others, such as donating, volunteering, cooperating, or helping—is not robust (Yang and Konrath, 2023). Experimental studies typically explore this relationship by analyzing the effect of endowment inequality on contributions to public goods: inequality in endowments lowers contributions (Cherry et al., 2005), and wealthier participants tend to give the same absolute amount (and a lower proportion of their income) as less wealthy participants (Buckley and Croson, 2006). Even after controlling for possible endowment effects, the wealthy further reduce their contributions when inequality is present (Heap et al., 2016).

Horizontal inequality tends to correlate with reduced prosocial behavior. It has been shown to erode social cohesion (Tucker and Xu, 2023) and is increasingly associated with

the development of extreme and violent positions (Pickett and Wilkinson, 2015; Hillesund and Østby, 2023). Xu and Marandola (2023) review the experimental literature and find robust causal evidence that group-level inequality undermines trust, discourages cooperation, and encourages unethical behaviors. However, the overall effect of inequality on generosity remains less clear. Experiencing unequal treatment can exacerbate envy and hostility toward wealthier groups; furthermore, heightened inequality may prompt privileged groups to defend their status by maintaining social hierarchies, including through violence and discriminatory acts against those perceived as threats to the status quo.

Nevertheless, there is also evidence that experiencing inequality can lead individuals to respond in the opposite manner, such as by increasing prosocial behavior. People are averse to inequality (Fehr and Schmidt, 1999), but views and beliefs about the source of inequality have been shown to be important determinants of people’s attitudes towards inequality (Fong, 2001; Almås et al., 2020; Alesina and Angeletos, 2005): people distinguish between fair and unfair inequalities based on the source of the inequality and differ in their beliefs about the sources of existing inequalities. Additionally, being a victim of inequality can activate various group-related mechanisms (Hillesund and Østby, 2023) such as dispositional compassion (Goetz et al., 2010), group solidarity, or peer pressure (Urbanska et al., 2019), resulting from increased empathy toward those who share similar adverse circumstances (Wen et al., 2025). Such group grievances may pave the way for collective mobilization, motivating group members to challenge the status quo, particularly when grievances are linked to identity-salient groups. Cialdini et al. (1997) argue that empathy enables observers to become psychologically closer to victims, thus allowing them to share emotions. Laboratory evidence shows that empathy motivates both compensatory and punitive behaviors (Leliveld et al., 2012): highly empathetic individuals address inequality by focusing on and compensating the victim, whereas less empathetic individuals address inequality by targeting and punishing the perpetrator.

In the next section, we provide details on the survey design. Section 4 presents information on the collected data and describes our findings. Section 5 concludes with a discussion of the implications of our study.

3 Research design and hypotheses

The paper presents an online survey experiment on a sample of 2,403 Italian respondents recruited in order to be representative of the Italian population along the following features: gender, age, education level, area of residence. We randomly assign respondents to one of three treatments. The treatments differ from each other in two aspects: (a) the information that the respondents receive, being them informed about the bonus that the other respondents receive or not, thus influencing their perception of the relative value of the bonus received with

respect to the bonus received by others; and (b) the mechanism determining how bonuses are assigned, being it random or based on group (gender) identity.

T0 (Baseline): By chance, the subject receives a bonus (of 2, 1 or 0.5 euro) without information on the bonus received by others.

T1 (Vertical Inequality): Subjects receive a bonus (of 2, 1 or 0.5 euro) and are made aware that by chance other subjects received a different bonus.

T2 (Horizontal Inequality): subjects receive a bonus (of 2, 1 or 0.5 euro) depending on the group they belong to, and are made aware of it.

In treatment T2, horizontal inequality is based on gender, i.e. subjects are made aware that they have received the highest (lowest) bonus because of their gender. We have two conditions, one where females receive the lowest bonus and one where males receive the lowest bonus, respectively, in order to compare the case where discrimination affects the group which is usually discriminated against to the case where discrimination affects the group which is usually favored.¹ Each treatment was run in two separated sessions where bonuses were equal to 2 euro and 1 euro, and 1 euro and 0.5 euro, respectively. In treatment T2 we had four sessions (2 euro-1 euro with females having the highest bonus; 2 euro-1 euro with males having the highest bonus; 1 euro-0.5 euro with females having the highest bonus; 1 euro-0.5 euro with males having the highest bonus).

In each treatment, the participants have to choose whether and how much to donate to two target groups: other Italians living in poverty and immigrants in the same situation of economic deprivation, both living in Italy. The two choices are presented in a randomized order, and only one of the two is actually implemented.

The (pre-registered) hypotheses we want to test are the following:

Hypothesis 1 (vertical inequality): Awareness of inequality affects generosity.

Hypothesis 2 (native bias): The native bias causes a reduction in donations directed towards outgroup recipients (immigrants).

Hypothesis 3 (horizontal inequality): Horizontal inequality affects generosity more strongly than vertical inequality.

The pre-registered dimensions of heterogeneity are the following: gender, political orientation, salience of immigration-related and discrimination-related issues.

The survey lasted about 10 minutes. Pre-treatment questions asked standard socio-demographic questions such as gender, age, education level, political orientation, geographical residence, self-reported salience of issues such as immigration, wars, climate change, public

¹Although a horizontal inequality based on race would be extremely insightful in this context, we could not implement it because of the limited racial diversity of Italian population, and also because the Italian law does not allow collecting information about race from respondents.

health, income distribution, racial and gender discrimination. In order to investigate the mechanisms driving any possible treatment effect, we also elicited post-treatment attitudes towards meritocracy and inequality. In particular, the post-treatment questions we refer to are:

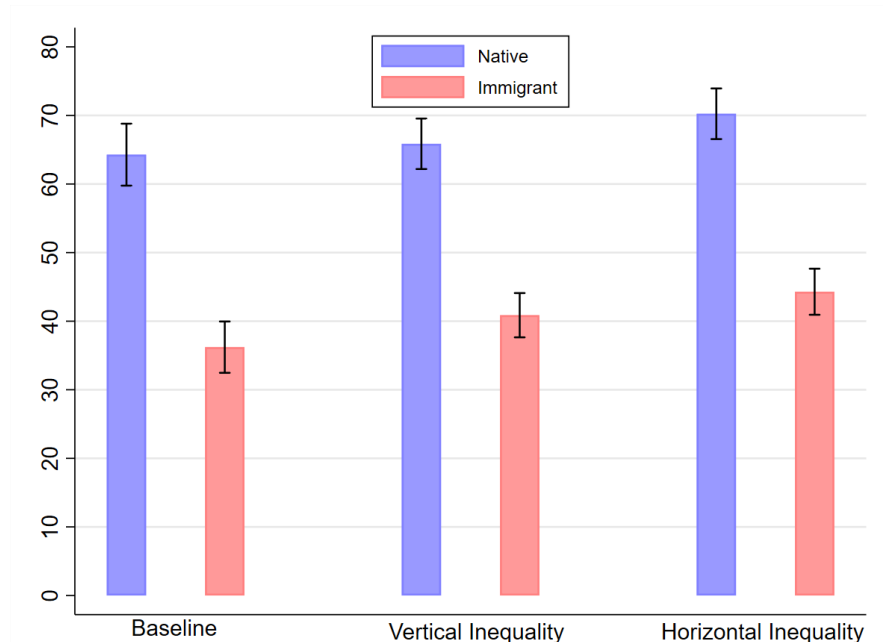
- What, in your opinion, best explains why a person is poor? *"Lack of effort on their part" vs. "Circumstances beyond their control"*
- How do you perceive the Italian economic system? *"Generally fair, since everyone has equal opportunities to succeed" vs. "Generally unfair, since not everyone has the same opportunities to succeed"*
- If children from poor families and children from rich families have different opportunities in life, do you think this is... *From "Not a problem" to "A very serious problem"*

Finally, and still among post-treatment variables, we ask respondents to classify their income in relative terms.

4 Results

Figure 1 shows respondents' donation levels across treatments (Baseline, T1-Vertical Inequality and T2-Horizontal Inequality) and thus shedding light on the consequences on donations of being aware of the unequal distribution of bonuses and of being aware of the source of inequality (random or identity-based). Since the distribution of bonuses is the same across treatments, we can consider average donation levels; bonuses are used as endowment for the donations. For each treatment, we distinguish between donations in favor of fellow natives (on the left) and in favor of immigrants (on the right). The difference between the two donations is used as a measure of the native bias.

Figure 1: Donation levels by treatment



We observe that both being aware of vertical and of horizontal inequality increases donation levels with respect to the Baseline treatment, where endowments are unequally distributed but respondents are not aware of it, since they receive information on their own endowment only. Interestingly, donation levels increase both in favor of fellow natives ($Z = 3.649$, $p < 0.001$, two-sample Wilcoxon rank-sum test) and in favor of immigrants ($Z = 4.635$, $p < 0.001$, two-sample Wilcoxon rank-sum test). This finding is in line with Hypothesis 1, although it was not obvious that awareness would entail an increase in donation instead of a reduction, see the literature discussed above. More than upsetting respondents and triggering a negative reaction, we observe that being aware of inequality seems to stimulate empathy towards people living in poverty. As a second finding, we observe that, regardless of treatment, respondents always donate a significantly lower share of their endowment to immigrants compared to natives ($t = 40.793$, $p < 0.001$, two-sample t-test). This result indicates a strong and persistent native bias and confirms Hypothesis 2.

For what concerns the relation between donation levels and endowment levels, we observe that an increase in the endowment is associated with a lower share of donation, with respondents receiving the highest endowment (2 euro) donating significantly less (55.97% to natives, 32.50% to immigrants) than others (similar amounts of about 61% and 39%, respectively, either for subjects receiving a 0.50 euro bonus and for subjects receiving a 1 euro bonus). This drop in donations holds for both donations towards natives ($Z = 3.948$, $p < 0.001$, two-sample Wilcoxon rank-sum test) and towards immigrants ($Z = 3.695$, $p < 0.001$, two-sample Wilcoxon rank-sum test) and is consistent with the literature mentioned above documenting that more wealthy subjects give less as a percentage of their income than the less

wealthy. In this context, it also appears that subjects behave as if they impose a sort of "cap" on donations, limiting their contributions to a certain absolute threshold—possibly related to the fixed compensation they receive for participating in the survey—and are unwilling to donate more than this amount, regardless of the endowment they receive.

The mechanisms illustrated above are explored in depth through a regression analysis summarized in Table 1 and considering absolute donation levels. Since respondents make

Table 1: Determinants of donations

	all	all	all	victim	favored
immigrant	-24.74*** (1.35)	-24.65*** (1.35)	-24.81*** (1.34)	-18.42*** (1.50)	-34.56*** (2.65)
endowment	0.40*** (0.01)	0.40*** (0.01)	0.41*** (0.01)	0.51*** (0.03)	0.43*** (0.03)
Vertical Inequality		6.09*** (1.70)	6.25*** (1.69)		
Horizontal Inequality		10.06*** (1.71)	10.00*** (1.70)	0.20 (1.51)	6.98*** (2.67)
Controls	no	no	yes	yes	yes
Constant	yes	yes	yes	yes	yes
MHT	yes	yes	yes	yes	yes
Observations	4,768	4,768	4,761	1,681	1,791
R-squared	0.235	0.241	0.257	0.215	0.218

Notes: The table reports results from OLS regressions. The outcome variable is the amount donated (in cents). The first three columns consider the whole sample, while the fourth restrict to subjects victim of inequality (receiving the lowest bonus) and the fifth restricts to subjects favored by inequality (receiving the highest bonus). Immigrant is a dummy variable assuming value equal to 1 when the donation recipient is an immigrant instead of a native. Vertical Inequality is a dummy variable assuming value equal to 1 in the corresponding treatment (T1) and 0 elsewhere. Horizontal Inequality is a dummy variable assuming value equal to 1 in the corresponding treatment (T2) and 0 elsewhere. Controls include gender, education, age, and the order the two donations were presented. Robust standard errors corrected for Multiple Hypothesis Testing are in parentheses. *** significant at the 1%, ** 5%, * 10% level.

two donation decisions (in random order), we structure the dataset as a panel to account for both decisions together. In the first three columns, we consider all the subjects, while we restrict to respondents being victim of inequality (receiving the lowest bonus) and to respondents favored by inequality (receiving the highest bonus). As shown in column 1, and confirmed in all the specification, respondents donate a lower amount to immigrants (the dummy variable "immigrant" is always negative), documenting the existence of the native bias. Additionally, donations depend positively on the endowment (corresponding to the bonus) the subject receives. Column 2 shows that these results hold when specifying the treatments (Vertical Inequality and Horizontal Inequality, being the Baseline the omitted category), with awareness of inequality determining significantly higher donations and a

stronger effect for Horizontal Inequality. Column 3 shows that these results hold adding controls. Finally, column 4 shows that the native bias is much lower for subjects who are victim of inequality, while column 5 shows a higher native bias for those who are favored. Furthermore, being favored because of their (gender) identity, as happens in case of Horizontal Inequality, determines an increase in donations. In summary, the following conclusions can be drawn: In an unequal society, raising awareness among individuals about their status as victims of inequality positively reduces native bias. Conversely, informing individuals of their privileged status prompts a willingness to "give back," albeit to a lesser extent towards immigrants. Notably, native bias is predominantly driven by those who are made aware of their privileged position.

The heterogeneity analysis is presented Table 2, Table 3 and Table 4.

In Table 2, columns 1-3 refer to males, columns 4-6 to females, columns 7-9 to left-wing respondents, and columns 10-12 to center and right-wing respondents. The regressions show that the native bias is significantly lower in case of female respondents and for left-leaning. Left-wing people also donate a higher proportion of their endowment, while there is no gender effect in this respect.

It is interesting to note that the "give back" effect documented above, albeit small, is driven by privileged women: when female respondents receive a higher bonus because of their gender, they react donating significantly more. Instead, males donate more only when discriminated, i.e. when they receive a *lower* bonus. For what concerns political orientation, in center and right-wing respondents, the awareness of being victim of inequality reduces the native bias significantly.

Table 3 and table 4 compare respondents based on the issues they reported as more important, focusing on those that are related to the research question. In Table 3, columns 1-6 refer to respondents who indicated immigration among the three most important issues (1-3) versus respondents who did not (4-6). Similarly, columns 7-9 refer to respondents who indicated racial discrimination among the three most important issues, and columns 10-12 to those who did not.

As expected, the native bias is stronger for respondents who are worried about immigration and lower for those who care about racial discrimination. Interestingly, and consistently to the effects shown above for males and center/right-wing respondents, being victim of inequality always reduces native bias.

Table 4 reports the results of an analogous exercise, where we consider inequality and gender discrimination as selected (or not) among the three most important topics.

As above, the native bias is lower for respondents who care about inequality and racial discrimination; again, being victim of inequality reduces native bias.

Table 5 attempts to investigate the mechanisms that are activated when respondents become aware of inequality. Although our treatments constitute a minimal intervention,

introducing a bonus difference of only up to 1.50 euro, they nevertheless appear to influence subjects' post-treatment beliefs and attitudes. In particular, subjects who are victims of vertical inequality (i.e., those randomly assigned a lower bonus) become slightly less “meritocratic”—they are significantly less likely to believe that poverty results from a lack of effort. Additionally, they are more likely to view inequality of opportunity among children as a major issue, and they report that their income is “below average” or “largely below average” significantly more frequently. It appears that such a simple manipulation in the distribution of endowments is salient enough to prompt respondents to reconsider inequality and its negative consequences, consequently changing their beliefs.

This finding aligns with the results of [Newman et al. \(2015\)](#), which show that exposure to high inequality can stimulate rejection of meritocracy by increasing the salience of individuals' disadvantaged position. This effect has been termed the “activated disillusionment hypothesis.”

Finally, [Table 6](#) presents the analysis of response times when respondents made donation decisions considering first the whole sample of respondents (columns 1-3) and then restricting to victims of inequality (column 4) and to subjects favored by inequality (column 5).

We observe that, when victim of vertical inequality and being asked to donate to immigrants (column 4), respondents take donation decisions in favor of immigrants significantly faster. Furthermore, respondents who experience inequality due to their gender identity make decisions significantly faster.

Several recent studies ([Chisadza et al., 2021](#)) have investigated whether fair distribution decisions are made intuitively (quickly) or whether fairer decisions require longer decision times. Different studies have reached opposing conclusions, with some studies finding that faster, more intuitive decisions are linked to greater fairness ([Cappelen et al., 2016](#); [Rand et al., 2012](#)) and others noting greater fairness in slower decisions, where more deliberation takes place ([Piovesan and Wengström, 2009](#); [Ubeda, 2014](#)). Here, the results seem to suggest that donating in favor of immigrants is a more instinctive choice when subjects experience a situation of disadvantage, probably due to a feeling of empathy that increases inequality aversion, consistent with previously results.

Table 2: Heterogeneous effects of treatments on donations (gender and political orientation)

	males			females			left			center-right		
	all	victim	avored	all	v	avored	all	victim	avored	all	victim	avored
immigrant	-28.97*** (2.05)	-13.87*** (2.22)	-28.56*** (4.06)	-24.77*** (1.79)	-17.29*** (1.97)	-33.38*** (3.73)	-11.00*** (2.76)	-6.80*** (2.99)	-12.73** (4.97)	-31.69*** (1.55)	-20.46*** (1.71)	-38.24*** (3.10)
endowment	0.40** (0.02)	0.69*** (0.05)	0.47*** (0.04)	0.40*** (0.02)	0.39*** (0.04)	0.44*** (0.04)	0.45*** (0.02)	0.51*** (0.06)	0.49*** (0.05)	0.42*** (0.01)	0.53*** (0.03)	0.38*** (0.03)
Horizontal Inequality	6.45** (2.64)	5.61** (2.28)	3.40 (4.18)	5.40** (2.29)	4.29** (2.01)	6.82* (3.75)	5.40* (3.58)	7.60** (3.11)	3.37 (5.09)	9.82*** (1.97)	2.57 (1.73)	0.75 (3.11)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MHT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,214	783	839	2,550	906	944	1,120	398	434	3,649	1,287	1,352
R-squared	0.256	0.274	0.198	0.272	0.192	0.215	0.264	0.242	0.261	0.286	0.241	0.189

Notes: The table reports results from OLS regressions. The outcome variable is the amount donated (in cents). Columns labeled as "All" consider the whole sample, while columns labeled as "Victim" restrict to subjects victim of inequality (receiving the lowest bonus) and columns labeled as "Favored" restrict to subjects favored by inequality (receiving the highest bonus). Male is a dummy variable assuming value equal to 1 in the case of males and 0 elsewhere. Female is a dummy variable assuming value equal to 1 in the case of females and 0 elsewhere. Left is a dummy variable assuming value equal to 1 when the subject has leftmost leaning beliefs. Center-right is a dummy variable assuming value equal to 1 when the subject has center-rightmost leaning beliefs. Immigrant is a dummy variable assuming value equal to 1 when the donation recipient is an immigrant instead of a native. Controls include gender, education, age, and the order the two donations were presented. Robust standard errors corrected for Multiple Hypothesis Testing are in parentheses. *** significant at the 1%, ** 5%, * 10% level.

Table 3: Heterogeneous Effects on Donations (Salience)

	immigration		no immigr.		discrimination		no discrim.					
	all	victim	all	victim	all	victim	all	victim				
immigrant	-40.78*** (2.53)	-25.19*** (2.91)	-42.35*** (5.42)	-21.21*** (1.54)	-17.00*** (1.74)	-34.06*** (3.09)	-14.70*** (4.90)	-4.52 (5.07)	-20.69** (9.73)	-27.32*** (1.39)	-16.66*** (1.57)	-38.15*** (2.79)
endowment	0.30*** (0.02)	0.27*** (0.06)	0.35*** (0.06)	0.46*** (0.01)	0.54*** (0.03)	0.50*** (0.03)	0.54*** (0.04)	0.12 (0.11)	0.47*** (0.11)	0.44*** (0.01)	0.57*** (0.03)	0.40*** (0.03)
Horiz. Inequal.	3.41 (3.16)	1.95 (3.24)	5.71 (5.53)	10.44*** (1.96)	2.97* (1.75)	4.55 (3.15)	12.01* (6.46)	-2.37 (6.57)	14.55 (9.93)	6.90*** (1.77)	3.99** (1.60)	6.83** (2.83)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MHT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,122	375	400	3,645	1,305	1,396	398	130	161	4,372	1,548	1,624
R-squared	0.312	0.278	0.237	0.281	0.230	0.219	0.361	0.115	0.341	0.285	0.253	0.212

Notes: OLS regressions. Outcome: amount donated (in cents). "All" = whole sample; "victim" = subjects receiving lowest bonus; "favored" = subjects receiving highest bonus. Immigration/discrimination dummies = 1 if selected among top 3 topics. Controls: gender, education, age, and order of donations. Robust standard errors in parentheses. *** significant at 1%, ** 5%, * 10%.

Table 4: Heterogeneous Effects on Donations

	all		inequality		favored		no inequality		gender discrimination		no gender discrimination	
			victim				victim		victim		victim	
immigrant	-24.40*** (2.58)	-12.49*** (2.84)	-40.55*** (4.87)	-26.66*** (1.60)	-20.11*** (1.71)	-32.37*** (3.22)	-15.02*** (4.28)	-10.16** (4.95)	-15.12* (8.11)	-28.10*** (1.42)	-14.37*** (1.56)	-39.28*** (2.83)
endowment	0.40*** (0.02)	0.36*** (0.06)	0.39*** (0.05)	0.45*** (0.01)	0.53*** (0.03)	0.43*** (0.03)	0.43*** (0.04)	0.53*** (0.11)	0.38*** (0.09)	0.42*** (0.01)	0.56*** (0.03)	0.44*** (0.03)
vert_ineq	4.89 (3.29)			4.56** (2.03)			-3.91 (5.71)					4.67*** (1.78)
horiz_ineq	3.27 (3.23)	-3.67 (2.96)	4.16 (4.96)	7.69*** (2.05)	2.45 (1.73)	3.16 (3.26)	0.74 (5.43)	-14.10** (5.40)	17.34** (8.77)	6.64*** (1.79)	3.20** (1.59)	1.97 (2.89)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MHT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,329	453	514	3,437	1,231	1,270	482	147	207	4,276	1,538	1,579
R-squared	0.247	0.176	0.245	0.287	0.266	0.214	0.297	0.389	0.220	0.280	0.222	0.238

Notes: OLS regressions. Outcome: amount donated (in cents). "All" = whole sample; "victim" = subjects receiving lowest bonus; "favored" = subjects receiving highest bonus. Inequality/gender discrimination dummies = 1 if selected among top 3 topics. Controls: gender, education, age, and order of donations. Robust standard errors in parentheses. *** significant at 1%, ** 5%, * 10%.

Table 5: Pre-treatment beliefs and attitudes

	(1) meritocracy	(2) general fairness	(3) social mobility	(4) own income perception
VI_victim	-0.03** (0.033)	-0.01 (0.339)	0.06* (0.069)	0.08*** (0.000)
VI_favored	0.02 (0.186)	0.01 (0.544)	-0.03 (0.416)	-0.02 (0.368)
HI_victim	-0.01 (0.452)	0.00 (0.904)	-0.00 (0.988)	-0.02 (0.294)
HI_favored	-0.02 (0.282)	0.01 (0.567)	0.06* (0.094)	0.00 (0.954)
Controls	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes
Observations	4,736	4,736	4,736	4,798
R-squared	0.064	0.063	0.090	0.061

Notes: The table reports results from OLS regressions. The outcome variable are: the attitude towards merit, i.e. the belief that a person is poor because of lack of effort (column 1), the belief that the Italian economic system is generally fair (column 2), the attitude towards social mobility, i.e. the concern about children coming from poor families (column 3), and perception of own relative income as below the average (column 4). Victim is a dummy variable that assumes value equal to 1 when the subject received the lowest bonus, 0 elsewhere. Favored is a dummy variable that assumes value equal to 1 when the subject received the highest bonus, 0 elsewhere. Prefixes VI and HI refer to Vertical Inequality and Horizontal Inequality, respectively. Controls include gender, education, age, the order the two donations were presented, and two measures of salience: salience_ineq, defined as a dummy equal to 1 when the subject selected “inequality” as one of the three most relevant issues, and salience_imm, defined as a dummy equal to 1 when the subject selected “immigration” as one of the three most relevant issues. Robust standard errors corrected for Multiple Hypothesis Testing are in parentheses. *** significant at the 1%, ** 5%, * 10% level.

Table 6: Determinants of response time

	all			victim	avored
immigrant	0.08 (0.39)	0.06 (0.39)	0.02 (0.39)	-1.12** (0.45)	-4.82 (4.62)
endowment	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	-0.01 (0.01)	0.02 (0.05)
Vertical Inequality		-0.71 (0.49)	-0.67 (0.49)		
Horizontal Inequality		-0.38 (0.49)	-0.32 (0.49)	-1.03** (0.46)	-1.65 (4.66)
Controls	No	No	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes
MHT	Yes	Yes	Yes	Yes	Yes
Observations	4,768	4,768	4,761	1,681	1,791
R-squared	0.002	0.003	0.014	0.020	0.007

Notes: The table reports results from OLS regressions. The outcome variable is the time used to make the donation decision (in seconds). The first three columns consider the whole sample, while the fourth restricts to subjects victim of inequality (receiving the lowest bonus) and the fifth restricts to subjects favored by inequality (receiving the highest bonus). Immigrant is a dummy variable assuming value equal to 1 when the donation recipient is an immigrant instead of a native. Vertical Inequality is a dummy variable assuming value equal to 1 in the corresponding treatment (T1) and 0 elsewhere. Horizontal Inequality is a dummy variable assuming value equal to 1 in the corresponding treatment (T2) and 0 elsewhere. Controls include gender, education, age, and the order the two donations were presented. Robust standard errors corrected for Multiple Hypothesis Testing are in parentheses. *** significant at the 1%, ** 5%, * 10% level.

5 Conclusions

This paper presents the results of an online survey experiment examining the effect of inequality in the distribution of endowments on what is known as "native bias," i.e., the tendency to favor people of the same nationality. We introduce three treatments in which participants receive different endowments: in the Baseline, participants are unaware of the unfair distribution; in the Vertical Inequality treatment, they are informed that different endowments are allocated randomly; and in the Horizontal Inequality treatment, they are informed that the endowments are allocated based on gender, with gender-based discrimination at work.

It is important to note that the way we introduce inequality in this experiment involves a one-time assignment of different bonuses, with very small stakes (from 0.5 euro to 2 euro). Thus, our manipulation represents a minimal intervention, especially when compared to real-world wealth inequalities, which involve much larger stakes and are persistent over time.

Despite the limited level of inequality introduced, our study finds that raising awareness of inequality significantly enhances prosocial behavior towards both compatriots and immigrants. This effect is observed among individuals advantaged by inequality, who feel compelled to "give back," as well as among those disadvantaged, who notably reduce their native bias. For the latter group, an analysis of post-treatment beliefs reveals a shift in perspective: they increase their perception of their income as below average, challenge the notion that poverty results from a lack of effort, and express greater concern for future generations' opportunities. Consistently, their donations to immigrants are made more quickly than those to fellow natives, suggesting that when empathy is involved, fair choices can become less deliberate and more instinctive. Overall, the native bias we observe is primarily driven by respondents who recognize their own privilege.

These findings underscore the importance of raising awareness about inequality, aligning with evidence that people typically misperceive current levels of inequality, often underestimating its extent. This is particularly significant since these (mis)perceptions drive behavior and preferences for redistribution.

Aligned with research on ingroup bias and outgroup prejudice, we document a strong native bias. However, this bias is partially offset among respondents who experience the disadvantages of inequality, especially males who receive a lower endowment. In contrast, female respondents exhibit a lower native bias. Furthermore, the willingness to "give back" when acknowledging to be part of a privileged group because of gender identity is wholly driven by females. Note that the introduction of horizontal inequality in this experiment is based on specific group characteristics, namely gender, and the conclusions cannot be generalized to other forms of horizontal inequality, such as racial or ethnic inequality.

The findings of this study reveal a phenomenon that is somewhat counterintuitive:

awareness of inequality appears to increase generosity, while being disadvantaged reduces native bias. This contrasts with existing literature suggesting that inequality fosters conflict and diminishes prosocial behaviors, with victims often seeking scapegoats. Our results propose an alternative pathway, wherein sharing similar disadvantages with donation recipients fosters empathy, reshaping perceptions of inequality as a result of misfortune rather than inherent flaws or systemic failures. This empathetic framework may override typical responses to inequality, promoting a shared sense of vulnerability and interconnectedness that enhances generosity and reduces prejudicial biases. These outcomes challenge conventional paradigms and invite further exploration into how personal experiences of disadvantage reshape cognitive and emotional responses to social disparities.

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