Journal of Experimental Social Psychology 121 (2025) 104810

Contents lists available at ScienceDirect

Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp

Social identity complexity mitigates outgroup derogation in moral judgment☆

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ARTICLE INFO

Keywords:
Social identity complexity
Intergroup bias
Moral judgment
Social perception
Outgroup derogation
Political identity

ABSTRACT

When people learn of a transgressive act, their judgments of moral wrongness and assignments of punishment often reflect intergroup bias; they respond more harshly to outgroup transgressions than ingroup transgressions. Prior work shows that individuals with stronger ingroup identity exhibit greater intergroup bias. In the present work, we investigated how social identity complexity, the relationships between one's ingroup identity and their other social identities, influence this bias. Individuals with tightly overlapping identities, indicative of low identity complexity, tend to display greater outgroup prejudice. Across four studies ($N = 2215$), we found that individuals with high social identity complexity judge outgroup transgressors less harshly. These effects were driven by more individualized impressions of transgressors, weaker ingroup attachment, and reduced group conflict avoidance, suggesting that social identity complexity mitigates cognitive and motivational bases of intergroup bias.

1. Introduction

When people learn that a moral violation has occurred, their responses, including judgments of wrongness and assignments of punishment, are often characterized by intergroup bias. That is, people tend to evaluate transgressions committed by outgroup members more harshly than those committed by ingroup members (Abrams et al., 2013; Valdesolo & DeSteno, 2008), assigning greater blame and punishment to outgroup perpetrators (Schiller et al., 2014; Yudkin et al., 2016). These biased responses are often motivated by a desire to maintain positive ingroup distinctiveness, a positive view of oneself and one's group relative to the outgroup (Tajfel & Turner, 1979). Harsh moral judgments of outgroup members may serve to affirm the ingroup's moral superiority by contrast. This motivation is especially high among those who are most attached to the ingroup and view it as superior (Bocian et al., 2021). Research on the impact of social identity on moral judgment has largely focused on one lever of change: the single *salient identity*. Therefore, it is not well understood how relationships between the salient identity and an individual's multiple *other* social identities influence moral judgment. Emerging work suggests that the way people mentally organize their multiple group memberships, conceptualized as social identity complexity (SIC; Roccas & Brewer, 2002), may also shape how they perceive and respond to outgroup members. In the current work, we investigate how SIC influences moral judgments of outgroup transgressors.

SIC describes the perceived overlap and similarity of individuals' multiple social identities (Roccas & Brewer, 2002). Those who perceive their multiple social groups to be highly similar and highly overlapping (i.e., members of one of their social groups also tend to be members of their other social groups) are considered to have low social identity complexity. For instance, a white, conservative, male Christian may perceive their social groups as being comprised of many of the same people and that those people tend to share many attributes. In contrast, those who perceive their multiple social groups to be less similar and minimally overlapping (i.e., members of one of their social groups do not tend to also belong to their other social groups) are considered to have high social identity complexity. For instance, liberal Christians and black Republicans may perceive their social groups as being largely comprised of different people and that these people have largely unique characteristics.

1.1. SIC and outgroup bias

Prior work demonstrates that SIC is associated with lower prejudice,

☆ This paper has been recommended for acceptance by Paul Conway

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https://doi.org/10.1016/j.jesp.2025.104810
Received 2 January 2025; Received in revised form 10 July 2025; Accepted 25 July 2025
Available online 31 July 2025

greater tolerance, and warmer attitudes toward outgroup members (Knifsend & Juvonen, 2014; Miller et al., 2009; Schmid et al., 2009). This may be because individuals high in SIC tend to perceive intergroup boundaries as more flexible, undermining belief in group-based stereotypes (Loustau & Nicolas, 2025). Individuals high in SIC are also theorized have greater self-concept flexibility and to have more frequent exposure to outgroup members (Brewer, 2010; Roccas & Brewer, 2002), which may further dampen biases against outgroup members.

Despite this growing body of work on SIC and intergroup attitudes, research directly investigating its impact on moral judgment across group boundaries remains limited. One study by Costabile and Austin (2018) examined whether SIC would impact the guilt and shame of students in response to a campus riot. Students who were highly identified with the ingroup (i.e., the university) tended to react defensively, showing less guilt and shame in response to the riot. Importantly, however, highly identified students who were high in SIC reported more guilt and shame, suggesting SIC may mitigate against the self-image threats, promoting more self-critical responses of the ingroup. Although this study did not examine reactions to outgroup transgressions, the findings suggest that SIC may reduce the need to maintain positive ingroup distinctiveness, thereby lessening outgroup derogation in moral judgments.

Based on this foundation, we proposed the following hypothesis:

*H1: Participants with greater social identity complexity (*SIC*) will judge outgroup transgressors less harshly.*

In the present work, we build on previous findings by examining a range of cognitive, motivational, relational, and affective mechanisms through which SIC may shape moral judgments of outgroup transgressors.

1.2. Cognitive pathways: SIC and perceptions of outgroup transgressors

1.2.1. Perceived typicality of outgroup transgressors

Regarding the cognitive mechanisms that may drive the effect of SIC on moral judgments, we focus on three key perceptions. For one, we examine individuals' perceptions of the prototypicality of transgressors, or the extent to which they are seen as exemplifying their social group. Perceived typicality plays a key role in moderating the impact of group attitudes on behavior toward individual group members. Group attitudes tend to have a stronger impact on behavior directed at typical group members than atypical ones (Lord et al., 1991). In other words, individuals are more likely to project broad negative outgroup attitudes onto outgroup members they perceive as highly typical of the outgroup. Thus, perceiving outgroup members as less typical may mitigate the influence of intergroup bias.

One reason outgroup members are often seen as more prototypical than ingroup members is because of the tendency to perceive outgroups as more homogenous than ingroups (Linville & Fischer, 1993). When a group is perceived as homogenous and highly entitative, defined by rigid boundaries and internal cohesion (Lickel et al., 2000), its members are more likely to be seen as interchangeable and representative of the group as a whole (Crawford et al., 2002; Lambert & Wyer, 1990). Individuals high in SIC, however, may be more likely to encounter counterstereotypical outgroup exemplars (Linville & Fischer, 1993) and be less motivated to discount the diversity within outgroups, reducing the propensity to view outgroups as stereotypical and homogeneous.

H2: Participants with greater SIC *will perceive outgroup transgressors to be less typical group members (a), which will be associated with judging outgroup transgressors less harshly (b).*

1.2.2. Perceived diagnosticity of social categories

Moreover, exposure to group heterogeneity likely undermines the perceived reliability of social categories as indicators of their individual members' traits and behaviors, reducing the emphasis that individuals high in SIC place on social category membership for forming impressions of others. Group memberships, such as political party affiliations, are often treated as diagnostic cues that shape how people interpret others' actions, values, and moral character (Fiske & Neuberg, 1990). Viewing group membership as highly diagnostic may reinforce stereotypes and amplify intergroup bias by promoting generalized inferences based on group membership (Kunda & Spencer, 2003). However, given their heightened awareness of within-group diversity, individuals high in SIC may be less likely to view outgroup membership as indicative of negative motives or character when evaluating moral transgressors.

H3: Participants with greater SIC *will perceive political identity to be a less diagnostic social category (a), which will be associated with less harsh judgments of outgroup transgressors.*

1.2.3. Perceived similarity to outgroup transgressors

Furthermore, increased recognition of social groups as heterogeneous may also lead individuals high in SIC to perceive the outgroup as more similar to the ingroup. Research on political polarization shows that perceiving the outparty as highly dissimilar, ideologically and demographically, is associated with greater animosity toward its members (Iyengar et al., 2012; Ahler, 2018). By decreasing the perceived distinctiveness of group boundaries, SIC may attenuate bias against outgroup members. Additionally, because individuals high in SIC often hold counterstereotypic or cross-cutting identities, they may feel a sense of shared atypicality with others who deviate from group norms, including those who commit moral transgressions. Such perceptions of personal similarity can have important interpersonal consequences: when people see others as holding similar beliefs or making similar judgments, they tend to like them more and view them as more moral (Bocian et al., 2018; Bruchmann et al., 2018; Ng et al., 2017).

H4: Participants with greater SIC *will perceive themselves as more similar to outgroup transgressors (a), which will be associated with less harsh judgments of outgroup transgressors (b).*

1.3. Motivational pathways: SIC and defensive responses to group threat

1.3.1. Identity strength

In addition to shaping perceptions, SIC likely influences motivational mechanisms that impact moral judgment, such as identity strength. Greater differentiation among one's multiple social identities may reduce the centrality of any single group identity for individuals high in SIC, thereby weaking their attachment to specific groups (Roccas & Brewer, 2002). This differentiation can buffer against identity threats by enabling participants to shift their locus of identity, the primary identity on which they are relying for a positive sense of self and belonging, by drawing on alternative aspects of the self that are less implicated in the threat (Gresky et al., 2005). Reduced identity attachment, in turn, can decrease the need to protect or prioritize the group's image, enabling individuals to approach moral judgments more impartially, focusing on the transgressor's actions rather than their group membership (Huddy et al., 2015).

H5: Participants with greater SIC *will report lower political identity strength (a), which will be associated with judging outgroup transgressors less harshly (b).*

1.3.2. Conflict avoidance

SIC may also influence the extent to which individuals are motivated to avoid conflict and ambiguity. The ability of individuals high in SIC to integrate multiple identities that are often perceived as contradictory into their self-concept suggests a greater tolerance for uncertainty (Roccas & Brewer, 2002). This tolerance may enable individuals high in SIC to navigate situations involving competing group values, norms, or beliefs with less discomfort. Prior research demonstrates that a general aversion to uncertainty and ambiguity increases perceptions of group homogeneity (Roets & Van Hiel, 2011 and promotes stereotyping as a means of simplifying complex social information (Kruglanski & Webster, 1996). Uncertainty avoidance also increases displays of intergroup biases which function to solidify group boundaries and reduce

uncertainty about social hierarchies (Furnham & Ribchester, 1995).

In our work, we focus specifically on how SIC influences aversion to uncertainties stemming from differences and conflicts within and between social groups. Individuals high in SIC are likely to feel more comfortable navigating such conflicts, which may lead them to perceive transgressors as less threatening or disruptive, diminishing the motivation to impose harsh punishments on those who deviate from group norms. Additionally, greater tolerance for group conflict may weaken conformity to group norms (Shaffer et al., 1973), mitigating the pressure to align with biased group attitudes in when evaluating moral transgressors.

H6: Participants with greater SIC *will report lower group conflict avoidance (a), which will be associated with judging outgroup transgressors less harshly (b).*

1.4. Relational and affective pathways: SIC, outgroup contact, and outgroup attitudes

1.4.1. Intergroup contact

Another avenue through which SIC may influence moral judgments is positive intergroup contact experiences. Prior work shows that SIC is associated with greater exposure to diversity and more frequent and higher-quality intergroup contact (Schmid et al., 2009, 2012), factors consistently linked to more positive intergroup attitudes (Pettigrew & Tropp, 2006). Individuals high in SIC may encounter more frequent contact with outgroup members due to their cross-cutting identities or actively seek out diverse interactions and approach these encounters with greater openness, fostering positive intergroup relationships. Individuals high in SIC may also belong to social networks with stronger positive norms regarding intergroup contact, reinforcing their positive engagement with outgroup members.

H7: Participants with greater SIC *will report more frequent positive contact with outgroup members (a), which will be associated with judging outgroup transgressors less harshly (b).*

1.4.2. Outgroup attitudes

Finally, in addition to and extending from the factors discussed above, the impact of SIC on interpersonal attitudes is also important for understanding the influence of SIC on moral judgments. Several prior studies find a positive relationship between SIC and inclusive intergroup attitudes (Schmid et al., 2009, 2012; Roccas & Brewer, 2002), which may foster more compassionate and less punitive evaluations of moral transgressors, particularly outgroup transgressors.

H8: Participants with greater SIC *will report more positive attitudes toward outgroup members (a), which will be associated with judging outgroup transgressors less harshly (b).*

By integrating these cognitive, motivational, relational, and affective mechanisms,[1] this work offers a comprehensive framework for understanding how SIC operates to reduce bias in moral judgments of outgroup members.

2. Current studies

We examined the effect of SIC on outgroup derogation in moral judgment (H1) across four experiments. First, we explored the effects of SIC in a single transgression context (Study 1) using a campus riot scenario adapted from prior work for an experimental setting (Costabile & Austin, 2018). Next, we expanded our investigation to encompass a diverse array of transgression scenarios (Study 2), testing the robustness of SIC's effects across contexts. In Studies 1 and 2, we examined the mediating role of perceived typicality (H2). Finally, Studies 3 and 4 focused on replicating key findings while exploring additional mediators (H3-H8), such as including identity strength and ingroup contact norms.

In the present work, we focused on political intergroup contexts because political identities are highly salient and polarizing, often driving strong intergroup biases in moral judgments and perceptions (Iyengar & Westwood, 2015). This domain provides a robust test of SIC's ability to mitigate such biases.

While our primary aim was to examine the relationship between SIC and moral judgments of outgroup members, we also explored the relationship between SIC and moral judgments of ingroup members, as reported in the Supplementary Materials. Prior work presents alternative hypotheses for the impact of SIC on ingroup judgments, as SIC has been found to be associated with more critical ingroup judgments in some contexts (Costabile & Austin, 2018) and less critical judgments in other cases (Roccas et al., 2022).

Participants in all studies were recruited and compensated via Prolific and completed surveys online via Qualtrics. Details of all measures, manipulations, and exclusions are fully reported in the manuscript or Supplementary Materials. Sample statistics are reported in Table 1.

Hypotheses were preregistered for Studies 2–4. Pre-registrations for Studies 2–4 can be found here: Study 2: https://osf.io/36zsa/?view_only=86156fee5b134d668a1820e23af500f8; Study 3: https://osf.io/b7sva/?view_only=58c7a7bd7a514450b8d7eaf0d74f70d8. Study 4: https://osf.io/fjvxa/?view_only=d8495c9a55b646669eb05ef77049b8d9. All preregistrations included the hypotheses, methods, and analysis plan. Full hypotheses are reported in the Supplementary Materials. There was one minor deviation in the sample size for Study 2, which exceeded the preregistered target due to a Prolific error. All materials, data, and analysis scripts are publicly available: https://osf.io/xj3ed/?view_only=ff8674db0bd446b495061cc331c111ae.

3. Study 1

In Study 1, we investigated the impact of social identity complexity (SIC) on moral judgments and the mediating role of perceptions of the typicality transgressors.

3.1. Participants

Data for Study 1 occurred between June and July 2023. Participants were 740 American adults who took part in one of three pilot studies, 374 of whom were assigned to the outgroup condition. Since the methods and results of the three pilot studies largely converge, we report the combined results. In supplementary analyses, we find that our results hold controlling for study. Results for each individual study can be found in the OSF repository. A sensitivity analysis conducted using the R package "pwr" (Champely, 2020) showed that a sample of 374 provided 80 % power to detect an R-squared of 0.021 or greater for a regression model with 1 predictor, with an alpha of 0.05.

3.2. Procedure

Participants first completed a measure of social identity complexity and then read a vignette depicting a moral transgression. Consistent with prior work (e.g., Knifsend & Juvonen, 2014; Roccas & Brewer, 2002), we measured SIC prior to moral judgments to establish temporal precedence for mediation analyses; notably, prior work has found that SIC is associated with lower bias against outgroups even when SIC is measured after bias (e.g., Miller et al., 2009). Participants were randomly assigned to one of two conditions: In the outgroup condition, transgressors were described as political outgroup members, while in the ingroup condition, transgressors were described as political ingroup members. For Democrats, the outgroup condition featured Republican

[1] While we group these mechanisms into distinct categories for organizational clarity, we do not treat them as rigidly separate; several constructs overlap multiple categories. We also recognize the nuanced interrelationships among these mechanisms, but in the present work, we focus specifically on how each may contribute to explaining the relationship between SIC and moral judgments of outgroup members.

Table 1
Sample Characteristics Across Studies.

	Study 1 ($N = 374$)	Study 2 ($N = 533$)	Study 3 ($N = 651$)	Study 4 ($N = 657$)	Political Complexity (o) (M, SD)	Overall Complexity (o) (M, SD)
Political Complex. (o) (M, SD)	6.00 (1.32)	5.11 (1.07)	5.36 (1.45)	5.54 (1.36)	–	–
Overall Complex. (o) (M, SD)	6.19 (1.31)	5.71 (1.20)	5.57 (1.53)	5.68 (1.42)	–	–
Age (M, SD)	41.86 (14.64)	40.21 (14.02)	39.19 (13.54)	38.18 (14.38)	–	–
Gender						
Woman	202 (54.01 %)	277 (51.97 %)	331 (50.84 %)	320 (48.71 %)	5.44 (1.30)	5.75 (1.34)
Man	165 (44.12 %)	247 (46.34 %)	312 (47.93 %)	328 (49.92 %)	5.47 (1.40)	5.70 (1.47)
Nonbinary/Other	7 (0.02 %)	9 (1.69 %)	8 (1.23 %)	9 (1.37 %)	5.93 (1.33)	6.68 (1.22)
Political Affiliation						
Democrat	213 (56.70 %)	269 (50.47 %)	313 (48.08 %)	340 (51.75 %)	5.12 (1.38)	5.31 (1.42)
Republican	75 (20.05 %)	264 (49.53 %)	338 (51.92 %)	317 (48.25 %)	5.59 (1.27)	5.99 (1.30)
Independent/Other	86 (22.99 %)	–	–	–	6.74 (1.32)	6.56 (1.30)
Race/Ethnicity						
White	266 (71.12 %)	369 (69.23 %)	415 (63.75 %)	355 (54.03 %)	5.47 (1.29)	5.78 (1.31)
Black/African American	38 (10.16 %)	75 (14.07 %)	143 (21.97 %)	195 (29.68 %)	5.01 (1.44)	5.10 (1.51)
Hispanic/Latino	37 (9.89 %)	35 (6.57 %)	37 (5.68 %)	43 (6.54 %)	6.01 (1.33)	6.33 (1.28)
Asian	20 (5.35 %)	44 (8.26 %)	32 (4.92 %)	36 (5.48 %)	5.94 (1.18)	6.46 (1.23)
American Indian or Alaskan Native	3 (0.80 %)	3 (0.56 %)	6 (0.92 %)	4 (0.61 %)	6.08 (0.66)	6.41 (0.85)
Native Hawaiian or Pacific Islander	1 (0.27 %)	0	0	0	5.67	5.25
Multiracial	9 (2.41 %)	6 (1.13 %)	14 (2.15 %)	17 (2.59 %)	6.04 (1.28)	6.37 (1.43)
Other	0	1 (0.19 %)	4 (0.61 %)	7 (1.07 %)	5.43 (2.10)	5.96 (2.13)

Note. For Race/Ethnicity, the "other" category comprised fill-in-the-blank responses, such as "Jewish" and "Middle Eastern."

transgressors, and vice versa for Republicans. Since the Independent identity is defined, in part, by a lack of strong alignment with either major political party, Independents were shown "political partisans" in the outgroup condition. The vignette, adapted from Costabile and Austin (2018)'s field study, depicted a campus riot scenario:

> *"Imagine the following: In response to an upcoming talk scheduled to be delivered at a local college in your area by a controversial speaker, [political ingroup/outgroup] members of the community launch a protest on the campus. The protest breaks out into a riot, resulting in significant damages, estimated around $100,000."*

After the transgression, participants provided moral judgments of the transgression and transgressors, evaluated the typicality of the transgressors within their political group, and indicated their disengage from and lose respect for the transgressors' political group.

3.3. Measures

3.3.1. Social Identity Complexity (SIC)

In line with prior work (e.g., Miller et al., 2009), we examined social identity complexity of four of participants' important social groups: political affiliation, religion, race, and a fourth identity of their choice (e.g., occupation, hobby, sexual orientation). The top six most frequently reported fourth identities were sexualities, parenthood, occupations, gender identities, athletic identities and creative identities, accounting for over 65 % of responses in each study. A complete breakdown of the additional identities is provided in the Supplementary Materials.

We used Roccas and Brewer (2002)'s framework of SIC, which measures two aspects of SIC: *membership overlap*, the perceived degree of shared membership between one's social groups, and *similarity*, the perceived similarity between one's social groups. Overall complexity was computed based on all four identities, while political complexity specifically assessed the overlap and similarity between political identity and the other three identities (see Fig. 1). As preregistered, we expected that political complexity may have stronger effects than overall complexity, given that the relationships between the salient identity and one's other identities may have a stronger impact on perceptions and judgments in an intergroup context.

Overall Complexity: Overlap. Participants indicated how many members of each one of their four social groups are also members of each of their other social groups (e.g., "How many [members of Group A] are also [members of Group B]?") on an 11-point scale (1 = None are; 6 = Half are; 11 = All are). For each pair of groups, the question was also asked in the alternative direction (e.g., "How many [members of Group B] are also [members of Group A]?"). Scores based on these 11 items were reverse-coded and averaged such that higher scores correspond to lower perceived overlap of one's groups.

Political Complexity: Overlap. The six items from the above question which included political affiliation (e.g., "How many Democrats are also [members of Group B]?") were reverse-coded and averaged such that higher scores correspond to lower perceived overlap of one's political group and their other three groups.

Overall Complexity: Similarity. Participants indicated how similar a typical member of each one of their four social groups are to a typical member of each of their other social groups (e.g., "How similar is a typical [member of Group A] to a typical [member of Group B]?") on a 7-point scale (1 = Extremely different; 7 = Extremely similar). Scores based on these 6 items were reverse-coded and averaged such that higher scores correspond to lower perceived similarity of one's groups.

Political Complexity: Similarity. The three items from the above question which included political affiliation (e.g., "How similar is a typical Democrat to a typical [member of Group B]?") were reverse-coded and averaged such that high scores correspond to lower perceived similarity of one's political group and their other three groups.

3.3.2. Negative moral judgment

Participants rated the moral wrongness of the transgressors' actions (1 = Not at all wrong; 5 = Extremely wrong), the moral badness of the transgressors' character (1 = "Not at all bad"; 5 = "Extremely bad"), and how much punishment the transgressors should receive for their actions (1 = "No punishment"; 5 = "Maximum punishment") on 5-point Likert scales. Across studies, responses on these items were highly consistent ($\alpha s > 0.80$), so they were averaged to create a negative moral judgment score. See OSF repository for the separate results for each outcome.

3.3.3. Perceived typicality of the transgressors (H2)

Participants rated how typical the transgressors were of their political group on a 5-point Likert scale (1 = "Not at all typical"; 5 = "Very typical").

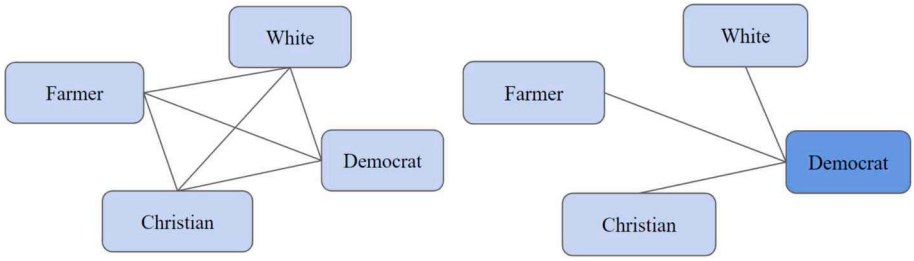

Fig. 1. Distinguishing Between Overall Complexity (Left) and Political Complexity (Right).

3.4. Results

All results were analyzed in RStudio. To examine the impact of SIC on judgments of outgroup transgressors, and our proposed mediators, we fitted a series of linear regression models. In line with prior work (Roccas & Brewer, 2002), overlap (o) and similarity (s) were tested as unique predictors in separate models. This approach yielded four measures of SIC: political complexity (o), political complexity (s), overall complexity (o) and overall complexity (s). To test the robustness of the effects, we used the "emmeans" package to estimate the marginal effect of SIC for each level of participant race, party, religion, and gender. The results are summarized in Fig. 2 and Table 2.

As expected, participants in the outgroup condition judged transgressors more harshly than those in the ingroup condition. Supporting H1, all measures of SIC were associated with less harsh judgments of outgroup transgressors. These effects were consistent across Democrats, Republicans,[2] all levels of gender, and most levels of religion and race. We report estimated marginal effects in full on the OSF project page. No measures of SIC were significantly associated with judgments of ingroup transgressors, suggesting that SIC mitigates intergroup bias primarily by reducing derogation of outgroup members rather than by increasing leniency toward ingroup members. We report the interactions between SIC and Group (Ingroup vs. Outgroup) and the effect of SIC on judgments of ingroup transgressors in the Supplementary Materials.

3.4.1. Mediation analysis

To test whether the effect of SIC on moral judgments of the outgroup was mediated by the perceived typicality of outgroup transgressors, we conducted a causal mediation analysis using the "mediation" package in R (Tingley et al., 2014). Supporting H2, results revealed a significant indirect effect of political complexity (o) on judgments of outgroup transgressors through perceived typicality, ACME = −0.01, 95 % CI [−0.03, −0.01], $p = .010$. The direct effect of political complexity (o) on judgment remained significant, ADE = −0.07, 95 % CI [−0.13, −0.01], $p = .034$, indicating partial mediation. A similar pattern was observed for overall complexity (o), which had a significant indirect effect on judgments of outgroup transgressors through perceived typicality, ACME = −0.01, 95 % CI [−0.03, −0.01], $p = .024$. The direct effect of overall complexity (o) on judgment did not remain significant, ADE = −0.06, 95 % CI [−0.12, 0.01], $p = .086$. Perceived typicality did not significantly mediate the effects of political complexity (s) or overall complexity (s). Mediation models for political complexity (s) and overall complexity (s) are reported in the Supplementary Materials.

3.5. Study 1 discussion

In Study 1, we expanded upon prior work investigating the impact of SIC on evaluations of ingroup transgressors in a campus riot scenario (Costabile & Austin, 2018) by investigating the impact of SIC on moral judgments of both ingroup and outgroup transgressors in a campus riot scenario in a controlled, experimental setting. Study 1 demonstrates that SIC is associated with reduced outgroup derogation in moral judgments. High scores on all four measures of SIC were linked with judging outgroup transgressors less harshly, while judgments of ingroup transgressors remained unaffected. These results suggest that SIC reduces intergroup bias in moral judgments by mitigating harsh evaluations of outgroup members rather than altering perceptions of ingroup members.

Additionally, we found that the effects of political complexity (o) and overall complexity (o) on judgments of outgroup transgressors were significantly mediated by perceptions of typicality. Participants high in these measures of SIC perceived outgroup transgressors as less typical group members, fostering more individualized moral judgments that were less skewed by negative perceptions of the outgroup. This supports prior research linking SIC to greater cognitive flexibility and outgroup tolerance (Roccas & Brewer, 2002). In contrast, perceived typicality did not significantly mediate the effects of political complexity (s) and overall complexity (s), suggesting the influence of perceived membership overlap and similarity among one's social groups on moral judgments of outgroup members may operate through alternative mechanisms.

4. Study 2

In Study 2, we aimed to replicate the findings from Study 1 and test the robustness of the effects of SIC across a broader range of transgression scenarios. By examining multiple contexts, we sought to determine whether the mitigating impact of SIC on bias against outgroup members in moral judgment generalizes beyond a single type of transgression.

4.1. Participants

Data for Study 2 were collected in January 2024. As preregistered, participants were 1188 American adults, 533 of whom were assigned to the outgroup condition. Sensitivity analyses conducted using the package "pwr" showed that a sample size of 533 provided 80 % power to detect an R-squared of 0.02 or greater for a regression model with 1 predictor, with an alpha of 0.5.

4.2. Procedure

Study 2 followed the same design as Study 1, but included six transgression scenarios, displayed in a random order. Transgressions included 1) the campus riot scenario from Study 1, 2) teachers unfairly grading students who speak out against their political views in class, 3) charity organizers stealing donations for personal vacations, 4) pedestrians attacking peaceful protestors, 5) city council members allowing their friends to break zoning laws, and 6) journalists spreading misinformation to promote their favorite politicians. We selected

[2] The estimated marginal effects of SIC among Independent/Other participants were small, positive, and insignificant (estimates <0.03). There was no significant main effect of party on outgroup judgments. Although Independents were not included in subsequent studies, future work may examine whether the influence of SIC differs for Independents.

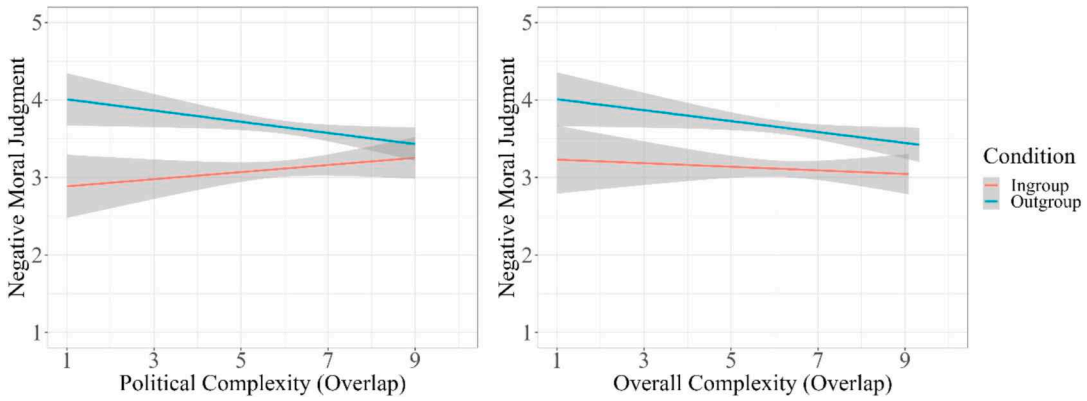

Fig. 2. Effect of Social Identity Complexity (Overlap) on Moral Judgments.

Table 2
Effects of Social Identity Complexity on Negative Moral Judgment of Outgroup Transgressors in Study 1.

	β	SE	t-value	*p*	*95 % CI*
Political Complexity: Overlap	−0.11	0.04	−2.51	0.013	[−0.19, −0.02]
Political Complexity: Similarity	−0.12	0.04	−2.64	0.009	[−0.20, −0.03]
Overall Complexity: Overlap	−0.09	0.04	−2.14	0.033	[−0.18, −0.01]
Overall Complexity: Similarity	−0.12	0.04	−2.70	0.007	[−0.20, −0.03]

transgressions that represented a variety of morally relevant domains and, to reduce participant response bias, were in some way tied to political affiliation.

4.3. Measures

Participants completed the same measures as Study 1 in addition to two exploratory measures, openness to intergroup contact and loss of respect for ingroup and outgroup members. Items and results for these exploratory measures are reported in the Supplementary Materials.

4.4. Results

To examine the impact of SIC, measured as perceived overlap,[3] across scenarios, we fit linear mixed-effects models using the package "lme". Scenario and participant id were entered as random intercepts. We used the "emmeans" package to estimate the marginal effect of SIC for each level of participant race, party, religion, and gender. Results are summarized in Table 3. Again, we report the association between SIC and judgments of outgroup transgressors in the main text and report the association between SIC and judgments of ingroup transgressors in Supplementary Materials.

As in Study 1, there was a main effect of group such that participants judged outgroup transgressors more harshly than ingroup transgressors. Consistent with Study 1 and H1, political complexity (o) and overlap complexity (o) were associated with less harsh judgments of outgroup transgressors. These effects were consistent across both parties, and most levels of religion, race, and gender. We report estimated marginal effects in full on the OSF project page. Again, political complexity (o) and overlap complexity (o) were not significantly related to judgments of ingroup transgressors.

Table 3
Effects of Social Identity Complexity on Negative Moral Judgment in Study 2.

	β	SE	t-value	*p*	*95 % CI*
Political Complexity: Overlap	−0.05	0.03	−1.99	0.046	[−0.10, −0.01]
Overall Complexity: Overlap	−0.05	0.03	−1.85	0.064	[−0.10, 0.01]

4.4.1. Mediation analysis

Supporting H2, causal mediation analysis revealed a significant indirect effect of political complexity (o) on judgments of outgroup transgressors through typicality, ACME = −0.03, 95 % CI [−0.04, −0.02], $p < .001$. The direct effect of political complexity (o) on judgment did not remain significant, ADE = −0.02, 95 % CI [−0.04, 0.01], $p = .250$. Similarly, results also showed a significant indirect effect of overall complexity (o) on judgments of outgroup transgressors through typicality, ACME = −0.03, 95 % CI [−0.03, −0.02], $p < .001$. The direct effect of overall complexity (o) on judgment did not remain significant, ADE = −0.01, 95 % CI [−0.04, 0.01], $p = .260$. These results indicated that perceived typicality fully mediated the relationship between SIC, measured as perceived overlap, and outgroup judgments in this study.

4.5. Study 2 Discussion

In Study 2, we aimed to replicate and extend the findings from Study 1 by examining the impact of SIC across a broader range of transgression scenarios. As found in Study 1, higher SIC, measured as perceived overlap, was associated with less harsh moral judgments of outgroup transgressors and not significantly associated with judgments of ingroup transgressors, further supporting the idea that SIC primarily mitigates outgroup derogation in moral judgments rather than ingroup favoritism. Again, the effects of perceived overlap were highly consistent across party, race, religion, and gender.

Mediation analyses reinforced the role of perceived typicality as a key mechanism underlying the effect of SIC on moral judgments of outgroup members. As in Study 1, perceiving outgroup transgressor as less typical mediated the mitigating effect of SIC on outgroup judgments.

While Studies 1 and 2 consistently demonstrated the mediating role of perceived typicality, other potential cognitive, motivational, relational, and affective mechanisms remain unexplored. Prior theoretical work (e.g., Brewer, 2010) suggests that SIC may reduce intergroup bias

[3] Prior work suggests that overlap complexity may have a stronger influence on intergroup bias than similarity complexity (Roccas & Brewer, 2002). Since the effect of SIC on moral judgments is expected to be driven, in part, by perceptions of group heterogeneity, the perceived overlap measure of SIC is likely more directly relevant to these judgments. Accordingly, we focus on overlap complexity in subsequent analyses, while results for similarity complexity are provided in the Supplementary Materials.

by fostering greater self-concept flexibility, weakening identity-based defensiveness, and increasing tolerance for ambiguity and conflict. Additionally, SIC may influence relational factors, such as intergroup contact experiences, and affective factors, such as warmth toward outgroup members. To gain a more comprehensive understanding of how SIC shapes moral judgment, Study 3 examines these additional pathways.

5. Study 3

In Study 3, we aimed to replicate the findings from Studies 1 and 2 while expanding the scope of our investigation to include additional potential mechanisms underlying the relationship between SIC on moral judgment.

5.1. Participants

Data for Study 3 were collected in October 2024. Participants for Study 3 were 1302 American adults, 651 of which were in the outgroup condition. Since our primary aim was to understand the factors driving the effect of SIC on judgments of outgroup transgressors, we focus on the results for the outgroup condition. Results for the ingroup condition are reported in the Supplementary Materials. A sensitivity analysis conducted using the R package "pwr" showed that a sample of 651 provided 80 % power to detect an R-squared of 0.01 or greater for a regression model with 1 predictor, with an alpha of 0.05.

5.2. Procedure

Study 3 followed the same design as Study 2 along with additional measures designed to assess a broader range of mediators, presented in a random order.

5.3. Measures

Participants completed the same measures as Study 2 in addition to the following.

5.3.1. Perceived diagnositicity of political identity (H3)

We define identity diagnosticity as the extent to which an individual believes that a given identity is a reliable indicator of their broader beliefs, values, traits, interests, demographic background, and behaviors. It captures how much people assume they can infer about someone based solely on their political affiliation. In a pilot study, we identified nine items ($\alpha = 0.96$) to measure the perceived diagnosticity of political identity, such as "Knowing a person's political party provides a clearer picture of who they are than any other personal characteristic" and "Political ideology alone can tell me whether I will get along with someone or not, regardless of any other factors". Participants indicated the extent to which they agreed or disagreed with each of these statements on 6-point Likert scale from "Strongly disagree" to "Strongly agree".

5.3.2. Perceived similarity (H4)

Participants rated how similar they felt to the transgressors on a 7-point Likert scale from "Not at all" to "Extremely."

5.3.3. Identity strength (H5)

Identity strength was assessed using the four-item ($\alpha = 0.88$) Partisan Identity measure (Huddy et al., 2015), which includes items such as "How important is being a [Democrat/Republican] to you?" and "To what extent do you think of yourself as [Democrat/Republican]?"

5.3.4. Conflict avoidance (H6)

Participants indicated how often they feel a need to resolve intergroup conflicts (e.g., "I encounter situations where I need to bring together ideas from different groups that seem to be in conflict") on a 6-pt Likert scale from "Never" to "Very often".

5.3.5. Outgroup contact quantity and quality (H7)

The frequency and quality of contact with political outgroup members was measured using an extended version of the General Intergroup Contact Quantity and Contact Quality (CQCQ) scale (Islam & Hewstone, 1993). Contact quantity ($\alpha = 0.90$) was measured by asking participants how much contact they have with [Democrats/Republicans] in seven different contexts (e.g., "as colleagues", "as friends") on a 7-point scale from "None at all" to "A great deal". Contact quality ($\alpha = 0.88$) was measured by asking participants the extent to which they experience contact with [Democrats/Republicans] as each of seven different adjectives (e.g., authentic, comfortable) on a 7-point scale from "Not at all" to "Very".

5.4. Results

To examine the impact of political complexity (o) on judgments of outgroup transgressors, we fit a multilevel regression model with random effects for participant and scenario. Supporting H1, we found that political complexity (o) was associated with less negative judgments of outgroup transgressors, $\beta = -0.05$, SE = 0.02, $t(649) = -2.03$, $p = .043$, 95 % CI[−0.09, −0.01]. The estimated marginal effect of political complexity (o) was consistent across both parties, all levels of gender, and most levels of race and religion.

To test our mediation hypotheses, we conducted a parallel mediation model using the "lavaan" package in R with 5000 simulations. To determine which mediators to include in the model, we first fit a series of regression models to inspect the effect of SIC on each proposed mediator (Fig. 3). Simple linear regression models were used to examine the association between SIC and each individual-level mediator (i.e., identity strength, perceived diagnosticity of political identity, outgroup contact quantity and quality). Multilevel regression models with participant and scenario entered as random effects were used to examine the association between SIC and each judgment-level mediator (i.e., perceived typicality of transgressors, perceived similarity between oneself and the transgressors).

Supporting our hypotheses, higher political complexity (o) was associated with perceiving transgressors to be less typical members of their groups (H2a), perceiving political identity to be less diagnostic (H3a), and lower political identity strength (H5a). Contrary to our hypotheses, higher political complexity (o) was also associated with perceiving oneself as less similar to outgroup transgressors (H4a), which may be because individuals with high SIC perceive themselves to be generally dissimilar from others. Additionally, contrary to H7a, political complexity (o) was associated with less frequent and lower-quality contact with political outgroup members. This unexpected finding could be a product of the sociopolitical context during which these data were collected (i.e., one month prior to the 2024 U.S. Presidential Election). In times of heightened intergroup conflict, low-SIC individuals may pursue superficial, conflict-avoidant interactions, while high-SIC individuals may be less conflict-averse, resulting in more negative interactions.

Next, we fit a mulitilevel multiple regression model with participant and scenario entered as random effects to inspect the effect of each proposed mediator on judgments of outgroup transgressors (Fig. 3). All variance inflation factors (VIFs) were below 2, indicating low multicollinearity. As expected, we found that perceiving outgroup transgressors as more typical (H2b), having greater political identity strength (H5b), and being more conflict avoidant (H6b) were associated with judging outgroup members more harshly, and perceiving oneself as more similar to the transgressors was associated with judging outgroup members less harshly (H4b). These results suggest that the negative effect of SIC on outgroup judgments is likely driven in part by reduced perceived typicality and identity strength, but that reduced perceived

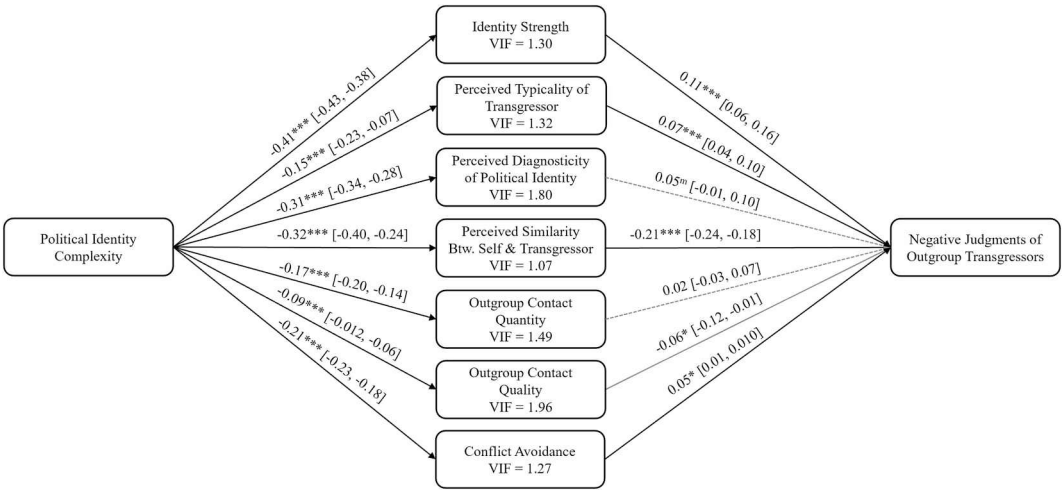

Fig. 3. Path-Specific Effects of Political Identity Complexity on Mediators and Mediator Effects on Outgroup Judgment (Study 3).
Note. The arrows emerging from political overlap complexity depict the standardized betas for the effect of political complexity (o) (X) on each proposed mediator (M) from separate regression models. The arrows pointing to judgments of outgroup transgressors depict the standardized betas for the effect of each proposed mediator (M) on outgroup judgments (Y) in a multiple regression model. VIFs for each mediator (M) are reported. Dotted lines represent non-significant effects. *** indicates $p < .001$ m indicates $0.05 < p < .10$.

similarity may counteract some of the benefits of SIC by limiting feelings of connection with outgroup transgressors. Perceiving political identity to be more diagnostic was not significantly associated with outgroup judgments, however, in line with our theorizing (H3b), there was a marginal trend such that those who perceived political identity to be more diagnostic tended to have more negative outgroup judgments. Partially supporting H7b, greater outgroup contact quality, but not outgroup contact quantity, was significantly associated with less negative outgroup judgments.

Based on these results, we conducted a parallel mediation analysis, including only the mediators aligned with our path-specific predictions: political identity strength, the perceived typicality of outgroup transgressions, the perceived diagnosticity of political identity, and conflict avoidance. Supporting hypotheses, we found that there was a significant indirect effect of political complexity (o) on outgroup judgments for all four mediators (H2-Perceived Typicality: ACME = −0.01, 95 % CI [−0.012, −0.01], $p < .001$; H3-Perceived Diagnosticity: ACME = −0.01, 95 % CI [−0.01, −0.005], $p = .036$; H5-Identity Strength: ACME = −0.03, 95 % CI [−0.04, −0.02], $p < .001$); H6-Conflict Avoidance: ACME = −0.01, 95 % CI [−0.01, −0.005], $p = .045$. The main direct effect of political complexity (o) did not remain significant, indicating a full mediation.

5.5. Study 3 Discussion

In Study 3, we extended our investigation by testing a broader range of potential mechanisms underlying the relationship between SIC and moral judgments of outgroup transgressors. The results replicated key findings from Studies 1 and 2, showing that higher SIC, as measured by political complexity (o), was associated with less harsh moral judgments of outgroup transgressors. This study also highlighted several pathways through which SIC operates, providing a more nuanced understanding of its effects.

Consistent with prior findings, individuals higher in SIC were less likely to view outgroup transgressors as representative of their political group, thereby weakening the influence of outgroup bias on moral judgment. They also tended to report weaker political identity strength, likely reducing the motivation to preserve a distinct and positively valued ingroup image. Additionally, high-SIC individuals were less inclined to avoid conflict, making them less susceptible to pressures to conform to biased group norms or punish norm violations. Finally, they tended to view political identity as a less reliable source of information about others, which may have decreased reliance on group-based stereotypes when judging outgroup members.

Unexpectedly, individuals higher in SIC exhibited distancing from outgroup members on several measures. SIC was associated with perceiving oneself as less similar to outgroup transgressors, as well as less frequent and lower-quality outgroup contact, factors which tended to be associated with less negative outgroup judgments. These findings contradict prior research demonstrating that SIC fosters engagement in cross-ethnic friendships (Schmid et al., 2009, 2011). One potential explanation is that, due to their often counterstereotypical identities, those high in SIC may tend to view themselves as dissimilar from others broadly. In line with this, we found that SIC was negatively correlated with perceptions of similarity among participants in both the outgroup ($r = −0.26$, $p < .001$) and ingroup conditions ($r = −0.24$, $p < .001$).

It is also possible that participants in this study were uniquely subjected to high levels of interparty tension given the proximity of data collection to a presidential election, impacting our results. Conflict avoidance was positively correlated with outgroup contact quantity ($r = 0.44$, $p < .001$) and quality ($r = 0.36$, $p < .001$), suggesting that high scores on these contact measures may reflect surface-level or non-confrontational interactions aimed at avoiding tension rather than bridging divides. People high in SIC, who were lower in conflict avoidance, were likely more comfortable engaging in conflict with others, resulting in fewer and more negative outgroup interactions. To test whether this is indicative of a broad tendency or unique to outgroup contact, we examine the relationship between SIC and ingroup contact in Study 4.

Study 3 suggests that SIC, measured as political complexity (o), reduces bias in outgroup judgments by reducing several key processes, including the perceived typicality of outgroup transgressors, ingroup identity strength, conflict avoidance, and the perceived diagnosticity of social categories,. Study 3 also revealed that SIC was associated with viewing oneself as less similar to others—outgroup and ingroup members alike—and experiencing fewer and less positive contact with outgroup members, which may have limited its mitigating effect on outgroup derogation in moral judgment.

6. Study 4

In Study 4, we sought to replicate and extend the findings of earlier

studies by clarifying the effect of SIC on social and emotional distancing from outgroup members. To determine whether the negative effects observed in Study 3 represented general dispositions or were specific to outgroup members, we added a measure of the quantity and quality of one's contact with ingroup members. Additionally, we examined feelings of warmth toward ingroup and outgroup members.

6.1. Participants

Data for Study 4 were collected in mid-November 2024. Participants for Study 3 were 1307 American adults, 657 of which were in the outgroup condition. Results for the ingroup condition are reported in the Supplementary Materials. A sensitivity analysis conducted using the R package "pwr" showed that a sample of 657 provided 80 % power to detect an R-squared of 0.02 or greater for a regression model with 3 predictors, with an alpha of 0.05.

6.2. Procedure

Study 3 followed the same design as Study 2 with the addition of an intergroup attitudes measure, an ingroup contact measure and a revised conflict avoidance measure.

6.3. Measures

Participants completed the same measures as Study 3 in addition to the following.

6.3.1. Intergroup attitudes (H8)

Participants indicated how warm or cold they feel toward Democrats and Republicans on slider scales from −100 ("Very cold") to 100 ("Very warm").

6.3.2. Ingroup contact quantity and quality

The frequency and quality of contact with political outgroup members was measured using the same measures of outgroup contact quantity and quality used in Study 3 (ingroup quantity: $\alpha = 0.90$; ingroup quality: $\alpha = 0.79$).

6.3.3. Conflict avoidance (H6)

We refined our measure of conflict avoidance so that the items more explicitly reference unease as a result of group conflict. Participants indicated the extent to which they agree or disagree with 7 items ($\alpha = 0.85$) such as "I feel uneasy when disagreements within my social groups do not have a clear resolution" and "I feel uncomfortable when I'm uncertain about how to resolve conflicting perspectives within my social groups" on a 6-point Likert scale from "Strongly disagree" to "Strongly agree".

6.4. Results

As in Study 3, and supporting H1, SIC, measured as political complexity (o), was associated with less negative judgments of outgroup transgressors, $\beta = -0.05$, SE = 0.02, $t(655) = -2.12$, $p = .035$, 95 % CI [−0.10, −0.01]. The estimated marginal effects of political complexity (o) were consistent across both parties, all levels of gender, and most levels of race and religion.

To test our mediation hypotheses, we again conducted a parallel mediation model using the "lavaan" package in R with 5000 simulations. We used the same procedure in Study 3 to determine which mediators to include in the model (see Fig. 4). As in Study 3, SIC was associated with perceiving outgroup transgressors as less typical (H2a), lower identity strength (H5a), and lower conflict avoidance (H6a), which were in turn associated with less negative outgroup judgments (H2b, H5b, H6b). Additionally, SIC was associated with perceiving political identity to be less diagnostic (H3a), however, perceived diagnosticity was not significantly associated with outgroup judgments, in contrast to H3b. Again, H4a and H7a were not supported, as SIC was associated with perceiving oneself to be less similar to outgroup transgressors and lower outgroup contact quantity and quality, respectively. As in Study 3, we found that SIC was associated with lower perceived similarity in both the outgroup ($r = -0.24$, $p < .001$) and ingroup ($r = -0.28$, $p < .001$) condition. Moreover, we found that SIC was negatively correlated with both outgroup contact (quantity: $r = -0.14$, $p < .001$; quality: $r = -0.12$, $p < .001$) and ingroup contact (quantity: $r = -0.30$, $p < .001$; quality: $r = -0.13$, $p < .001$), demonstrating that SIC was related to less frequent and less positive contact with others in general, not only with outgroup members. Similarly, SIC was associated with lower warmth toward outgroup members ($r = -0.17$, $p < .001$) as well as ingroup members ($r = -0.27$, $p < .001$). Together, these results suggest that individuals high in SIC exhibited social and emotional distancing from others broadly, regardless of their ingroup-outgroup status.

In contrast to H7b and H8b, neither outgroup contact quantity and quality nor outgroup warmth were significantly associated with judgments of outgroup transgressors in the multiple regression model and showed only small correlations with outgroup judgments (outgroup

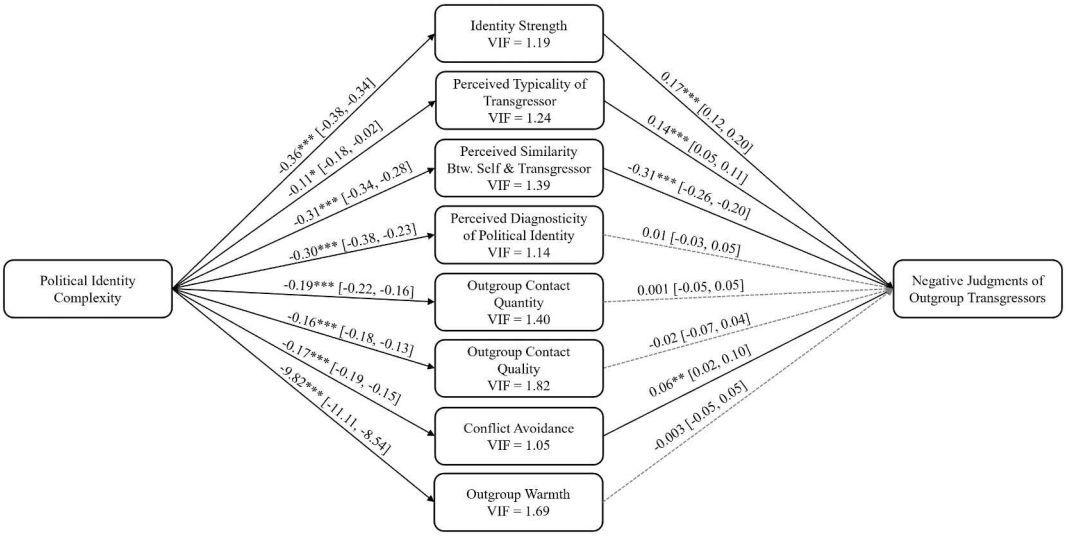

Fig. 4. Path-Specific Effects of Political Identity Complexity on Mediators and Mediator Effects on Outgroup Judgment (Study 4).

warmth: $r = -0.05$, $p = .015$, outgroup contact quantity: $r = -0.02$, $p = .312$, outgroup contact quality: $r = -0.05$, $p = .009$). It is possible that our measures of outgroup contact quantity and quality did not fully capture the nuance of participants' intergroup experiences. Prior work suggests that some forms of cross-party contact are more effective than others at improving intergroup attitudes, particularly those involving conversations that emphasize interpersonal similarity and shared experiences (Santoro & Broockman, 2022). It is also possible that, in the context of a tense political climate, attitudes toward the outparty were especially rigid, resulting in weaker associations with outgroup judgments.

Based on these results, we conducted a parallel mediation analysis, including only the mediators aligned with our path-specific predictions: political identity strength, the perceived typicality of outgroup transgressions, and conflict avoidance. All variance inflation factors (VIFs) were below 2, indicating low multicollinearity. Supporting hypotheses, we found that there was a significant indirect effect of SIC on outgroup judgments for all three mediators (H2-Perceived Typicality: ACME = −0.01, 95 % CI [−0.01, −0.009], $p < .001$; H5-Identity Strength: ACME = −0.04, 95 % CI [−0.05, −0.03], $p < .001$); H6-Conflict Avoidance: ACME = −0.01, 95 % CI [−0.01, −0.005], $p = .003$. The main direct effect of political complexity (o) did not remain significant, indicating a full mediation.

As in Study 3, identity strength, transgressor typicality, and conflict avoidance emerged as significant mediators, highlighting their consistent roles in explaining the effects of SIC on moral judgments of outgroup transgressors. Study 4 further supports the theory that SIC reduces intergroup bias by weakening identity attachment, reducing stereotyping, and fostering openness to conflicting perspectives. However, unlike Study 3, the perceived diagnosticity of political identity was not a significant mediator, suggesting that its influence may vary across contexts or depend on the salience of political identity in shaping moral evaluations.

6.5. Study 4 Discussion

In Study 4, we replicated the effect of SIC, measured as political complexity (o), on moral judgments of outgroup members and the mediating role of three key factors: identity strength, transgressor typicality, and conflict avoidance. These findings suggest that individuals high in SIC perceive their ingroup identity as less central, see outgroup transgressors as less representative of the outgroup, and are less inclined to avoid conflict, which in turn lead them to make less harsh moral judgments of outgroup transgressors.

Similar to Study 3, Study 4 also highlighted potential limitations of SIC, which was associated with perceiving oneself as less similar to others, feeling less warm toward others, and having fewer and less positive interactions with others, regardless of their group membership. These findings may reflect the broader social context in which data were collected (i.e., shortly after the 2024 U.S. Presidential Election) when interparty tensions were likely heightened. Extending Study 3, conflict avoidance was positively correlated with both outgroup contact (quantity: $r = 0.10$, $p = .012$; quality: $r = 0.09$, $p = .027$) and ingroup contact (quantity: $r = 0.10$, $p = .013$; quality: $r = 0.08$, $p = .042$), further supporting the idea that high-SIC individuals, who are less inclined to avoid conflict, may experience fewer and less positive social interactions because they are more comfortable engaging in disagreement, even in highly polarized environments.

7. General discussion

This work demonstrates that the extent to which people display outgroup derogation in moral judgments depends significantly on the relationships between their multiple social identities. Across four studies ($N = 3236$), we found that greater social identity complexity (SIC), specifically political complexity (o)—the perceived overlap between one's political identity and their other identities—was associated with judging outgroup transgressors less harshly. By integrating research on moral judgment and social identity, this work makes several key contributions to understanding intergroup bias.

Empirical work has extensively examined factors influencing moral judgment, such as values (e.g., Levine & Schweitzer, 2014), principles (e.g., Conway & Gawronski, 2013), and perceived intentions (e.g., Rowe et al., 2021), as well as factors driving intergroup bias, such as motivated reasoning (Hughes & Zaki, 2015; Kunda, 1990) and collective self-esteem (Crocker & Luhtanen, 1990). This work demonstrates that SIC can buffer against outgroup derogation in moral judgments, emphasizing the need to consider individuals' multiple identities, beyond any single, salient identity (e.g., political affiliation or religion), when investigating moral judgments. This aligns with prior work suggesting that higher SIC is linked to reduced outgroup prejudice (e.g., Roccas & Brewer, 2002) and extends this literature by showing that SIC also reduces bias against outgroup members in the context moral judgment, in which group boundaries are especially rigid (Tappin & McKay, 2019).

This work advances theoretical understanding of SIC by identifying key mechanisms through which it shapes moral judgments. The relationship between SIC and judgments of outgroup members was consistently mediated by perceiving moral transgressors as less typical members of their social groups, lower political identity strength, and reduced conflict avoidance.

Individuals high in SIC were less likely to perceive outgroup transgressors as less typical members of their groups, suggesting they are less likely to judge them through a group-based lens, evaluating them in more individualized ways. These findings build upon prior work showing that low-prejudice individuals are more likely to form impressions of others by focusing on the implications of their behavior, rather than their stereotype-consistency (Sherman et al., 2005). People high in SIC may be more likely to individualize others because they see outgroups as less homogeneous (Crawford et al., 2002). They might also have other unique motives for individualizing others, such as to facilitate social affiliation in order to mitigate feelings of exclusion from others (Claypool & Bernstein, 2014).

SIC was also associated with reduced ingroup identity strength, likely weakening the motivation to defend one's group and reinforce group boundaries through negative evaluations of outgroup members. Past research demonstrates that strong identification with the ingroup amplifies intergroup biases in moral judgments, often due to motivated reasoning aimed at protecting the moral image of the ingroup (Chekroun & Nugier, 2011; Van Der Toorn et al., 2015). For example, individuals with strong ingroup attachment may derogate outgroup members as a strategy to reaffirm their group's moral superiority (Bocian et al., 2021). By contrast, reduced ingroup attachment in high-SIC individuals suggests a diminished need to bolster ingroup status through biased moral evaluations, complementing work on moral tribalism that highlights the role of identity salience in shaping judgments of ingroup and outgroup transgressions (Tang et al., 2023). This work extends this literature by emphasizing the important role of social identity complexity in moderating the extent to which identity-based motivations influence moral judgments.

This pattern also has broader implications for understanding the relationship between social identity complexity and political polarization. As prior research has shown, increasing alignment between political identity and other social identities, such as race and religion, can intensify partisan divides by fostering a singular, entrenched sense of group membership (Mason, 2016; Mason & Wronski, 2018). Our findings, particularly for political complexity, suggest that individuals high in SIC are less likely to perceive such alignment and consequently experience weaker partisan identity. This, in turn, may buffer against the polarizing effects of political identity fusion and reduce the moralization of group boundaries. These results are consistent with theories of cross-categorization, which posit that perceiving individuals as members of multiple, overlapping groups can reduce intergroup bias (Mullen

et al., 2001). By highlighting how complexity in self-categorization diminishes the influence of political identity on moral evaluation, our work contributes to a growing body of political psychology research emphasizing the psychological roots of affective polarization and the potential for identity complexity to foster more balanced, less group-defensive moral judgments.

Another mediator of the relationship between SIC and outgroup judgments was decreased avoidance of conflicts between the values, beliefs, and norms of social groups. The positive relationship between conflict avoidance and negative outgroup judgments align with research suggesting that intolerance of ambiguity and a need for cognitive closure diminish reliance on stereotypes, fostering more flexible and context-sensitive evaluations (Derreumaux et al., 2023; Kruglanski & Webster, 1996). By prompting individuals to reconcile the differences between their own social groups, holding highly complex social identities may expand one's openness to considering other challenges to group norms, fostering cognitive flexibility (Brewer, 2010) and reducing intergroup bias (Batson, Early, & Salvarani, 1997).

Additionally, SIC was consistently associated with perceiving political identity to be less diagnostic, or less predictive of broader traits and values. Although perceived diagnosticity was associated with less harsh outgroup judgments and significantly mediated the effect of SIC in Study 3, it was not significantly associated with outgroup judgments in Study 4, suggesting that the strength of the influence of perceived diagnosticity on outgroup judgments may vary. Nevertheless, participants who viewed political identity as more informative felt less warmth toward outparty members ($r = -0.24$, $p < .001$), suggesting it likely has important implications for outgroup attitudes broadly. The consistent link between SIC and lower perceived diagnosticy suggests that individuals high in SIC are less likely to draw information about individuals from their social group memberships. For instance, people high in SIC may have more accurate perceptions of political outgroup members' beliefs, addressing a well-documented tendency for individuals to exaggerate the extremity of outgroup members' political positions (Ahler & Sood, 2018). Future work could explore how SIC influences the accuracy of perceptions in political and other intergroup contexts, as well as its potential to mitigate polarization by fostering more nuanced and individualized understanding of outgroup members.

Unexpectedly, SIC was associated with lower perceived similarity and warmth toward others, as well as fewer and lower quality social interactions, whether they belonged to the ingroup or the outgroup. There are several potential explanations for these effects, which conflict with prior work showing that SIC is associated with warmer outgroup attitudes and greater outgroup contact (e.g., Knifsend & Juvonen, 2014). For one, it is possible that people high in SIC tend to view themselves as more different from others because they see themselves as more atypical group members due to their less-overlapping identities. High-SIC individuals who nevertheless maintain feelings of similarity with others may be especially likely to demonstrate reduced outgroup derogation in moral judgments. Future work can examine factors that might influence feelings of similarity among individuals with greater SIC, such as feelings of inclusion and belonging.

It is also likely that the sociopolitical context during data collection influenced responses. Study 1 coincided with heightened political tensions surrounding legal challenges and Supreme Court rulings, Study 2 with the start of presidential primaries, and Studies 3 and 4 surrounded the 2024 U.S. presidential election, which was marked by intense political polarization. It is possible that people high in SIC, who are less conflict-avoidant, were more likely to challenge others' political views during this period or attempt to emphasize commonalities between parties. Such efforts may have been met with backlash, leading to shorter and less harmonious interactions, particularly in a period of heightened intergroup conflict, when challenges to group norms can be especially unwelcome (Marques et al., 1988). In turn, individuals high in SIC may have expressed lower warmth toward inparty and outparty members not out of increased partisan animosity, but rather as a reflection of broader disillusionment with partisanship itself (Klar et al., 2018).

The heightened salience of political identities during these contexts may have also amplified the relevance of SIC in reducing harsh judgments of political outgroup transgressors, as individuals high in SIC may have been better equipped to navigate the polarized political climate. Future work could examine how manipulating the salience of political identity may impact the effect of SIC on social judgment and perceptions.

Overall, these results suggest that individuals high in SIC form more forgiving judgments of outgroup transgressors primarily by promoting individuation, reducing rigid ingroup attachment, and openness to engaging with group conflict, rather than by fostering emotional or interpersonal connections. That SIC was associated with colder attitudes toward outgroup members yet still predicted less harsh moral judgments highlights the distinct and independent role of these cognitive and motivational factors in shaping moral evaluation. Future studies can help clarify the role of affective and relational factors by examining the influence of SIC on moral judgment in less polarized contexts.

By demonstrating the mitigating effect of SIC on outgroup derogation in moral judgments, this work highlights SIC as a potential target for interventions aimed at reducing intergroup bias. Understanding the mechanisms that drive SIC's effects, and those that do not, can help refine these interventions. These findings offer practical avenues for mitigating bias, such as by targeting perceptions of group heterogeneity or highlighting limitations of identity diagnosticity.

Although our primary focus was on judgments of outgroup transgressors, it is notable that SIC did not significantly predict judgments of ingroup members. This could be the result of opposing forces: higher SIC may reduce ingroup favoritism (e.g., by lessening identity strength), but also promote more individualized interpretations of others' actions, which may make ingroup judgments less harsh (Roccas et al., 2022). Importantly, this asymmetry between outgroup and ingroup effects aligns with work on affective polarization showing that political polarization is driven more by increasing hostility toward the outgroup than by strengthening ingroup identity (Iyengar et al., 2019). This pattern suggests that social identity complexity may be especially relevant in mitigating the negative evaluative tendencies at the core of affective polarization.

Despite its contributions, this work has several limitations. For one, the data were cross-sectional, limiting our ability to infer causality between SIC, moral judgment, and the examined mediators. Future research should employ experimental designs that manipulate SIC, such as by highlighting the distinctiveness or overlap of participants' identities, to directly test its causal effects.

Additionally, the measure of SIC in this study focused on political, religious, racial, and one additional participant-selected identity. While this approach ensured relevance to intergroup contexts, it may have missed complexity in other identity domains, such as gender, occupation, or immigration status. Future studies could allow participants to select all identities included in the measure to better capture the relationships among the identities that matter most to the participants. Expanding the range of identity domains may also help clarify how features such as visibility, the extent to which identities are externally recognizable (Quinn & Earnshaw, 2013), and obligatoriness, the extent to which identities can be freely entered and exited (Thoits, 2003), shape the experience and effects of SIC. For instance, SIC involving visible or obligatory identities may have stronger effects on social perception due to their salience and perceived permanence, whereas SIC involving invisible or chosen identities may more strongly impact internal processes like self-definition or felt agency. Future work could examine whether these factors moderate the influence of SIC.

Relatedly, while our study focused on how much participants perceived overlap among their multiple ingroup identities, we did not examine the different ways people may cognitively organize those identities, referred to as identity structures (Roccas & Brewer, 2002).

These structures include viewing the ingroup as limited to those who share all of one's identities (intersection), focusing primarily on one identity as the basis for group membership (dominance), considering members of any of one's identities as part of the ingroup (merger), or extending ingroup inclusion broadly to others regardless of their group memberships (egalitarianism; Roccas & Brewer, 2002; van Dommelen et al., 2015). Incorporating both SIC and identity structure in future work could offer a more nuanced account of intergroup judgments. For example, individuals low in SIC who adopt more inclusive identity structures like merger or egalitarianism may still show low bias, whereas those high in SIC but with more exclusive structures (e.g., intersection) may draw sharper group boundaries. Exploring how these dimensions interact could help explain variability in the effects of SIC on social perception and moral judgment.

Finally, the vignettes used in this research were limited to political contexts involving intergroup harms. While political contexts provide a robust test of SIC due to the high salience of group divisions and moral judgments in these settings, SIC may operate differently in other domains, such as religion, race, national identities, or sports rivalries. These domains vary in the extent to which group-defining moral beliefs are central to identity, and exploring SIC's effects across such varied contexts could uncover important insights into its generalizability and boundary conditions. The exclusive focus on moral judgments in this research may limit the scope of our findings. SIC likely influences other intergroup biases, such as trust, cooperation, or evaluations of competence, by fostering greater cognitive flexibility and reducing the salience of a single dominant group membership. Investigating SIC's effects on non-moral judgments in future work could help determine whether the same cognitive and motivational mechanisms identified here (e.g., reduced typicality, lower identity strength) extend to other forms of intergroup bias. Such research would further clarify the breadth of SIC's influence and its potential to mitigate intergroup conflict across diverse settings and judgment types.

8. Conclusion

This work underscores the importance of examining moral judgment through the lens of social identity complexity (SIC). SIC reduces outgroup derogation in moral judgments by fostering individualized perceptions of others, reducing ingroup identity strength, and increasing comfort when engaging with divergent group perspectives. These findings highlight the importance of considering not only the strength of one's ingroup identity, but also the perceived relationships between that identity and one's multiple other identities for understanding and addressing intergroup conflict.

Open practices

Pre-registrations for Studies 2–4 can be found here: Study 2: https://osf.io/36zsa/?view_only=86156fee5b134d668a1820e23af500f8; Study 3: https://osf.io/b7sva/?view_only=58c7a7bd7a514450b8d7eaf0d74f70d8. Study 4: https://osf.io/fjvxa/?view_only=d8495c9a55b646669eb05ef77049b8d9. All preregistrations included the hypotheses, methods, and analysis plan. All materials, data, and analysis scripts are publicly available: https://osf.io/xj3ed/?view_only=ff8674db0bd446b495061cc331c111ae.

CRediT authorship contribution statement

Trystan Loustau: Writing – review & editing, Writing – original draft, Visualization, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Helen Padilla Fong:** Formal analysis, Data curation. **Liane Young:** Writing – review & editing, Supervision, Resources, Project administration, Funding acquisition, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

Author note: This work was supported by the John Templeton Foundation and the National Science Foundation Graduate Research Fellowship.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jesp.2025.104810.

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Supplementary Materials

Hypotheses

Study 2

Primary Hypothesis:

- Higher SIC will be associated with less negative judgments of outgroup transgressors

Mediation Hypotheses:

- The impact of SIC on moral judgment will be mediated by perceived typicality

Predictor on Mediator Hypotheses:

- Higher SIC will be associated with perceiving transgressors as less typical

Mediator on Outcome Hypotheses:

- Greater perceived typicality will be associated with more negative judgments of outgroup members

Additional Hypotheses:

- Higher SIC will be associated with more negative judgments of ingroup transgressors
- Greater perceived typicality will be associated with less negative judgments of ingroup members

Study 3

(Only specifying those added to the list above)

Mediation Hypotheses:

- The impact of SIC on moral judgment will be mediated by lower perceived typicality of transgressors, lower perceived informativeness of political identity, lower identity strength, lower conflict avoidance, more positive outgroup contact, and more positive intergroup contact norms

Predictor on Mediator Hypotheses:

- Higher SIC will be associated with more frequent and more positive outgroup contact
- Higher SIC will be associated with more positive intergroup contact norms in one's social network
- Higher SIC will be associated with perceiving political identity as less informative
- Higher SIC will be associated with lower identity strength
- Higher SIC will be associated with lower conflict avoidance

Mediator on Outcome Hypotheses:

- Greater perceived typicality will be associated with more negative judgments of outgroup members
- More frequent and more positive outgroup contact will be associated with less negative judgments of outgroup transgressors
- More intergroup contact norms will be associated with less negative judgments of outgroup transgressors
- Perceiving political identity as less informative will be associated with less negative judgments of outgroup transgressors
- Lower identity strength will be associated with less negative judgments of outgroup transgressors
- Lower conflict avoidance will be associated with less negative judgments of outgroup transgressors

Additional Hypotheses

- Lower identity strength will be associated with more negative judgments of ingroup transgressors

Study 4

(Only specifying those added to or changed in the list above)

Mediation Hypotheses:

- The impact of SIC on moral judgment will be mediated by lower perceived typicality of transgressors, lower perceived informativeness of political identity, lower identity strength, and lower conflict avoidance

Predictor on Mediator Hypotheses:

- Higher SIC will be associated with lower perceived similarity with outgroup transgressors
- Higher SIC will be associated with LESS frequent and LESS positive outgroup contact
- Higher SIC will be associated with LESS positive intergroup contact norms in one's social network
- Higher SIC will be associated with greater outgroup warmth

Mediator on Outcome Hypotheses:

- Outgroup warmth will be associated with less negative moral judgments of outgroup transgressors

Additional Hypotheses

- If identity strength is associated with less negative judgments of ingroup transgressors, high SIC will be associated with and more negative judgments of ingroup transgressors.
- If identity strength is associated with more negative judgments of ingroup transgressors, high SIC will be associated with and less negative judgments of ingroup transgressors.

Correlation Matrices

Study 1

Pearson's Correlations for Study 1 variables

Variable	Poli Similarity Complexity	Overall Similarity Complexity	Poli Overlap Complexity	Overall Overlap Complexity	Judgment	Typicality
Overall Similarity Complexity	r(738) = 0.9, p < .001					
Political Overlap Complexity	r(738) = 0.51, p < .001	r(738) = 0.45, p < .001				
Overall Overlap Complexity	r(738) = 0.48, p < .001	r(738) = 0.52, p < .001	r(738) = 0.88, p < .001			
Judgement	r(738) = -0.09, p = .011	r(738) = -0.13, p = .001	r(738) = -0.02, p = .671	r(738) = -0.06, p = .088		
Typicality	r(738) = -0.12, p = .001	r(738) = -0.12, p = .001	r(738) = -0.1, p = .007	r(738) = -0.1, p = .008	r(738) = 0.13, p = .001	
Political Identity Strength	r(738) = -0.26, p < .001	r(738) = -0.22, p < .001	r(738) = -0.22, p < .001	r(738) = -0.19, p < .001	r(738) = 0.1, p = .009	r(738) = 0.06, p = .118

Table 2

Effects of Social Identity Complexity on Negative Moral Judgment in Study 1

	β	SE	t-value	*p*	*95% CI*
Political Complexity: Overlap					
Complexity*Group	-0.17	0.07	-2.46	.014	[-0.30, -0.03]
Simple Effect for Outgroup	-0.11	0.04	-2.51	.013	[-0.19, -0.02]
Simple Effect for Ingroup	0.06	0.05	1.13	.261	[-0.05, 0.17]
Political Complexity: Similarity					
Complexity*Group	-0.09	0.07	-1.30	.193	[-0.22, 0.05]
Simple Effect for Outgroup	-0.12	0.04	-2.64	.009	[-0.20, -0.03]
Simple Effect for Ingroup	-0.03	0.05	-0.53	.594	[-0.13, 0.07]
Overall Complexity: Overlap					
Complexity*Group	-0.06	0.07	-0.90	.371	[-0.20, 0.07]
Simple Effect for Outgroup	-0.09	0.04	-2.14	.033	[-0.18, -0.01]
Simple Effect for Ingroup	-0.03	0.05	-0.56	.579	[-0.14, 0.08]
Overall Complexity: Similarity					
Complexity*Group	-0.04	0.07	-0.58	.560	[-0.17, 0.09]
Simple Effect for Outgroup	-0.12	0.04	-2.70	.007	[-0.20, -0.03]
Simple Effect for Ingroup	-0.08	0.05	-1.47	.143	[-0.18, 0.03]

Note: Group was dummy coded as Ingroup = 0, Outgroup = 1). The interaction between PC: Overlap and Group holds controlling for political party, race, and religion. In an exploratory manner, we fitted a model with interactions between political complexity (o), group, and political party. There was no significant three-way interaction and no significant two-way interactions

between political complexity (o) and party, suggesting that the effect of SIC did not differ for Independents compared to Democrats and Republicans.

Full Sample Statistics for Study 1

	Study 1 (N = 740)
Political Complex. (o) (M, SD)	5.95 (1.31)
Overall Complex. (o) (M, SD)	6.19 (1.29)
Age (M, SD)	41.42 (14.61)
Gender	
Woman	387 (52.30%)
Man	336 (45.41%)
Nonbinary/Other	17 (2.30%)
Political Affiliation	
Democrat	432 (58.38%)
Republican	145 (19.59%)
Independent/Other	163 (22.03%)
Race/Ethnicity	
White	534 (72.16%)
Black/African American	64 (8.65%)
Hispanic/Latino	64 (8.65%)
Asian	44 (5.95%)
American Indian or Alaskan Native	9 (1.22%)
Native Hawaiian or Pacific Islander	2 (0.27%)
Other	23 (3.11%)

Study 2

Pearson's Correlations for Study 2 variables

Variable	**Political Overlap Complexity**	**Overall Overlap Complexity**	**Outgroup Judgment**	**Ingroup Judgment**
Overall Overlap Complexity	r(3196) = 0.88, *p* < .001			
Outgroup Judgement	r(3196) = -0.06, *p* = .001	r(3196) = -0.06, *p* = .002		
Outgroup Typicality	r(3196) = -0.14, *p* < .001	r(3196) = -0.13, *p* < .001	r(3196) = 0.27, *p* < .001	
Ingroup Judgement	r(3196) = -0.003, *p* = .842	r(3196) = -0.02, *p* = .318	NA	-
Ingroup Typicality	r(3196) = -0.01, *p* =.652	r(3196) = -0.06, *p* < .001	NA	r(3196) = -0.01, *p* = .636

Table 3

Effects of Social Identity Complexity on Negative Moral Judgment in Study 2

	β	**SE**	**t-value**	***p***	***95% CI***
Basic Models					
Political Complexity: Overlap					
Complexity*Group	-0.05	0.04	-1.32	.188	[-0.12, 0.02]
Simple Effect for Outgroup	-0.05	0.03	-1.99	.046	[-0.10, -0.01]
Simple Effect for Ingroup	-0.01	0.03	-0.13	.900	[-0.05, 0.05]
Overall Complexity: Overlap					
Complexity*Group	-0.03	0.04	-0.85	.396	[-0.10, 0.04]
Simple Effect for Outgroup	-0.05	0.03	-1.85	.064	[-0.10, 0.01]
Simple Effect for Ingroup	-0.02	0.03	-0.63	.530	[-0.07, 0.03]
Models Controlling for Party, Race, and Religion					
Political Complexity: Overlap					
Complexity*Group	-0.05	0.04	-1.23	.219	[-0.12, 0.03]
Simple Effect for Outgroup	-0.06	0.03	-2.28	.023	[-0.11, -0.01]
Simple Effect for Ingroup	-0.01	0.03	-0.19	.849	[-0.05, 0.05]
Overall Complexity: Overlap					
Complexity*Group	-0.03	0.04	-0.82	.411	[-0.10, 0.04]
Simple Effect for Outgroup	-0.06	0.03	-2.19	.029	[-0.11, -0.01]
Simple Effect for Ingroup	-0.01	0.03	-0.11	.912	[-0.05, 0.05]

Full Sample Statistics for Study 2

	Study 2 (N = 1188)
Political Complex. (o) (M, SD)	5.11 (1.08)
Overall Complex. (o) (M, SD)	5.70 (1.19)
Age (M, SD)	39.74 (13.98)
Gender	
Woman	621 (52.27%)
Man	553 (46.55%)
Nonbinary/Other	14 (1.18%)
Political Affiliation	
Democrat	673 (56.65%)
Republican	533 (44.87%)
Independent/Other	-
Race/Ethnicity	
White	794 (66.84%)
Black/African American	184 (15.49%)
Hispanic/Latino	84 (7.07%)
Asian	104 (8.75%)
American Indian or Alaskan Native	3 (0.25%)
Native Hawaiian or Pacific Islander	3 (0.25%)
Other	16 (1.35%)

Study 3

Pearson's Correlations for Study 3 variables

Variable	**Political Overlap Comp.**	**Overall Overlap Comp.**	**Identity Strength**	**PDPI**	**Outgroup Contact Quant.**	**Outgroup Contact Qual.**	**Pos. Outgroup Contact Norms**	**Conflict Avoidance**	**Outgroup Judgment**	**Ingroup Judgment**
Overall Overlap Comp.	r(7810) = 0.93, $p < .001$									
Identity Strength	r(7810) = -0.38, $p < .001$	r(7810) = -0.38, $p < .001$								
PDPI	r(7810) = -0.23, $p < .001$	r(7810) = -0.22, $p < .001$	r(7810) = 0.44, $p < .001$							
Outgroup Contact Quant.	r(7810) = -0.12, $p < .001$	r(7810) = -0.18, $p < .001$	r(7810) = 0.05, $p < .001$	r(7810) = -0.20, $p < .001$						
Outgroup Contact Qual.	r(7810) = -0.07, $p < .001$	r(7810) = -0.12, $p < .001$	r(7810) = -0.10, $p < .001$	r(7810) = -0.45, $p < .001$	r(7810) = 0.55, $p < .001$					
Pos. Outgroup Contact Norms	r(7810) = 0.02, p =.080	r(7810) = -0.05, $p < .001$	r(7810) = -0.02, p = .180	r(7810) = -0.34, $p < .001$	r(7810) = 0.45, $p < .001$	r(7810) = 0.52, $p < .001$				
Conflict Avoidance	r(7810) = -0.19, $p < .001$	r(7810) = -0.21, $p < .001$	r(7810) = 0.14, $p < .001$	r(7810) = -0.04, $p < .001$	r(7810) = 0.44, $p < .001$	r(7810) = 0.36, $p < .001$	r(7810) = 0.30, p = .008			
Outgroup Judgement	r(7810) = -0.05, p = .002	r(7810) = -0.04, p = .006	r(7810) = 0.16, $p < .001$	r(7810) = -0.14, $p < .001$	r(7810) = -0.04, p = .010	r(7810) = -0.14, $p < .001$	r(7810) = 0.02, p = .279	r(7810) = 0.05, p = .028		
Outgroup Typicality	r(7810) = -0.12, $p < .001$	r(7810) = -0.08, $p < .001$	r(7810) = 0.21, $p < .001$	r(7810) = 0.42, $p < .001$	r(7810) = -0.14, $p < .001$	r(7810) = -0.41, $p < .001$	r(7810) = -0.28, $p < .001$	r(7810) = -0.11, $p < .001$	r(7810) = 0.16, $p < .001$	
Outgroup Similarity	r(7810) = -0.26, $p < .001$	r(7810) = -0.30, $p < .001$	r(7810) = 0.10, $p < .001$	r(7810) = 0.13, $p < .001$	r(7810) = 0.16, $p < .001$	r(7810) = -0.14, $p < .001$	r(7810) = -0.10, $p < .001$	r(7810) = 0.10, $p < .001$	r(7810) = -0.27, $p < .001$	NA
Ingroup Judgement	r(7810) = -0.04, p = .009	r(7810) = -0.05, p = .002	r(7810) = 0.06, $p < .001$	r(7810) = -0.08, $p < .001$	r(7810) = 0.13, $p < .001$	r(7810) = 0.16, $p < .001$	r(7810) = 0.18, $p < .001$	r(7810) = 0.14, $p < .001$	NA	
Ingroup Typicality	r(7810) = -0.19, $p < .001$	r(7810) = -0.22, $p < .001$	r(7810) = 0.03, p =.101	r(7810) = 0.10, $p < .001$	r(7810) = 0.13, $p < .001$	r(7810) = 0.06, $p < .001$	r(7810) = -0.09, $p < .001$	r(7810) = 0.08, $p < .001$	NA	r(7810) = -0.21, $p < .001$
Ingroup Similarity	r(7810) = -0.24, $p < .001$	r(7810) = -0.27, $p < .001$	r(7810) = 0.18, $p < .001$	r(7810) = 0.25, $p < .001$	r(7810) = 0.06, $p < .001$	r(7810) = -0.03, p = .007	r(7810) = -0.13, $p < .001$	r(7810) = 0.06, $p < .001$	NA	r(7810) = -0.34, $p < .001$

Note. Outgroup typicality and outgroup similarity were positively correlated, r(7810) = 0.07, $p < .001$. Ingroup typicality and ingroup similarity were positively correlated, r(7810) = .58, $p < .001$

Study 4

Pearson's Correlations for Study 4 variables

Variable	**Political Overlap Comp.**	**Overall Overlap Comp.**	**Identity Strength**	**PDPI**	**Outgroup Contact Quant.**	**Outgroup Contact Qual.**	**Pos. Outgroup Contact Norms**	**Conflict Avoidance**	**Outgroup Warmth**	**Ingroup Warmth**	**Outgroup Judgment**	**Ingroup Judgment**
Overall Overlap Comp.	r(7810) = 0.92, *p* < .001											
Identity Strength	r(7810) = -0.35, *p* < .001	r(7810) = -0.36, *p* < .001										
PDPI	r(7810) = -0.23, *p* < .001	r(7810) = -0.22, *p* < .001	r(7810) = 0.38, *p* < .001									
Outgroup Contact Quant.	r(7810) = -0.14, *p* < .001	r(7810) = -0.19, *p* < .001	r(7810) = 0.04, *p* < .001	r(7810) = -0.11, *p* < .001								
Outgroup Contact Qual.	r(7810) = -0.12, *p* < .001	r(7810) = -0.18, *p* < .001	r(7810) = -0.06, *p* < .001	r(7810) = -0.30, *p* < .001	r(7810) = 0.48, *p* < .001							
Pos. Outgroup Contact Norms	r(7810) = -0.01, *p* = .329	r(7810) = -0.06, *p* < .001	r(7810) = -0.02, *p* = .047	r(7810) = -0.32, *p* < .001	r(7810) = 0.38, *p* < .001	r(7810) = 0.47, *p* < .001						
Conflict Avoidance	r(7810) = -0.18, *p* < .001	r(7810) = -0.19, *p* < .001	r(7810) = 0.18, *p* < .001	r(7810) = 0.17, *p* = .095	r(7810) = 0.11, *p* < .001	r(7810) = 0.05, *p* < .001	r(7810) = 0.01, *p* = .257					
Outgroup Warmth	r(7810) = -0.17, *p* < .001	r(7810) = -0.13, *p* < .001	r(7810) = -0.06, *p* < .001	r(7810) = -0.25, *p* < .001	r(7810) = 0.45, *p* < .001	r(7810) = 0.59, *p* < .001	r(7810) = 0.46, *p* < .001	r(7810) = 0.09, *p* < .001				
Ingroup Warmth	r(7810) = -0.27, *p* < .001	r(7810) = -0.28, *p* < .001	r(7810) = 0.56, *p* < .001	r(7810) = 0.16 *p* < .001	r(7810) = 0.03, *p* = .003	r(7810) = 0.01, *p* = .351	r(7810) = 0.08, *p* < .001	r(7810) = 0.10, *p* < .001	r(7810) = 0.08, *p* < .001			
Outgroup Judgement	r(7810) = -0.06, *p* < .001	r(7810) = -0.06, *p* < .001	r(7810) = 0.18, *p* < .001	r(7810) = 0.05, *p* = .001	r(7810) = -0.04, *p* = .015	r(7810) = -0.09, *p* < .001	r(7810) = 0.01, *p* = .729	r(7810) = 0.08, *p* < .001	r(7810) = -0.09, *p* < .001	r(7810) = 0.15, *p* < .001		
Outgroup Typicality	r(7810) = -0.08, *p* < .001	r(7810) = -0.03, *p* = .050	r(7810) = 0.17, *p* < .001	r(7810) = 0.27, *p* < .001	r(7810) = -0.15, *p* < .001	r(7810) = -0.36, *p* < .001	r(7810) = -0.21, *p* < .001	r(7810) = 0.02 *p* = .130	r(7810) = -0.34, *p* < .001	r(7810) = 0.11, *p* < .001	r(7810) = 0.15, *p* < .001	NA
Outgroup Similarity	r(7810) = -0.24, *p* < .001	r(7810) = -0.26, *p* < .001	r(7810) = 0.15, *p* < .001	r(7810) = 0.24, *p* < .001	r(7810) = 0.12, *p* < .001	r(7810) = 0.12, *p* < .001	r(7810) = 0.12, *p* < .001	r(7810) = 0.09, *p* < .001	r(7810) = 0.14, *p* < .001	r(7810) = 0.04, *p* = .017	r(7810) = -0.25, *p* < .001	NA
Ingroup Judgement	r(7810) = 0.04, *p* = .022	r(7810) = 0.01, *p* = .743	r(7810) = 0.05, *p* = .002	r(7810) = -0.09, *p* < .001	r(7810) = 0.12, *p* < .001	r(7810) = 0.11, *p* < .001	r(7810) = 0.18, *p* < .001	r(7810) = 0.05, *p* < .001	r(7810) = 0.11, *p* < .001	r(7810) = 0.02, *p* = .271	NA	--
Ingroup Typicality	r(7810) = -0.18, *p* < .001	r(7810) = -0.18, *p* < .001	r(7810) = 0.02, *p* =.264	r(7810) = 0.12, *p* < .001	r(7810) = 0.09, *p* < .001	r(7810) = 0.11, *p* < .001	r(7810) = -0.08, *p* < .001	r(7810) = 0.10, *p* < .001	r(7810) = 0.13, *p* < .001	r(7810) = -0.12, *p* < .001	NA	r(7810) = -0.23, *p* < .001
Ingroup Similarity	r(7810) = -0.25, *p* < .001	r(7810) = -0.27, *p* < .001	r(7810) = 0.19, *p* < .001	r(7810) = 0.27, *p* < .001	r(7810) = 0.08, *p* < .001	r(7810) = 0.06, *p* < .001	r(7810) = 0.13, *p* < .001	r(7810) = 0.10, *p* < .001	r(7810) = 0.05, *p* = .002	r(7810) = 0.05, *p* = .003	NA	r(7810) = -0.36, *p* < .001

Note. Outgroup typicality and outgroup similarity were positively correlated, r(7810) = 0.07, $p < .001$. Ingroup typicality and ingroup similarity were positively correlated, r(7810) = .56, $p < .001$

Distribution of Fourth Identities Listed by Participants Across Studies

Identity Category	Study1	Study2	Study3	Study4	Total
sexualities	88 (11.9%)	154 (13.0%)	231 (17.7%)	225 (17.2%)	698 (15.4%)
parenthood	99 (13.4%)	175 (14.7%)	196 (15.0%)	144 (11.0%)	614 (13.5%)
occupations	85 (11.5%)	169 (14.2%)	145 (11.1%)	198 (15.1%)	597 (13.1%)
gender identities	101 (13.6%)	127 (10.7%)	120 (9.2%)	118 (9.0%)	466 (10.3%)
athletics	47 (6.4%)	103 (8.7%)	141 (10.8%)	177 (13.5%)	468 (10.3%)
creative identities	70 (9.5%)	93 (7.8%)	102 (7.8%)	109 (8.3%)	374 (8.2%)
personal traits	57 (7.7%)	60 (5.1%)	66 (5.1%)	87 (6.7%)	270 (5.9%)
hobbies	33 (4.5%)	65 (5.5%)	74 (5.7%)	67 (5.1%)	239 (5.3%)
video gamer	28 (3.8%)	59 (5.0%)	77 (5.9%)	49 (3.7%)	213 (4.7%)
close relationships	44 (5.9%)	51 (4.3%)	41 (3.1%)	32 (2.4%)	168 (3.7%)
student	11 (1.5%)	31 (2.6%)	22 (1.7%)	22 (1.7%)	86 (1.9%)
beliefs	15 (2.0%)	10 (0.8%)	37 (2.8%)	14 (1.1%)	76 (1.7%)
nationalities	12 (1.6%)	25 (2.1%)	6 (0.5%)	5 (0.4%)	48 (1.1%)
animal lover	17 (2.3%)	10 (0.8%)	7 (0.5%)	14 (1.1%)	48 (1.1%)
special needs identities	6 (0.8%)	11 (0.9%)	11 (0.8%)	11 (0.8%)	39 (0.9%)
age identities	6 (0.8%)	9 (0.8%)	1 (0.1%)	11 (0.8%)	27 (0.6%)
region of origin	5 (0.7%)	6 (0.5%)	4 (0.3%)	11 (0.8%)	26 (0.6%)
diets	6 (0.8%)	4 (0.3%)	7 (0.5%)	3 (0.2%)	20 (0.4%)
ethnic identities	4 (0.5%)	2 (0.2%)	4 (0.3%)	6 (0.5%)	16 (0.4%)
military identities	0 (0.0%)	7 (0.6%)	2 (0.2%)	4 (0.3%)	13 (0.3%)
poor health status	2 (0.3%)	8 (0.7%)	3 (0.2%)	0 (0.0%)	13 (0.3%)
wealth identities	2 (0.3%)	7 (0.6%)	3 (0.2%)	0 (0.0%)	12 (0.3%)
other	2 (0.3%)	2 (0.2%)	6 (0.5%)	1 (0.1%)	11 (0.2%)
Total	740	1188	1302	1308	4542

Race x Party of High-SIC, Low-Bias Participants

	Study 3		Study 4		Total	
Race	**Reps**	**Dems**	**Reps**	**Dems**	**Reps**	**Dems**
White	33 (48.53%)	9 (13.24%)	26 (38.24%)	10 (14.71%)	59 (43.38%)	19 (13.97%)
Black	2 (2.94%)	7 (10.29%)	4 (5.88%)	8 (11.76%)	6 (4.41%)	15 (11.03%)
Hispanic	5 (7.35%)	0	3 (4.41%)	2 (2.94%)	8 (5.88%)	2 (1.47%)
Asian	8 (11.76%)	1 (1.47%)	9 (13.24%)	0	17 (12.50%)	1 (0.74%)
AIAN	0	0	2 (2.94%)	1 (1.47%)	2 (1.47%)	1 (0.74%)
NHPI	0	0	0	0	0	0
Multiracial	1 (1.47%)	2 (2.94%)	1 (1.47%)	1 (1.47%)	2 (1.47%)	3 (2.21%)
Other	0	0	1 (1.47%)	0	1 (0.74%)	0

Note. High-SIC, Low-Bias participants were identified as participants who scored at least half a standard deviation above the mean on political complexity (o) and at least half a standard deviation below the mean on negative outgroup judgments (N = 68 in both studies).

Visible x Obligatory Identities of High-SIC, Low-Bias Participants

	Study 3		Study 4		Total	
	Obligatory	**Voluntary**	**Obligatory**	**Voluntary**	**Obligatory**	**Voluntary**
Visible	20 (29.41%)	22 (32.35%)	19 (27.94%)	19 (27.94%)	39 (28.68%)	41 (30.15%)
Invisible	11 (16.18%)	15 (22.06%)	8 (11.76%)	22 (32.35%)	19 (13.97%)	34 (25%)

Note. Visible-obligatory identities were coded to include categories like gender (e.g., "female") and family roles (e.g., "mother"). Visible-voluntary identities were coded to include categories like occupation (e.g., "music artist"). Invisible-obligatory identities were coded to include categories like sexuality (e.g., "lesbian"). Invisible-voluntary identities were coded to include categories like hobbies (e.g., "reader").

This exploratory analysis showed that visible identities were slightly more frequently reported (58.82%) than invisible ones (38.97%) and voluntary identities were slightly more frequent (55.15%) than obligatory ones (42.65%). However, we caution that these patterns may reflect our coding scheme rather than participants' subjective experiences. Future work directly assessing participants' own perceptions of identity visibility and voluntariness can examine whether these dimensions systematically moderate the effects of SIC.

Supplemental Study: Impact of SIC on Moral Judgments in a Religious Context

Supplemental Study (Religious Context)

In Supplemental Study (Religious Context), we aimed to replicate the results of Studies 1-2 in a religious context and test whether the effects of SIC hold controlling for the effects of identity strength using a more direct measure of identity strength. Supplemental Study (Religious Context) followed the same design as Study 2 but examined how people judged members of their own and other groups based on religion (Christians versus Jews). The preregistration for this supplemental study can be found here: Study 3: https://osf.io/82dfz/?view_only=d1fa759d44254171abbe4084e7758898.

Participants

As preregistered, we aimed to recruit N = 200 participants per condition (ingroup versus outgroup), but given the limited number of Jewish participants on online recruitment platforms, we expected to recruit fewer than 200 Jewish participants. Participants were 41.80 years old on average, 54.83% women and 43.68% men. We recruited participants from Prolific and recruited additional Jewish participants from Cloud Research. We oversampled 264 participants in the ingroup condition and 274 in the outgroup condition, including 343 Christian participants and 195 Jewish participants. A sensitivity analysis conducted using the package “pwr” showed that this sample size provided 80% power to detect an R-squared of 0.02 or greater for a regression model with 3 predictors, with an alpha of 0.05.

Procedure

Participants followed the same procedure as Study 2. Transgressions for Supplemental Study (Religious Context) included four adapted from Study 2 (i.e., riot, biased grading, stealing from charity, publishing misinformation), and two novel transgressions (i.e., vandalizing other

local religious buildings, online bullying). In all scenarios, the transgression was in some way tied to or driven by religious affiliation (e.g., religious charity, biased grading or bullying those who do not share one's religious beliefs, etc.) to reduce participant response bias. Half of participants were randomly assigned to read that the transgressions were committed by religious ingroup members (*ingroup condition*), and the other half were randomly assigned to read that the transgressions were committed by religious outgroup members (*outgroup condition*).

Measures

Participants completed the same measures as Study 2, excluding the two exploratory items (i.e., loss of respect and openness to intergroup contact). Participants in Supplemental Study (Religious Context) also completed an identity strength measure:

Identity Strength

Participants indicated how strongly they identify with each of their four social groups on a 5-point Likert scale (1 = "Not very strongly"; 5 = "Extremely strongly").

Results

Similar to Studies 1-2, we examined the impact of both overall complexity and the complexity of the salient identity, which in this study was religion. Religious complexity was computed using the same approach for calculating political complexity in Studies 1-2. Religious identity strength had a small negative correlation with religious complexity (o) ($r = -0.12$, $df = 3226$, $p < .001$) and religious complexity (s) ($r = -0.19$, $df = 3226$, $p < .001$). Similar to Study 2, we analyzed our main results by fitting a series of linear mixed-effects models using the package "lme" with vignette and participant id entered as random intercepts. We controlled for age,

gender, religion (dummy coded as 0 = Christian, 1 = Jewish), religiosity, race, political party, SES, and religious identity strength in all models.

Moral Judgment of Transgressors

Although we did not expect the effect of group to differ in Supplemental Study (Religious Context), we observed that differences in moral judgments of ingroup and outgroup transgressors diverged across scenarios. In the biased grading scenario and the campus riot scenario, participants tended to judge outgroup transgressors more harshly than ingroup transgressors, but this difference was significant only in the biased grading scenario. In the stealing from charity, vandalizing religious buildings, online bullying, and publishing misinformation scenarios, participants tended to judge ingroup transgressors more harshly than outgroup transgressors; however, this difference was significant only in the stealing and vandalizing scenarios. Prior work suggests that judging ingroup members more harshly than outgroup members, known as the Black Sheep Effect, can occur to maintain social cohesion when the transgression threatens the group (Tang et al., 2023) or when those transgressions are harmless (Bettache et al., 2018). However, the victims in all the scenarios used in the current work were interpersonal (i.e., ingroup harming the outgroup, outgroup harming the ingroup), so there was a clear interpersonal harm posed by each transgression. In addition, since all ingroup transgressions were directed at the outgroup, there was no direct threat to the ingroup posed by ingroup transgressors. Yet, it is possible that participants may have felt like these transgressions could threaten the positive reputation of the ingroup. Since we observed the Black Sheep effect for Supplemental Study (Religious Context) but not Studies 1-2, this could indicate that potential reputational threats are more important for religious identity than political identity. As a result of the diverging impact of group across scenarios, there was no main overall effect of group on

negative moral judgments of religious ingroup (M = 3.85, SD = 0.90) and outgroup (M = 3.82, SD = 0.89) transgressors. Given these diverging results, we analyzed the results separately for the two scenarios in which participants displayed significant bias against ingroup members (*ingroup derogation scenarios*) and the scenario in which participants displayed significant bias against outgroup members (*outgroup derogation scenario*). For the latter, we used multiple linear regression. Results are summarized in Tables 3a and 3b. Full model results are reported in the Supplementary Materials.

Table 3a

Simple and Interaction Effects of Identity Complexity on Outcomes for Ingroup Derogation (Black Sheep) Scenarios in Supplemental Study (Religious Context)

	β	**SE**	**t-value**	***p***
Moral Judgements				
Religious Complexity: Overlap				
Complexity*Group	-0.15	0.06	-2.63	.009
Simple Effect for Outgroup	-0.06	0.05	-1.28	.202
Simple Effect for Ingroup	0.14	0.04	3.49	< .001
Religious Complexity: Similarity				
Complexity*Group	-0.05	0.06	-0.85	.394
Simple Effect for Outgroup	< 0.01	0.04	0.06	.952
Simple Effect for Ingroup	0.06	0.04	1.35	.177
Overall Complexity: Overlap				
Complexity*Group	-0.15	0.06	-2.61	.009
Simple Effect for Outgroup	-0.04	0.05	-0.80	.424
Simple Effect for Ingroup	0.13	0.04	3.40	<.001
Overall Complexity: Similarity				
Complexity*Group	-0.05	0.06	-0.95	.344
Simple Effect for Outgroup	< .01	0.04	0.07	.941
Simple Effect for Ingroup	0.06	0.04	1.51	.132
Perceived Typicality				
Religious Complexity: Overlap				
Main Effect of Complexity	-0.24	0.04	-5.85	< .001
Simple Effect for Outgroup	-0.30	0.06	-4.88	< .001
Simple Effect for Ingroup	-0.22	0.05	-4.37	< .001
Religious Complexity: Similarity				
Main Effect of Complexity	-0.13	0.04	-3.22	.001

Simple Effect for Outgroup	-0.14	0.06	-2.41	.016
Simple Effect for Ingroup	-0.13	0.05	-2.57	.011
Overall Complexity: Overlap				
Main Effect of Complexity	-0.27	0.04	-7.03	< .001
Simple Effect for Outgroup	-0.33	0.06	-5.69	< .001
Simple Effect for Ingroup	-0.23	0.05	-4.87	< .001
Overall Complexity: Similarity				
Main Effect of Complexity	-0.15	0.04	-3.81	< .001
Simple Effect for Outgroup	-0.14	0.06	-2.33	.021
Simple Effect for Ingroup	-0.18	0.05	-3.55	< .001

Table 3b

Simple and Interaction Effects of Identity Complexity on Outcomes for Outgroup Derogation Scenario in Supplemental Study (Religious Context)

	β	**SE**	**t-value**	***p***
Moral Judgements				
Religious Complexity: Overlap				
Complexity*Group	-0.12	0.08	-1.53	.127
Simple Effect for Outgroup	-0.07	0.05	-1.28	.202
Simple Effect for Ingroup	0.06	0.06	0.99	.321
Religious Complexity: Similarity				
Complexity*Group	0.02	0.08	0.31	.758
Simple Effect for Outgroup	0.04	0.05	0.75	.452
Simple Effect for Ingroup	-0.02	0.06	-0.36	.722
Overall Complexity: Overlap				
Complexity*Group	-0.11	0.08	-1.37	.171
Simple Effect for Outgroup	-0.07	0.06	0.64	.525
Simple Effect for Ingroup	0.04	0.06	0.63	.526
Overall Complexity: Similarity				
Complexity*Group	0.06	0.08	0.77	.438
Simple Effect for Outgroup	0.07	0.05	1.40	.163
Simple Effect for Ingroup	-0.02	0.06	-0.36	.716
Perceived Typicality				
Religious Complexity: Overlap				
Main Effect of Complexity	-0.23	0.05	-4.92	< .001
Simple Effect for Outgroup	-0.31	0.07	-4.51	< .001
Simple Effect for Ingroup	-0.19	0.05	-3.48	< .001
Religious Complexity: Similarity				
Main Effect of Complexity	-0.11	0.05	-2.44	.015
Simple Effect for Outgroup	-0.18	0.06	-2.73	.007

Simple Effect for Ingroup	-0.05	0.06	-0.98	.329
Overall Complexity: Overlap				
Main Effect of Complexity	-0.27	0.04	-6.21	< .001
Simple Effect for Outgroup	-0.33	0.06	-5.14	< .001
Simple Effect for Ingroup	-0.23	0.05	-4.52	< .001
Overall Complexity: Similarity				
Main Effect of Complexity	-0.14	0.05	-3.18	.002
Simple Effect for Outgroup	-0.18	0.06	-2.87	.004
Simple Effect for Ingroup	-0.10	0.06	-1.82	.070

Ingroup Derogation (Black Sheep) Scenarios. For the scenarios in which participants tended to judge ingroup transgressors more harshly than outgroup transgressors on average, there was a significant interaction between religious complexity (o) and group. Replicating the effects of Studies 1-2, greater religious complexity (o) was associated with more negative judgments of ingroup transgressors and less negative judgments of outgroup transgressors, but the latter was not significant. Thus, the simple effects of social identity complexity were consistent in direction with those observed in Studies 1 and 2. Notably, however, since participants tended to judge ingroup members more harshly for these scenarios, greater SIC was associated with a larger mean difference in moral judgment of ingroup and outgroup transgressors. In other words, SIC was associated with a larger Black Sheep effect for these scenarios. There were no significant interaction or simple effects of religious complexity (s). The effect of overall complexity (o) was similar to that of religious complexity (o) for judgments of the outgroup and the ingroup.

Outgroup Derogation Scenario. For the scenario in which participants tended to judge outgroup transgressors more harshly than ingroup transgressors on average, there was no significant interaction between religious complexity (o) and group. While religious complexity (o) tended to be associated with more negative judgments of ingroup transgressions and less negative judgments of outgroup transgressors, these effects were not significant. There were no

significant interaction or simple effects of religious complexity (s). The effect of overall complexity (o) was similar to that of religious complexity (o) for judgments of ingroup and outgroup transgressors. Although we observed no significant effects of SIC on moral judgment in this scenario, this may be explained by features of the transgression scenario or religious context, which we were unable to account for since we only observed outgroup derogation in one scenario in this study. Future work is needed to clarify how SIC may effect outgroup derogation in moral judgments of transgressions that occur in a religious group context.

Perceived Typicality of Transgressors

Similar to Studies 1-2, there was a marginal main effect of group in all models such that participants tended to perceive outgroup transgressors as more typical group members than ingroup transgressors. As in Studies 1-2, religious complexity (o) was slightly stronger for perceptions of the outgroup than perceptions of the ingroup. We observed similar but weaker effects for religious complexity (s). Religious complexity (s) was associated with perceiving both outgroup and ingroup transgressors as less typical, however the latter was not significant for the outgroup derogation scenario. The effect of overall complexity (o) on judgments of outgroup and ingroup transgressors was similar to that of religious complexity (o). In summary, across both types of scenarios, SIC was associated with perceiving transgressors as less typical group members.

Moral Judgment and Perceived Typicality

Unlike Studies 1-2, we found that there was no significant interaction between perceived typicality and group in either type of scenario. Perceived typicality was associated with more negative judgments of outgroup transgressors (although the effect for ingroup derogation scenarios was marginal) and tended to be associated with less negative judgments of ingroup

transgressors, but the effects were small and not significant. Thus, in contrast to Studies 1-2, we observed that perceiving transgressors as more typical was not consistently associated with moral judgments. This could have been due to a floor effect for perceptions of typicality, as the mean and median for perceived typicality were quite low in both types of scenarios (ingroup derogation scenarios: Mean = 1.86, SD = 1.10, Median = 1.00, outgroup derogation scenarios: Mean = 1.99, SD = 1.11, Median = 2.00).

Supplemental Study (Religious Context) Summary

In Supplemental Study (Religious Context), we examined the impact of social identity complexity on responses to moral transgressions committed by ingroup and outgroup transgressors in a religious context, controlling for religious identity strength. We observed two different patterns of bias: in some scenarios, participants judged outgroup members more harshly than ingroup members; in others, they judged ingroup members more harshly, a pattern known as the Black Sheep Effect. Although we did not expect to observe Black Sheep effects in Supplemental Study (Religious Context), this allowed us to examine how SIC would moderate bias against ingroup members. In Black Sheep Effect scenarios, we found that, replicating the results of Studies 1 and 2, SIC was associated with more negative judgments of ingroup members and less negative judgments of outgroup members, but the latter was not significant. These results demonstrate the robustness of the association between SIC and reduced ingroup favoritism, suggesting that SIC may even contribute to a greater Black Sheep effect in situations in which ingroup transgressors were judged more harshly than outgroup transgressors. We did not observe a direct effect of SIC on moral judgment in the outgroup derogation scenario. Future work is needed to clarify whether this may have been due to domain-specific or scenario-specific differences. Replicating the results of Studies 1-2, we found that, in both types of scenarios, SIC

was associated with perceiving transgressors as less typical group members, whether they were ingroup or outgroup members. Yet, contrary to Studies 1-2, perceived typicality was not significantly associated with moral judgments, which may have been due to the unexpected finding that perceptions of typicality were largely at floor. It is unclear why we observed this floor effect for Supplemental Study (Religious Context); it is possible that transgressors are more likely to be perceived as atypical in a religious context compared to a political context, but more work is needed to clarify this. Overall, Supplemental Study (Religious Context) demonstrated that the effects of SIC on judgments of ingroup members and perceptions of the typicality of ingroup and outgroup transgressors are robust controlling for identity strength and may sometimes exacerbate the Black Sheep effect.

Pearson's Correlations for Supplemental Study (Religious Context) variables

Variable	**Reli Similarity Complexity**	**Overall Similarity Complexity**	**Reli Overlap Complexity**	**Overall Overlap Complexity**	**Typicality**	**Reli Identity Strength**	**Religiosity**	**SES**	**Judgment**
Overall Similarity Complexity	r(3226) = 0.92, p < .001								
Reli Overlap Complexity	r(3226) = 0.51, p < .001	r(3226) = 0.47, p < .001							
Overall Overlap Complexity	r(3226) = 0.46, p < .001	r(3226) = 0.49, p < .001	r(3226) = 0.92, p < .001						
Typicality	r(3226) = -0.09, p < .001	r(3226) = -0.11, p < .001	r(3226) = -0.18, p < .001	r(3226) = -0.22, p < .001					
Reli Identity Strength	r(3226) = -0.19, p < .001	r(3226) = -0.16, p < .001	r(3226) = -0.12, p < .001	r(3226) = -0.12, p < .001	r(3226) = -0.02, p = 0.2277				
Religiosity	r(3226) = -0.19, p < .001	r(3226) = -0.17, p < .001	r(3226) = -0.16, p < .001	r(3226) = -0.13 p < .001	r(3226) = 0.01, p = 0.4603	r(3226) = 0.52, p < .001			
SES	r(3226) = 0.04, p = 0.01457	r(3226) = 0.03, p = 0.07433	r(3226) = 0.01, p = 0.6392	r(3226) = -0.02, p = 0.1636	r(3226) = -0.02, p = 0.3794	r(3226) = 0.04, p = 0.03216	r(3226) = -0.02, p = 0.3202		

Judgment	r(3226) = 0.02 p = 0.357	r(3226) = 0.01, p = 0.4048	r(3226) = 0, p = 0.8069	r(3226) = 0, p = 0.8688	r(3226) = 0.04, p = 0.01091	r(3226) = 0.06, p = 0.0006773	r(3226) = 0.01, p = 0.6752	r(3226) = 0.01, p = 0.6246	
Age	r(3226) = -0.11 p < .001	r(3226) = -0.11 p < .001	r(3226) = -0.12 p < .001	r(3226) = -0.08 p < .001	r(3226) = -0.12 p < .001	r(3226) = 0.09 p < .001	r(3226) = 0.03 p = 0.1248	r(3226) = 0.03 p = 0.1414	r(3226) = 0.09 p < .001

Exploratory Analyses in Study 2

Openness to Intergroup Contact

Participants indicated the extent to which they agree with the statement "I would be less willing to engage with all [members of the transgressors' political group; Democrats\ Republicans] in my community after this" on a 5-point Likert scale (1 = "Strongly disagree"; 5 = "Strongly agree").

Loss of Respect

Participants indicated the extent to which they agree with the statement "I would have less respect for all [members of the transgressors' political group; Democrats\Republicans] in my community after this" on a 5-point Likert scale (1 = "Strongly disagree"; 5 = "Strongly agree").

Exploratory: Effect of identity complexity on openness to engage with the transgressors' group

There was a main effect of group on openness among both Democrats and Republicans such that participants reported greater willingness to engage with ingroup compared to outgroup members. In an exploratory manner, we examined whether identity complexity mitigated this bias. We found a main effect of SIC on openness among both Democrats and Republicans such that greater political complexity (s) was associated with greater willingness to engage with ingroup and outgroup members. Greater political complexity (o) was also associated with significantly greater openness, but only among Democrats.

Supplementary Table 23

Interaction Effect Between Identity Complexity and Group on Distancing

Democrats					
Political Complexity: Overlap					
Effect	**Estimate**	**SE**	**df**	**t-value**	***p***
Political Identity Complexity	-0.12	0.02	4845	-5.49	< .001
Group	1.36	0.17	4845	8.06	< .001
Complexity:Group	-0.02	0.03	4845	-0.73	.467
Political Complexity: Similarity					
Effect	**Estimate**	**SE**	**df**	**t-value**	***p***

Political Identity Complexity	-0.04	0.02	4845	-1.56	< .001
Group	1.04	0.11	4845	9.49	< .001
Complexity:Group	0.07	0.03	4845	1.96	.050

Republicans

Political Complexity: Overlap

Effect	Estimate	SE	df	t-value	*p*
Political Identity Complexity	0.02	0.03	3183	0.68	.500
Group	2.20	0.21	3183	10.61	< .001
Complexity:Group	-0.23	0.04	3183	-5.77	< .001

Political Complexity: Similarity

Effect	Estimate	SE	df	t-value	*p*
Political Identity Complexity	-0.04	0.02	3183	-1.56	< .001
Group	1.04	0.11	3183	9.49	< .001
Complexity:Group	0.07	0.03	3183	1.96	.500

Exploratory: Interaction effect between identity complexity and group on loss of respect

We found a main effect of political overlap complexity on loss of respect among Democrats such that greater political overlap complexity is associated with less loss of respect for transgressors' whole political groups. However, there was no main effect of political overlap complexity on loss of respect among Republicans. Additionally, there was no main effect of political similarity complexity among Democrats or Republicans. We also found a main effect of group on loss of respect among both Democrats and Republicans such that participants reported a greater loss of respect for the outgroup compared to the ingroup.

Exploratory Analyses: Summary

We also explored the impact of SIC on reactions toward the transgressors' whole group following the transgression. We found that among both Democrats and Republicans, greater political similarity complexity was associated with greater willingness to engage with members of the transgressors' whole group (openness). This effect did not differ depending on group (ingroup versus outgroup). Greater political overlap complexity was associated with greater openness among Democrats and was associated with greater openness toward ingroup or outgroup among Republicans, but not significantly associated with openness toward [ingroup/outgroup]. Additionally, we found that, greater political overlap complexity was associated with reduced loss of respect for all members of the transgressors' group among Democrats and associated with reduced loss of respect for ingroup or outgroup among Republicans, but not significantly associated with loss of respect for ingroup or outgroup members. Greater political similarity complexity was associated with reduced loss of respect for [ingroup/outgroup] members among Republicans, but not ingroup or outgroup members, and was not significantly associated with loss of respect among Democrats.