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Prosociality in times of war: Shared moral positions foster prosociality across national borders^{☆,☆☆}

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ABSTRACT

In times of severe intergroup conflict, cross-national interactions are shaped by social categorization along national and moral dimensions. Yet, little is known about how these co-occurring identities jointly shape prosocial behavior. Across three studies (total $N = 1178$), we examined how shared nationality and moral position shape prosocial behavior during a real-world conflict (Studies 1 and 2) and a fictional intergroup conflict (Study 3). Moral positions reflected different moral values—judgments of war justification (harm/care) in Studies 1 and 3, and moralized responses to conflict behavior (loyalty/punishment) in Study 2. Using a crossed-categorization paradigm, participants played dictator games with interaction partners representing all four combinations of nationality and moral position: co-national with a shared moral position, co-national with a non-shared moral position, foreign national with a shared moral position, and foreign national with a non-shared moral position. Participants behaved more prosocially toward those sharing their moral position than toward those who did not, and toward co-nationals. These effects were additive rather than interactive. Across studies, the effect associated with shared moral position was larger than that associated with shared nationality, being approximately sixfold larger in the real-world context and nearly threefold larger in the fictional setting. Intergroup bias consistently increased with ingroup identification for morality-based, but not consistently for nationality-based identities. Differences in ingroup identification could not account for the stronger morality-based bias. Together, these findings suggest that, when multiple social categorizations are salient in cross-national contexts, shared moral positions represent an important basis for prosocial behavior alongside shared nationality.

Intergroup conflicts remain a defining feature of contemporary societies, as global peacefulness has recently declined to levels not seen since the aftermath of World War II (Global Peace Index: <http://visionofhumanity.org/resources>). Contemporary conflicts often extend beyond the parties directly engaged in armed combat, affecting broader networks of nations (e.g., Harbom & Wallensteen, 2005; Meier et al., 2023). The Russo-Ukrainian War, for instance, has had implications that extend beyond Russia and Ukraine, as nations worldwide have responded through economic sanctions, military assistance, and diplomatic measures (Council of the European Union, 2025). In such

contexts, nationality can become a meaningful basis for understanding social relations between groups (Lüders et al., 2024; Sambanis & Shayo, 2013). Indeed, nationality already constitutes an important basis for social categorization, even when nations are not engaged in armed conflict. Individuals consistently show greater prosociality toward co-nationals than toward people from other nations (e.g., Clemens et al., 2025; Dorrough & Glöckner, 2016; Romano et al., 2021), demonstrating robust intergroup bias (Balliet et al., 2014). At the same time, international conflicts are often accompanied by moralized disagreements about issues such as justice, harm, or collective responsibility,

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leading individuals to adopt moral positions regarding the conflict (Pomeroy & Rathbun, 2024; Watkins, 2020). Importantly, nationality and moral position represent distinct social categories that may overlap but do not necessarily coincide. Consequently, individuals may encounter others who share their nationality but not their moral position, or vice versa. Such situations represent instances of multiple social categorization, in which individuals simultaneously evaluate others along multiple group dimensions (e.g., national and moral group memberships). Crossed-categorization research demonstrates that when multiple group memberships are simultaneously salient, individuals' responses to others depend not only on each category separately but also on how these categories combine within the same target person (e.g., Crisp & Hewstone, 2007; Migdal et al., 1998). However, little is known about how multiple social categorizations shape prosocial behavior in real-world conflict contexts, where both national and moral identities may become highly salient. In the present research, we apply a crossed-categorization paradigm to the intersection of nationality and moral position to investigate how (shared vs. non-shared) moral positions and (shared vs. non-shared) nationalities jointly shape intergroup prosocial behavior. Across two cross-national studies conducted in the context of a real-world conflict, we examine how these categorizations shape prosocial behavior in an ecologically valid setting. In Study 3, we employ an experimental design to test whether these effects generalize to a more controlled setting. Together, these studies demonstrate how shared nationality and moral positions jointly shape prosociality across national borders, with shared moral positions representing an important basis for prosocial behavior.

1. Intergroup bias in nationality- and morality-based groups

Social identity theory (SIT; Tajfel & Turner, 1979) provides a prominent framework for understanding the emergence of intergroup bias. According to SIT, individuals often perceive themselves and others not primarily as unique individuals, but as members of social groups. In intergroup contexts, individuals are motivated to achieve and maintain a positive social identity by establishing positive distinctiveness for their ingroup relative to relevant outgroups (Tajfel & Turner, 1979; Turner & Reynolds, 2001). This process can give rise to intergroup bias, expressed in preferential treatment of ingroup members over outgroup members in attitudes and behavior.

Consistent with SIT, extensive research demonstrates robust intergroup bias in prosocial behavior (Balliet et al., 2014; Romano et al., 2021). For example, research shows that people are more likely to help ingroup members than outgroup members in violent situations (Levine et al., 2002; Slater et al., 2013), in times of severe health crises (Gandenberg et al., 2023; Zagefka, 2021), and in the aftermath of natural disasters (James & Zagefka, 2017; Levine & Thompson, 2004). Multinational studies further indicate that intergroup bias emerges across national borders, as individuals are more prosocial toward their co-nationals and prefer to cooperate with them rather than with individuals from other nations (Clemens et al., 2025; Dorrough & Glöckner, 2016; Fiedler et al., 2018). This preference is largely shared by individuals around the globe (Romano et al., 2021). Shared nationality may signal greater trustworthiness, predictability, and adherence to shared norms and expectations, thereby reducing intergroup uncertainty and promoting prosociality (Dorrough & Glöckner, 2016; Handley & Mathew, 2020). Most notably, national intergroup bias emerges even in the absence of a current conflict between the nations involved, demonstrating that national identity alone can serve as a meaningful basis for intergroup bias (Clemens et al., 2025).

Beyond nationality-based categorizations, real-world conflicts often activate moralized forms of social perception (Halevy et al., 2015; Watkins, 2020). Severe real-world conflicts often give rise to moral disagreements concerning issues such as justice, human rights, or collective responsibility. Consequently, individuals may categorize themselves and others not only based on nationality but also based on their

moral positions regarding the conflict. Members of morality-based groups share convictions about standards and principles on the distinction between right and wrong (Parker & Janoff-Bulman, 2013). While religious or political groups are common examples, any group may be perceived as morality-based if it is seen as reflective of its members' beliefs and values (Grigoryan, Jones, et al., 2023; Grigoryan, Seo, et al., 2023). Moral positions are grounded in broader moral value systems, such as fairness, care, harm, loyalty, authority, and purity (Moral Foundations Theory; Graham et al., 2013; Haidt, 2012). Depending on the context, moral positions may reflect different moral values. For instance, evaluations of war-related actions may primarily invoke harm and care considerations, whereas responses to policies such as sanctions or military support may additionally engage loyalty, authority, or punishment-related concerns (Graham et al., 2013). Irrespective of the specific position, these principles resonate across diverse groups and provide an inclusive foundation for prosociality (Curry, 2016; Curry et al., 2019; Graham et al., 2013). Accordingly, shared moral positions can foster prosociality within groups, as they provide a basis for normative expectations and coordinated social behavior (Brewer & Caporael, 2006; Curry et al., 2019). At the same time, shared versus non-shared moral positions promote intergroup bias in prosociality. According to the worldview conflict hypothesis (Brandt & Crawford, 2020; Crawford & Brandt, 2020), individuals are likely to express prejudice toward those they perceive as holding conflicting attitudes and values, reinforcing group boundaries in an intergroup setting. Indeed, studies show that individuals prefer to cooperate with those who share the same moral position compared to those who do not (Curry et al., 2019; Grigoryan, Seo, et al., 2023). Taken together, nationality and moral position constitute meaningful bases of social categorization that can shape prosocial behavior in intergroup contexts. However, research on these forms of categorization has predominantly examined situations in which one group membership is made salient, leaving open the question of how multiple social categories jointly shape intergroup behavior when they co-occur. In real-world conflicts, such simultaneous categorization is particularly likely, as individuals may be categorized both by their nationality and by their moral position regarding the conflict.

2. Multiple social categorization in conflict contexts

Although some research has begun to examine the interplay of multiple social identities (Grigoryan, 2020b; Grigoryan et al., 2022; Uğurlar et al., 2023), less is known about how multiple social categorizations operate in real-world conflict contexts. Such contexts are particularly relevant because they can make different group memberships simultaneously salient: individuals may be categorized both by their nationality and by their moral position regarding the conflict. This raises the question of how individuals integrate these potentially overlapping or conflicting group memberships when interacting with others. Theoretically, there are several plausible assumptions about how individuals integrate multiple, potentially conflicting group memberships, including additive, dominance, and conjunction patterns (e.g., Grigoryan, 2020a; Hewstone et al., 1993; Migdal et al., 1998). The additive account proposes that each shared group membership independently contributes to more positive responses. In contrast, dominance accounts suggest that only the most relevant category is used for categorization, while other group memberships do not influence behavior, therefore rendering the number of shared memberships as irrelevant. Finally, conjunction accounts propose that individuals integrate multiple group memberships into a single overarching categorization, whereby targets are classified either as ingroup or outgroup members (Hewstone et al., 1993). Applied to the present context, these accounts imply different ways in which shared nationality and shared moral position may jointly shape prosocial behavior during international conflicts. Prior research in single-category settings suggests that morality-based group distinctions may elicit particularly strong intergroup

biases (Grigoryan, Seo, et al., 2023; Koch et al., 2020; Weisel & Böhm, 2015). However, whether such effects generalize to contexts in which multiple categorizations are simultaneously salient remains an open question.

Furthermore, less is known about when and for whom intergroup biases are most pronounced, especially when more than one social category is salient. One key factor that may moderate the strength of intergroup bias is the individual's degree of identification with a given group. According to SIT, ingroup identification plays a key role in the emergence of intergroup bias: the more individuals define themselves in terms of a particular group membership, the more motivated they are to favor the ingroup and distinguish it positively from relevant outgroups, leading to greater intergroup bias (Tajfel & Turner, 1979; Turner & Reynolds, 2001). Therefore, the extent to which people identify with their national group or others who share their moral position may shape the degree of intergroup bias. From this perspective, variability in the strength of intergroup bias may stem not only from differences in the type of group (e.g., national vs. moral) but also from the extent to which individuals identify with that group. This idea has been supported in single-category contexts, where ingroup identification amplifies bias within one social dimension (Dorrough et al., 2022; Spadaro et al., 2024). However, it remains unclear to what extent ingroup identification moderates intergroup bias when individuals are simultaneously categorized along multiple, potentially competing dimensions, and whether a stronger ingroup identification can also explain differences in the strength of intergroup bias between different social categories.

To address this gap, our studies employ the crossed-categorization paradigm (Crisp & Hewstone, 2007; Deschamps & Doise, 1978) to examine how social categorizations intersecting identities, specifically nationality and moral position, shape intergroup prosociality. This approach more accurately reflects the complexities of real-world social categorization, where individuals rarely relate to others solely along a single identity axis. Instead, multiple group memberships interact to influence behavior, and the relative salience and perceived importance of each group may determine whether people cooperate or discriminate (Hogg & Turner, 1987; Tajfel et al., 1971; Turner et al., 1987). Given both the rise in polarized moral conflicts and the resurgence of international tensions (Davies et al., 2024; Pettersson & Öberg, 2020), nationality and moral position are increasingly overlapping and becoming jointly salient in shaping intergroup behavior. By situating our study in the Russo-Ukrainian War as an ecologically valid context, we extend prior work on intergroup bias in prosociality and offer novel insight into how shared moral positions may promote prosocial behavior even across national boundaries in times of war, a context that embodies high-stakes social and moral dilemmas where individual and national interests often conflict with broader humanitarian concerns. While our primary focus is on this real-world context (Studies 1 and 2), we complement our work with a controlled experimental study to examine whether similar patterns of morality- and nationality-based favoritism arise under abstract and fully controlled conditions (Study 3).

3. The current research

In the present research, we conducted a pilot study in Germany,¹ two cross-national studies in Germany and Serbia (Studies 1 and 2), and one experimental study in the United Kingdom (Study 3). Across all studies,

we examined how shared nationality and shared moral position jointly shape prosocial behavior. While the pilot study and Studies 1 and 2 used a quasi-experimental design and were explicitly situated in the context of the Russo-Ukrainian War, Study 3 extended this work by testing these effects in a controlled experimental setting, independent of the specific war. The preregistration, materials, data, and analysis code for all studies are available on OSF (<https://osf.io/c4xhy>).

For our cross-national studies (Studies 1 and 2), we selected Germany and Serbia as two nations situated outside the immediate war zone of the Russo-Ukrainian War. Although not direct combatants in the conflict, both nations are embedded in its broader geopolitical and public discourse, including sanctions, diplomatic positioning, and military support to Ukraine (Belloni, 2024; Blumenau, 2022). At the same time, the two nations differ in their aggregate public attitudes toward the war, with Serbia showing comparatively more pro-Russian orientations and Germany exhibiting largely critical attitudes toward Russia's invasion (European Commission, 2022; Institute for European Affairs, 2021). Importantly, substantial variation in moral positions exists within each nation, allowing us to examine the effects of shared versus non-shared moral positions while holding national identity constant. Moreover, conducting research in Germany and Serbia was legally and ethically feasible in the context of the ongoing war.²

To investigate the relative importance of shared nationality and shared moral position on prosociality, we employed a within-participant design using the crossed-categorization paradigm (Crisp & Hewstone, 2007), orthogonally combining two social categories of the interaction partner: nationality (e.g., German, Serbian) and moral position (e.g., considering Russia's military actions as justified vs. not justified). By doing so, each participant interacted with individuals representing every combination of nationality and moral position in the dictator game, the measure of prosocial behavior.

In Studies 1 and 2, we assessed participants' own nationality and moral positions, so that real group memberships determined whether participants shared the same nationality or moral position with each interaction partner in the dictator games. In Study 3, we employed a full experimental manipulation of the factors of nationality and moral position to maximize internal validity and investigate whether our findings generalize beyond the Russo-Ukrainian War. To create a fictional intergroup setting, we employed the "alien paradigm" (Gupta et al., 2004) commonly used in intergroup research (e.g., Oğuz Taşbaş & Unkelbach, 2022; Woitzel & Alves, 2024). Participants were randomly assigned to fictional alien nations and interacted with other aliens who either belonged to the same nation or a different one, and who held the same or different moral position concerning an intergroup conflict. This design allowed us to examine the effects of shared nationality and shared moral position on prosocial behavior in a fully controlled setting.

In line with well-established evidence on intergroup bias in prosocial behavior (Balliet et al., 2014), we hypothesized that people are more prosocial toward ingroup members compared to outgroup members:

H1. Prosocial behavior is higher for individuals sharing the same national identity compared to those who do not.

H2. Prosocial behavior is higher for individuals sharing the same moral position compared to those who do not.

¹ The pilot study served two purposes. First, it was used to pretest the experimental paradigm. Second, it provided estimates of the effect sizes for the moderating role of identity centrality and identity strength on prosocial behavior. Overall, the pilot offered initial evidence that shared moral position plays a more prominent role in prosociality than shared nationality in the context of the Russo-Ukrainian war. We also observed a small moderating effect of identity centrality and identity strength for shared moral position. All results are reported in the Supplement.

² Ethically, it would have been problematic to expose Ukrainian participants who might have directly experienced trauma due to the war to situations in which they were shown statements suggesting that the war is justified and to consider sending resources to individuals from Russia, the aggressor in the conflict. Similarly, exposing Russian participants to the risk of potentially expressing critical views on Russia's military actions against the background of a repressive environment and state surveillance could not be ethically justified. Legally, current European Union sanctions restricted financial transactions and collaborations with Russian entities, including direct payments for participation.

Prior research in single-category settings suggests that intergroup bias may be stronger for morality-based vs. non-morality-based groups (Grigoryan, Seo, et al., 2023; Koch et al., 2020; Weisel & Böhm, 2015). We test whether these effects also hold when moral and national categorizations are simultaneously salient and jointly shape prosocial behavior:

H3. The interaction partner's shared (vs. non-shared) moral position has a stronger effect on prosocial behavior than their shared (vs. non-shared) nationality.

According to SIT, ingroup identification plays a key role in the emergence of intergroup bias (Tajfel & Turner, 1979; Turner & Reynolds, 2001). The extent to which a categorization dimension is central to a person's self-concept determines the strength of their motivation for positive distinctiveness, leading to greater intergroup bias (Tajfel, 1978; Tajfel & Turner, 1979). Limited evidence from crossed categorization studies suggests that the strength of identification could also explain the strength of bias in these settings (Grigoryan, 2020a; Urban & Miller, 1998). Previous research distinguishes between two measures of ingroup identification: identity centrality (i.e., identities that are central and important to self-conception) and identity strength (i.e., context-dependent strength of identification with a particular group; Ashmore et al., 2004; Jung et al., 2018; Stryker & Serpe, 1994). Accordingly, we operationalized ingroup identification through identity centrality and identity strength. We proposed the following hypotheses about the moderating role of ingroup identification:

H4a. With increasing identity centrality of nationality, the effect of national group membership on prosocial behavior becomes stronger.

H4b. With increasing identity centrality of moral position, the effect of morality-based group membership on prosocial behavior becomes stronger.

H5a. With increasing identity strength of nationality, the effect of national group membership on prosocial behavior becomes stronger.

H5b. With increasing identity strength of moral position, the effect of morality-based group membership on prosocial behavior becomes stronger.

Findings from the pilot study are reported in the Supplemental Material. All studies investigated the main effects of shared national identity and shared moral position and their strength (H1–H3), as well as the moderating effects of ingroup identification (H4a–H5b).³ For all studies, we report how we determined our sample size, all data exclusions, the manipulations used, and the measures employed.

4. Study 1: Moral position on war justification in the Russo-Ukrainian War

Study 1 investigated the role of shared nationality and shared moral position in intergroup prosociality in a cross-national study conducted in Germany and Serbia. Participants interacted with individuals from three nations: Germany, Serbia, and Russia. Each interaction partner represented one of two moral positions regarding the military actions of Russia in Ukraine (justified vs. not justified), which reflect broader moral concerns such as harm and care (Graham et al., 2013). Russian partners were included to control for the possibility that differences in prosocial behavior toward individuals morally in favor of Russia's

actions were driven solely by national outgroup bias.

4.1. Method

4.1.1. Participants

To determine the sample size for this study, we conducted an a priori simulation-based power analysis using the R package SIMR (Green & MacLeod, 2016). The power analysis relied on a linear mixed model. The smallest effect of interest was the moderating effect of identity strength and shared moral position on prosocial behavior. Based on the findings from the pilot study, we assumed a small effect of $b = 0.20$. The simulation showed that to detect a small effect of $b = 0.20$ with a power of 0.90, a sample of $N = 330$ participants was required. A post-hoc sensitivity analysis conducted in G*power (Faul et al., 2007) confirmed that with this planned sample size ($N = 330$), we would be able to detect an interaction effect of $f = 0.06$ or greater, provided a power of 0.80 in a 2 (nationality: shared vs. non-shared) $\times$ 2 (moral position: shared vs. non-shared) repeated-measures ANOVA with a 5% false-positive rate, assuming a correlation of 0.50 among repeated measures and sphericity. We used an online panel provider to collect data representative of the age and gender of the Serbian and German general populations. No participants were excluded based on the pre-registered criterion, as all reported being aware of the Russo-Ukrainian War. The final sample size consisted of $N = 335$ participants ($N_{Serbian} = 167$, $N_{German} = 168$), of whom 49.6% identified as female, 49.6% identified as male and 0.8% identified as non-binary. Age varied between 16 and 69 years, $M = 44.27$, $SD = 14.38$. Participants received compensation for their participation in line with the panel provider's guidelines. Out of $N = 335$ participants, $N = 100$ participants indicated that they consider Russia's military actions against Ukraine justified, with the majority being Serbian ($N = 78$) and a minority being German ($N = 22$), indicating sufficient variance in the moral positions across the nations.

4.1.2. Design and procedure

The experiment was conducted online and hosted on the survey platform Qualtrics (<https://www.qualtrics.com/de/>). Data was collected in June 2023, over one year after Russia's military invasion of Ukraine, when the European Commission introduced its 11th sanction package targeting Russia's economy (European Commission, 2023a). At the same time, the EU continued to provide long-term financial and military support to Ukraine, while advancing diplomatic efforts for peace (European Commission, 2023b).

The study employed a 2 (nationality: shared vs. non-shared) $\times$ 2 (moral position: shared vs. non-shared) within-subject design, manipulating the nationality and moral position of the interaction partners in the dictator games. The dictator game, a standard measure for prosocial behavior, is a money allocation task, in which a person can decide how much money to send to an anonymous other person while keeping the rest for him/herself (Engel, 2011). In this study, decisions in the dictator game were hypothetical and were not paid out. All participants gave informed consent.

Initially, participants indicated their nationality (German, Serbian, other) and their moral position on the war. Participants were then informed that they would work on decision-making tasks and were given instructions for the dictator game. In this game, participants allocated an endowment of 100 Talers between themselves and a hypothetical interaction partner. They were informed that these decisions were hypothetical and would not influence their final payoff. Participants then played six hypothetical dictator games. Following the crossed-categorization paradigm, the nationality and moral position of the interaction partner were fully crossed. Thus, participants interacted with others from all three nations (German, Serbian, Russian), each paired with both possible moral positions regarding the military actions (justified, not justified), resulting in six different dictator games presented in a randomized order.

³ In Study 3, we focused on identity strength, as it represents a more context-specific form of ingroup identification that may be better suited for our fictional intergroup setting, whereas identity centrality reflects a broader aspect of the self-concept which may be more applicable to real-life settings. We nevertheless assessed identity centrality as a conceptual replication of Studies 1 and 2, and report all analyses involving this measure as exploratory.

Afterward, we assessed identity centrality by having participants rate the extent to which their nationality (German/Serbian), and their moral position on the issue (justified/not justified) are central to their self, from 1 (“not important”) to 7 (“extremely important”). Additionally, we measured identity strength by asking participants to indicate their agreement with the following identification statements: “I identify with people from Germany/Serbia” and “I identify with people who support/oppose Russia’s military actions in Ukraine”. Responses were given on a scale from 1 (“strongly disagree”) to 7 (“strongly agree”). The order of the dictator games and the identity measures was counterbalanced.

4.2. Results and discussion

In line with our preregistration, we tested our hypotheses applying ordinary least squares (OLS) regressions with standard errors clustered at the participant level to account for the nested data structure. As a supplementary analysis, we additionally estimated two-part generalized linear mixed models for our main hypotheses, following a reviewer’s suggestion. These models separate the decision whether to transfer any amount from the decision about the amount transferred conditional on a (positive) transfer, thereby allowing for potentially distinct processes underlying the decision to give and the level of generosity. Unless otherwise stated, findings from the two-part models were consistent with those from the cluster-corrected OLS regressions. For an overview of all results, see Supplement. For exploratory analyses, the significance thresholds were adjusted using a Bonferroni correction for seven tests ($\alpha_{\text{corrected}} = 0.007$).

4.2.1. Shared nationality and shared moral position

Firstly, we hypothesized that individuals should be more prosocial toward those who share the same nationality compared to those who do not (H1). On average, participants transferred 1.59 (out of 100) Talers more to those who shared their nationality ($M = 35.06$, $SD = 28.97$) than to those who did not ($M = 33.47$, $SD = 29.16$). The OLS regressions with cluster-corrected SEs indicated a significant effect of shared nationality on prosociality, in line with H1. Complete inferential statistics are reported in Table 1. Supplementary two-part models, which separately examined the decision to transfer and the amount transferred conditional on transferring, did not reveal significant effects of shared nationality on either component (see Supplement for details). Fig. 1 shows the average amount of Talers transferred between individuals of the same nationality and those with the same moral position.

Secondly, we hypothesized that individuals should be more prosocial toward those with the same moral position than those without (H2). On average, participants transferred 23.76 Talers more to those who shared their moral position ($M = 45.88$, $SD = 27.05$) than to those who did not ($M = 22.12$, $SD = 26.08$), yielding a significant effect of shared moral position on prosociality (see Table 1). Supplementary two-part models, which separately examined the decision to transfer and the amount transferred conditional on transferring, revealed significant effects of shared moral position on both components (see Supplement for details).

Table 1
Effects of shared nationality and shared moral position on prosociality across studies 1–3.

	$N_{\text{participants}}$ ($N_{\text{observations}}$)	b	SE	95% CI for b	z	p	d_z	95% CI for d_z
Shared Nationality								
Study 1	335 (2010)	1.59	0.68	[0.25, 2.93]	3.16	.020	0.13	[0.02, 0.23]
Study 2	422 (3376)	2.20	0.62	[0.99, 3.34]	3.56	< .001	0.17	[0.08, 0.27]
Study 3	421 (1684)	3.37	0.46	[2.46, 4.28]	7.26	< .001	0.35	[0.26, 0.45]
Shared Moral Position								
Study 1	335 (2010)	23.76	1.57	[20.69, 26.83]	15.17	< .001	0.83	[0.70, 0.95]
Study 2	422 (3376)	29.66	1.30	[27.10, 32.21]	22.77	< .001	1.11	[0.99, 1.23]
Study 3	421 (1684)	20.55	1.01	[18.56, 22.53]	20.29	< .001	0.99	[0.87, 1.11]

Note. $N_{\text{participants}}$ = number of individuals per study; $N_{\text{observations}}$ = number of decisions included; b are unstandardized estimates from OLS regressions with standard errors (SE) clustered at the participant level. CI = confidence interval. d_z refers to standardized effect sizes.

The preregistered significant Wald-test confirmed that the effect of shared moral position on prosociality was stronger than that of shared nationality, $F(1, 2007) = 171.88$, $p < .001$ (H3). Furthermore, in an exploratory analysis aimed at examining how these two social categorizations jointly shape prosocial behavior, we tested whether sharing both categories (i.e., nationality and moral position) yielded a super- or sub-additive effect. This was not the case, and the effects were additive, as indicated by no significant interaction between shared nation and shared moral position, $b = 1.30$, $SE = 1.36$, $z = 0.96$, $p = .339$, 95% CI $[-1.36, 3.96]$, $\beta = 0.02$, 95% CI for β $[-0.02, 0.05]$, partial $R^2 = 0.0001$.

To examine the robustness of the effects of shared nationality and shared moral position, we additionally conducted exploratory analyses excluding Russian interaction partners in the hypothetical dictator game. The effect of shared nationality on prosociality remained significant, $b = 2.78$, $SE = 0.83$, $z = 3.35$, $p < .001$, $\alpha_{\text{corrected}} = 0.007$, 95% CI for b $[1.15, 4.40]$, $d_z = 0.18$, 95% CI for d_z $[0.07, 0.29]$. Likewise, the effect of shared moral position on prosociality remained significant, $b = 23.31$, $SE = 1.60$, $z = 14.55$, $p < .001$, 95% CI for b $[20.17, 26.46]$, $d_z = 0.80$, 95% CI for d_z $[0.67, 0.92]$.

4.2.2. Ingroup identification

We hypothesized that higher identification with one’s nationality or moral position would amplify the effects of shared group membership on prosocial behavior (H4a–H5b). To test these moderating effects, all predictors were mean-centered. Contrary to our expectations, identity centrality did not significantly moderate the effect of shared nationality on prosocial behavior, $b = 0.19$, $SE = 0.34$, $z = 0.58$, $p = .562$, 95% CI for b $[-0.46, 0.85]$, $\beta = 0.01$, 95% CI for β $[-0.01, 0.03]$, partial $R^2 = 0.0004$. However, identity centrality significantly moderated the effect of shared moral position, $b = 4.21$, $SE = 0.70$, $z = 5.98$, $p < .001$, 95% CI for b $[2.83, 5.59]$, $\beta = 0.14$, 95% CI for β $[0.09, 0.18]$, partial $R^2 = 0.02$, such that morality-based intergroup bias increased with higher identity centrality of moral position. Similarly, identity strength did not significantly moderate the effect of shared nationality, $b = 0.40$, $SE = 0.45$, $z = 0.87$, $p = .383$, 95% CI for b $[-0.50, 1.29]$, $\beta = 0.01$, 95% CI for β $[-0.01, 0.03]$, partial $R^2 = 0.0001$, but significantly moderated the effect of shared moral position, $b = 4.72$, $SE = 0.73$, $z = 6.51$, $p < .001$, 95% CI for b $[3.30, 6.14]$, $\beta = 0.16$, 95% CI for β $[0.11, 0.20]$, partial $R^2 = 0.03$, again showing stronger morality-based intergroup bias with increasing identity strength of moral position.

To investigate whether individuals considered their moral position more central to their identity and identified with it more strongly than with their nationality, we conducted two exploratory post-hoc paired t -tests. There was no significant difference in identity centrality between nationality ($M = 5.05$, $SD = 1.92$) and moral position ($M = 4.79$, $SD = 1.93$), $t(334) = -1.93$, $p = .054$, $d_z = -0.11$, 95% CI for d_z $[-0.21, 0.00]$. In contrast, participants identified significantly more strongly with their nationality ($M = 5.22$, $SD = 1.63$) than with their moral position ($M = 4.97$, $SD = 1.91$), $t(334) = -3.59$, $p < .001$, $\alpha_{\text{corrected}} = 0.007$, $d_z = -0.20$, 95% CI for d_z $[-0.30, 0.09]$.

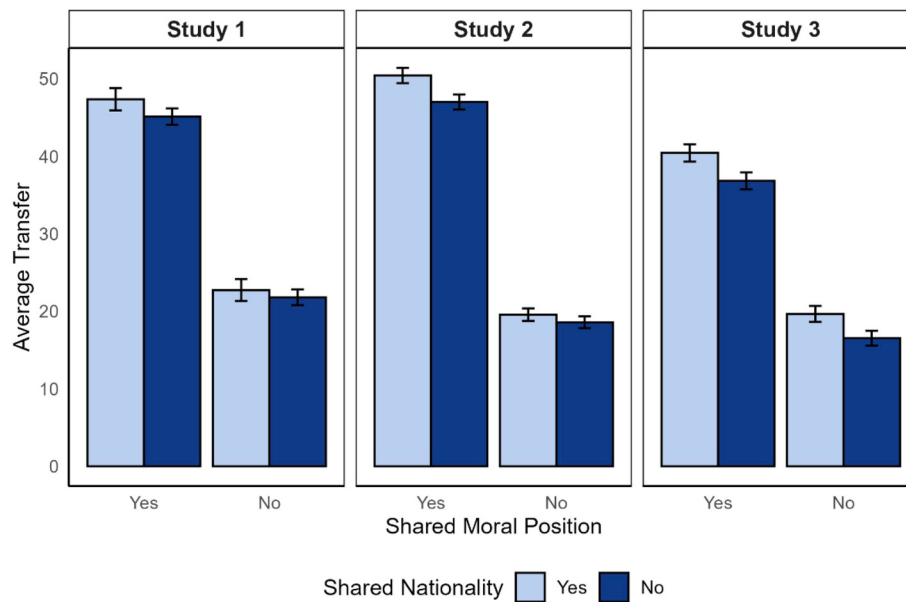


Fig. 1. Average transfer in talers (0–100) in the dictator game in studies 1, 2 and 3 for individuals who share vs. do not share their nationality and moral position. Note. Transfers could range between 0 and 100 Talers. Error bars represent 95% confidence intervals of the mean. Studies 1 and 2 were embedded in the real-world context of the Russo-Ukrainian War, whereas Study 3 was embedded in a fictional intergroup conflict.

4.3. Summary of key findings

Overall, our results showed that individuals were more prosocial toward those who share the same nationality and the same moral position, replicating previous findings of national ingroup favoritism (Dorrough & Glöckner, 2016) and morality-based favoritism (Curry et al., 2019). Importantly, these effects were additive, indicating that shared nationality and shared moral position independently contributed to prosocial behavior. Our findings further suggested that shared moral position exerted a stronger influence on prosocial behavior than shared nationality, in line with previous findings that indicated stronger intergroup bias for morality- compared to non-morality based groups (e.g., Koch et al., 2020; Weisel & Böhm, 2015).

We hypothesized that intergroup bias would be stronger when a categorization dimension is perceived as important, as indicated by a higher identity strength and centrality. Partially in line with this, we found a significant moderating effect of ingroup identification for shared moral position but not for shared nationality. Importantly, this difference is unlikely to reflect restricted variability in identification. Participants showed substantial variability in both identity strength and identity centrality for nationality and moral position (see Supplementary Materials, Table S1), indicating sufficient variation to detect potential moderation effects. Thus, the absence of a moderating effect for shared nationality is unlikely to be explained by a lack of variation in national identification. One possible explanation is that ingroup identification moderates intergroup bias only for the dominant categorization dimension, in this case, shared moral position. This interpretation aligns with findings from a previous crossed-categorization study by Grigoryan (2020a), which showed that ingroup identification predicted intergroup bias only for the most salient identity dimension, specifically religion, in that study. Alternatively, the absence of a moderating effect of ingroup identification for shared nationality might be due to limited statistical power, particularly given the small effect size observed in our case. Notably, despite the stronger behavioral effect of shared moral position, participants reported higher identification with their national than their moral group membership.

5. Study 2: Moral position on conflict responses in the Russo-Ukrainian War

Study 1 assessed prosocial decisions in an unincentivized context, which may not fully capture actual behavior when real monetary consequences are at stake (e.g., Bostyn et al., 2018; Sheeran & Webb, 2016). Therefore, Study 2 aimed to replicate our findings in an incentivized design. As we did not have Russian participants in our study, we did not include a Russian interaction partner in the dictator games in Study 2 to avoid deception.

To increase the generalizability of our previous findings, we changed the examined moral position from “Russia’s military actions in Ukraine are justified/cannot be justified” to the following two: “opposing/supporting Europe’s weapon deliveries to Ukraine” and “opposing/supporting Europe’s economic sanctions against Russia”. Whether Russia’s military actions are justified may have evoked strong affective reactions and led to polarized responses. By shifting to the topics of weapon deliveries and economic sanctions, we aimed to capture moral positions that are less emotionally charged and allow for more nuanced positions while still reflecting individuals’ moral positions related to the war. These moral positions likely represent more distinct moral values (e.g., loyalty and punishment; Graham et al., 2013) compared to the very generalized position on the conflict in Study 1. To verify that the selected topics capture moral positions, we additionally asked participants to rate to what degree they considered the selected positions to be moral.

To ensure consistency in the group-based framing across conditions, we did not assess participants’ positions regarding the weapon deliveries and economic sanctions as their own individual moral positions. Instead, we asked them to indicate with which of two morally defined groups they identified more strongly. This approach enabled us to frame both nationality and moral position as social group memberships, allowing for a direct comparison of their effects on intergroup behavior.

5.1. Method

5.1.1. Participants

We conducted an a priori simulation-based power analysis using the R package SIMR (Green & MacLeod, 2016). The power analysis relied on

a linear mixed model. The smallest main effect of interest was the effect of a shared nationality on prosociality. We estimated the effect size for shared nationality on prosociality in Study 1 while excluding Russian interaction partners as they were not part of Study 2. We found a small effect of $b = 0.27$ for shared nationality on prosociality. We assume that the effect size for shared nationality might have been particularly small in Study 1, as nationality was crossed with position on the Russo-Ukrainian War (seeing “Russia’s military actions in Ukraine” as justified or not justified), which is a particularly emotionally and morally charged topic that had a very large impact on participants’ decisions. We expected the effect of shared nationality to be somewhat stronger in Study 2, where the manipulated moral issues are more specific and likely less emotionally charged. Based on this reasoning, we assumed a small to medium-sized effect of $b = 0.35$ for shared nationality on prosociality. The simulation showed that to detect an effect of $b = 0.35$ with a power of 0.80, a sample of $N = 420$ participants is required. A post-hoc sensitivity analysis conducted in G*power (Faul et al., 2007) confirmed that with this planned sample size ($N = 420$), we would be able to detect an interaction effect of $f = 0.05$ or larger provided a power of 0.80 in a 2 (nationality: shared vs. non-shared) $\times$ 2 (moral position: shared vs. non-shared) $\times$ 2 (type of moral position: economic sanctions vs. weapon delivery) repeated-measures ANOVA with a 5% false-positive rate, assuming a correlation of 0.50 among repeated measures and sphericity. We used an online panel provider to collect data representative for age and gender of the Serbian and German general population. No participants were excluded based on the preregistered criterion, as all reported being aware of the Russo-Ukrainian War. The final sample size consisted of $N = 422$ participants ($N_{\text{Serbian}} = 210$, $N_{\text{German}} = 212$), of whom 50.0% identified as female, 49.5% identified as male and 0.5% identified as non-binary. Age varied between 18 and 69 years, $M = 44.68$, $SD = 14.01$. Participants received compensation for their participation in line with the panel providers’ guidelines and an additional bonus payment based on one randomly selected decision in the study.

5.1.2. Design and procedure

The online experiment was conducted in January 2024 and hosted on the survey platform Qualtrics (<https://www.qualtrics.com/de/>). By January 2024, the Russo-Ukrainian War had reached a phase marked by heightened geopolitical tensions, while EU sanctions continued to target Russia’s economy in its 12th sanctions package (European Commission, 2023c). Amid growing concerns about third parties supporting Russia militarily, discussions emerged about linking sanctions to arms supplies. At the same time, the EU reaffirmed its financial support for Ukraine to bolster Ukraine’s financial resilience and maintain public administration (European Parliament, 2024).

In this study, we employed a 2 (nationality: shared vs. non-shared) $\times$ 2 (moral position: shared vs. non-shared) $\times$ 2 (type of moral position: economic sanctions vs. weapon delivery) within-subjects design. The experimental procedure was essentially the same as in Study 1, with some modifications regarding the type of moral positions, the nationality of the interaction partners, and the participants’ incentives. All participants gave informed consent.

After indicating their nationality (German/Serbian), participants indicated their moral positions by selecting which group they belonged to: “group opposing/supporting Europe’s weapon deliveries to Ukraine” and “group opposing/supporting Europe’s economic sanctions against Russia”. Participants then played eight incentivized dictator games. Following the crossed-categorization paradigm, the nationality and moral position of the interaction partner were fully crossed. Thus, participants interacted with a “German/Serbian person who supports/opposes the weapon deliveries” and a “German/Serbian person who supports/opposes economic sanctions”, resulting in eight different dictator games per participant. Each dictator game represented a cell in our fully crossed within-subjects design and they were presented in an individually randomized order.

As in Study 1, participants rated the identity centrality and identity strength of their nationality and moral positions. The order of the dictator games and the identity measures was counterbalanced. As a manipulation check, we asked participants to what degree they considered the positions on economic sanctions and weapon deliveries a moral topic, from 1 (“not at all moral”) to 7 (“completely moral”) and to what degree they considered the two moral positions an emotionally charged topic, from 1 (“not at all emotional”) to 7 (“completely emotional”).

5.2. Results and discussion

As in Study 1, we used ordinary least squares (OLS) regressions with standard errors clustered at the participant level to test our hypotheses. We again estimated two-part generalized linear mixed models as a supplementary analysis. Unless otherwise noted, findings from the two-part models were consistent with those from the cluster-corrected OLS regressions. For exploratory analyses, we again adjusted significance thresholds using a Bonferroni correction, this time for five tests ($\alpha_{\text{corrected}} = 0.01$).

5.2.1. Descriptive analysis

Out of $N = 422$ participants ($N_{\text{Serbian}} = 210$, $N_{\text{German}} = 212$), $N = 151$ participants supported Europe’s weapon deliveries to Ukraine, with the majority being German ($N = 122$) and the minority being Serbian participants ($N = 29$). A total of $N = 216$ participants supported Europe’s economic sanctions against Russia, with support being higher among German participants ($N = 167$) than Serbian participants ($N = 49$), indicating sufficient variance in the moral positions across the nations.

On average, participants considered both moral positions as a moral topic: weapon deliveries ($M = 4.24$, $SD = 2.05$), economic sanctions ($M = 4.34$, $SD = 1.96$). They also perceived them as somewhat emotional, with similar ratings for weapon deliveries ($M = 3.96$, $SD = 1.92$) and economic sanctions ($M = 3.96$, $SD = 1.88$). German participants rated weapon deliveries ($M = 4.52$, $SD = 1.55$) and economic sanctions ($M = 4.32$, $SD = 1.61$) as more moral topics compared to Serbian participants, who provided lower ratings for both weapon deliveries ($M = 3.40$, $SD = 2.09$) and economic sanctions ($M = 3.60$, $SD = 2.05$).

5.2.2. Shared nationality and shared moral position

In line with H1, participants transferred 2.20 Talers more to those who shared their nationality ($M = 35.01$, $SD = 30.39$) than to those who did not ($M = 32.81$, $SD = 29.03$), yielding a significant effect of shared nationality on prosociality (see Table 1). The effect of shared nationality did not hold in a two-part models, indicating that effects might be more complicated if the decisions to share money and if yes, how much are considered separately. (see Supplement for details).

In line with H2, Participants transferred 29.66 Talers more to those who shared a moral position ($M = 48.74$, $SD = 28.42$) than to those who did not ($M = 19.08$, $SD = 22.82$), yielding a significant effect of shared moral position on prosociality (see Table 1). An exploratory post-hoc test showed that this effect did not vary by the specific type of moral position, $b = -1.40$, $SE = 1.33$, $z = -1.05$, $p = .293$, 95% CI for b [-4.00, 1.21], $\beta = -0.02$, 95% CI for β [-0.06, 0.12], partial $R^2 = 0.0002$. The preregistered Wald test confirmed that the effect of shared moral position was significantly stronger than that of shared nationality, $F(1, 3372) = 370.53$, $p < .001$ (H3). Exploratory analysis showed no significant interaction between shared nation and shared moral position, providing no evidence for a deviation from additivity after Bonferroni correction, $b = 2.44$, $SE = 1.13$, $z = 2.15$, $p = .032$, $\alpha_{\text{corrected}} = 0.006$, 95% CI for b [0.22, 4.67], $\beta = 0.04$, 95% CI for β [0.003, 0.08], partial $R^2 = 0.0006$.

5.2.3. Ingroup identification

We further hypothesized that identity centrality and identity strength would moderate the effects of shared group membership on

prosociality (H4a-H5b). To test the interaction effects statistically, we mean-centered each predictor by subtracting its respective sample mean. In line with our hypotheses, identity centrality significantly moderated the effects of both shared nationality ($b = 1.01$, $SE = 0.30$, $z = 3.36$, $p < .001$, 95% CI for b [0.42, 1.60], $\beta = 0.03$, 95% CI for β [0.01, 0.05], partial $R^2 = 0.001$) and shared moral position ($b = 5.89$, $SE = 0.84$, $z = 6.98$, $p < .001$, 95% CI for b [4.24, 7.75], $\beta = 0.15$, 95% CI for β [0.10, 0.19], partial $R^2 = 0.03$). Similarly, identity strength moderated both effects: shared nationality ($b = 0.87$, $SE = 0.37$, $z = 2.33$, $p = .020$, 95% CI for b [0.14, 1.60], $\beta = 0.02$, 95% CI for β [0.004, 0.04], partial $R^2 = 0.001$) and shared moral position ($b = 6.96$, $SE = 0.83$, $z = 8.40$, $p < .001$, 95% CI for b [5.34, 8.60], $\beta = 0.16$, 95% CI for β [0.13, 0.20], partial $R^2 = 0.04$). The two-part models indicated a more complex pattern for the moderating effect of identity centrality and identity strength on shared nationality (see Supplement for details).

To investigate whether individuals considered their moral positions as more central to their identity and identified more strongly with them compared to their nationality, we conducted two additional exploratory post-hoc paired t -tests. There was no significant difference in centrality between moral positions ($M = 5.37$, $SD = 1.50$) and nationality ($M = 5.17$, $SD = 1.91$), $t(421) = 1.91$, $p = .057$, $d_z = 0.09$, 95% CI for d_z [0.00, 0.19]. Participants did not identify significantly more strongly with their moral position ($M = 5.59$, $SD = 1.41$) than with their nationality ($M = 5.41$, $SD = 1.41$), $t(421) = 1.97$, $p = .049$, $\alpha_{corrected} = 0.01$, $d_z = 0.10$, 95% CI for d_z [0.00, 0.19]. Hence, although identity centrality and strength were directionally consistent with the stronger ingroup favoritism based on moral position, the magnitudes of these effects were considerably smaller, highlighting a discrepancy between self-reported identification and behavioral outcomes.

5.3. Summary of key findings

Overall, our results replicated findings from Study 1 in an incentivized setting, as individuals displayed intergroup bias both based on shared nationality and shared moral position across different moral positions. We further replicated that both effects were mainly additive and that shared moral position exerted a stronger influence on prosocial behavior than shared nationality in the context of the Russo-Ukrainian War. The findings demonstrate that the effects are robust and generalizable: they hold when using different moral positions and an incentivized paradigm. In contrast to Study 1, we found a significant moderating effect of identity centrality and strength for both shared nationality and shared moral position, indicating that the lack of a moderating effect for shared nationality in Study 1 might have been due to a lack of statistical power.

6. Study 3: Moral position on war justifications in a fictional intergroup conflict

Study 1 and Study 2 demonstrated that shared moral position and shared nationality represent meaningful bases of prosociality in the context of the Russo-Ukrainian War, with a stronger effect of shared moral position. Although these studies conducted in a real-world conflict provide high ecological validity, they limit causal inference due to the potential for confounding factors. For instance, the historical and political ties of Serbia and Germany to Russia and Ukraine, respectively, could also influence cross-national prosociality. Additionally, the shared moral position could be confounded with other factors, such as the emotional salience of the conflict. In Study 3, we therefore tested the robustness and generalizability of our previous findings in a more abstract setting that avoids the potential confounds inherent in real-world conflict context, while remaining within the context of geopolitical conflict. To this end, we employed a crossed-categorization paradigm at the intersection of nationality and moral position in a fictional alien world that mirrors the structure of national and moral group memberships, but eliminates potential confounds inherent to real-world

conflicts. Following the alien paradigm (Gupta et al., 2004), participants interacted with members of the same or a different alien nation (shared vs. non-shared nationality) who belonged to the group holding the same or a different moral position on a fictional conflict in the alien world (shared vs. non-shared moral position). Similar to Study 1, the selected moral position reflected a general concern about the justifiability of a military action and was guided by the harm/care dimension of the Moral Foundations Theory (Graham et al., 2011; Haidt, 2012), emphasizing sensitivity to suffering and the importance of protecting others. This design allowed us to isolate the relative influence of shared national group identity and shared moral position on prosocial behavior under controlled conditions by assigning people randomly to both conditions rather than utilizing existing nationalities and moral positions.

6.1. Method

6.1.1. Participants

As this study constitutes a conceptual replication of our previous studies in an experimental setup, we relied on the same sample size as in Study 2 ($N = 420$). A post-hoc sensitivity analysis conducted in G*Power (Faul et al., 2007) indicated that with this planned sample size ($N = 420$), we would be able to detect a main effect of $f = 0.08$ or greater with a power of 0.90 in a 2 (nationality: shared vs. non-shared) $\times$ 2 (moral position: shared vs. non-shared) repeated-measures ANOVA, assuming a correlation of 0.50 among repeated measures and sphericity. This effect size corresponds approximately to a small effect, consistent with the magnitude of national ingroup favoritism observed in our previous studies and more generally in studies that have investigated ingroup favoritism in a minimal group crossed-categorization paradigm (e.g., Uğurlar et al., 2023).

We recruited participants through Prolific Academic (<https://www.prolific.com/>), aiming for a sample size of $N = 420$. Prolific returned 421 completed responses due to simultaneous sign-ups. No exclusion criteria were applied. All participants were located in the United Kingdom; 49.2% identified as female, 50.4% identified as male, and 0.4% identified as non-binary. Age varied between 20 and 79 years, $M = 44.89$, $SD = 13.01$. Participants' political orientation was slightly left of center ($M = 4.40$, $SD = 1.93$; scale from 1 "left" to 10 "right"). Participants received compensation for their participation (£1.50) and an additional bonus payment based on one randomly selected decision in the study. Participants were randomly assigned to one of two alien nations (Purple vs. Brown) and one of two groups holding opposing moral positions describing the attacker's actions (unjustified vs. justified). Cell sizes were approximately balanced (Purple-unjustified: $N = 112$; Purple-justified: $N = 100$; Brown-unjustified: $N = 100$; Brown-justified: $N = 109$).

6.1.2. Design and procedure

The experiment was conducted online and hosted on the survey platform Qualtrics (<https://www.qualtrics.com/de/>). Data was collected in October 2025.

The study employed a 2 (nationality: shared vs. non-shared) $\times$ 2 (moral position: shared vs. non-shared) within-subject design, manipulating the nationality and moral position of the interaction partners in the dictator games. All participants gave informed consent. Study 3 can be considered a conceptual replication of Studies 1 and 2, but implemented as an entirely experimental design instead of a quasi-experimental design.

Participants read a description of a fictional alien world in which a conflict between two alien nations (Greens and Blues) recently occurred. Manipulating nationality, each participant was randomly assigned to one of two alien nations (Brown or Purple), which were briefly described. To be consistent with our previous studies, these assigned nations were not directly involved in the conflict. Shared versus non-shared nationality was manipulated by varying whether the interaction partner in the dictator game belonged to the same or a different

alien nation.

Furthermore, participants were randomly assigned to one of two groups holding opposing moral positions (justified vs. unjustified). Moral position was manipulated using two parallel vignettes describing the fictional conflict. Both vignettes were identical in structure, content, and length, but differed in moral framing: in one, the attacking nation's actions were presented as morally justified because they protected vulnerable group members and prevented suffering; in the other, the same actions were presented as morally wrong because they inflicted unnecessary harm. The nationality of the attacker (Green or Blue) was randomized across participants to avoid confounding effects.

To check whether the manipulation of moral position was successful, participants rated how morally justified they perceived the Greens' or Blues' actions, from 1 ("not at all justified") to 7 ("very justified"), and the extent to which these actions reflected care and concern for others, from 1 ("not at all caring") to 7 ("very caring").

Using a variant of the crossed-categorization paradigm, participants then played four incentivized dictator games in which they interacted with partners who varied in nationality (same vs. different) and moral position (justified vs. not justified), resulting in four interaction partners. Each of the dictator games represented a cell in our fully crossed design and was presented in individually randomized order (see Fig. 2 for an example).

Similar to our previous studies, we assessed identity strength with the assigned alien nationality and moral position. We also assessed identity centrality, though, unlike in our previous studies, we examined it exploratorily, as the suitability of this measure in the more abstract fictional intergroup setting was questionable. Finally, we collected demographic information (age, gender, political orientation) and assessed participants' own moral values on the harm/care dimension of the Moral Foundations Theory (Graham et al., 2011) using three items concerning suffering, care for the vulnerable, and cruelty. At the end of the study, we asked participants whether they had been thinking of any real-world conflict while making their decisions.

6.2. Results and discussion

As in Studies 1 and 2, we used OLS regressions with standard errors clustered at the participant level to test our hypotheses. We also

estimated two-part generalized linear mixed models as a supplementary analysis, again following the reviewer's suggestion. Unless otherwise noted, findings from the two-part models were consistent with those from the cluster-corrected OLS regressions. For exploratory analyses, we again adjusted significance thresholds using a Bonferroni correction, this time for nine tests ($\alpha_{\text{corrected}} = 0.006$).

6.2.1. Descriptive analysis

The manipulation of moral position was successful, consistent with our preregistered expectations: participants rated the attacker's actions as significantly more morally justified in the justified condition ($M = 4.23$, $SD = 1.66$) than in the unjustified condition ($M = 2.33$, $SD = 1.19$), $t(377.56) = -13.46$, $p < .001$, $d = 1.32$, 95% CI of d [1.11, 1.53]. Consistently, participants in the justified condition also rated the attacker's actions as significantly more related to care/harm ($M = 4.03$, $SD = 1.51$) than participants in the unjustified condition ($M = 2.26$, $SD = 1.13$), $t(384.71) = -13.58$, $p < .001$, $d = 1.33$, 95% CI of d [1.12, 1.54].

At the end of the study, $N = 200$ (47.5%) participants indicated that they did not think about a real-world conflict while making their decisions, whereas $N = 221$ (52.5%) reported that they did. Among these, the majority mentioned the Russo-Ukrainian War (48.0%) or the Israel-Gaza conflict (41.6%), with few mentioning both (5.0%), other past wars (2.7%) or choosing not to disclose the conflict they thought about (2.7%).

6.2.2. Shared nationality and shared moral position

In line with H1, participants transferred 3.37 Talers more to those who shared their nationality ($M = 30.06$, $SD = 23.45$) than to those who did not ($M = 26.69$, $SD = 24.40$), yielding a significant effect of shared nationality on prosociality (see Table 1). The effect of shared nationality on prosociality remained robust in the two-part models (see Supplement for details).

In line with H2, participants transferred 20.55 Talers more to those who shared a moral position ($M = 38.65$, $SD = 22.77$) than to those who did not ($M = 18.10$, $SD = 20.53$), yielding a significant effect of shared moral position on prosociality (see Table 1).

The preregistered Wald test confirmed that the effect of shared moral position was significantly stronger than that of shared nationality, $F(1,$

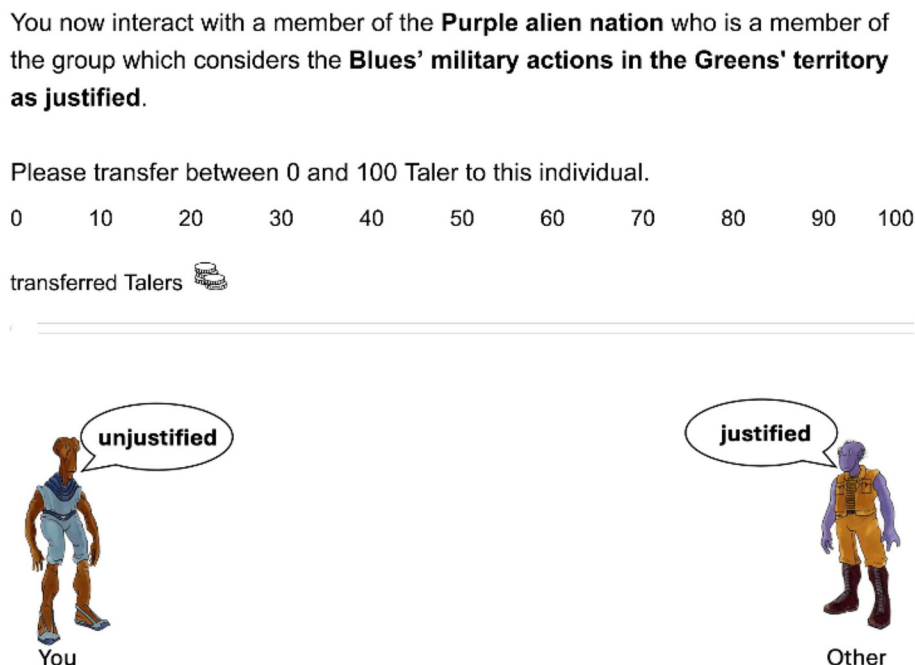


Fig. 2. Example of one of the actual decision rounds in the dictator game in study 3.

1680) = 253.01, $p < .001$ (H3). Exploratory analysis showed no significant interaction between shared nation and shared moral position, $b = 0.48$, $SE = 0.76$, $z = 0.63$, $p = .531$, 95% CI [-1.01, 1.96], $\beta = 0.009$, 95% CI for β [-0.02, 0.04], partial $R^2 = 0.00003$).

To explore whether the effects of shared nationality and shared moral position on prosociality depended on individual characteristics (i.e., political orientation and own moral values) or contextual factors (i.e., salience of a real-world conflict), we conducted a series of exploratory analyses. On the individual level, political orientation did not significantly moderate the effects of shared nationality ($b = -0.13$, $SE = 0.22$, $z = -0.59$, $p = .553$, 95% CI [-0.57, 0.30], $\beta = -0.005$, 95% CI for β [-0.02, 0.01], partial $R^2 = 0.000003$). The moderation of shared moral position did not remain significant after correcting for multiple testing ($b = -1.47$, $SE = 0.54$, $z = -2.72$, $p = .007$, $\alpha_{\text{corrected}} = 0.006$, 95% CI [-2.53, -0.41], $\beta = -0.06$, 95% CI for β [-0.10, -0.02], partial $R^2 = 0.004$). Personal moral values did not significantly moderate the effect of shared nationality ($b = 0.63$, $SE = 0.45$, $z = 1.38$, $p = .167$, 95% CI [-0.27, 1.53], $\beta = 0.01$, 95% CI for β [-0.005, 0.03], partial $R^2 = 0.0001$), but significantly moderated the effect of shared moral position ($b = 3.99$, $SE = 1.05$, $z = 3.81$, $p < .001$, 95% CI [1.94, 6.05], $\beta = 0.07$, 95% CI for β [0.04, 0.11], partial $R^2 = 0.007$). Those who endorsed moral values related to care / harm more strongly displayed stronger morality-based intergroup bias. Additionally, exploratory analyses showed that thinking about a real-world conflict while making decisions did not significantly alter the effects of shared nationality ($b = -0.43$, $SE = 0.93$, $z = -0.47$, $p = .641$, 95% CI [-2.25, 1.39], $\beta = -0.008$, 95% CI for β [-0.04, 0.03], partial $R^2 = 0.000002$) or shared moral position ($b = 4.09$, $SE = 2.01$, $z = 2.03$, $p = .042$, $\alpha_{\text{corrected}} = 0.006$, 95% CI [0.15, 8.03], $\beta = 0.08$, 95% CI for β [0.003, 0.15], partial $R^2 = 0.002$).

6.2.3. Ingroup identification

As expected, identity strength significantly moderated the effects of both shared nationality ($b = 0.51$, $SE = 0.25$, $z = 2.00$, $p = .045$, 95% CI for b [0.01, 1.00], $\beta = 0.02$, 95% CI for β [0.0003, 0.03], partial $R^2 = 0.0003$) and shared moral position ($b = 3.51$, $SE = 0.63$, $z = 5.57$, $p < .001$, 95% CI for b [2.27, 4.74], $\beta = 0.13$, 95% CI for β [0.08, 0.17], partial $R^2 = 0.02$). Exploratory analysis showed no significant moderating effect of identity centrality on shared nationality ($b = 0.29$, $SE = 0.28$, $z = 1.05$, $p = .259$, 95% CI for b [-0.25, 0.84], $\beta = 0.01$, 95% CI for β [-0.009, 0.03], partial $R^2 = 0.0001$) and a significant moderating effect of identity centrality on shared moral position ($b = 3.90$, $SE = 0.55$, $z = 7.04$, $p < .001$, $\alpha_{\text{corrected}} = 0.006$, 95% CI for b [2.81, 4.98], $\beta = 0.15$, 95% CI for β [0.11, 0.19], partial $R^2 = 0.03$). The two-part models indicated a more complex pattern for the moderating effects of identity strength and identity centrality on shared nationality (see Supplement for details).

To investigate whether individuals considered their moral positions as more central to their identity and identified more strongly with them compared to their nationality, we conducted two additional exploratory post-hoc paired t -tests. There was no significant difference in centrality between moral positions ($M = 5.37$, $SD = 1.50$) and nationality ($M = 5.17$, $SD = 1.91$), $t(420) = -1.80$, $p = .073$, $d_z = -0.09$, 95% CI for d_z [-0.18, 0.01]. Participants did not identify significantly more strongly with their moral position ($M = 5.59$, $SD = 1.41$) than with their nationality ($M = 5.41$, $SD = 1.41$), $t(420) = -1.37$, $p = .171$, $d_z = -0.07$, 95% CI for d_z [-0.16, 0.03]. Together, these exploratory analyses provide no evidence that one identity dimension was perceived as more central or elicited stronger identification than the other. Thus, differences in prosocial behavior between moral and national identity conditions are unlikely to be attributable simply to differences in participants' subjective identification strength with these identities.

6.3. Summary of key findings

Overall, Study 3 replicated the key findings of Studies 1 and 2 in an experimental setting where national identity and moral position were

systematically manipulated. Individuals again showed higher prosociality toward others who shared their nationality and their moral position, with the effect of shared moral position exceeding that of shared nationality. Notably, the effect of shared moral position was somewhat smaller than in the real-world context (Studies 1 and 2), possibly reflecting that experimental manipulations elicited less emotionally driven responses than real-world interactions. Importantly, when we examined whether participants thought about a real-world conflict while making their decisions, we found that the effects did not significantly differ, indicating that the observed patterns are robust across both abstract and real-world settings. These results provide further evidence that both shared nationality and shared moral position independently shape prosocial behavior, with the effect of shared moral position consistently exceeding that of shared nationality across contexts, including a controlled experimental setting.

7. General discussion

In the present research, we investigated how shared nationality and shared moral positions jointly shape prosocial behavior by applying a crossed-categorization approach to the intersection of nationality and moral position. Across a pilot study, two cross-national studies situated in the context of the Russo-Ukrainian War, and a controlled experimental study, we consistently found that both shared nationality and shared moral positions additively fostered prosocial behavior. The largely additive pattern of effects indicates that both shared nationality and shared moral position constitute meaningful bases for prosocial behavior. At the same time, the consistently larger effect of shared moral position suggests that moral alignment may represent a particularly influential basis for prosociality across national boundaries. These findings contribute to the literature on intergroup relations and prosocial behavior by demonstrating how multiple social identities jointly shape prosocial behavior and by identifying shared moral positions as an important basis for fostering prosociality across national boundaries.

7.1. Intergroup bias in nationality- and morality-based groups

Consistent with previous multinational studies, participants displayed nationality-based intergroup bias, showing greater prosociality toward co-nationals than toward individuals from other nations (Clemens et al., 2025; Dorrough & Glöckner, 2016; Romano et al., 2021). This finding replicates evidence that national identity serves as a meaningful basis for prosocial behavior and cooperation across diverse cultural contexts.

At the same time, participants consistently showed greater prosociality toward others who shared their moral position than toward those who did not. This finding is consistent with previous studies that report intergroup bias in morality-based groups. (Curry et al., 2019; Grigoryan, Seo, et al., 2023; Weisel & Böhm, 2015). Importantly, these effects were consistent across different operationalizations of moral positions, suggesting that it is the underlying moral values – such as harm/care or loyalty/punishment – that drive prosocial behavior. According to Moral Foundations Theory, these values are assumed to be universal (Graham et al., 2013; Haidt, 2012) and can signal trustworthiness, thereby promoting prosocial behavior (Curry, 2016; Haidt, 2012). Overall, these findings highlight the important role of moral alignment in guiding prosocial behavior, alongside the influence of national identity, and show that underlying moral values can promote prosocial behavior across group boundaries.

Consistent with research on crossed-categorization (Crisp & Hewstone, 2007), both social categories shaped prosocial behavior, demonstrating that nationality and moral position constitute meaningful bases of intergroup differentiation. This pattern is most consistent with an additive integration account, suggesting that both group memberships independently contribute to prosocial behavior. Importantly, however, these categories were not weighted equally. Across

studies, the effect of shared moral position was substantially larger than the effect of shared nationality. In the studies embedded in real-world conflict contexts (Studies 1 and 2), morality-based intergroup bias was approximately six times larger than nationality-based intergroup bias. Moreover, the effect of shared moral position exceeded the magnitude of the largest national ingroup favoritism effects reported in previous cross-national research, including studies examining historically rivalrous nations such as Japan and China (Froehlich et al., 2021) or Turkey and Saudi Arabia (Clemens et al., 2025). This asymmetry suggests that although nationality remains an important basis for social categorization, moral positions may receive greater weight when individuals evaluate others in contexts where moral issues are salient. This finding is consistent with previous work suggesting that morality-based group memberships can strongly shape social evaluations, cooperation, and intergroup behavior (Grigoryan, Seo, et al., 2023; Koch et al., 2020; Parker & Janoff-Bulman, 2013; Weisel & Böhm, 2015). Thus, moral alignment may provide an additional basis for prosociality across national borders, potentially creating opportunities for prosocial behavior among individuals who differ in broader group memberships such as nationality. More broadly, identifying shared moral positions may represent one avenue through which common ground can emerge across otherwise meaningful social boundaries.

Study 3 further demonstrated that these patterns were not limited to the specific geopolitical context of the Russo-Ukrainian War. Although Studies 1 and 2 were situated in an ongoing international conflict, the effects of shared moral position replicated in a controlled fictional intergroup setting. Notably, while approximately half of the participants reported thinking about a real-world conflict during the task, the effects of shared moral position did not differ between those who did and those who did not. This finding suggests that the observed effects cannot be solely attributed to participants' spontaneous associations with contemporary conflicts or the specific circumstances of the Russo-Ukrainian War. However, the use of experimentally created group identities also represents a trade-off. Whereas this approach increases experimental control by reducing pre-existing associations between nationality and moral positions, fictional identities may carry less emotional significance than established national identities. Thus, Study 3 should not be interpreted as a direct replication of real-world national conflicts, but rather as complementary evidence that the observed pattern is not solely dependent on the specific geopolitical context examined in Studies 1 and 2. Importantly, although the difference between morality-based and nationality-based favoritism was somewhat smaller in Study 3 than in Studies 1 and 2, participants continued to differentiate more strongly between shared and non-shared moral positions than between shared and non-shared nationalities. Together, these findings suggest that shared moral position represents a meaningful basis for prosociality across different intergroup contexts.

7.2. Moderating effects of identity centrality and identity strength

Identity centrality and identity strength generally moderated the strength of intergroup bias within individuals based on moral positions and, more inconsistently, nationality. That is, individuals who identified more strongly with their nationality and moral positions and considered these two as more central showed a stronger intergroup bias than those who did not. These findings contribute to the research on the association between ingroup identification and intergroup bias (Balliet et al., 2014; Brewer, 1999). First, our findings generally align with the assumptions of SIT (Tajfel, 1978; Tajfel & Turner, 1979). The extent to which an individual identifies with a categorization dimension determines the strength of their motivation for positive distinctiveness, resulting in a greater intergroup bias in that dimension. Secondly, research on crossed-categorization has been mixed, with evidence indicating that the moderating effect of ingroup identification on the strength of intergroup bias only appears in the dominant category in a given context (Grigoryan, 2020a). Previous research has discussed whether the

moderating effect of ingroup identification is contingent upon the dominance of the dimension or whether this is simply a matter of statistical power (Grigoryan, 2020a). Our study consistently showed a moderating effect of ingroup identification and intergroup bias for the dominant category, the moral position. This effect was notably stronger and more robust than for the non-dominant category, nationality. However, Studies 2 and 3 also showed a small but significant moderating effect of ingroup identification on intergroup bias in nationality. This suggests that previous findings (Grigoryan, 2020a) might at least partly reflect issues of statistical power. However, given the small effect size in our study, this interpretation should be treated cautiously. Further research using high-powered designs and a broader range of social categories is needed to assess the robustness of these moderating effects and their boundary conditions.

As ingroup identification significantly moderated the level of intergroup bias, it raises the question whether an increased ingroup identification within a given social category might also be associated with a stronger intergroup bias in one social category compared to another. Post-hoc analyses do not support this explanation, as individuals did not consistently perceive their moral position as more central to their self-concept than their nationality. The stronger effect of shared moral position despite comparable levels of identification raises an important question about how the relative influence of multiple social categories is determined. While crossed-categorization models explain how multiple social categories jointly shape intergroup responses (Crisp & Hewstone, 2007; Migdal et al., 1998), less is known about how individuals determine the relative relevance of different categories when these categories provide competing bases for social evaluation. Our findings suggest that the behavioral relevance of a social category is not solely determined by its importance for individuals' broader self-concept. Rather, consistent with Social Categorization Theory (Turner et al., 1987), the impact of a category may depend on its relevance for the specific judgment and social context. Although nationality may represent a more stable and central aspect of identity, moral positions may become particularly influential when they provide a more diagnostic basis for evaluating others in contexts where moral considerations are directly relevant. Thus, individuals may rely on moral positions not because these identities are necessarily more central, but because they may provide a more relevant basis for social evaluation in morally charged contexts.

7.3. Limitations and future directions

Some limitations of the studies are worth noting. The first limitation concerns generalization to real-world prosocial behavior. Prior research (e.g., Benz & Meier, 2008; Thielmann et al., 2021) suggests that incentivized prosocial decisions in the lab correlate reliably with generosity outside the lab, supporting the external validity of our approach. However, although Studies 2 and 3 involved real monetary transfers as prosocial behavior, these were still relatively small-scale and specific to the experimental tasks. Therefore, generalization to larger or real-world prosocial behavior should be made with caution.

A second limitation concerns our approach to data collection and the specific sample. We relied on online panel providers, which can raise concerns about participant attentiveness and engagement. To support attention, we kept the studies short, provided example items to familiarize participants with the tasks, and used real monetary incentives in Studies 2 and 3, which likely promoted careful decision-making. Importantly, data quality on Prolific (Study 3) is generally high (Douglas et al., 2023; Esch et al., 2025), and our results were highly consistent across studies, suggesting that these limitations did not substantially affect the findings. Nevertheless, future research could complement online studies with field experiments or other naturalistic designs to further test the robustness and ecological validity of the observed effects.

A third limitation concerns the absence of individual-level measures in Studies 1 and 2 that might covary with both moral alignment and

prosocial behavior, such as personal moral values, political orientation, or religiosity, and therefore potentially moderate the observed effects. Study 3 addressed this limitation by including such measures, that is political orientation and own moral values. Indeed, we found that shared moral position significantly interacted with participants' own moral values, indicating that individuals with stronger moral values showed greater morality-based intergroup bias. Future research should therefore incorporate relevant individual differences more systematically to understand the psychological processes underlying morality-based favoritism better.

8. Conclusion

Our findings demonstrate that both shared moral position and shared national identity constitute meaningful bases for intergroup prosocial behavior in times of severe intergroup conflict. Across studies, both categories exerted largely additive effects, suggesting that individuals integrate information from multiple social categories when evaluating others. At the same time, moral alignment consistently exerted a stronger effect on prosocial behavior than national identity, both in the context of a real-world international conflict and in a fictional intergroup setting. Intergroup bias increased with ingroup identification only for morality-based, not nationality-based identities. Differences in ingroup identification could not account for the stronger morality-based bias. Together, these findings suggest that, when multiple social categorizations are salient in cross-national contexts, shared moral positions foster prosociality across national borders. Future research could investigate whether similar patterns emerge when including nations that are directly involved in ongoing conflicts versus nations that are more distantly affected by them. Such comparisons could shed light on whether the relative influence of moral alignment and national identity changes when national identities themselves become directly implicated in conflict. Additionally, it would be valuable to examine whether the stronger effect of moral alignment extends to other moral domains, such as environmental, political, or religious issues, to determine whether its influence is specific to war-related moral concerns or generalizes more broadly.

Author note

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CRediT authorship contribution statement

Vanessa Clemens: Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Jasper Z. Siol:** Writing – review & editing, Project administration, Methodology, Investigation, Conceptualization. **Lusine Grigoryan:** Writing – review & editing, Supervision, Conceptualization. **Andreas Glöckner:** Writing – review & editing, Supervision, Funding acquisition, Conceptualization. **Angela R. Dorrough:** Writing – review & editing, Supervision, Funding acquisition, Conceptualization.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used Grammarly (<https://www.grammarly.com/>) and ChatGPT (chat.openai.com) to check spelling and grammar, rewrite and shorten some text passages. After using these tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Declaration of Interest: One of the authors, Prof. Dr. Angela Dorrough, is a guest editor for the special issue to which this manuscript is submitted. She was not involved in the editorial or review process for this submission. The remaining authors declare no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jesp.2026.104989>.

Data availability

The data and analysis code for this study are publicly available on the Open Science Framework (OSF).

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