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Out-group penalties in refugee assistance: a survey experiment

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Abstract

We study out-group biases in attitudes toward refugees, and the effect of European Union immigration policies on these views, with a survey experiment including 4,087 Italian respondents. We assess attitudes using donations to a randomly assigned group: Italian victims of violence, or refugees fleeing wars from either Ukraine or African countries. We also employ a novel measure, the share donated in cash, to detect subtler forms of prejudice. Donations were lower for African and Ukrainian refugees than for Italians. African beneficiaries received a small portion of the donation in cash, a behavior that reveals stronger prejudice against distant out-groups and that characterizes mainly individuals with right-leaning political views. Informing about immigration policy reforms had no impact. Textual analysis provides interpretations for these findings.

Keywords: Public attitudes; refugees; migration policies; survey experiment

JEL classification: *C*99; *D*02; *D*64; *J*15

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1. Introduction

Individuals often categorize themselves based on their group affiliations, and tend to perceive differently people within and outside their group. Since the work of Tajfel et al. (1979), studies have documented instances of in-group favoritism and out-group bias. For example, people are more generous and trustful toward fellow group members. This "parochial" attitude is in contrast to a "universalist" perspective, whereby there is no differential attitude based on group belonging (Enke et al., 2022). On the one hand, parochialism may foster cohesion within a community. On the other hand, in an increasingly interconnected and diverse world, this closure might hinder collaboration between different groups, potentially foregoing mutually beneficial opportunities.

Nationality is one such trait that often defines groups and may lead to prejudice towards non-natives (Kustov, 2021; Choi et al., 2022). Existing studies mainly examine attitudes towards an indistinct out-group, irrespective of the specific features that the members may have. More recent evidence, however, shows that locals display a preference for migrants or refugees of certain origins, skill levels, or skin tones rather than others.[1]

In this paper, we present findings from an online survey experiment that we conducted to study the impact of perceived distance on attitudes toward different out-groups, with a focus on refugees. We assess the presence of differential support toward refugees from Ukraine and from war-torn African countries. We also investigate whether refugee and immigration policies implemented over the whole of the European Union (EU) can change these attitudes.

The Russian invasion in February 2022 pushed many Ukrainians to seek asylum abroad. Because refugees are forced to leave their home countries to avoid persecution or for conflict-related reasons, one may expect that there should be no or only limited aversion toward this particular out-group. In reality, the public perception of refugees is often negative (Bansak et al., 2016; Hangartner et al., 2019). The response of host countries to the arrival of refugees from Ukraine, however, has been markedly different. The media reported politicians and the public describing them as "people like us", with "blond hair and blue eyes", "the sorts of people who can contribute", "not like those from Afghanistan", "they are white", to name a few examples.[2] These quotes suggest a disparity in how citizens and policymakers may have treated Ukrainians compared with other refugees,

[1]Hainmueller and Hopkins (2015), Bansak et al. (2016, 2023), Bursztyn et al. (2024), Shayo (2009, 2020), Fouka et al. (2022), and Fouka and Tabellini (2022) conceptualize the role of "distance" in how natives rank different minority out-groups.
[2]See https://odi.org/en/insights/fleeing-ukraine-and-the-inequality-of-africa-europe-relations/.

such as those from Africa or the Middle East, who are also fleeing war. The difference could derive from Europeans' empathy for Ukrainians as well as from a process of "othering" (Abdelaaty, 2021) of African refugees, because of their greater ethnic, religious, and cultural distance. This perceived distance may influence the willingness to welcome migrants and the expectations about the effects of immigration more broadly (Tabellini, 2020). However, whether these are just anecdotes or indications of systematic attitudes is an open question.

The Russian–Ukrainian war also led the 27 states of the EU to agree for the first time to implement an EU-wide refugee-reception plan based on relocation quotas between the various EU members.[3] This reform may influence attitudes toward refugees in several ways. First, a more decisive EU role in enforcing asylum and border policies may increase trust in European institutions and their immigration policies. A second effect may be in the opposite direction: the EU may be perceived as becoming too open and welcoming toward migrants, leading to more negative attitudes. Although there is evidence that policies reflect public opinion (Burstein, 2003), studies on whether attitudes respond to policy changes are scarce (Vrânceanu and Lachat, 2021). Moreover, there is growing scholarly interest in the effects of exposing individuals to various types of interventions on attitudes towards immigrants (Alesina et al., 2023; Dylong et al., 2024), or framing a European identity as a common project versus a common heritage on cooperative attitudes (La Barbera et al., 2014), although attempts to analyze the effect of an immigration policy reform by a supranational entity, such as the EU, on natives' attitudes are scant – an exception is Solodoch (2021).

Understanding whether preferences and behaviors towards out-groups are hierarchical, based on certain characteristics such as perceived distance, could help identify policies that might enhance inclusion and reduce prejudice. The coordinated management of migratory processes and refugee crises may also positively affect attitudes toward populations of less familiar origins if they were able to change social norms and beliefs.

The survey participants were 4,087 Italian residents, representative of the Italian adult population. Italy is highly exposed to migration flows, particularly from regions such as Africa and the Middle East. Being a prominent port of entry, especially for boats carrying migrants and asylum seekers, it has faced challenges in managing this phenomenon. More recently, with the Russian invasion of Ukraine, asylum seekers started crossing the borders with adjacent countries and were relocated throughout Europe, including Italy.

[3]For the first time in March 2022, the member states activated the Temporary Protection Directive 2001/55/EC that promotes an equal balance of effort in hosting asylum seekers in case of a "mass influx" of displaced persons.

In the survey, we randomly assigned each respondent to donate to one of three possible groups of beneficiaries: Italian victims of violence, Ukrainian refugees, or refugees from African countries experiencing conflict. The goal of this design was to test if natives have differing attitudes towards different out-groups based on their "distances" (e.g., ethnic, religious, cultural) from the Italian nationals who comprised our survey participants.[4] Moreover, to test the effect of a stronger role of the EU on the respondents' attitudes toward refugees, we provided information about the EU's recent initiative for a more active role in refugee management, including the activation of the Temporary Protection Directive and relocation quotas, hinting at its potential as a standard EU policy.

To assess attitudes, we rely on two measures. The first, a standard, incentive-compatible donation choice, involves giving survey respondents a 1€ endowment and offering them the opportunity to donate part of it to support a certain group of individuals in need. If people had a preference to help in-group members or those perceived as part of one's own community, then one would expect to see higher donation amounts directed towards Italian victims of violence compared with those designated for foreigners who are fleeing from violence. Further, if there is a preference for closer groups, this tendency would likely manifest as a gradient in donation amounts, where groups perceived as culturally or geographically nearer receive more support than those perceived as more distant or different.

We also use a second, novel measure of attitudes to detect beliefs and stereotypes towards out-groups, particularly in terms of recipients' responsibility, agency, self-control, or potential misuse of funds. We asked those who chose to donate a positive amount to determine the composition of their support between cash and in-kind. Donations made through an intermediary organization, which then provides beneficiaries with in-kind support, are commonly used to measure attitudes (Fong and Luttmer, 2009; Grigorieff et al., 2020). However, evidence shows that people in need generally prefer to receive aid directly in cash (Liscow and Pershing, 2022). Yet, donors typically would rather contribute in kind (Halapuu et al., 2013). Especially when donating to groups toward which there may be only limited trust, hesitancy to give cash could reveal underlying prejudice. The fact that poor people make bad use of cash is a long-standing, widespread stereotype (Evans and Popova, 2014). Moore (2009) reports a senior government official in Nicaragua saying, while discussing a cash transfer program, that "husbands were waiting for wives to return in order to take the money and spend it on alcohol". Statements like this are variants of the so-called "big TV theory",

[4]Enke et al. (2024) study universalism in donation where distance (or "in-groupness") is at the district level within the United States.

from the phrase "rich people have small TVs and big libraries, and poor people have small libraries and big TVs" (Taylor, 2022). Lower-income individuals are also held to more restrictive standards and judged negatively for purchasing the same items as their higher-income peers (Hagerty and Barasz, 2020).

We find a generalized out-group penalty in the total amount donated, as participants were more generous toward Italian recipients than Ukrainians and Africans. Donations made to the in-group are 13–17 percent higher than to the out-groups, with no difference between the two groups of refugees. In contrast, evidence of differential out-group prejudice emerges from the decision about the in-cash share of donations. Italian recipients received 26 percent of their donations in cash, a portion very similar to the one that respondents assigned to Ukrainians. In contrast, the share was significantly lower for African recipients, by about 4.3–4.8 percentage points. This suggests a ranking of preferences between different out-groups based on their distance from the in-group.

Informing about a stronger role of the EU did not influence either of the two measures of attitudes. This null effect does not derive from inattention to the provided information, as we find that the information did influence the expectations about the number of refugees arriving in Italy. The information only weakly affects two possible links that the existing literature suggested between policies and attitudes: the respondents' perceived trust toward European institutions and what is considered a socially appropriate donation level.

We also perform (pre-registered) heterogeneity analyses, focusing on the respondents' education, political orientation, and strength of European identity. When measured through overall donation levels, in-group preferences and out-group bias characterize almost exclusively individuals without a college degree, plausibly because of lower exposure to diverse perspectives and knowledge about global issues and a higher perception of immigrants as an economic threat. As for the share of cash donations, we find a similar ranking of preferences among both low- and high-education respondents. For left-leaning respondents, there is no difference in the willingness and extent of support for the three groups of recipients. In contrast, there is a differential out-group prejudice among individuals leaning towards the right end of the political spectrum, in terms of both overall donation and share donated in cash. The lower universalism of conservative individuals manifests itself not only with lower support to out-groups in general, as suggested by the literature (Waytz et al., 2019), but also through a clear hierarchy between out-groups, with Africans more penalized than Ukrainians. Right-leaning participants are significantly less likely to donate cash to African refugees than to Italians. The strength of respondents' identification with Europe does not differentially correlate with attitudes toward in-group and out-group

members in need, and this result holds irrespective of the measure of prejudice considered.

We then rely on analyses of responses to both close- and open-ended questions to better interpret how respondents perceived cash donations and corroborate our hypothesis that the distance from the out-groups drives the hierarchy of preferences. Text analysis indicates that the choice of the type of donation is influenced by beliefs about the positive or negative use the recipients would make of the cash received. Participants who chose not to donate cash were more likely to predict purchases such as alcohol, cigarettes, or drugs. In contrast, those who opted to donate at least some amount in cash expected more positive uses for the funds, such as buying food and clothing. These expectations correlate with (mis)trust toward the beneficiaries. In addition, participants with right-leaning political views show greater mistrust or paternalism toward Africans, who are the more distant out-group. When donations target African recipients, not only are right-leaning respondents particularly concerned about the harmful use of cash donation, but left and right-leaning respondents alike display the largest discrepancy in the expectation about good and bad use of cash. The underlying patterns of (mis)trust, especially towards more distant groups, indeed appear to be influenced by inherent biases or preconceived notions. Additional tests allow us to rule out alternative explanations for our findings, such as the different salience of the war in Ukraine and the migratory processes from Africa during the study period, the potentially different perceptions of the needs of refugees according to their provenance, and the expected duration of refugees' stay away from their home country.

In sum, the findings provide evidence that out-group bias increases with perceived distance. These differential attitudes may be subtle and hard to detect; the standard, incentive-compatible measure that we used did not show any difference according to the distance of the recipient group. However, differences emerged with our novel measure, where respondents decided between cash and in-kind donations, a method that captures more subtle forms of prejudice. The additional finding that differential attitudes pertain mostly to respondents with right-leaning political views, together with previous evidence that conservatives have more parochial preferences (Enke et al., 2022), suggests that these attitudes may not only separate between in-groups and out-groups, but also "rank" out-groups according to perceived distance. The results also indicate that the cash versus in-kind measure might be less subject to social desirability bias than the standard measure based on the total amount donated.

Conversely, and perhaps also because of the ingrained nature of these beliefs, EU-level reforms that would likely distribute refugees more effectively do not affect attitudes. On the one hand, this suggests that obtaining more support for immigration would require policies that modify deep-rooted

attitudes, for example through education, exposure to diversity, and improved job opportunities. On the other hand, the deep nature of these out-group biases may lead politicians to leverage them to increase resentment and polarization about these themes, if they can see an immediate electoral gain from this.

In the next section, we describe the survey design. Section 3 presents information on the collected data and reports our findings. Section 4 concludes with a discussion of the implications of our study.

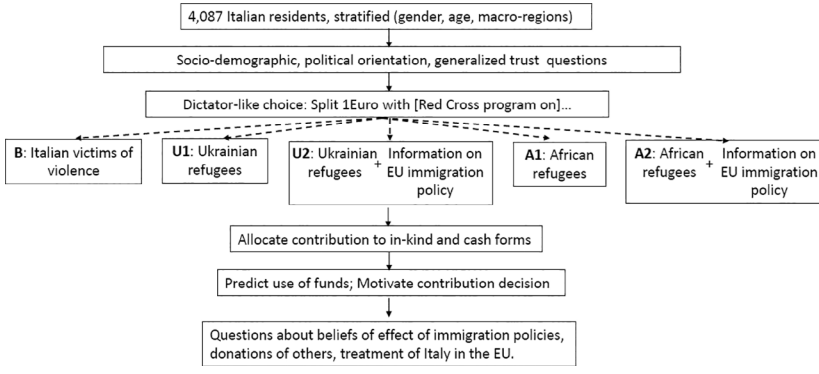
2. Research design

Figure 1 displays the structure and flow of the survey experiment, which ran between 30 November 2022 and 16 January 2023. We collaborated with the market research and survey company Bilendi/Respondi to recruit respondents who were residents of Italy.

The sample consisted of 4,087 individuals and matched the Italian population on sex, age, macro-region of residence, and education. We conducted the survey online. It began with questions on the socio-demographic characteristics of the respondents, including gender, age, family status, education level, employment, and political orientation. We also gauged the participants' sense of belonging to their town, Italy, Europe, or the "global society", and measured their generalized trust in others by asking whether they agreed with the statement that people always act with the best intentions (Falk et al., 2023).

All participants had an endowment of 1€, and we offered the possibility to donate any share of it (including zero) to a target group that differed

Figure 1. Experimental design



Notes: The figure shows the structure and flow of the survey experiment. The dashed arrows indicate random assignment.

depending on the experimental condition. The manipulation consisted of randomly assigning the respondents to one of four treatments or a control group. In the control condition, respondents could donate to Italian citizens who had been victims of violence and abuse, or were otherwise vulnerable. The design of the four treatments had a two-by-two structure. The first feature that we varied was the origin of two groups of refugees: Ukraine (boxes U1 and U2 in Figure 1) and countries in Africa that are experiencing war (boxes A1 and A2). Thus, the beneficiaries of the donation in the control group (box B) represent the baseline in-group against which we compare the respondents' attitudes toward the two out-groups of Ukrainians (the less distant out-group) and Africans (the more distant out-group). To minimize any perception of differences between these groups, other than their origins, we employed the same wording to describe the condition of victims of violence for all three sets of recipients. The full text of the survey is in Online Appendix B.

Each respondent, therefore, faced only one target group. This allows us to assess the feelings toward that particular group without introducing comparisons with the others, and therefore to focus on the relationship between attitudes and social distance. In our context, moreover, a dictator-like framework with the inclusion of real economic stakes is important because the decision concerns socially charged issues (i.e., for which people see some choices as more "moral" or "socially acceptable" than others. An alternative design whereby participants allocate a given amount to multiple beneficiaries may make at least some respondents feel pressed, for example, to opt for an equal sharing, or at least "more equal" than one would prefer in the absence of demand effects and social desirability concerns. This is even more relevant if the objective, as in our case, is to assess not only the presence of an out/group bias, but also of a hierarchy of preferences for different out-groups.

We introduced a second variation in the treatments. We vary the provision of information about the possible enhancement of the EU's role in managing refugees. In one version (boxes U2 and A2 in Figure 1), we outlined a recent reform of the EU asylum regime, specifically intended to manage the influx of refugees fleeing Ukraine after the Russian invasion of 2022. For the first time, the Council of the EU activated the Temporary Protection Directive, which intends to balance efforts between the member states in receiving displaced persons.[5] Moreover, we mentioned the possibility that the directive might be extended to managing refugees (from entry to eventual relocation) more

[5]The temporary protection is an exceptional measure intended to expedite the process of granting temporary protection in the event of a mass influx of displaced persons from non-EU countries. In particular, the directive sets up a scheme to deal with mass arrivals of asylum seekers in the EU, puts in place immediate temporary protection for these displaced people, and promotes a balance of efforts between EU member states in hosting asylum seekers without imposing a compulsory distribution.

broadly, not just those from Ukraine. Conversely, the other version (boxes U1 and A1) did not mention this specific reform or the possible role of the EU in managing refugee inflows. The existing system, known as the Dublin Regulation, dates back to 1990 and assigns legal obligation and responsibility to process asylum seekers to the first country of arrival. However, given that most asylum seekers first arrive in the peripheral countries of the EU, the burden of managing the flows is not equally shared by the various member states. Despite evidence of public support throughout the EU for a proportional equality rule that allocates asylum seekers proportionately to each country's capacity (Bansak et al., 2017), to date any attempt to broadly reform the system has failed.

Suggesting a more significant EU role in enforcing asylum and border policies may affect attitudes toward refugees in three different ways. First, it may lead respondents to anticipate a potential shift, either upwards or downwards, depending on the country, in the influx of asylum seekers. Second, it could influence trust in European institutions. Halapuu et al. (2013) document that trust and tolerance toward immigrants improve when people perceive political institutions as fair and supportive. The EU reform may also signal competence, security, and control over the management of the flows, which again could reduce hostility towards migrants (Solodoch, 2021). Third, the reform could affect the perception of what is normatively appropriate and legitimize certain opinions and behaviors, either toward conforming with the attitudes implied by the new policies (Sjöberg, 2004; Bursztyn et al., 2020), or in the opposite direction (Solodoch, 2021; Dennison and Kustov, 2023). Additionally, the impact of emphasizing the role of the EU could vary depending on the perceived social or cultural distance between the in-group and the out-groups.

After showing the text with the assigned experimental conditions, we assessed the attitudes of the respondents toward the beneficiaries with two measures. First, we asked respondents whether they would be willing to donate part of their 1€ endowment through a charitable organization and, if so, how much they wished to donate.[6] Second, we asked those who donated a positive sum what share of that amount they wanted the association to transfer in direct cash and how much in-kind (i.e., essential goods). We employ these two measures to obtain a more nuanced understanding of attitudes. In particular, the two choices are likely to suffer from social desirability bias

[6]At the moment of donating, we told respondents that the donation would be made through a certified charitable organization, which operates on the Italian territory, without specifying the name of the organization. At the end of the survey, we revealed this organization to be the Italian Red Cross, which has programs to assist refugees as well as victims of domestic violence, either in the form of in-kind transfers or cash assistance.

differently. In the presence of image concerns, people are more prone to engage in behaviors that they think are socially accepted. In our context, participants may feel compelled to donate a larger share of their endowment than they would actually like, to look compassionate or supportive, regardless of their actual feelings towards refugees.[7] However, the choice of what share of the donation to transfer directly in cash is arguably less likely to be affected by these tendencies. Standard economic reasoning suggests that cash transfers are superior to in-kind transfers because of the higher freedom of choice they entail. In fact, low-income individuals, when asked about their preference, typically choose cash (Liscow and Pershing, 2022). Conversely, the general population (which is more likely to include potential givers) prefers in-kind transfers. This may occur because givers care about the recipients' consumption only of specific goods (Browning, 1981), or do not think that the receiver can discern good from bad uses of cash (Currie and Gahvari, 2008; Cunha, 2014; MacKay, 2019; Ambuehl et al., 2021; Liscow and Pershing, 2022). For a given donation level, a person may opt to give more in-kind donations than cash because of their belief that refugees would misuse the cash, even in the absence of evidence that this is actually the case (Evans and Popova, 2017; Schroeder et al., 2017). The trust in the good use of cash transfers may also depend on the identity of the recipients. Preferences may be more subtly reflected in how, rather than whether, aid is given or not. Baker (2015), for example, finds that white Americans are more willing to aid Africans than East Europeans, not because of the greater perceived need of the former but because of "an underlying racial paternalism that sees them as lacking in human agency".[8]

The survey then included two open-ended questions to provide us with further information about recurrent motives, perceptions, and expectations regarding cash or in-kind donations and, more generally, insight into the respondents' attitudes toward the population(s) of interest. The first question asked participants to predict how the recipients would spend the cash donation (or, for those respondents who did not make any donation or chose to donate only in-kind, how they believe the recipients would have spent it); the second question asked them to describe the reasons for their donation choices.

Finally, we asked respondents how much they expected the average donation of other respondents to be, and presented questions measuring their

[7]Raux (2023) shows, for example, that individuals act more generously toward out-group counterparts, or are more universalistic, in the presence of an out-group than in the presence of an in-group audience.

[8]Alternative ways to measure racial attitudes more implicitly include the widely used Implicit Association Test (Greenwald et al., 1998), or the question posed by Fong and Luttmer (2009) about subjective closeness to one's racial or ethnic group, which they interpret as a measure of subjective racial identification.

trust in the EU and their expectations of what a stronger role of the EU in asylum policies would imply for future volumes of refugees in Italy and Europe as a whole. As we discuss in detail below, these variables allow us to test possible channels through which the information on EU refugee policies could affect attitudes.

3. Data and findings

3.1. The data

Panel A of Table 1 presents summary statistics for the socio-demographic characteristics by which we stratified the sample, and compares them to their distribution in the Italian population. Panel B provides similar information

Table 1. Descriptive statistics

	Sample (%)	Population (%)
Panel A		
Women	53.5	52.0
Age 18–24	8.6	8.2
Age 25–34	13.0	12.5
Age 35–44	15.2	14.6
Age 45–54	20.5	18.8
Age 55–64	18.5	17.6
Age 65+	24.2	28.2
Residents of North-East	20.2	20.0
Residents of North-West	29.1	27.0
Residents of Center	17.4	20.0
Residents of South	22.1	23.0
Residents of Islands	11.2	10.8
College degree or higher	14.7	15.0
Panel B		
Town size <5,000	15.2	–
Town size 5,000–20,000	29.9	–
Town size 20,000–100,000	29.8	–
Town size >100,000	25.1	–
Parents born abroad	8.2	–
Political orientation: left	22.2	–
Political orientation: center	50.1	–
Political orientation: right	27.7	–
High EU identity	55.3	–

Notes: The table provides summary information for 4,087 respondents. Panel A shows the percentage of respondents in the characteristics used to match the sample to the overall population. Panel B displays the distribution of respondents along other socio-demographic features.

for other features of the respondents, including those that we pre-registered for the analysis of heterogeneous effects: education, political orientation, and strength of European identity.

The share of college-educated respondents in the survey sample (15 percent) corresponds to that of the overall Italian population. To determine the respondents' political orientation, we asked them to indicate their position on a scale ranging from 0 (leftmost-leaning political orientation) to 10 (rightmost-leaning political orientation), in 0.1 increments.

About 50 percent of the participants located themselves between 4 and 6.9. The remaining half were at the two ends of the spectrum: 22 percent between 0 and 3.9, and 28 percent between 7 and 10. There were 55 percent of the respondents who reported that they felt a sense of belonging to Europe "strongly" or "to some extent"; we classify these participants as displaying high European identity. The remaining 45 percent stated that they felt "little" or "no" sense of belonging to Europe. All of these characteristics are balanced across the different treatments (see Appendix A, Figure A1).

Table A1 in Appendix A provides the percentage of respondents by donation choice. About 37 percent of participants (N = 1,493) decided not to share their 1€ endowment, 26 percent (N = 1,051) donated a positive amount but restricted their donation to be only in-kind, and 38 percent (N = 1,543) allocated some part of the donations in cash; of this last group, about 6 percent (N = 99) decided to make their entire donation in cash.

3.2. Findings

3.2.1. Main results. Table 2 shows the ordinary least-squares (OLS) regression estimates from the following equation,

$$D_i = \beta_0 + \beta_1 \text{Ukraine}_i + \beta_2 \text{UkraineEUinfo}_i + \beta_3 \text{Africa}_i + \beta_4 \text{AfricaEUinfo}_i + \epsilon_i, \quad (1)$$

where D_i is either the total donation that respondent i makes or the share of the donation that the respondent donates in cash. The parameters $\beta_1, \ldots, \beta_4$ represent the differences in the outcome variable between each of the four treatment conditions and the control, and X_i is a vector of individual characteristics of the respondents. To offset the potential for false positives that might arise from estimating the effect of multiple treatments on multiple outcome variables and multiple subgroups, we compute the sharpened false discovery rate (FDR) adjusted q-values (Benjamini et al., 2006).

Columns 1 and 2 report results from models where the outcome variable is the donation (measured in cents) that each participant made to their assigned target group. Compared with the reference case of local recipients, donations in all four treatment conditions are significantly lower. The difference

Table 2. Effect of treatments on donation

Conditions	Donation (cents)		Percentage donated in cash			
	Full sample		Full sample		Positive donations	
	(1)	(2)	(3)	(4)	(5)	(6)
Ukrainian recipients	−8.87***	–	−3.05**	–	−0.94	–
	(2.17)	–	(1.27)	–	(1.70)	–
	[0.00]	–	[0.02]	–	[0.58]	–
Ukrainian recipients: EU info	−7.04***	–	−2.24*	–	−0.06	–
	(2.17)	–	(1.24)	–	(1.63)	–
	[0.00]	–	[0.07]	–	[0.97]	–
Africa recipients	−8.45***	–	−4.78***	–	−4.60***	–
	(2.16)	–	(1.23)	–	(1.65)	–
	[0.00]	–	[0.00]	–	[0.01]	–
Africa recipients: EU info	−7.75***	–	−4.60***	–	−4.28***	–
	(2.17)	–	(1.22)	–	(1.62)	–
	[0.00]	–	[0.00]	–	[0.01]	–
Ukrainian recipients (all)	–	−7.94***	–	−2.64**	–	−0.49
	–	(1.89)	–	(1.10)	–	(1.44)
	–	[0.00]	–	[0.02]	–	[0.73]
African recipients (all)	–	−8.10***	–	−4.69***	–	−4.44***
	–	(1.89)	–	(1.09)	–	(1.42)
	–	[0.00]	–	[0.00]	–	[0.00]
Constant	42.98***	43.02***	17.39***	17.40***	28.26***	28.27***
	(3.10)	(3.09)	(1.74)	(1.74)	(2.30)	(2.30)
Observations	4,087	4,087	4,087	4,087	2,594	2,594
R^2	0.070	0.070	0.025	0.025	0.026	0.026
Mean of dep. var. to locals	54.50		18.26		26.05	
p Afr=Ukr	0.843	–	0.143	–	0.031	–
p Afr EU info=Ukr EU info	0.737	–	0.038	–	0.008	–
p Ukr=Ukr EU info	0.388	–	0.495	–	0.601	–
p Afr=Afr EU info	0.740	–	0.874	–	0.845	–
p Afr=Ukr (all)	–	0.913	–	0.012	–	0.001

Notes: The table reports results from OLS regressions. The outcome variable in Columns 1 and 2 is the amount donated (in cents) to a targeted group of victims of violence; in Columns 3–6, it is the portion of donation in cash. In Columns 3 and 4, the portion of donation in cash is set to zero if the donation is zero; in Columns 5 and 6, the estimates refer to regressions conditional on participants having made a positive donation. Ukrainian recipients and African recipients are binary indicators (0–1) for the assignment to one of the treatment conditions, based on the nationality of the refugees. The indicator for the control condition (local recipients) is omitted. Regressions include covariates indicating political affiliation, EU identity, immigration salience, gender, education, and age. Robust standard errors are in parentheses, and FDR-adjusted q-values are in brackets. The "p" in the last rows indicates p-values. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

is approximately 7–9 cents, equivalent to 13–17 percent of the average donation amount (about 54.5 cents) made to the in-group. The bottom of the table shows *p*-values from tests of differences across conditions based on the recipients' nationality and whether the scenario mentioned reforms that would enhance the EU's involvement in refugee management. These latter differences are small and statistically insignificant. In Column 2, the estimates are from a specification where we combined the treatment indicators based on the nationality of the refugees, irrespective of the provision of information on EU refugee policy reforms. We confirm the presence of a general out-group bias, with no differences between the two out-groups.

For the estimates in Columns 3–6, the outcome variable is the percentage of donations that participants elected to give to refugees in cash. In Columns 3 and 4, we set the portion to be zero if respondents did not donate at all; in Columns 5 and 6, we restrict the sample to positive donations. Limiting the sample to only those who donated a positive amount is a choice closer to our experimental design, because we asked what portion to give in cash only to the participants who elected to donate some or all of their 1€ bonus. The inclusion also of those who did not donate in the analysis of the effect of the treatments on the portion donated in cash, by assigning a value of zero to the outcome of interest for those participants, alleviates concerns about the impact that the non-random selection into donating might have on the estimates. Adding the non-donors, however, requires pooling together two types of zeroes: those that indicate donors who did not allocate any portion of their donation in cash, and those that identify non-donors. We opted to present results from analyses with both samples to check for any differences in the results.

The estimates suggest a larger out-group bias toward African refugees. There is a limited (Columns 3 and 4) or no statistically significant difference (Columns 5 and 6) between the percentage of cash donations to the in-group and the Ukrainian refugees, compared to a significant 4.3–4.8 percentage-point lower cash donation to African refugees. According to Column 6, for example, the penalty towards African beneficiaries is 17 percent of the baseline cash donations to locals (26 percent of the total amount). Even if, in general, we obtain consistent implications from the two sets of analyses, the results indicate some differences in portions donated in cash to Ukrainian and African beneficiaries when we conduct our analysis on the full sample rather than restricting to observations with positive donations. These differences are the result of the combination of two patterns in the data. First, the proportion of respondents who did not donate at all was very similar between those assigned to donate to Ukrainian and African recipients, and this proportion was significantly higher than for those who were assigned to local victims of violence. Second, conditional on donating, as discussed above, respondents

assigned to Ukrainian refugees committed a larger portion of their donation in cash than those assigned to African refugees.[9]

The null effect on attitudes of information about EU immigration policies persists when the outcome of interest is the percentage of donations in cash. This is consistent with previous research that found no effect of policy changes on attitudes, whether pro-immigration or anti-immigration (Flores, 2017; Kustov, 2023).

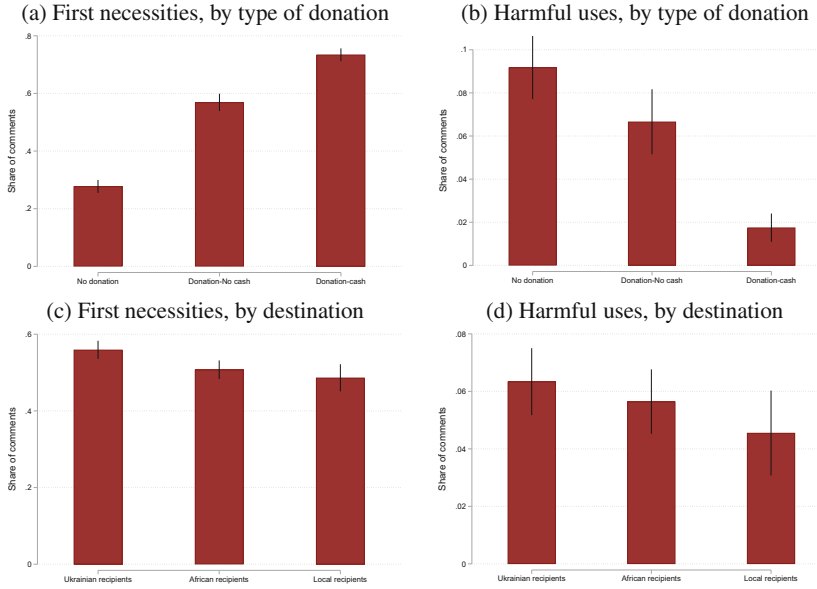
3.2.2. Interpreting the choice of how to donate. To better understand how respondents perceive cash donations, we performed textual analyses of the answers to one of the two open-ended questions in the survey, which asked to list possible uses that the receiver would make of the cash received (for participants who decided not to donate in cash, we asked to indicate how they expected the recipients would have used the cash). The findings, shown in Figure 2, are consistent with the assumption that donating cash expresses greater trust and attribution of agency to the recipients. Participants who donated in cash expected the purchase of necessary goods (such as food and clothes) with much higher frequency than those who did not (panel a). Conversely, those who did not donate at all or decided to donate entirely in-kind were significantly more likely to list such uses of the cash (had they donated it) as for alcohol, cigarettes, drugs, and gambling than those who elected to donate at least part of their chosen sum in cash (panel b).

The differences in the expected uses of cash donations by origin (panels c and d) are smaller than those by type of donation. The share of respondents predicting the use of cash for first necessities is slightly higher when the beneficiaries are Ukrainian, and so is the share of those who predicted harmful uses in the same condition, but these differences are not statistically significant. This suggests that, conditional on the type of donation (or lack thereof), participants did not expect different uses of the money by recipients of different nationalities, especially by recipients in the two out-groups.

Regarding the responses to the second open-ended question about the participants' overall motivations for their donation decision, we conducted a topic modeling analysis (latent Dirichlet allocation) to identify the major arguments that the respondents brought. We ran the procedure multiple times, pre-setting different numbers of topics. We found that assuming four or more topics resulted in overlapping sets of characterizing words, making it difficult

[9] In Table A2 of Appendix A, we report estimates from regressions where the outcome variables are the absolute amounts donated in cash or in kind (as implied by the decision to donate and by the portion that the donating recipients indicated to be given in cash). The estimates indicate the same relevant differences as the ones reported in Table 2.

Figure 2. Share of respondents indicating different categories of items that refugees would purchase with a cash donation

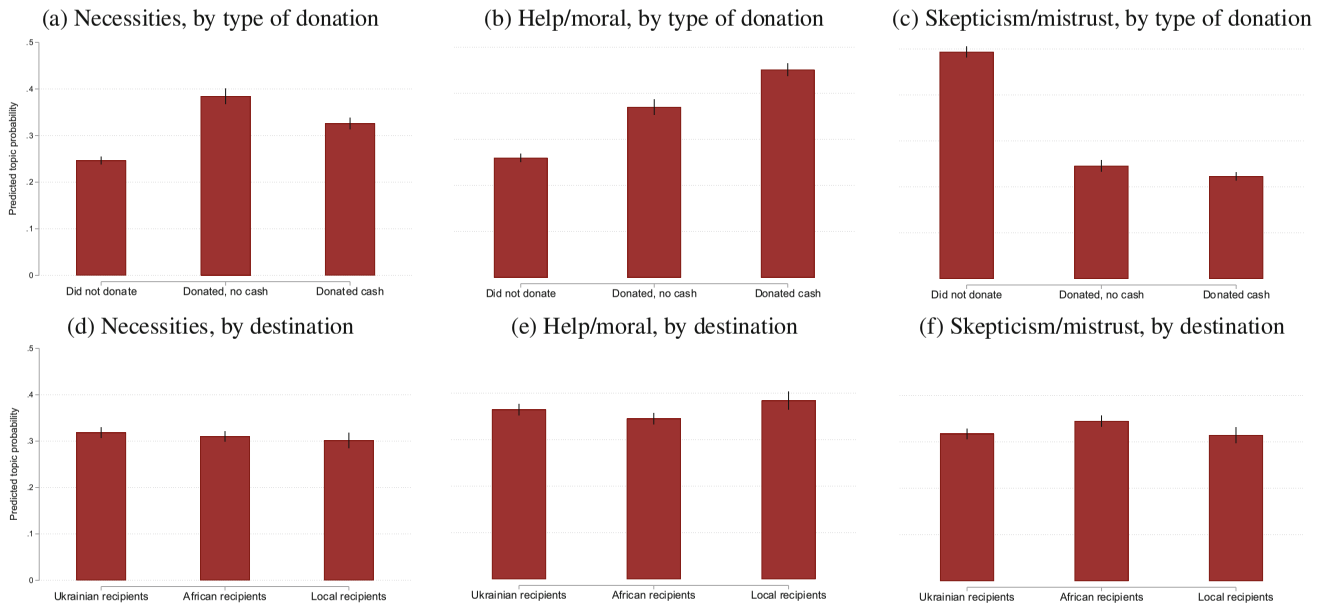


Notes: The graphs plot the share of respondents who predicted that recipients of an in-cash donation would use it to purchase certain items by type of donation (panels a and b) and by nationality of the beneficiary or origin (panels c and d). We defined an indicator equal to one if the words (the Italian equivalent of) "food", "clothing", "health", and "necessary" were present in a response, and zero otherwise, to determine the reference to first necessities (panels a and c). For the category of harmful items (panels b and d), we included words such as "alcohol", "cigarettes", "drugs", "gambling", and "weapons". We stemmed the words and also considered synonyms of these terms. The Stata command to identify the presence of words in a document is `ngram` (Schonlau et al., 2017). Note that the scales of the *y*-axis are different in the various graphs.

to infer an underlying argument. The main keywords in each are different enough (see Table A3 in Appendix A) to identify three themes.

One argument stresses the need for first necessities for the recipients ("Necessities"). A second topic appeals to the moral duty of giving and helping ("help/moral"). The third theme is skepticism and mistrust about whether the donations will reach people actually in need and about the good use of these funds ("skepticism/mistrust"). Similar to the predicted uses of cash donations, participants who committed some or all of their contribution to be in cash were more likely to bring arguments related to the primary needs of the recipients and to a moral duty to help them (Figure 3, panels a and b). Conversely, those who did not donate at all, and to a lesser extent those who donated only in-kind, are more likely to express skepticism about the uses of the funds than the respondents who donated some cash (panel c).

Figure 3. Predicted probability of a topic in the motivation for donating, by whether respondents donated, donated only in kind, and also donated cash



Notes: The graphs report the estimated probability that a topic appears in a comment reporting the reasons for a donation decision, by type of donation (panels a–c) and by nationality of the beneficiary or origin (panels d–f). We applied latent Dirichlet allocation to the text of the answers. The Stata command that we used is `ldagibbs` (Shwartz, 2018). See Table A3 in Appendix A for details about the three topics.

Participants asked to donate to refugees from African countries were less likely to mention motives related to the moral imperative to help (panel e), and more likely to declare themselves skeptical and mistrustful (panel f). This pattern is consistent with the evidence that people tend to place lower trust in those with different characteristics from themselves (DeBruine, 2002; Buchan et al., 2006; Elfenbein et al., 2023).

Finally, we ran additional tests to corroborate the hypothesis that cash donations imply more trust than in-kind donations. We rely on the answers to the question on generalized trust in others in the survey (Falk et al., 2023). The score ranges from 0 to 10, with a higher level indicating a greater trust in others. We test whether trust affects the probability of not donating at all, donating only in-kind, and donating some cash. Table A4 and Figure A2 indicate that respondents who trust others more are less likely to refuse to make a donation, more likely to share some of their endowment with the target group, and, in particular, more likely to do so by donating in cash. Trust increases both forms of donation (Columns 2 and 3) but has a larger effect on cash donations. A one-unit increase in the trust score, from the average of 5.7 to 6.7, raises the probability of in-kind donation by 0.8 percentage points and cash donation by 2 percentage points. The difference between these two estimates is statistically significant. These analyses suggest interpretations of our main econometric estimates that are consistent with our hypotheses. In particular, the form of a donation (cash versus in-kind) is related to the expectation about the recipients' ability to make "good" use of the money and that there is a weaker moral drive toward and higher mistrust of the most distant out-groups. This evidence also supports our hypothesis that respondents' attitudes are influenced by perceived distance, with the more distant out-group suffering a higher level of prejudice due to lower trust. The evidence also supports our claim that donations in cash are a more reliable measure of attitudes because they are more effective at detecting subtler forms of prejudice than what is commonly used in the literature.

3.2.3. The null effect of information about EU-wide policy reforms. Next, we perform tests to investigate possible explanations for why the provision of information on EU-level refugee policy reforms did not have any effect on overall donations and on the percentage of donations in cash. In particular, we provide insights as to whether participants anticipated any effect of new EU policies on future flows and whether other possible channels through which policies may change people's attitudes were present. To perform these tests, we estimate equation (1) using different outcome variables.

One such outcome is the participants' opinions about the implications of a stronger involvement of the EU in the domain of immigration and refugee

policies for the influx of foreigners into Italy and the rest of Europe. We asked this question after the treatments. 35 percent of the respondents in the control condition expect that a higher EU involvement would not produce any changes in the number of immigrants into Italy or Europe; 22 percent expect more flows into both Europe and Italy; 17 percent more flows to Italy and fewer to Europe; 15 percent more to Europe and fewer to Italy; and 11 percent fewer flows to both Europe and Italy. Thus, a large majority of respondents (74 percent) believe a stronger EU involvement would lead to either no change or an increased inflow of immigrants into Italy.

Of these expected consequences, we are particularly interested in whether respondents believe that the EU-wide reforms would cause a reduction in immigrants reaching Italy and an increase in those going into other European countries; therefore, we test whether this belief depends on receiving information on these policy changes.

The estimates in Columns 1 and 2 of Table A5 in Appendix A are from regressions where the outcome variable is equal to one if participants expect an increase in the immigration flows to Europe and a decrease to Italy, and zero if they hold any other combination of these beliefs. The findings indicate that participants who received information on EU policies are 4 percentage points more likely to anticipate a decrease in immigrant influxes into Italy and an increase in other European countries. This increase represents a 26 percent rise relative to the baseline. Notably, this effect is primarily driven by participants who were assigned to donate to African refugees. In this case, the likelihood of expecting these changes increases by 6 percentage points. In contrast, when the beneficiaries of the donations are from Ukraine, the increase in likelihood is only 2 percentage points (statistically insignificant). The difference between these effects is statistically significant. This evidence suggests that our survey respondents anticipated an effect of the policy information in a direction consistent with what one might expect from the reform. Italy is the first "port of entry" for people coming from the "global South", such as Africa, while it is not the first country of entry for flows from Ukraine. A stronger EU role in the asylum system and a more equal balance of effort in hosting asylum seekers imply that Italy would receive fewer asylum seekers from Africa than the status quo. Overall, these results show that respondents understood the information on EU-wide refugee policies, and the null effect on attitudes is not due to a lack of clarity and comprehension.

We conducted additional manipulation checks to understand if the information failed to activate some of the responses we hypothesized. For instance, the policy reform could influence attitudes by affecting trust in European institutions or influencing beliefs about normatively appropriate attitudes. These are the mechanisms that the existing literature has theorized as possible pathways between policies and attitudes. At the end of the survey,

we asked participants whether they agreed or disagreed with the statement that the EU is treating Italy unfairly when it comes to managing migrants and refugees. We use this variable as a proxy for Italians' trust in European institutions. We define an outcome variable equal to one if respondents believe the EU treats Italy unfairly, and zero if they think that Italy is treated as fairly as all the other member states. Columns 3 and 4 of Table A5 provide evidence of a slightly lower agreement with this statement by those who received a treatment that included the EU policy information.

To test whether the policy affected beliefs about peers' attitudes towards migrants, we asked participants to predict the average donations by the other respondents, and we use this variable as a proxy of what the respondents considered socially appropriate. As Columns 5 and 6 of Table A5 show, people generally expected others to donate substantially less than they actually did on average. The average predicted donation of others in the control condition is 21 cents, whereas the average actual donation is 54.5 cents. Those assigned to donate to one of the two out-groups predicted lower average donations compared with those assigned to the control group, but there is no difference in predictions between respondents who received the EU policy information or and those who did not.

Finally, although at least some respondents might react to the increased trust in the ability of the EU to manage refugees with additional donations to support the organizations that help them, as the results above suggest, others might reduce their donation, because they trust the EU is going to be more effective, and there is no need for additional help. The overall null effect of the information treatments on total donations could therefore be the outcome of these offsetting responses. If this were the case, then we might expect that the distribution of donations by participants in the information treatment and those who did not receive the information (but were assigned to Ukrainian or African recipients) may have different dispersion while having similar mean. Figure A3 in Appendix A shows that there is no difference in the overall distributions, thus making the explanation of opposing, offsetting effects less plausible.

In summary, these findings suggest that the respondents did pay attention to the new immigration policies highlighted in the survey. However, the effects of the information on EU refugee policies are quantitatively too small to affect attitudes meaningfully. The evidence so far suggests that distance from the in-group affects attitudes and prejudice toward the out-group; conversely, the management of refugee flows does not affect these attitudes, even when reform would imply lower flows of a specific type of migrants.[10]

[10]Relatedly, Fouka and Tabellini (2022) report that changes in the volume of immigrants do little against prejudice when out-groups are relatively close to the natives in terms of distance.

3.2.4. Alternative explanations. One concern about interpreting our findings as resulting from distance-driven preferences is that they may depend on the differing salience of the wars that forced Ukrainian and African refugees to flee their countries. However, several reasons favor the distance over the salience hypothesis. First, we conducted our survey during a period when the war between Russia and Ukraine was less prominent in the media than in the initial phase, whereas news of refugee arrivals through the Mediterranean Sea is extensively covered by the Italian media on a regular basis (Figure A4 in Appendix A). This suggests that the attention and exposure to these conflicts were not a major influencing factor in the donation choices of the participants. Second, although participants assigned to donating to Ukrainian refugees mentioned the word "war" in their open-ended answers more often than those who were asked to donate to African refugees or Italians, the use of this word was overall rare (4.7 percent of comments in the Ukraine condition, 1.2 percent in the Africa condition, and 0.1 percent in the local condition). Moreover, there was no difference in the frequency of use of the word between those who donated and those who chose not to donate, suggesting that even if the war in Ukraine was somewhat more salient, it was not necessarily driving the expressed support for refugees from different origins. Finally, if the salience of war were to influence donation choices significantly, we would expect to observe a similar pattern across various types of donations. However, our findings suggest otherwise. These considerations reinforce our claim that distance-based preferences drive the observed outcomes.

A further potential explanation of the differing attitudes toward the two out-groups that we consider is that survey participants may hold different beliefs about the characteristics of refugees from different parts of the world. For example, they may consider one group as including more vulnerable categories, such as women and children, than the other. As such, the propensity to donate may not depend on ethnic, cultural, or racial distance, but would rather be based on the perceived level of need. Although we do not have direct information to address this concern definitively, there are, again, features of our evidence that allay it. First, if the willingness to donate was mostly need-based, then we should either observe the same average donation levels for both out-groups and the same cash versus in-kind average preferred composition, or find the same difference between out-group origin in both variables. However, the expected demographic composition of a group of refugees may also affect the participant's trust in how "properly" that group may use direct cash; and this could lead, for example, to being more reluctant to donate cash to one group than to the other. However, Figure 2(d) showed that the expectation of harmful uses does not vary by the nationality of recipients.[11]

[11] Respondents mention more often the purchase of alcohol or weapons when the recipients are Ukrainian refugees, and drugs for African recipients.

Finally, the divergent attitudes towards the two out-groups might stem from the varying expected length of the refugees' stay abroad, with the perception that refugees from Africa will have a longer stay in the host country due to Africa's ongoing strong push factors. However, there is no reason for this mechanism to affect donation levels and cash versus in-kind composition differently, as we have observed. Overall, we do not detect substantial evidence that participants might have made their donation choices based on different beliefs about the demographics, needs, or stay duration of the recipients in the various groups.

3.2.5. Heterogeneity and the sources of out-group prejudice. We pre-registered three analyses of heterogeneous effects that we considered of relevance to understanding the underlying causes of prejudice toward different out-groups: differences in donation behavior by educational attainment, political orientation, and self-reported European identity.

First, individuals with higher levels of education often have greater exposure to diverse perspectives and knowledge about global issues. This may foster more empathetic attitudes. In contrast, less formal education may exacerbate stereotypes and negative perceptions, leading to prejudice against refugees. Additionally, highly educated workers might feel less threatened by the competition of immigrants on the labor market than less-educated individuals, and might even perceive immigrants and refugees as an opportunity for the local economy. Figure A5 in Appendix A shows that, on average, respondents with at least a college degree have a more positive view of the impact that immigrants might have on the local economy and culture than respondents with less formal education.

Second, research shows that people with left-leaning political preferences hold more universalistic views, while right-leaning individuals tend to display more parochial attitudes (Enke et al., 2024). These differing ideological stances may manifest not only in lower overall donations by more conservative participants, but also greater in-group favoritism by these respondents compared with the more liberal respondents (Pizziol et al., 2023; Enke et al., 2024). Moreover, if social distance is a determinant of the lower support for out-group members, then parochialism may lead to discrimination among out-groups or a ranking that further penalizes individuals perceived as more different – in our context, the refugees from African countries as opposed to the refugees from Ukraine.

Third, people who strongly identify with Europe may feel a sense of commonality and responsibility toward other European citizens, leading to more positive attitudes and support for policies promoting solidarity and integration, but potentially with more favor toward fellow Europeans (Ukrainians in our case). Conversely, those who feel a stronger attachment

to their national or local domain than to supranational entities might view refugees as a potential threat to their cultural and national cohesion, and therefore might show more negative attitudes and potential prejudice.

Table 3 presents results from a model that augments equation (1) with interactions between the Africa and Ukraine indicators (combining the conditions with and without EU policy information) and, in turn, the variable measuring our hypothesized source of heterogeneity.[12] Figures 4–6 offer additional graphical evidence from the same analyses.[13]

In Column 1, the estimated coefficients indicate that formal education moderates out-group bias, as measured by the donation amount. As Figure 4 also shows, respondents without a college education who had the opportunity to support Ukrainian or African refugees donated, on average, about 9–10 cents less (about one-fifth of the overall average) than those who donated to Italians. Conversely, respondents with a college education do not display a higher preference for locals compared with foreigners.

Education, however, does not moderate the differences in the percentage of donations in cash due to origin (Columns 4 and 7). When measured by donation in cash, both college and non-college-educated respondents display a negative bias toward the two groups of foreigners, particularly for the most distant group of African refugees. The precision of the estimates is lower for the college-educated (less numerous) group (see also Figure 4(b)).

In Columns 2, 5, and 8 of Table 3 and in Figure 5, we turn to the interactions between the treatments and the respondents' political orientation. The estimates indicate larger penalties, in terms of total donations, to African beneficiaries by individuals with more right-leaning political views. Each point on the right-wing score corresponds to a decrease in overall donations of 2.2 cents (Column 2). This implies that, at the extremes, the difference in donations between Africans and Italians goes from about 3.5 cents at the far left, to roughly $3.5 - 2.2 * 10 = -18.5$ cents at the far right. The difference in donations to Ukrainians and Italians is stable at about −6.5 cents along the

[12]Table A6 in Appendix A reports the estimates from Columns 2, 4, and 6 of Table 2, but shows also the coefficients on the control variables, in particular on educational attainment, political orientation, and identification with the EU. On average, individuals with a college education did not donate more than those with lower educational attainment, nor did they allocate a different share of their donation to cash. Conversely, the donation amount varies with the participants' political leanings and their identification with the EU. More conservative participants tended to donate less, with a statistically significant reduction of 1.5 cents for each point of the right-wing score. The share of cash donations, in contrast, did not vary with different political views. People expressing a strong EU identity donated significantly more (8.7 additional cents) than those with lower identification, but did not choose a different portion of cash.

[13]In the figures, we report as outcomes the overall donations and the portion donated in cash, conditional on making a positive donation. Figure A7 in Appendix A displays the same graphs with regression estimates from the full sample of respondents. The patterns are very similar.

Table 3. Heterogeneous effects of treatments on donations

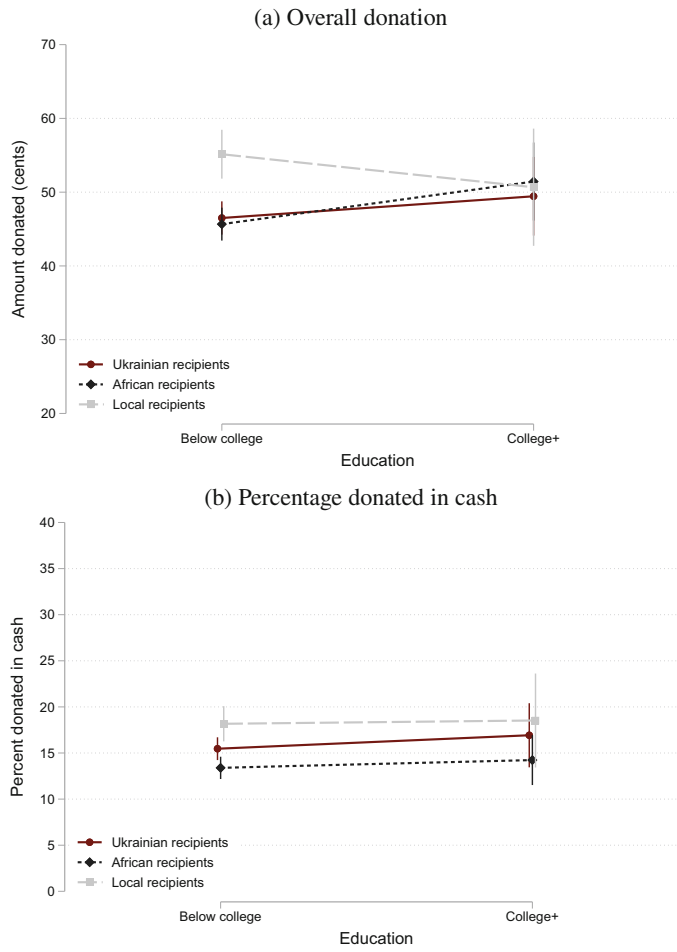
Conditions	Donation amount (cents)			Percentage of donation in cash					
	Full sample			Full sample			Positive donations		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ukrainian recipients	−9.20***	−6.56	−8.68***	−2.89**	2.49	−3.20**	−0.38	5.06	−0.76
	(2.05)	(4.33)	(2.91)	(1.17)	(2.52)	(1.55)	(1.52)	(3.22)	(2.25)
	[0.00]	[0.13]	[0.00]	[0.01]	[0.32]	[0.04]	[0.80]	[0.12]	[0.74]
African recipients	−10.06***	3.52	−8.75***	−4.81***	1.61	−4.31***	−3.91**	1.41	−3.50
	(2.05)	(4.28)	(2.87)	(1.17)	(2.48)	(1.54)	(1.52)	(3.14)	(2.23)
	[0.00]	[0.41]	[0.00]	[0.00]	[0.52]	[0.01]	[0.01]	[0.62]	[0.12]
Ukrainian recip. × College-edu	7.82	–	–	1.61	–	–	−0.60	–	–
	(5.27)	–	–	(3.36)	–	–	(4.51)	–	–
	[0.14]	–	–	[0.63]	–	–	[0.89]	–	–
African recip. × College-edu	12.77**	–	–	1.00	–	–	−2.91	–	–
	(5.26)	–	–	(3.17)	–	–	(4.20)	–	–
	[0.02]	–	–	[0.75]	–	–	[0.49]	–	–
Ukrainian recip. × right-wing score	–	−0.26	–	–	−0.97**	–	–	−1.06*	–
	–	(0.73)	–	–	(0.42)	–	–	(0.56)	–
	–	[0.72]	–	–	[0.02]	–	–	[0.06]	–
African recip. × right-wing score	–	−2.20***	–	–	−1.18***	–	–	−1.12**	–
	–	(0.72)	–	–	(0.42)	–	–	(0.56)	–
	–	[0.00]	–	–	[0.00]	–	–	[0.04]	–
Ukrainian recip. × High EU identity	–	–	1.35	–	–	0.97	–	–	0.42
	–	–	(3.83)	–	–	(2.20)	–	–	(2.93)
	–	–	[0.73]	–	–	[0.66]	–	–	[0.89]
African recip. × High EU identity	–	–	1.24	–	–	−0.62	–	–	−1.44
	–	–	(3.81)	–	–	(2.17)	–	–	(2.89)
	–	–	[0.75]	–	–	[0.78]	–	–	[0.62]

Table 3. Continued

Conditions	Donation amount (cents)			Percentage of donation in cash					
	Full sample			Full sample			Positive donations		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
College-educated	−5.71	2.57	2.48	−0.70	0.35	0.33	1.52	0.14	0.09
	(4.37)	(1.94)	(1.94)	(2.80)	(1.15)	(1.15)	(3.73)	(1.54)	(1.54)
Right-wing score	−1.49***	−0.47	−1.49***	−0.42***	0.46	−0.42***	−0.19	0.68	−0.19
	(0.27)	(0.61)	(0.27)	(0.15)	(0.36)	(0.15)	(0.21)	(0.47)	(0.21)
High EU identity	8.64***	8.63***	7.62**	3.63***	3.65***	3.49*	1.06	1.06	1.48
	(1.42)	(1.41)	(3.19)	(0.78)	(0.78)	(1.88)	(1.11)	(1.11)	(2.40)
Constant	52.29***	45.71***	51.54***	20.32***	15.57***	20.24***	29.77***	25.49***	29.74***
	(3.38)	(4.43)	(3.70)	(1.89)	(2.51)	(2.06)	(2.51)	(3.21)	(2.76)
Observations	4,087	4,087	4,087	4,087	4,087	4,087	2,594	2,594	2,594
R^2	0.070	0.072	0.068	0.024	0.026	0.024	0.025	0.026	0.025
p Afr=Ukr college	0.291	–	–	0.267	–	–	0.054	–	
p Afr=Ukr low EU identity	–	–	0.976	–	–	0.336	–	–	0.144
p Afr=Ukr high EU identity	–	–	0.928	–	–	0.018	–	–	0.002

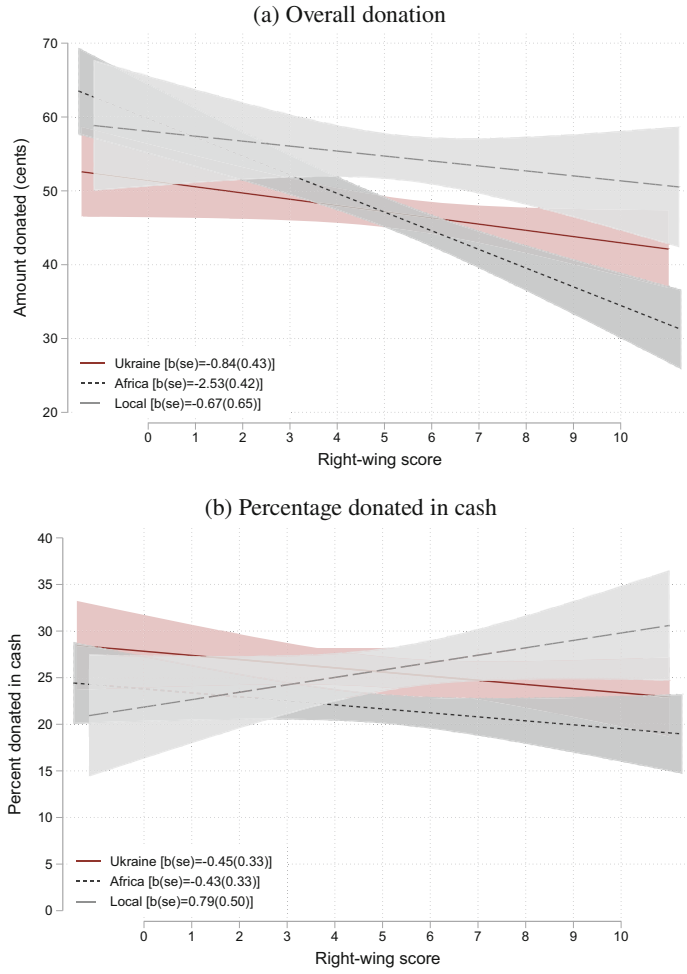
Notes: The table reports results from OLS regressions. The outcome variable in Columns 1, 3, 5, and 7 is the amount donated to a targeted group of victims of violence (in cents); in Columns 2, 4, 6, and 8, it is the share of donation in cash, conditional on donating. Ukraine and Africa are binary indicators (0–1) for the assignment to one of the treatment conditions, based on the nationality of the refugees. The control condition local is omitted. College is a 0–1 indicator for the achievement of at least a college degree by a respondent. The right-wing score is a variable ranging from 0 (leftmost-leaning beliefs) to 10 (rightmost orientation). High EU identity is an indicator equal to 1 if a respondent feels a strong or partial belonging to Europe, and 0 if they feel little or no belonging at all. Additional controls (not reported in the table) include an indicator for high perceived salience of immigration by the respondents, gender, and age. Robust standard errors are in parentheses, and FDR-adjusted q-values are in brackets. The "p" in the last rows indicates p-values. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

Figure 4. Donations by origin and educational attainment



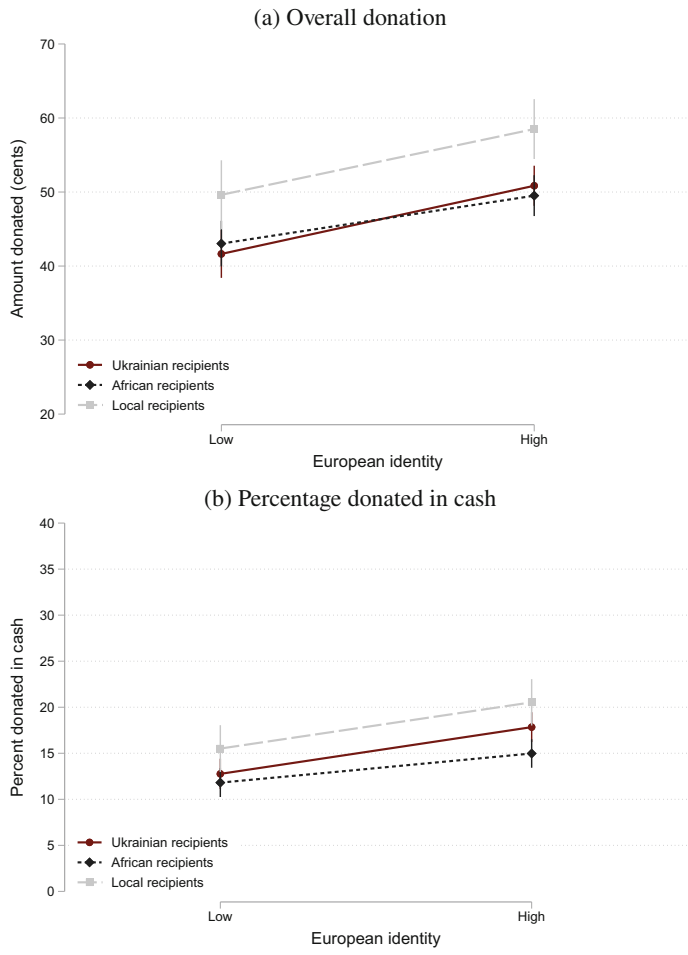
Notes: The graphs plot the best residualized prediction of donation amount (panel a) and percentage donated in cash (panel b) by educational attainment (below college education versus college or beyond). The plotted relationships derive from regressions of donations (total and percentage cash) on an indicator for having attained at least a college degree, controlling for binary indicators of (high or low) EU identity, (high or low) concerns about immigration, gender, political leaning as expressed by a 10-point (in 0.1 increments) "right-wing" index, and age (four categories). The vertical lines represent confidence intervals with robust standard errors.

Figure 5. Donations by origin and political leaning



Notes: The graphs plot the best residualized linear fit between total donation (panel a) and the percentage of donation in cash (panel b), and political orientation, by origin. The plotted relationships derive from regressions of donations (total and percentage cash) on political leaning as expressed by a 10-point (in 0.1 increments) right-wing index, controlling for binary indicators of (high or low) EU identity, (high or low) concerns about immigration, gender, educational attainment (below college education or college and more), and age (four categories). The shaded areas represent confidence intervals with robust standard errors, and the "b(se)" values in square brackets in the legend represent the coefficient and robust standard error estimates on the right-wing index in each of the three separate regressions by origin.

Figure 6. Donations by origin and strength of European identity



Notes: The graphs plot the best residualized prediction of donation amount (panel a) and percentage donated in cash (panel b) by EU identity (high or low). The plotted relationships derive from regressions of donations (total and percentage cash) on EU identity (high or low), an indicator for having attained at least a college degree, a binary indicator of (high or low) concerns about immigration, gender, political leaning as expressed by a 10-point (in 0.1 increments) "right-wing" index, and age (four categories). The vertical lines represent confidence intervals with robust standard errors.

whole political spectrum. Regarding the choice of the portion to donate in cash, differences emerge as well, again, especially for right-leaning participants. Figure 5(b) shows that the relationship between the percentage donated in cash and the right-wing index is positive when the beneficiaries are Italian nationals. The increase in donations for a unit increase in the score ranges from 0.46 percentage points (when we consider the full sample; Column 5 of Table 3) to 0.68 percentage points (when we restrict to respondents who donated a positive amount; Column 8). Conversely, the lines are negatively sloped when the beneficiaries are foreigners. A ranking of preferences emerges only for conservative individuals, with stronger preferences for the least distant group and weaker for the most distant group. In particular, at the rightmost end of the political spectrum, we estimate a difference in the portion donated in cash to Italians and African to be about 10 percentage points (40 percent of the average cash portion), and the difference between Italians and Ukrainians to be around 7 percentage points. The evidence in Appendix A, Figure A6, further suggests that, at least in part, the greater heterogeneity in attitudes toward more distant out-groups that people with different political beliefs show may depend on the more extreme differences in the expectation of how members of different out-groups might use the donated money. For African refugees, there is greater variance in beliefs by recipients with different political views about the use of cash to buy harmful goods and first necessities than for Ukrainian and local beneficiaries.

Finally, we assess heterogeneity based on the respondents' strength of identification as European citizens (Columns 3, 6, and 9 of Table 3, and Figure 6). We do not observe any differential impact of the Africa and Ukraine treatments across different levels of this variable, either on overall donation or on donation in cash. Respondents who display a low European identity tend to donate less than respondents with high identity, but this trait does not affect the degree to which they favor the in-group and out-group.[14]

4. Discussion and conclusions

Consistently with previous research on sentiments towards immigrants, we find evidence that attitudes toward a special category of out-group members (i.e., refugees from war-ridden areas) also present out-group biases. By introducing a novel measure of attitudes that detects subtler forms of prejudice than standard measures (i.e., the share cash versus in-kind donations), we find that individuals respond differently to different out-groups. They display,

[14]The results that we have presented in this section are all robust to adjustments for multiple hypotheses testing.

in particular, a hierarchical approach, with the bias increasing with the distance between in-group members and the out-groups. A standard measure of attitudes (i.e., the overall propensity to donate to out-group members in a dictator game) fails to identify this ranking based on distance. Furthermore, the motivations that respondents associate with making fewer cash donations to African refugees reveal a higher level of prejudice, suggesting a belief that those refugees might not use the money appropriately. Evidence from textual analyses of open-answer questions suggests that this prejudice reflects a lower trust that people display toward people from distant out-groups. Our novel measure of attitudes, combined with text analysis, thus helps detect underlying prejudice and clarify its origins.

Reforming the asylum regime by assigning the EU a more direct and robust role to ensure a more balanced management of the flow of refugees does not influence attitudes. Although public opinion tends to influence policies, changes in attitudes through policy reforms are more difficult to obtain.

The root of the out-group bias, particularly in the hierarchy of out-groups in terms of attitudes toward them, relates instead to some characteristics of the respondents, in particular their political orientation. Respondents who most display bias (i.e., those with right-leaning political views) have prejudice about how different groups might use the cash support that they receive, and also reveal mistrust about the effective delivery of these resources.

This paper makes four contributions. First, we study out-group biases with specific reference to refugees. This group represents a critical category of migrants due to the increasingly frequent global crises, and the unique socio-political dynamics surrounding their reception. Although one may expect a more positive sensitivity toward refugees than immigrants in general because of the motivations of their move, we find that bias still exists. Second, we introduce a new measure of attitudes, the share of cash versus in-kind donations, and demonstrate that this measure helps reveal more subtle forms of prejudice. Third, we find that out-group bias increases with the perceived distance between the in-group and the out-groups, and we document that the bias is related to prejudice about how individuals from distant out-groups might use cash donations. Fourth, we consider the effect of policies at a supranational level, focusing on the EU's asylum regime, to assess whether European-level policies can shape the social climate within member states and affect attitudes toward refugees. We find no effect of an enhanced EU role in the management of refugee inflows on attitudes.

Our results suggest that interventions targeting deep-seated prejudice directly might be more effective in shaping attitudes toward refugees (or migrants in general) than reforms focused on the regulatory aspects of migration. At the same time, because of the deep roots of these biases, attempts to enhance inclusion may face significant obstacles. The

association between attitudes towards refugees and political orientation, for example, creates a potential avenue for manipulation of public opinion. Politicians may be tempted to exploit ideology-driven impulses for electoral gain, leading to a further polarization of the debate around refugees and immigration, potentially amplifying prejudices and undermining efforts to foster inclusion and acceptance. Similarly, the link between education and attitudes toward refugees presents its own difficulties. Enhancing the average educational attainment of a population to promote a more open-minded and tolerant society requires significant time and resources. These efforts would need to prioritize exposure to diversity and ideally include improved job opportunities to address feelings of threat and insecurity. Policymakers need to navigate these challenges carefully, ensuring that efforts to alter attitudes do not inadvertently exacerbate existing prejudices or deepen societal divisions.

Appendix A. Additional tables and figures

Table A1. Donation types

	Frequency	Percentage
Did not donate	1,493	36.5
Donated, not cash	1,051	25.7
Donated some portion in cash	1,543	37.8
Total	4,087	100

Table A2. Effect of treatments on cash donations and in-kind donations

Conditions	Cash donation (cents)				In-kind donations (cents)			
	Full sample		Positive donations		Full sample		Positive donations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ukrainian recipients	−2.91***	–	−1.59	–	−5.96***	–	−1.04	–
	(1.11)	–	(1.53)	–	(1.85)	–	(2.02)	–
Ukrainian recipients: EU info	−1.99*	–	−0.41	–	−5.05***	–	0.03	–
	(1.08)	–	(1.47)	–	(1.82)	–	(1.93)	–
African recipients	−4.62***	–	−5.09***	–	−3.83**	–	0.72	–
	(1.07)	–	(1.47)	–	(1.87)	–	(2.05)	–
Africa recipients: EU info	−4.14***	–	−4.27***	–	−3.61*	–	1.31	–
	(1.06)	–	(1.44)	–	(1.87)	–	(1.99)	–
Ukrainian recipients	–	−2.44**	–	−0.99	–	−5.50***	–	−0.49
	–	(0.97)	–	(1.30)	–	(1.60)	–	(1.70)
African recipients	–	−4.38***	–	−4.68***	–	−3.72**	–	1.02
	–	(0.95)	–	(1.28)	–	(1.62)	–	(1.74)
Constant	12.70***	12.71***	20.48***	20.47***	30.28***	30.30***	49.19***	49.19***
	(1.50)	(1.50)	(2.08)	(2.08)	(2.47)	(2.47)	(2.76)	(2.76)
Observations	4,087	4,087	2,594	2,594	4,087	4,087	2,594	2,594
R^2	0.031	0.031	0.028	0.028	0.057	0.057	0.031	0.031
Mean of dep. var. to locals	14.55		20.76		39.94		56.99	

Table A2. Continued

Conditions	Cash donation (cents)				In-kind donations (cents)			
	Full sample		Positive donations		Full sample		Positive donations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
p Afr=Ukr	0.089	–	0.019	–	0.248	–	0.403	–
p Afr EU info=Ukr EU info	0.026	–	0.006	–	0.426	–	0.516	–
p Ukr=Ukr EU info	0.368	–	0.427	–	0.610	–	0.590	–
p Afr=Afr EU info	0.620	–	0.558	–	0.903	–	0.779	–
p Afr=Ukr (all)	–	0.005	–	0.0003	–	0.169	–	0.296

Notes: The table reports results from OLS regressions. The outcome variable is the amount (in cents) donated to a targeted group, by type of donation (cash or in-kind). Columns 1, 2, 5, and 6 include parameter estimates from regressions on the full sample, where we set the value of the outcome variable to zero if the respondents did not donate at all. In Columns 3, 4, 7, and 8, the sample only includes respondents who donated a positive amount. Ukrainian recipients and African recipients are binary indicators (0–1) for the assignment to one of the treatment conditions, based on the nationality of the refugees. The indicator for the control condition (local recipients) is omitted. In Columns 1, 3, 5, and 7, the indicators for the various conditions separate between the treatment with and without information about the EU changes in immigration policies, whereas in the columns with even numbers the indicators combine the cases with and without information for a given type of beneficiary. Regressions include covariates indicating political affiliation, EU identity, immigration salience, gender, education, and age. Robust standard errors are in parentheses, and FDR-adjusted q-values are in brackets. The "p" in the last rows indicates p-values. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

Table A3. Ten highest-loading words in each topic

Necessities	Predicted probability	Help/moral	Predicted probability	Skepticism/ mistrust	Predicted probability
necessità	0.05	aiutare	0.08	soldi	0.04
prima	0.05	bisogno	0.04	nessunx	0.03
beni	0.04	persone	0.03	fido	0.03
bisogno	0.03	aiuto	0.03	arrivano	0.01
denaro	0.02	difficoltà	0.02	associazioni	0.01
solidarietà	0.02	giusto	0.02	preferisco	0.01
cibo	0.02	euro	0.01	fiducia	0.01
preferisco	0.01	guerra	0.01	bisogno	0.01
cose	0.01	posso	0.01	dono	0.01
bene	0.01	piccolo/bisogna	0.01	vadano	0.01

Notes: We applied latent Dirichelet allocation to the text of all answers to the open-ended question in the survey that asked respondents to explain the motivation behind the donation decision. We used the `ldagibbs` command in Stata (Shwartz, 2018). The last entry in the "Help/moral" column includes two words; the Stata procedure calculates their predicted probability as 0.01014026 for both, and sometimes ranks one of the two words as tenth, and sometimes the other. Before running this procedure, we manually "stemmed" several words, we and indicate various terms with the same root as the same word. We also excluded several common words and stop words, punctuation symbols, and any word with three letters or fewer.

Table A4. Effect of generalized trust on donation

	No donation	In-kind	Cash	
	Full sample	Donated only in-kind + did not donate	Donated portion in cash + did not donate	Donated portion in cash + donated only in kind
	(1)	(2)	(3)	(4)
Ukrainian recipients	0.09***	−0.108***	−0.10***	0.03
	(0.02)	(0.027)	(0.02)	(0.03)
African recipients	0.08***	−0.061**	−0.10***	−0.03
	(0.02)	(0.027)	(0.02)	(0.03)
Trustful	−0.01***	0.008**	0.02***	0.01*
	(0.00)	(0.004)	(0.00)	(0.00)
Constant	0.45***	0.251***	0.46***	0.70***
	(0.04)	(0.046)	(0.04)	(0.04)
Observations	4,087	2,544	3,036	2,594
R^2	0.061	0.086	0.065	0.032
Mean of dep. var. to locals	0.299	0.484	0.584	0.599

Notes: The table reports results from OLS regressions. The outcome variable in Column 1 is an indicator for whether a respondent donated (0) or did not donate at all (1), and the analysis is on the full sample. The estimates in Column 2 are from a regression where the outcome is whether a respondent donated only in-kind (1) or did not donate at all (0), with the sample limited to participants who fall into one of these two categories. In the last two columns, regressions that produced the estimates had, as the outcome variable, an indicator of whether a participant donated a portion of the selected amount in cash (1) or did not donate at all (0) in Column 3, and donated only in kind (0) in Column 4. The samples, again, include the participants in the categories that define the outcome variables. Ukrainian recipients and African recipients are binary indicators (0–1) for the assignment to one of the treatment conditions, based on the nationality of the refugees. Trustful is a score from 0 to 10 that each respondent assigned to determine their agreement with the sentence: "people always act with the best intentions". Regressions include covariates indicating political affiliation, EU identity, immigration salience, gender, education, and age. Robust standard errors are in parentheses. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

Table A5. Effect of treatments on immigration, trust in the EU, and social norms

Conditions	EU policy increases immigration to EU, decreases to Italy		EU treats Italy unfairly		Predicted average donation of other respondents	
	(1)	(2)	(3)	(4)	(5)	(6)
Ukrainian recipients: no EU info	0.01	–	−0.02	–	−2.14*	–
	(0.02)	–	(0.02)	–	(1.22)	–
Ukrainian recipients: EU info	0.03	–	−0.04*	–	−2.86**	–
	(0.02)	–	(0.02)	–	(1.19)	–
African recipients: no EU info	0.02	–	−0.01	–	−1.95	–
	(0.02)	–	(0.02)	–	(1.22)	–
African recipients: EU info	0.06***	–	−0.03	–	−1.66	–
	(0.02)	–	(0.02)	–	(1.22)	–
Foreign: no EU info	–	0.02	–	−0.02	–	−2.05*
	–	(0.02)	–	(0.02)	–	(1.06)
Foreign: EU info	–	0.04***	–	−0.03**	–	−2.28**
	–	(0.02)	–	(0.02)	–	(1.05)
Constant	0.21***	0.21***	0.82***	0.82***	25.75***	25.70***
	(0.03)	(0.03)	(0.03)	(0.03)	(1.77)	(1.77)
Observations	4,087	4,087	4,087	4,087	4,087	4,087
R^2	0.027	0.026	0.123	0.122	0.026	0.026
Mean of dep. var. (locals)	0.153		0.801		20.89	
p Afr=Ukr	0.363	–	0.454	–	0.875	–
p Afr EU info=Ukr EU info	0.043	–	0.636	–	0.303	–
p Ukr=Ukr EU info	0.334	–	0.441	–	0.534	–
p Afr=Afr EU info	0.041	–	0.296	–	0.807	–
p Info=No info	–	0.034	–	0.197	–	0.783

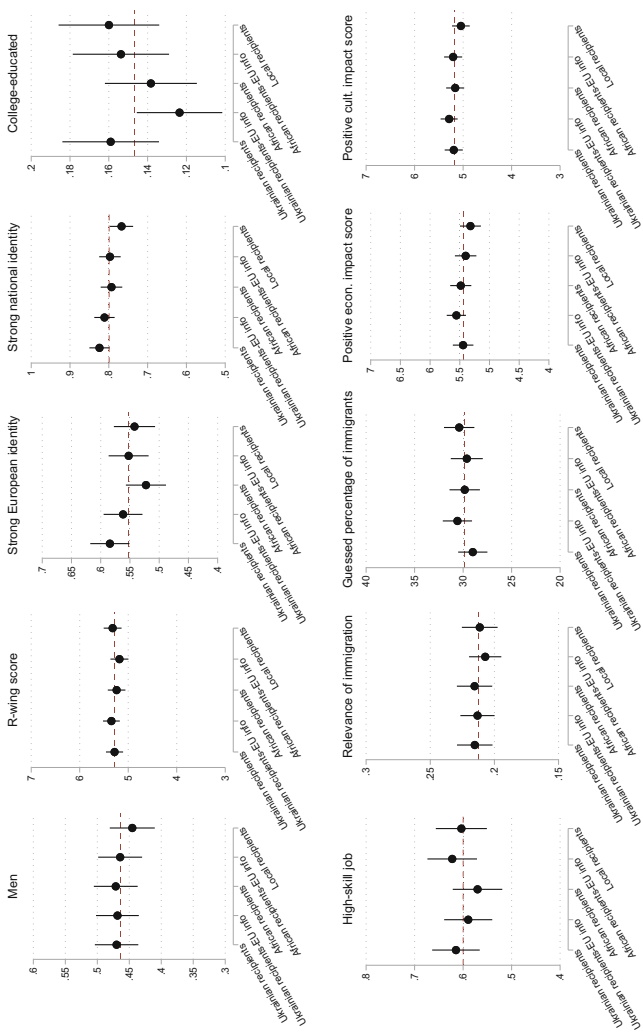
Notes: The table reports results from OLS regressions. In Columns 1 and 2, the outcome variable is an indicator equal to 1 if respondents expect that a stronger EU role in asylum and migration policies translates into an increase in the immigration flows to Europe and a decrease to Italy, and 0 otherwise (no effect on flows or all the other combinations). In Columns 3 and 4, it is equal to 1 if respondents believe that EU treats Italy unfairly in the domain of immigration, and 0 if they think that Italy is treated as fairly as all the other member states. Columns 5 and 6 shows the predicted average donation of peers. Regressions include controls for political affiliation, high EU identity, high immigration salience, gender, education, and age. The omitted treatment is local. Robust standard errors are in parentheses. The "p" in the last rows indicates p-values. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

Table A6. Socio-demographic controls

	Donation amount (cents)	Percentage of donation in cash	
	Full sample	Full sample	Positive donations
	(1)	(2)	(3)
Ukrainian recipients	−7.94***	−2.65**	−0.47
	(1.89)	(1.10)	(1.44)
African recipients	−8.08***	−4.65***	−4.37***
	(1.89)	(1.09)	(1.42)
High EU identity identity	8.66***	3.64***	1.07
	(1.42)	(0.78)	(1.11)
Right-wing score	−1.49***	−0.42***	−0.19
	(0.27)	(0.15)	(0.21)
College-educated	2.49	0.34	0.10
	(1.94)	(1.15)	(1.54)
Woman	0.96	2.65***	4.86***
	(1.37)	(0.76)	(1.06)
Age 25–34	1.34	−1.97	−2.27
	(2.94)	(1.67)	(2.28)
Age 35–44	1.79	−3.34**	−5.82***
	(2.88)	(1.60)	(2.20)
Age 45–54	6.84**	−2.60*	−6.06***
	(2.77)	(1.55)	(2.09)
Age 55–64	12.01***	−2.79*	-7.32***
	(2.81)	(1.59)	(2.13)
Age 65+	20.56***	−1.55	−7.38***
	(2.66)	(1.52)	(1.98)
Constant	50.97***	20.16***	30.01***
	(3.33)	(1.86)	(2.45)
Observations	4,087	4,087	2,594
R^2	0.068	0.024	0.025
p Afr=Ukr	0.926	0.014	0.001

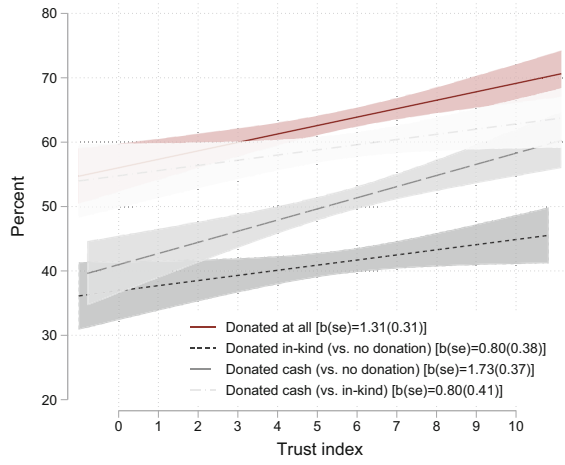
Notes: The table reports results from OLS regressions. The outcome variable in Column 1 is the amount donated (in cents) to a targeted group of victims of violence. In Columns 2 and 3, it is the portion of donation in cash; in Column 2, the portion of donation in cash is set to zero if the donation is zero, and in Column 3, the estimates refer to regressions conditional on participants having made a positive donation. Ukrainian recipients and African recipients are binary indicators (0–1) for the assignment to one of the treatment conditions, based on the nationality of the refugees. The indicator for the control condition (local) is omitted. Robust standard errors are in parentheses. The "p" in the last row indicates p-values. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

Figure A1. Balance test



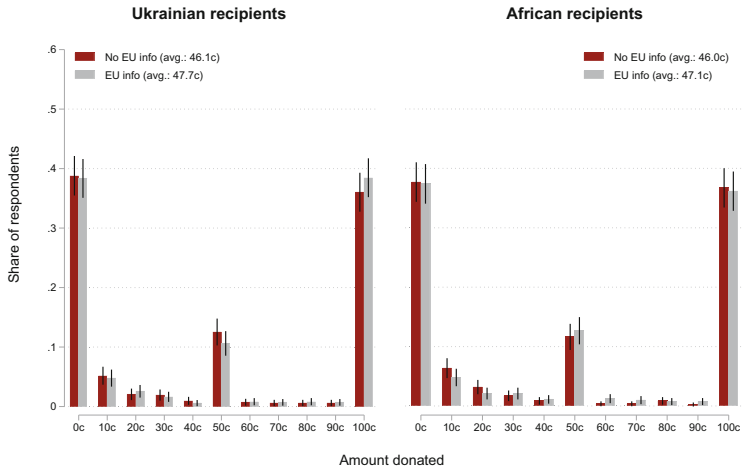
Notes: The figures provide summary information and balance test for the socio-demographic characteristics of respondents.

Figure A2. Donation behavior and trust in others



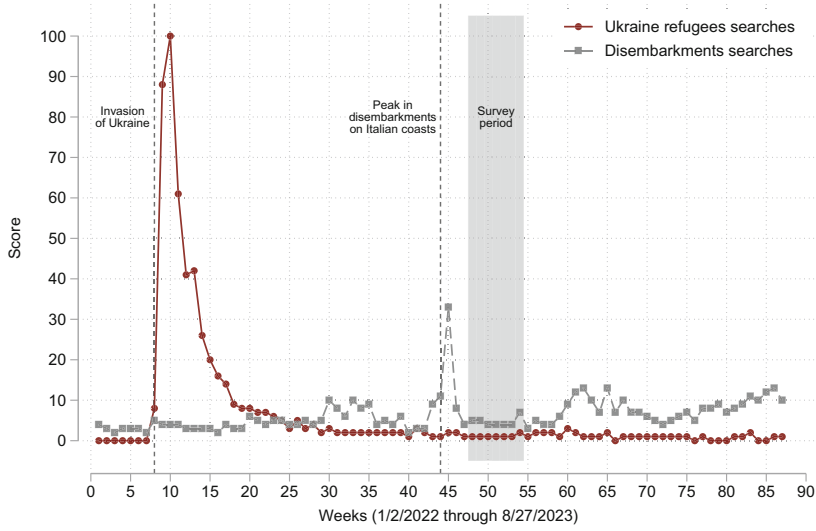
Notes: The figure plots the best residualized linear prediction of different indicators of donation behavior, as reported in the legend, as a function of respondents' trust in others. The measure of trust in other derives from the score, from 0 to 10 in 0.1 increments, that the participants assigned to their agreement with the sentence "usually people act with their best intentions". The regressions from which the plotted lines derives also controlled for the recipient's origin, EU identity (high or low), an indicator for having attained at least a college degree, a binary indicator of (high or low) concerns about immigration, gender, political leaning as expressed by a 10-point (in 0.1 increments) "right-wing" index, and age (four categories). The shaded areas represent 95 percent confidence intervals with robust standard errors.

Figure A3. Distribution of donation amounts to Ukrainian and African refugees, by information treatment



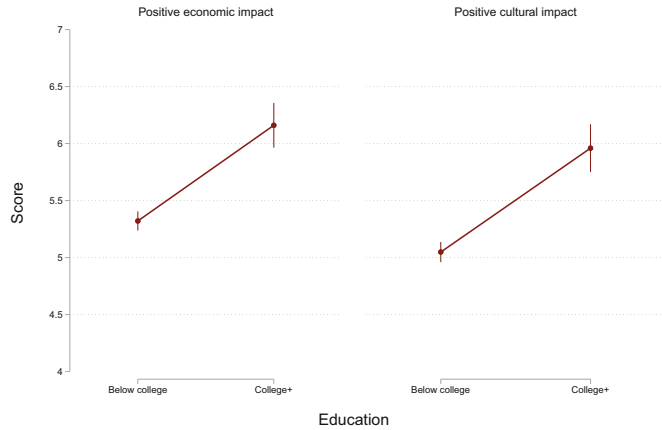
Notes: The graphs show the distribution of donation amounts by nationality of the recipients and whether or not the respondents received information about the reforms in EU immigration and asylum policies.

Figure A4. Salience of Ukrainian refugee crisis and the arrival of immigrants from the Mediterranean Sea



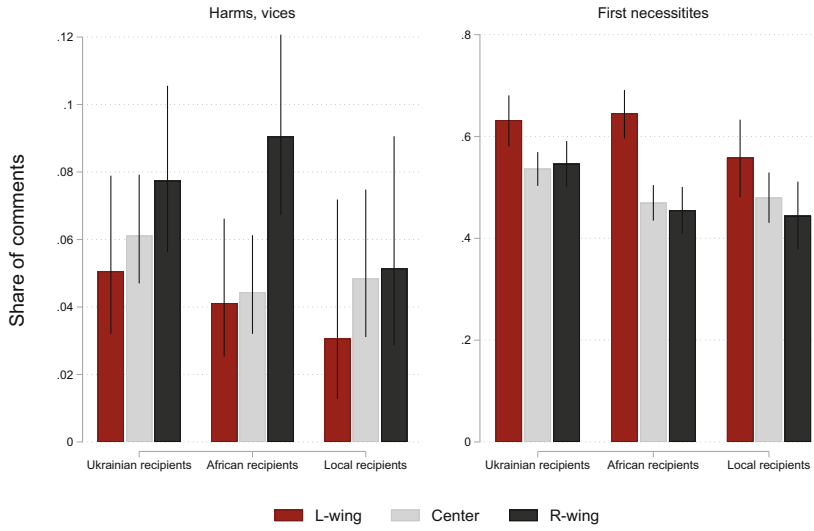
Notes: The graph shows the Google Trends results from querying the Italian-equivalent expressions of "Ukrainian refugees" and "disembarks", the word used to signify the arrivals of immigrants from the Mediterranean Sea on Italian coasts, in 2022 and 2023, with indication of relevant dates: the beginning of the Russian military invasion of Ukraine, the peak in immigrant arrivals from the Mediterranean in the fall of 2022, and the period in which we conducted our survey.

Figure A5. Perception of impacts of immigration by educational attainment



Notes: The figure reports the average scores of agreement with the statements "immigrants have a positive economic impact" and "immigrants have a positive cultural impact", by whether respondents held at least a college degree or not. The scores ranged from 0 to 10 in 0.1 increments. The vertical lines represent 95 percent confidence intervals.

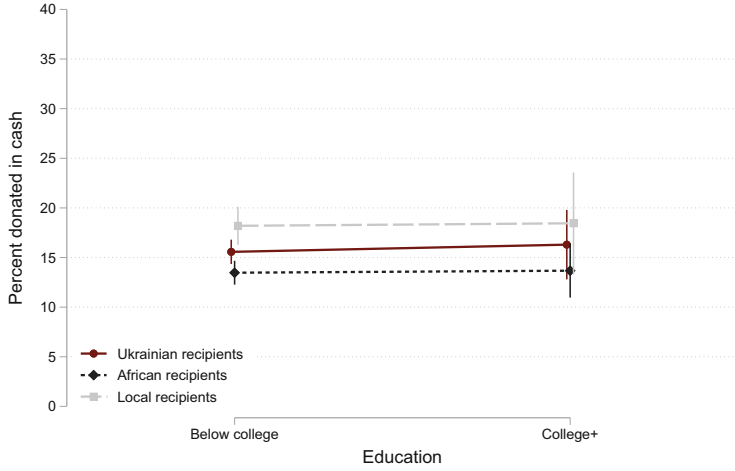
Figure A6. Share of respondents indicating different categories of items refugees would use with a cash donation, by destination and political orientation



Notes: The figures plot the share of respondents who indicated that the recipient of an in-cash donation would use it to purchase certain categories of items, by recipient's origin and political orientation of the participants. For the category of harmful items, we included words such as (the Italian equivalent of) "alcohol", "cigarettes", "drugs", "gambling", and "weapons". We defined an indicator that included (the Italian equivalent of) "food", "clothing", "health", and "necessary" to determine the reference to first necessities. We also considered synonyms of these terms and counted the occurrence of the stemmed version of each word. The Stata command to identify the presence of words in a document is `ngram` (Schonlau et al., 2017). Note that the scale of the y-axis is different in the two graphs. The vertical lines represent 95 percent confidence intervals.

Figure A7. Cash donations by origin and educational attainment, political orientation, and EU identity

(a) By educational attainment



(b) By political orientation

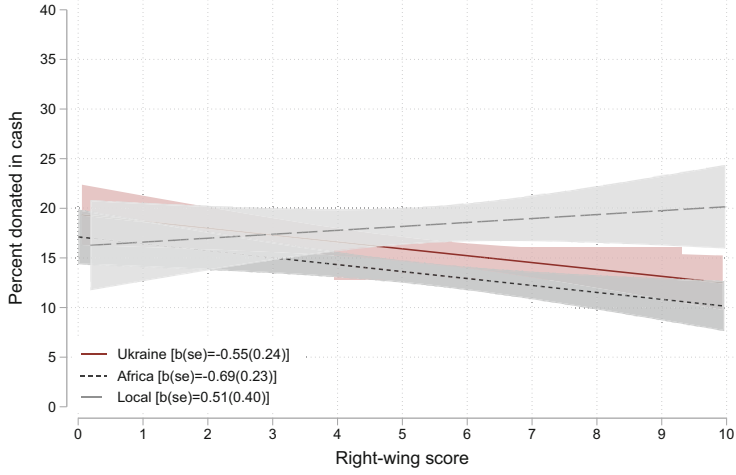
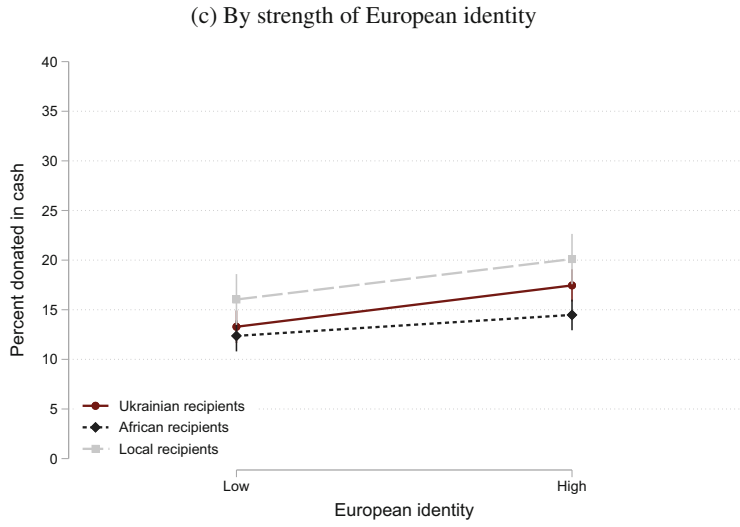


Figure A7. Continued



Notes: The figures plot the best residualized prediction of the portion donated in cash (including also observations of participants who did not donate at all) by educational attainment (below college education versus college or beyond) in panel (a), by political orientation in panel (b), and by identification with Europe (high or low) in panel (c). The residuals derive from regressions of portions donated in cash on an indicator for having attained at least a college degree, binary indicators of (high or low) EU identity, (high or low) concerns about immigration, gender, political leaning as expressed by a 10-point (in 0.1 increments) "right-wing" index, and age (four categories). The vertical lines and the shaded areas represent confidence intervals with robust standard errors. The "b(se)" values in square brackets in the legend of panel (b) represent the coefficient and robust standard error estimates on the right-wing index in each of the three separate regressions by origin.

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Supporting information

Additional supporting information can be found online in the supporting information section at the end of the article.

Online appendix
Replication files

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