

Political Rule (vs. Opposition) Predicts Whether Ideological Prejudice Is Stronger in U.S. Conservatives or Progressives

Johanna Woitzel¹ and Alex Koch²

¹ Department of Social Cognition, Faculty of Psychology, Ruhr University Bochum

² Booth School of Business, University of Chicago

People see societal groups as less moral, warm, and likable if their ideology is more dissimilar to the ideology of the self (i.e., ideological prejudice). We contribute to the debate on whether ideological prejudice in the United States is stronger in conservatives, progressives, or neither. Investigating the American National Election Studies, we found that between 1972 and 2021, ideological prejudice was stronger in conservatives. However, investigating studies conducted to develop the agency–beliefs–communion model, we found that between 2016 and 2021, ideological prejudice was stronger in progressives. We report various analyses of both research programs and two new studies that rule out several explanations for this contradiction. Additional analytic and experimental evidence suggests that political rule (vs. opposition) may explain the robust heterogeneity in asymmetric ideological prejudice. Ideological prejudice shifted toward being stronger in conservatives when the United States was governed by Democrats and toward being stronger in progressives when the United States was governed by Republicans.

Public Significance Statement

People are prejudiced toward those individuals and groups whose ideology is different from their own—an effect called ideological prejudice. This research contributes to the ongoing debate on whether ideological prejudice in the United States is stronger in conservatives, progressives, or neither. Extensive analyses of data from 1972 to 2021 found that asymmetries in ideological prejudice are robustly heterogeneous. Additional analytic and experimental evidence suggests that political rule (vs. opposition) partially explains this heterogeneity. Ideological prejudice increased among U.S. conservatives when the U.S. government was controlled by Democrats, and it increased among U.S. progressives when the U.S. government was controlled by Republicans.

Keywords: ideological prejudice, (a)symmetry, trend over time, American National Election Studies, agency–beliefs–communion model

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People see societal groups as less moral, warm, and likable if they see their ideology as more dissimilar to the ideology of the self (Brandt, 2017; Iyengar et al., 2019; Koch, Imhoff, et al., 2020). This article calls this effect ideological prejudice.

Ideological prejudice is problematic because it operates *spontaneously* when people encounter various society-representative groups. In some studies, people sorted groups on a blank screen.

Their sole instructions were to sort similar groups closer together and to sort dissimilar groups further apart. People spontaneously interpreted similarity in terms of ideology and clustered conservative and progressive groups at opposite ends of the screen. Also, progressives rated the progressive (vs. conservative) groups as more moral and likable; conservatives rated the conservative (vs. progressive) groups as more moral and likable. This pattern of

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Johanna Woitzel  <https://orcid.org/0000-0002-8541-4469>

Alex Koch  <https://orcid.org/0000-0002-6267-8066>

Johanna Woitzel and Alex Koch contributed equally. All materials, data, code, and results are available on the websites of the American National Election Studies at <https://electionstudies.org/data-center/> and the Open Science Framework at https://osf.io/eu4b9/?view_only=f67cb1135b4f49fa809d7cb455e42a6. Order of authorship prioritizes student over adviser. The data and ideas of Section 1: Pooling and Analyzing 27 Existing Studies and Section 2: Analyses of Two New Studies in this article were presented at the International Association of Conflict Management conference in 2023.

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Correspondence concerning this article should be addressed to Alex Koch, Booth School of Business, University of Chicago, 5807 S Woodlawn Avenue, Office 312, Chicago, IL 60637, United States. Email: alex.koch@chicagobooth.edu

results emerged regardless of whether the groups were social, occupational, or regional categories (Imhoff et al., 2018; Koch et al., 2018; Koch, Imhoff, et al., 2020). In factor analytic studies that disentangled prejudice against all groups from prejudice against specific groups, prejudice against progressive groups emerged as a specific prejudice factor that explained a substantial proportion of variance in people's spontaneous prejudice ratings. Conservatives and progressives scored higher and lower on this factor, respectively (Bergh & Brandt, 2022). In other studies, people's sole instructions were to use a few words to describe groups. People spontaneously mentioned the groups' ideology, morality, and likability (Nicolas et al., 2022). The same was true when people described concrete photos of group members instead of abstract labels of groups (Connor et al., 2024).

Ideological prejudice is also problematic because it predicts ideological discrimination. Generosity game studies show that people feel less warm toward groups, and share fewer resources with them, if they see their ideology as more dissimilar to the ideology of the self (Crawford et al., 2017; Iyengar & Westwood, 2015). Further, when the ideologies of a person and group were more dissimilar, that person entrusted that group with less money (Iyengar & Westwood, 2015). Cooperation game studies show that when person-group dissimilarity in ideology is higher, that person sees that group as less moral and likable and trades fewer resources with it (Balliet et al., 2018; Koch, Dorrough, et al., 2020). A public goods game study showed that conservatives contributed fewer resources to mostly progressive communities, and progressives contributed less to communities in which conservatives formed the majority (Whitt et al., 2021). Additionally, hiring was less likely when the ideological groups of the recruiter and job candidate were mismatched (vs. matched, Gift & Gift, 2015). Finally, person-group dissimilarity in ideology predicts disinterest in socializing and disengagement behavior (Chen & Rohla, 2018; Lammers et al., 2017).

In sum, ideological prejudice is problematic because it operates spontaneously and because it predicts ideological discrimination. For this and other reasons, previous research discussed moderators of ideological prejudice. One moderator that received a great deal of scholarly attention is the conservative versus progressive ideology of the prejudiced person. There is a debate on whether ideological prejudice is stronger in conservatives (vs. progressives) or equally strong in conservatives and progressives (Baron & Jost, 2019; Brandt & Crawford, 2020; Jost, 2017; Stern & Crawford, 2021).

Ideological Prejudice May Be Stronger in Conservatives, Progressives, or Neither

Conservatives and progressives differ in ways other than the content of their ideology. Conservatives have a higher need for closure (Jost et al., 2003), and their preference for simplicity is stronger (Jost, 2017). They value loyalty and purity more (Graham et al., 2009). Their interest in trying new things is lower (Shook & Fazio, 2009). They follow routines more (Carney et al., 2008). They are more opposed to change (Schwartz et al., 2012) and diversity (Van Hiel & Mervielde, 2004), and they are more certain about their views (Ruisch & Stern, 2021) as well as more rigid (Jost et al., 2003). Based on these personality and lifestyle differences (for a recent review, see Costello et al., 2023), several theoretical articles claim that ideological prejudice is stronger in conservatives compared to progressives (i.e., a *conservative asymmetry*; Badaan & Jost, 2020;

Baron & Jost, 2019; Jost, 2017; Jost et al., 2003, 2017). Accordingly, a recent empirical article found that conservatives' attitudes toward progressives were more negative than progressives' attitudes toward conservatives (Ganzach & Schul, 2021). Another recent empirical article found that conservatives' (vs. progressives') prejudice against marginalized groups was, and recently grew, stronger (Ruisch & Ferguson, 2022). But what about studies in which conservatives and progressives encounter large, society-representative samples of groups?

There is a research program that examined people's prejudice against various groups (Brandt & Crawford, 2020; Crawford & Brandt, 2020). This work argued that prejudice is not so much a function of personality and lifestyle differences but mostly a defense strategy against threats from conflicting worldviews. According to this worldview conflict hypothesis, conservatives' prejudice against progressive groups should be as strong as progressives' prejudice against conservative groups so long as the ideological dispute between conservatism and progressivism is equally strong from the perspective of conservatives and progressives. A host of studies found that perceived worldview conflict predicted ideological prejudice, which turned out to be substantial in size in both conservatives and progressives. This was true for ideology construed as conservative versus liberal political orientation (Chambers et al., 2013; Crawford, 2014; Crawford et al., 2017; Crawford & Pilanski, 2014; Wetherell et al., 2013), high versus low religious fundamentalism (Brandt & Van Tongeren, 2017), and being conventional versus alternative (Brandt et al., 2015; Crawford & Brandt, 2019). It was also true for cognitive, emotional, and behavioral measures of prejudice, and it was robust across participant sources and times of data collection (Brandt & Crawford, 2020; Crawford & Brandt, 2020).

However, substantial ideological prejudice in both conservatives and progressives does not rule out that ideological prejudice is stronger in conservatives (vs. progressives). Conservatives' preference for conservative (vs. progressive) groups looks consistently stronger than progressives' preference for progressive (vs. conservative) groups in the three studies by Chambers et al. (2013). In two out of the three studies by Brandt and Van Tongeren (2017), prejudice against ideologically dissimilar groups was stronger in people with higher (vs. lower) levels of religious fundamentalism.¹ Prejudice against ideologically dissimilar groups looks consistently stronger in conventional (vs. alternative) people in three out of the four studies by Brandt et al. (2015). On the other hand, two of the three studies by Crawford (2014) looked like finding stronger ideological prejudice in progressives (vs. conservatives). What is more, in a laudable adversarial collaboration, Stern and Crawford (2021) analyzed three studies separately and in combination, and they consistently found a *progressive asymmetry* (i.e., a stronger ideological prejudice in progressives vs. conservatives).

In sum, there is no doubt that perceived worldview conflict predicts substantial ideological prejudice in both conservatives and progressives. Nevertheless, pooling many studies on ideological prejudice may help to explain the above-reviewed heterogeneity in (a)symmetric ideological prejudice.

¹ People with lower levels of religious fundamentalism can be religious in a nonrigid way (vs. atheist in a rigid way). Thus, the research by Brandt and Van Tongeren (2017) supported stronger ideological prejudice in conservatives (vs. progressives) less than the research by Brandt et al. (2015) and Chambers et al. (2013).

The Present Research

This article is divided into three sections. In the first section, we pooled and analyzed many existing studies from two research programs. One program is the American National Election Studies (ANES). The other program is a collection of studies conducted to develop the agency-beliefs-communion (ABC) model of stereotypes about groups (Koch, Imhoff, et al., 2020). In the former program, we found a stronger ideological prejudice in conservatives (vs. progressives); in the latter program, we found the opposite. Additional analyses ruled out explanations for this contradiction. The contradiction is not due to an ideologically skewed sampling of study participants (i.e., more extreme conservatives than progressives in ANES; more extreme progressives than conservatives in ABC). It is also not due to the duration of data collection (ANES: 1972–2021, ABC: 2016–2021).

In the second section, we analyzed two new studies that varied the measures and participants in the two research programs. We found that the contradiction is not due to measuring ideology narrowly (ANES: just politics) or broadly (ABC: politics, religion, and lifestyle). It is not due to measuring prejudice in terms of feelings (ANES) or thoughts (ABC). It is also not due to nationally representative (ANES) versus convenient and more cost-efficient (ABC) sampling of study participants.

In the third section, we reanalyzed the ANES and ABC studies. This time, we modeled who was in power at the time of data collection. Progressive-asymmetric ideological prejudice was more pronounced when the U.S. government was dominated by Republicans, and conservative-asymmetric ideological prejudice was more pronounced when the U.S. government was dominated by Democrats. Both the ANES and ABC data supported this explanation. We reasoned that groups whose ideology is dissimilar to the ideology of the self pose a greater threat to the self when the groups have voted their shared ideology into office so that it is legitimately empowered (Carrier et al., 2019; Roberts & Koch, 2024). One reason is the majority-based, greater social validation of, and thereby the greater symbolic threat from, the ideologically dissimilar groups. Surely another reason is greater realistic threat because the ideologically dissimilar government implements laws and policies that benefit the ideologically dissimilar groups instead of, or even at the expense of, ideological allies and the self (e.g., antiabortion laws in the eyes of progressives; Stephan & Stephan, 2000). The worldview conflict hypothesis (Brandt & Crawford, 2020) argues that people are prejudiced against ideologically dissimilar groups because they pose a threat to the people's ideated and implemented worldview (Brandt et al., 2014). Thus, explaining the robust heterogeneity in (a)symmetric ideological prejudice through political rule (vs. opposition) is consistent with the worldview conflict hypothesis. This explanation also resonates with the theorizing in the General Discussion section of a recent adversarial collaboration on (a)symmetric ideological prejudice (Stern & Crawford, 2021).

In the fourth section, we analyzed a third new study that manipulated whether the United States was imagined to be ruled by Democrats or Republicans. We found a progressive asymmetry in ideological prejudice that was attenuated when people imagined that Democrats are in power and amplified when they imagined that Republicans are in power. This supported our inference that political rule (vs. opposition) explains parts of the robust heterogeneity in (a)symmetric ideological prejudice.

Constraints on Generality

We sampled roughly 43,000 U.S. residents who rated some of roughly 200 U.S. groups in one of 30 studies that ran between 1972 and 2024. We fitted linear mixed models that treated the raters, the groups, and the studies as random samples. This allowed simultaneously generalizing findings to other U.S. residents who rated other U.S. groups in other studies that ran between 1972 and 2024. The present research is about the United States and neither pre-1972 nor post-2024.

Transparency and Openness

In Section 1 and Section 3, we analyzed each study from two research programs if the study sampled at least 200 people. Most of the studies were originally reported elsewhere (see Supplemental Table S1). The original reports detail the studies' other measures and manipulations. We did not exclude people in the ABC studies, resulting in a sample size of 5,874 people. We excluded people if they participated in more than one ANES study (6,646 people), resulting in a sample size of 34,071 people. We did not exclude the groups rated in the studies, except for groups in the ANES studies that are ambiguous ("political parties") or societal institutions ("Supreme Court," "Federal Government," and "Congress") rather than social categories, task groups, or intimacy groups (see Supplemental Table S2). Our analyses of the ABC and ANES studies are not preregistered but resemble the state-of-the-art analyses reported in a recent adversarial collaboration on (a)symmetric ideological prejudice (Stern & Crawford, 2021). We also originally report three ABC studies in Section 1 and Section 3, including all their measures and manipulations.

In Section 2, we report Studies 1 and 2 (these studies are part of neither research program). In Study 1, which is preregistered at AsPredicted and is accessible at https://aspredicted.org/W6Z_D36, we excluded nine people because they failed the attention check or recommended not to analyze their data due to inattentive responding. In Study 2, which is also preregistered at AsPredicted and is accessible at https://aspredicted.org/4TD_QDC, we did not exclude participants. In Section 4, we report Study 3 (this study is part of neither research program). In Study 3, we excluded 12 people because they recommended not to analyze their data due to inattentive responding, as preregistered at AsPredicted and accessible at https://aspredicted.org/SD7_TSL.

All materials, data, code, and results are available on the websites of the ANES at <https://electionstudies.org/data-center/> and the Open Science Framework at https://osf.io/eu4b9/?view_only=f67cb1135b4f4f9fa809d7cb455e42a6 (Woitzel & Koch, 2024). Data were analyzed using R (Version 4.3.2, R Core Team, 2023) and the packages *lme4* (Version 1.1–34, Bates et al., 2015), *lmerTest* (Version 3.1–3, Kuznetsova et al., 2017), *emmeans* (Version 1.8.6, Lenth, 2023), *ggplot2* (Version 3.4.2, Wickham, 2016), and *simr* (Version 1.0.7, Green & MacLeod, 2016).

For comparison of effect sizes, all analyses in all studies scaled all independent variables to vary from -0.5 to 0.5 and scaled all dependent variables to vary from 0 to 1 .

Statistical Power

We used the R package *simr* (Green & MacLeod, 2016) to run 100 simulations-based sensitivity power analyses for all central effects.

All these effects were moderations of the main effect of self-group dissimilarity in ideology on prejudice against the group, with the conservative versus progressive ideology of the prejudiced person being the moderator always, and political rule (vs. opposition) being an additional moderator in some analyses. In previous work (Koch, Imhoff, et al., 2020), the size of this main effect was about $b = .30$. We simulated the power of testing moderations of the main effect with an effect size of at least one third of the main effect's size: $b = \pm .10$.

Section 1: Pooling and Analyzing 27 Existing Studies

Method

In this section, we examined two research programs that are suitable to investigate (a)symmetries in ideological prejudice: the ANES and studies on the ABC model by Koch et al. (2016, 2020).

ANES

The first research program we investigated is the Time Series Studies, which are the core of the ANES. Every 2–4 years between 1972/1973 and 2020/2021, these 21 studies drew a representative sample from the population of people with a residential address in the United States. Among other measures, people rated their feelings, on a scale ranging from 0 (*cold*) to 100 (*warm*), toward the groups (*prejudiced feelings*). People also rated their own ideology on a scale ranging from 1 (*extremely liberal*) to 7 (*extremely conservative*). We did not examine ANES studies that ran before 1972 because people in those studies did not rate their own ideology.

In the ANES studies, people did not rate the groups' ideology, which we estimated from mean ratings of the groups' ideology collected in a follow-up study. That institutional review board (IRB)-approved study recruited 440 online workers through Prolific Academic (196 women, 239 men, three other, two did not indicate their gender; $M_{\text{age}} = 41.68$ years, $M_{\text{ideology}} = 4.02$ on a scale ranging from 1 = *extremely liberal* to 7 = *extremely conservative*). People rated the ideology of all groups in the ANES studies using the same scale that people in the ANES studies had used to rate their own ideology. This estimation of the groups' ideology has precedents (Brandt, 2017; Chambers et al., 2013) and is permissible because people agree on which groups are conservative, moderate, and progressive (Koch, Imhoff, et al., 2020).

We examined the ANES studies despite Chambers et al. (2013), who examined the same ANES studies but only up until 2012 (vs. 2020 in the present research). Chambers et al. (2013) categorized both people and groups as liberal versus conservative if they scored left versus right of the midpoint of the Ideology scale. This categorization excluded the possibility of testing the effects of the degree of ideological dissimilarity on prejudiced feelings. The present research tested these and other effects in a greater amount of, and more recent, ANES data, compared to the contribution by Chambers et al. (2013).

ABC Model Studies

The second research program that we investigated is studies conducted to develop the agency-beliefs-communion model of spontaneous stereotypes about groups (Koch, Imhoff, et al., 2020). We used all ABC studies that recruited more than 200 U.S. residents between 2016 and 2021. The ABC model originated in 2016. Thus,

there are no studies on the ABC model before 2016. Four and two studies drew samples from the online worker populations Mechanical Turk and Prolific Academic, respectively. In all studies, people rated various groups on a factor-analytically developed multiattribute scale ranging from 0 (*the group making an untrustworthy, dishonest, threatening, repellent, cold, and selfish impression*) to 100 (*the group making a trustworthy, sincere, benevolent, likable, warm, and altruistic impression*). This scale (Koch et al., 2016) measured *prejudiced thoughts*. People also rated their own ideology on a factor-analytically developed multiattribute scale (Koch et al., 2016) ranging from traditional, religious, conventional, and conservative (0 for *most conservative*) to modern, science-oriented, alternative, and liberal (100 for *most progressive*). People used the same scale to rate the ideology of the groups. We computed mean ratings of ideology separately for each group within each ABC study, to match the mean-level estimates of the ideology of the groups in the ANES studies.

We examined the ABC studies for several reasons. First, all ABC data were available. Second, previous ABC research predicted and confirmed that ideological prejudice is stronger than status-based prejudice (Koch, Imhoff, et al., 2020), and ideological prejudice is stronger in people whose ideology is extreme (vs. moderate as in neither conservative nor progressive; Woitzel & Koch, 2023). Thus, examining another moderator of the strength of prejudice against groups, namely the prejudiced person's conservative (vs. progressive) ideology, neatly follows up on the most recent ABC research. Third, examining the ABC compared to ANES studies provides the opportunity to show and moderate ideological prejudice as a function of different measures of both ideology and prejudice. The ABC studies measured ideology broadly (politics, religion, and lifestyle) and measured prejudice in terms of thoughts (i.e., impressions of groups' morality and likability), whereas the ANES studies measured ideology narrowly (just politics) and prejudice in terms of cold versus warm feelings.

Supplemental Tables S1 and S2 show details about the people and groups in all studies examined here. The ANES (vs. ABC) studies sampled more people ($N_{\text{ANES}} = 34,071$; $N_{\text{ABC}} = 5,874$) and periods of data collection, whereas the ABC (vs. ANES) studies sampled slightly more groups.

In the analyses that follow, both Prejudice scales described above were reversed. Thus, the Prejudiced Feelings scale ranged from warm to cold feelings. The Prejudiced Thoughts scale ranged from trustworthy, and so forth, to untrustworthy, and so forth, impression. For the analyses, we also computed *self-group dissimilarity in ideology* as the absolute difference between that person's self-rated ideology and the ideology of that group as rated by many people, on average.

Results and Discussion

Contradictory Ideological Prejudice in the ANES Versus ABC Studies

We combined all ANES data in a linear mixed model (Judd et al., 2012) with random intercepts for 21 ANES studies, 391 groups that were unique within (but not necessarily between) the ANES studies, and 34,071 people that took part in the ANES studies. Model 1.1 predicted people's prejudiced feelings from self-group dissimilarity in ideology, self-rated ideology ranging from conservative to

progressive, and the interaction of these two effects. We combined all ABC data in a linear mixed model with random intercepts for six ABC studies, 462 groups that were unique within (but not necessarily between) the ABC studies, and 5,874 people that took part in the ABC studies. Model 1.2 predicted people's prejudiced thoughts from self-group dissimilarity in ideology, self-rated ideology, and the interaction of these two effects.

Results showed that people in both the ANES and ABC studies were more prejudiced against a group if its ideology appeared more dissimilar to the ideology of the self. We refer to this effect as ideological prejudice (see effect 1 in Models 1.1 and 1.2 in Table 1). Notably, this effect was more than 7 and 2 times larger than any other effect in the ANES and ABC studies, respectively. In the ANES studies, the effect size of ideological prejudice increased if the ideology of the self was more conservative (see the negative effect 3 in Model 1.1). In the ABC studies, the effect size of ideological prejudice increased if the ideology of the self was more progressive (see the positive effect 3 in Model 1.2), replicating a recent adversarial collaboration on (a)symmetric ideological prejudice that analyzed three studies (Stern & Crawford, 2021). Figure 1 plots the effect size (i.e., simple slope) of the ideological prejudice of moderate conservatives and progressives in both research programs.

Thus, the ANES studies suggested a conservative asymmetry in ideological prejudice, whereas the ABC studies suggested a progressive asymmetry, a contradiction that needed addressing. We first addressed this contradiction by conducting follow-up analyses with the ANES and ABC studies.

The Contradiction Is Not Due to Ideologically Skewed Sampling. Supplemental Text S1 in the supplement ruled out a plausible explanation. The ANES studies sampled conservatives with a more extremely conservative ideology, compared to the extremeness of the ideology of the progressives in the ANES studies. Reversely, the ABC studies sampled progressives with a more extremely progressive ideology, compared to the extremeness of the ideology of the conservatives in the ABC studies. Recent research shows that ideological prejudice is stronger in people whose ideology is more extreme (vs. moderate; Woitzel & Koch, 2023). Thus, conservatively (vs. progressively) skewed sampling in the ANES (vs. ABC) studies may explain the contradiction, as we show in Simulations S1–S3 in the Supplemental Material. However, we reran the analyses in Table 1 while statistically controlling for the extremeness of people's self-rated ideology and its interaction with self-group dissimilarity in ideology, and the contradiction emerged

anyway. Thus, the contradiction is not due to ideologically skewed sampling; see Supplemental Text S1.

The Contradiction Is Not Due to the Duration of Data Collection. The ANES studies span 48 years (1972/1973–2020/2021) versus a span of 5 years (2016–2021) between the ABC studies. It could be that the ANES studies found a conservative asymmetry before roughly 2010 but found a progressive asymmetry after roughly 2010. This progressive asymmetry would replicate the more recent progressive asymmetry that the ABC studies found. The conservative asymmetry in the ANES studies overshadowed the progressive asymmetry in the ANES studies; however, because the duration of the former (vs. latter) asymmetry is longer. Supplemental Text S2 in the supplement reports a series of analyses that took into account the time of data collection. In the ANES data, ideological prejudice developed from a progressive asymmetry in 1972/1973 to a conservative asymmetry in 2020/2021. Descriptively, it seems that progressive asymmetries are more prevalent in the ANES studies that ran before 2000. Conservative asymmetries are more prevalent in the ANES studies that ran after 2000 (see Supplemental Figure Text S2.2 and Table Text S2.2). In the ABC data, however, ideological prejudice developed from a progressive asymmetry in 2016 to a slightly weaker progressive asymmetry in 2021. Thus, taking into account the time/year of data collection accentuated rather than resolved the contradiction. Noteworthy, in both research programs, we found an increase in ideological prejudice over the years, consistent with previous research (Webster & Abramowitz, 2017; for explanations of the increase through the internet age and social media, see Brady et al., 2017; Rathje et al., 2021; Törnberg, 2022).

As the follow-up analyses did not resolve the contradiction that we found between the ANES and ABC studies, we conducted two new studies that addressed the heterogeneity by investigating the impact of the way prejudice and ideology are measured (Study 1) and the impact of whether people are sampled conveniently or nationally representatively (Study 2).

Section 2: Analyses of Two New Studies

Study 1

This new IRB-approved study that is part of neither research program examined whether the explanation of the contradiction is construing and measuring self-group dissimilarity in ideology and self-rated ideology (the independent variables) narrowly (just politics;

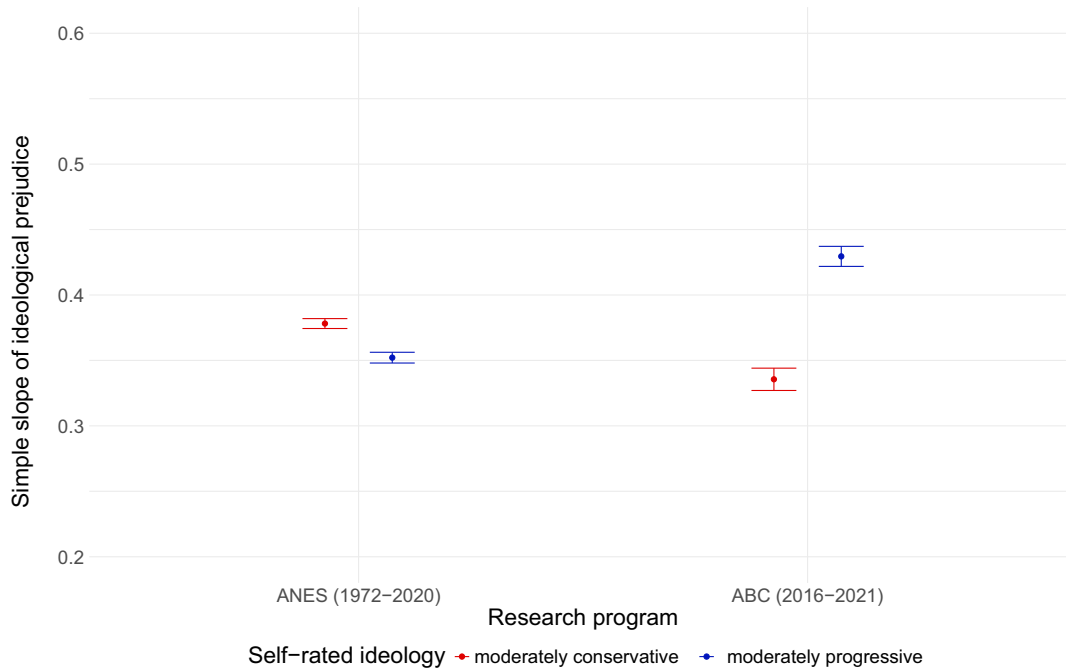
Table 1

Contradictory Asymmetric Ideological Prejudice in the ANES Versus ABC Studies

No.	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	1 – β
Model 1.1 (ANES studies)						
1	Self-group dissimilarity in ideology	0.37	[0.36, 0.37]	263.66	<.001	1.00
2	Progressive ideology of the self	–0.02	[–0.02, –0.01]	–5.00	<.001	
3	Dissimilarity × Progressiveness	–0.05	[–0.06, –0.04]	–8.89	<.001	1.00
Model 1.2 (ABC studies)						
1	Self-group dissimilarity in ideology	0.38	[0.38, 0.39]	143.73	<.001	1.00
2	Progressive ideology of the self	0.01	[0.00, 0.02]	1.38	.169	
3	Dissimilarity × Progressiveness	0.19	[0.16, 0.21]	14.85	<.001	1.00

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound]; 1 – β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10 for interaction effects; ANES = American National Election Studies; ABC = agency-beliefs–community model studies.

Figure 1
Ideological Prejudice by Research Program and Self-Rated Ideology



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and progressive self-rated ideologies correspond to -0.25 and 0.25 , respectively, on a scale ranging from -0.5 (*extremely conservative*) to 0.5 (*extremely progressive*). ANES = American National Election Studies; ABC = agency-beliefs-communion model studies. See the online article for the color version of this figure.

ANES) versus broadly (politics, religion, and lifestyle; ABC) or construing and measuring prejudice (the dependent variable) in terms of feelings (ANES) or thoughts (ABC).

Method

Participants. We sampled 1,004 people from the online worker population Prolific Academic. As preregistered, we excluded one person who failed an attention check and eight people who recommended us not to analyze their data due to inattentive responding. The final sample was 435 women, 548 men, seven other, and five did not indicate their gender; $M_{\text{age}} = 41.40$ years; $M = 3.81$ and skew = 0.03 on the ANES's self-rated ideology scale ranged from 1 (*extremely liberal*) to 7 (*extremely conservative*), and $M = 58.24$ and skew = -0.32 on the ABC's self-rated ideology scale ranged from 1 (*traditional, etc.*) to 100 (*modern, etc.*).

Stimuli and Procedure. People rated all groups that people in the 2020 ANES study had rated (see Supplemental Table S2). The 18 groups appeared one below another and in random order on the same screen. People first rated their prejudiced feelings toward the groups using the same scale as in the 21 ANES studies. On the next screen, people rated their prejudiced thoughts toward the groups using the same scale as in the six ABC studies. Or, as determined randomly, people rated their prejudiced thoughts before rating their prejudiced feelings. Next, people self-rated their ideology as in the ANES studies, then rated the ideology of all groups using the same scale, and then rerated their own ideology, to increase measurement reliability. On the next screen, people rated

their own ideology, the groups' ideology, and their own ideology once more using the same scale as in the ABC studies. As determined randomly, people rated their own ideology and the groups' ideology in first-ANES-then-ABC style or the reverse order of styles. Finally, people indicated their age, gender, and whether they recommended us to analyze the data that they had provided.

Measures. As in our analyses of the existing studies (Section 1), we averaged people's ratings of the groups' ideology separately for each group and each ideology measure (ANES vs. ABC). We also averaged each person's two ratings of their own ideology separately for each ideology measure (ANES vs. ABC). In the analyses that follow, prejudiced feelings ranged from warm to cold feelings and prejudiced thoughts ranged from trustworthy, and so forth, to untrustworthy, and so forth, impression. As before, the analyses computed *self-group dissimilarity in ideology* as the absolute difference between that person's self-rated ideology and the ideology of that group as rated by all people in this study, on average.

Results and Discussion

The Contradiction Is Not Due to Measuring Ideology Narrowly Versus Broadly, and It Is Also Not Due to Measuring Prejudiced Feelings Versus Thoughts. The article fitted four linear mixed models that estimated random intercepts for 18 groups and 995 people. In each model, the dependent variable was people's prejudice against the groups, whereas the fixed effects were self-group dissimilarity in ideology, self-rated ideology, and the interaction

between these two effects. Model 2.1 predicted prejudiced feelings (ANES) from the narrow measure of ideology (just politics; ANES). Model 2.2 predicted prejudiced feelings (ANES) from the broad measure of ideology (politics, religion, and lifestyle; ABC). Model 2.3 predicted prejudiced thoughts (ABC) from the narrow measure of ideology (ANES), and Model 2.4 predicted prejudiced thoughts (ABC) from the broad measure of ideology (ABC).

The results of all four models showed that people were more prejudiced against a group if its ideology appeared more dissimilar to the ideology of the self. Again, we refer to this effect as ideological prejudice (see effect 1 in Models 2.1 to 2.4 in Table 2). Notably, this effect was between 1.4 and 4.2 times larger than any other effect in the models. The effect size of ideological prejudice increased if the ideology of the self was more progressive (see the positive effect 3) in all four models: All models found a progressive asymmetry in ideological prejudice.

Compare Models 2.1 and 2.2. Measuring ideology narrowly as in the ANES studies versus broadly as in the ABC studies did not change the result of progressive asymmetry when predicting prejudiced feelings as in the ANES studies. Compare Models 2.3 and 2.4. Measuring ideology narrowly (ANES) versus broadly (ABC) did not change the result of progressive asymmetry when predicting prejudiced thoughts as in the ABC studies. Thus, the research programs' contradiction (see Models 1.1 and 1.2 in Section 1) is not due to measuring ideology narrowly versus broadly as in the ANES versus ABC studies, respectively. Figure 2 supports this inference by plotting simple slopes (Aiken & West, 1991) of ideological prejudice at moderate conservatives versus moderate progressives in all four models.

Now compare Models 2.1 and 2.3. Measuring prejudice in terms of feelings (ANES) versus thoughts (ABC) did not change the result of progressive asymmetry when the predictor was narrow ideology as in the ANES studies. Compare Models 2.2 and 2.4. Measuring prejudice in terms of feelings (ANES) versus thoughts (ABC) did not change the result of progressive asymmetry when the predictor

was broad ideology as in the ABC studies. Thus, the research programs' contradiction (see Models 1.1 and 1.2) is also not due to measuring ideology narrowly (ANES) versus broadly (ABC; see Figure 2).

To cross-check the validity of these two inferences, we refitted Models 2.1–2.4 when computing self-group dissimilarity in ideology as the absolute difference between a person's self-rated ideology and that person's rating of that group's ideology, instead of computing the absolute difference between a person's self-rated ideology and that group's ideology as rated by all people, on average. Supplemental Table S3 shows that modeling mean-level consensual versus individual-level personal ratings of the groups' ideology did not matter; progressive asymmetry emerged robustly in both analyses.

Another cross-check of the two inferences' validity was to refit Models 2.1–2.4 when specifying four additional fixed effects: order of ideology measures (ANES vs. ABC first); order of ideology measures interacting with self-group dissimilarity in ideology; order of ideology measures interacting with self-rated ideology; and the three-way interaction between order of ideology measures, self-group dissimilarity in ideology, and self-rated ideology. Progressive asymmetry emerged robustly regardless of whether people rated the groups' ideology first-ANES-then-ABC style or the reverse style (Supplemental Table S4). In yet another round of fitting extensions of Models 2.1–2.4, progressive asymmetry emerged robustly regardless of whether people rated their prejudice against the groups' first-ANES-then-ABC style or the reverse style (Supplemental Table S5).

Recall that people in Study 1 rated the same groups that people in the 2020 ANES study had rated, and these groups are largely the same groups as in the 2000–2016 ANES studies (see Supplemental Table S2). People in Study 1 rated their prejudice against the groups, the groups' ideology, and their own ideology using the same scales as people in the 2000–2020 ANES studies. The new study finds stronger ideological prejudice in progressives (vs. conservatives);

Table 2
Predicting Prejudiced Feelings Versus Thoughts From Narrowly Versus Broadly Construed Ideology

No.	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	1 – β
Model 2.1 (ideo.: ANES; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.66	[0.65, 0.68]	83.25	<.001	1.00
2	Progressive ideology of the self	–0.05	[–0.08, –0.02]	–2.93	.004	
3	Dissimilarity \times Progressiveness	0.19	[0.13, 0.26]	5.67	<.001	0.83
Model 2.2 (ideo.: ABC; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.65	[0.63, 0.66]	72.78	<.001	1.00
2	Progressive ideology of the self	–0.03	[–0.07, 0.00]	–2.09	.037	
3	Dissimilarity \times Progressiveness	0.47	[0.39, 0.54]	12.15	<.001	0.79
Model 2.3 (ideo.: ANES; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.59	[0.57, 0.60]	77.03	<.001	1.00
2	Progressive ideology of the self	–0.03	[–0.06, 0.00]	–1.86	.064	
3	Dissimilarity \times Progressiveness	0.14	[0.08, 0.20]	4.25	<.001	0.88
Model 2.4 (ideo.: ABC; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.58	[0.56, 0.59]	68.47	<.001	1.00
2	Progressive ideology of the self	–0.02	[–0.05, 0.01]	–1.04	.299	
3	Dissimilarity \times Progressiveness	0.38	[0.31, 0.46]	10.48	<.001	0.73

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound]; 1 – β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10 for interactions; ideo. = ideology measure; prej. = prejudice measure; ANES = American National Election Studies; ABC = agency-beliefs-communion model studies.

Table 3

Symmetric Ideological Prejudice Regardless of Convenient Versus Representative Sampling

No.	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	1 – β
Model 3						
1	Self-group dissimilarity in ideology	0.30	[0.29, 0.30]	86.91	<.001	1.00
2	Progressive ideology of the self	0.01	[–0.01, 0.04]	1.01	.312	
3	Dissimilarity \times Progressiveness	0.00	[–0.02, 0.02]	–0.25	.800	1.00
4	Sampling (convenient vs. representative)	–0.03	[–0.04, –0.01]	–3.46	.001	
5	Dissimilarity \times Sampling	–0.03	[–0.04, –0.01]	–3.82	<.001	
6	Progressiveness \times Sampling	0.01	[–0.04, 0.05]	0.26	.796	
7	Dissimilarity \times Progressiveness \times Sampling	0.01	[–0.03, 0.05]	0.49	.624	1.00

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound]; 1 – β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10 for interactions.

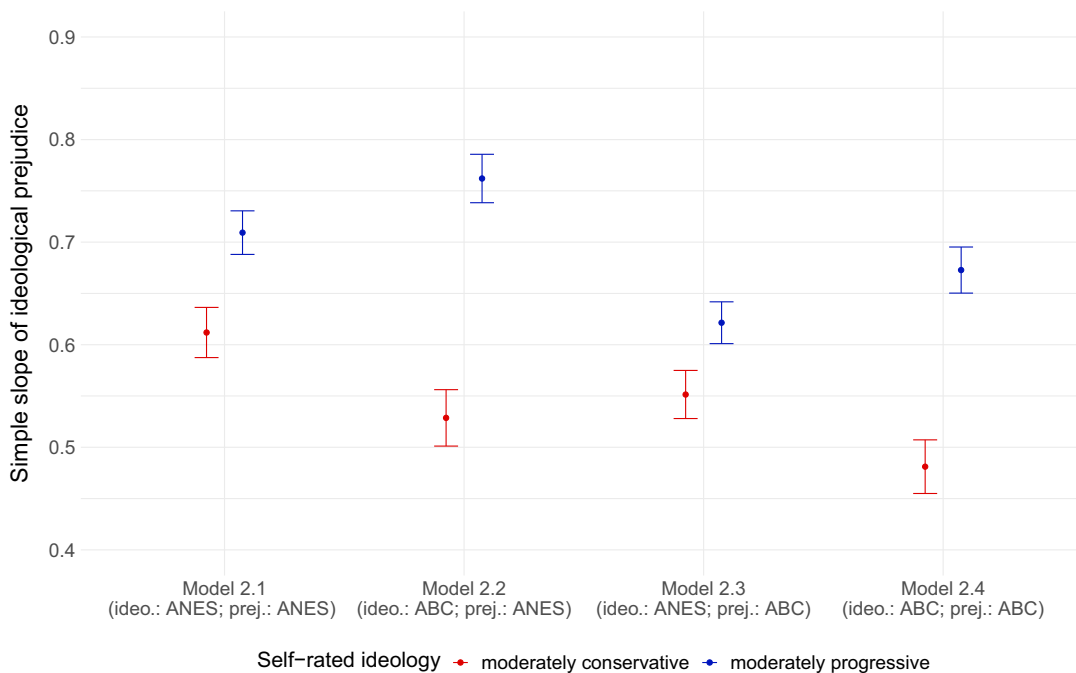
the 2000–2020 ANES studies find conservative asymmetry (see [Supplemental Figure Text S2.2](#) and [Table Text S2.2](#)), however. We consider it unlikely that the time difference between the new study (2022) and the 2000–2020 ANES studies explains their contradiction, given that 3 decades passed before the progressive asymmetry in the earlier ANES studies (i.e., pre–2000) flipped to a conservative asymmetry in the later ANES studies (see [Supplemental Figure Text S2.2](#) and [Table Text S2.2](#)). It is also unlikely that some of the many other questions in the ANES studies triggered conservative asymmetry never between 1972 and 1999 but always between 2000 and 2020. Each ANES study includes many unique questions, and the order of questions is unique in each ANES study. So, what explains the contradiction?

Study 2

The ANES studies drew nationally representative samples of participants, whereas the ABC studies and the studies in the recent adversarial collaboration on ideological prejudice ([Stern & Crawford, 2021](#)) drew convenient samples of participants (university students and online workers). Thus, so far, we cannot rule out that the ABC and adversarial collaboration studies found progressive rather than conservative asymmetry because university students and online workers are not representative of the U.S. population in some regard that influence the strength of some people’s ideological prejudice. Study 2 was IRB-approved and tested whether convenient versus representative sampling may explain the contradiction.

Figure 2

Ideological Prejudice by Ideology Measure, Prejudice Measure, and Self-Rated Ideology



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and progressive self-rated ideologies correspond to –0.25 and 0.25, respectively, on a scale ranging from –0.5 (*extremely conservative*) to 0.5 (*extremely progressive*). ideo. = ideology measure; prej. = prejudice measure; ANES = American National Election Studies; ABC = agency–beliefs–community model studies. See the online article for the color version of this figure.

Method

Participants. We sampled people from two sources between June 2 and 4 in 2023. The first source was self-selected online workers whom we recruited via Prolific Academic. This convenient sample of 1,044 people included 416 women, 619 men, eight other, and one did not indicate their gender; $M_{\text{age}} = 42.96$ years; $M = 3.10$ and skew = -0.16 on a self-rated ideology scale ranging from 1 (*very liberal*) to 5 (*very conservative*). The second source was U.S. residents that we randomly selected based on their mailing address and with the help of the survey and market research firm SSRS. This nationally representative sample of 1,000 people included 540 women, 445 men, nine other, and six did not indicate their gender; $M_{\text{age}} = 49.87$ years; $M = 2.94$ and skew = 0.06 on a self-rated ideology scale ranging from 1 (*very liberal*) to 5 (*very conservative*). For each source of participants, [Supplemental Table S7](#) in the supplement reports the distribution of people's household income, level of education, race/ethnicity, U.S. region (Northeast, Midwest, South, or West) and state of residence, internet usage, and neighborhood (rural/countryside, suburban, or urban). It is worth noting that drawing the nationally representative sample was more than 9 times more expensive than drawing the convenient sample.

Stimuli and Procedure. Stimuli and procedure were the same for both the convenient and the nationally representative sample. [Supplemental Text S3](#) describes a pilot study in which roughly 600 people listed 20 types of people that they thought today's society (i.e., the United States in 2022) categorizes into groups. People in Study 2 rated the 30 most frequently listed groups, which included Democrats, Republicans, Christians, rich people, LGBTQ+ people, poor people, students, Black people, young people, elderly people, White people, Hispanic people, blue collar workers, Asian people, athletes, adults, middle class people, Muslims, women, Jews, scientists, artists, men, atheists, parents, celebrities and influencers, teachers, politicians, immigrants, and military and veterans. People first rated their prejudiced feelings toward the groups using a similar scale as in the ANES studies. The scale ranged from *I have cold, negative feelings toward them* (1) to ... *moderate,*

neutral feelings ... (4) to ... *warm, positive feelings ...* (7). On each of five survey pages, people rated six groups below one another and in random order. On the next page, people used a similar scale as in the ANES studies to self-rate their ideology. The scale ranged from 1 (*very conservative*) to 5 (*very liberal*). On the next five pages, people used the same scale to rate the ideology of six groups below one another and in random order. Finally, people provided demographic information on their age, gender, household income, level of education, race/ethnicity (White, Black, Hispanic, Asian, Other, or prefer not to say), U.S. region (Northeast, Midwest, South, or West) and state of residence, internet usage, and neighborhood (rural/countryside, suburban, or urban).

Measures. In the below analyses, prejudiced feelings ranged from warm to cold. The analyses computed self-group dissimilarity in ideology as the absolute difference between that person's self-rated ideology and the ideology of that group rated by that person (instead of on average because modeling individual-level vs. mean-level ratings of the groups' ideology did not make a difference in Study 1, and the individual is the standard unit of analysis in psychological research). We combined the data from both sources and coded convenient sampling with -0.5 and nationally representative sampling with 0.5 .

Results

The Contradiction Is Not Due to Drawing a Convenient Versus Nationally Representative Sample of Participants. We fitted a linear mixed model (Model 3) that estimated random intercepts for the 30 groups and 2,044 people. The dependent variable was people's prejudice against the groups, whereas the fixed effects were self-group dissimilarity in ideology, self-rated ideology, sampling (convenient vs. nationally representative), and their two-way interactions and three-way interaction.

The results of Model 3 showed that people were more prejudiced against a group if its ideology appeared more dissimilar to the ideology of the self. Again, we refer to this effect as ideological

Table 4
Ideological Prejudice by Self-Rated Ideology and Political Power

No.	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	1 - β
Model 4.1 (ANES studies)						
1	Self-group dissimilarity in ideology	0.36	[0.36, 0.37]	263.13	<.001	1.00
2	Progressive ideology of the self	-0.02	[-0.02, -0.01]	-5.04	<.001	
3	Dissimilarity \times Progressiveness	-0.05	[-0.06, -0.04]	-8.95	<.001	1.00
4	Political power	0.04	[-0.02, 0.10]	1.37	.188	
5	Dissimilarity \times Power	-0.05	[-0.06, -0.03]	-6.17	<.001	
6	Progressiveness \times Power	-0.04	[-0.06, -0.03]	-2.23	.026	
7	Dissimilarity \times Progressiveness \times Power	-0.10	[-0.16, -0.03]	-3.08	.002	0.88
Model 4.2 (ABC studies)						
1	Self-group dissimilarity in ideology	0.37	[0.37, 0.38]	126.50	<.001	1.00
2	Progressive ideology of the self	0.01	[0.00, 0.02]	1.53	.127	
3	Dissimilarity \times Progressiveness	0.22	[0.20, 0.25]	15.95	<.001	1.00
4	Political power	0.02	[-0.05, 0.10]	0.61	.588	
5	Dissimilarity \times Power	0.04	[0.03, 0.06]	6.82	<.001	
6	Progressiveness \times Power	0.04	[0.02, 0.07]	3.14	.002	
7	Dissimilarity \times Progressiveness \times Power	-0.21	[-0.27, -0.16]	-7.14	<.001	0.92

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound]; 1 - β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10 for interactions; ANES = American National Election Studies; ABC = agency-beliefs-communion model studies.

prejudice (see effect 1 in Model 3 in Table 3). Notably, this effect was 10 times larger than any other effect in the model. The effect size of ideological prejudice did not increase if the ideology of the self was more progressive (see the null effect 3 in Model 3). In addition, this null effect of the progressive ideology of the self on ideological prejudice did not become a positive or negative effect when drawing a nationally representative (vs. convenient) sample of participants (see the null effect 7 in Model 3). These effects hold for separate analyses of the convenient and nationally representative samples (see Supplemental Table S6).

Discussion

The results of Study 2 were both clarifying and confusing. The clarification was that the contradiction (between a conservative–asymmetrical ideological prejudice in the ANES data and progressive–asymmetrical ideological prejudice in the ABC data) is not due to drawing a nationally representative (ANES) versus a convenient (ABC) sample of participants. The confusion was that Study 2 found no asymmetry in ideological prejudice, a null effect that we did not expect as we did not find it in any of the previous analyses/studies that we conducted (see Section 1 and Study 1 in Section 2).²

Across the 29 studies we examined, we concluded that ideological prejudice is *heterogeneous* rather than systematically conservative–asymmetrical, symmetrical, or progressive–asymmetrical. Thus, we set out to explain the heterogeneity.

Section 3: Pooling and Reanalyzing 27 Existing Studies

As discussed in the first empirical section of this article, Supplemental Text S2 reports an analysis of the ANES studies that took into account the year (between 1972/1973 and 2020/2021) in which each ANES study ran. The results show an increase in ideological prejudice over the years (see effect 7 in Supplemental Models S1.1.2 and S1.2.2 in Table Text S2.1), consistent with previous research (Webster & Abramowitz, 2017; for explanations of the increase through the internet age and social media, see Brady et al., 2017; Rathje et al., 2021; Törnberg, 2022). In addition, the results show a reversal from progressive–asymmetric ideological prejudice in the earlier ANES years to conservative–asymmetric ideological prejudice in the later ANES years.

We noticed that the reversal coincides with Republicans being in power more often in the earlier ANES years (i.e., the Nixon, Ford, Reagan, and Bush senior administrations) versus Democrats being in power more often in the later ANES years (i.e., the Clinton and Obama administrations). This inspired the hypothesis that part of the heterogeneity in ideological prejudice is due to governing the United States versus opposing the U.S. government. Opposing means having less political power than the governing party and ideology, which, according to the worldview conflict hypothesis (Brandt & Crawford, 2020), should increase feeling threatened by the opposed ideology and, thereby, prejudice against it. The below analyses tested this explanation of the heterogeneity in ideological prejudice.

Method

We reanalyzed the 21 ANES and six ABC studies separately and in the same way as described in Section 1 of this article, except that we expanded the two models in Table 1 by considering whether

Republicans or Democrats had more political power when an ANES or ABC study ran. The key institutions of the federal government in the United States are the President, the Vice President, the Senate, and the House of Representatives (for a similar argument, see Keele, 2005), each with its unique ways of exerting political power. Thus, for each ANES and ABC study, we computed an index that reflects political power in the sense of which party held the presidency, vice presidency, the majority of seats in the Senate, and the majority of seats in the House of Representatives during the study's data collection period (see Supplemental Text S4 for more detailed information on how this index was computed). This political power index varied between −0.5 (all institutions are [predominantly] Republican; maximum Republican power) and 0.5 (all institutions are [predominantly] Democratic; maximum Democratic power).

Accordingly, the expanded models additionally included a main effect of power; a two-way interaction between self–group dissimilarity in ideology and political power; a two-way interaction between self-rated ideology and political power; and the three-way interaction between self–group dissimilarity in ideology, self-rated ideology, and political power.

Results

Models 4.1 and 4.2 showed that people were more prejudiced against a group if its ideology appeared more dissimilar to the ideology of the self. Again, the article refers to this effect as ideological prejudice (see effect 1 in Models 4.1 and 4.2 in Table 4), and it was 3.6 and 1.7 times larger than any other effect in the ANES and ABC studies, respectively.

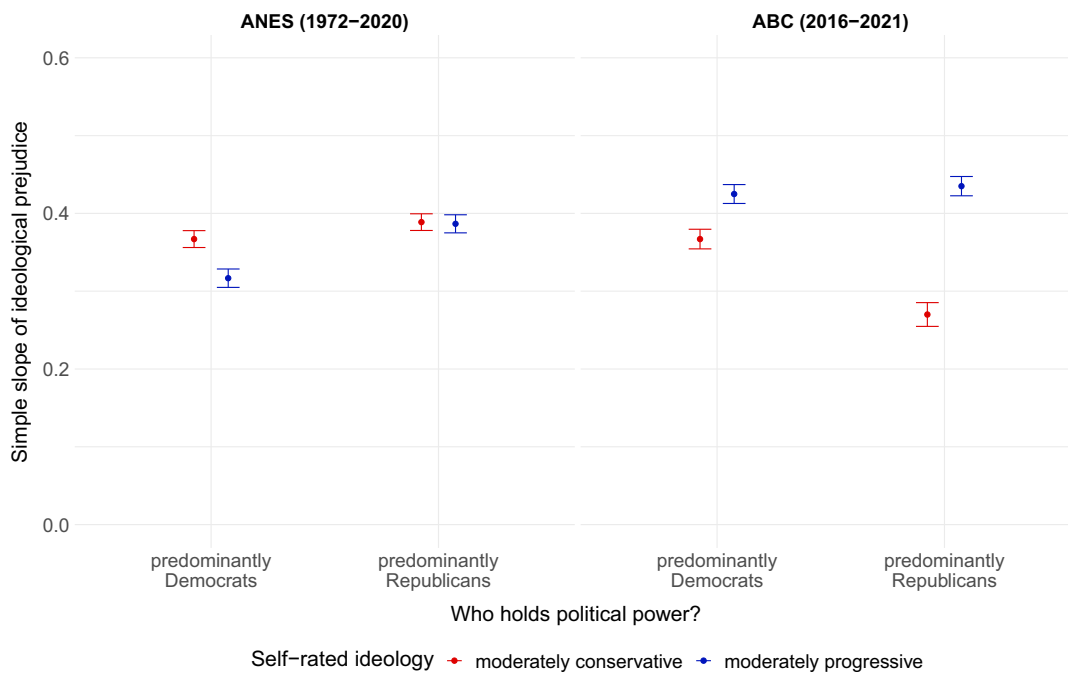
In the ANES studies, the effect size of ideological prejudice increased if the ideology of the self was more conservative (see the negative effect 3 in Model 4.1). This conservative–asymmetric ideological prejudice was amplified if Democrats were predominantly in power, and it was attenuated to become symmetric ideological prejudice if Republicans were predominantly in power. The left panel of Figure 3 plots this significant three-way interaction (see effect 7 in Model 4.1).

In the ABC studies, the effect size of ideological prejudice increased if the ideology of the self was more progressive (see the positive effect 3 in Model 4.2). This progressive–asymmetric ideological prejudice was amplified if Republicans were predominantly in power, and it was attenuated if Democrats were predominantly in power. The right panel of Figure 3 plots this significant three-way interaction (see effect 7 in Model 4.2).

To cross-check the validity this inference, we refitted Models 4.1 and 4.2 twice. The first refit used a political power index that only reflects the President's party and the partisan makeup of the Senate and House of Representatives. This index omitted the Vice President's party for two reasons. First, the Vice President's party always matched the President's party between 1972 and 2021. Thus, the Vice President double-counted the President in Models 4.1 and 4.2. Second, unlike the President, Senate, and House, the Vice President's power is primarily supportive and rarely institutional except in specific situations like breaking a Senate tie. The second

² Note, however, that we found symmetry in some of the ABC and ANES studies when analyzed *separately* (see Supplemental Figures Text S2.2, Text S2.3, and Table Text S2.2).

Figure 3
Ideological Prejudice by Self-Rated Ideology and Observed Political Power



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and progressive self-rated ideologies correspond to -0.25 and 0.25 , respectively, on a scale ranging from -0.5 (*extremely conservative*) to 0.5 (*extremely progressive*). Republicans and Democrats ruling corresponds to -0.5 and 0.5 , respectively, on a scale ranging from -0.5 (the President, the Vice President, and the partisan makeup of the Senate and the House of Representatives *all being Republican*) to 0.5 (the President, the Vice President, and the partisan makeup of the Senate and the House of Representatives *all being Democratic*). ANES = American National Election Studies; ABC = agency-beliefs-communion model studies. See the online article for the color version of this figure.

refit used a political power index that only reflects the party of the President, the head of state and most salient political institution.

The no-Vice President operationalization of political power replicated the pivotal three-way interaction in the ABC data but not in the ANES data. The President-only operationalization replicated the pivotal three-way interaction in both data sets; see [Supplemental Tables S8 and S9](#) and [Figures S1 and S2](#). Thus, the interaction emerged in one of two data sets when the President's party determined a third of the political power index, and it always emerged when the President's party determined half of or the entire political power index.

Research on the President-in-power effect suggests that conservatives' attitudes toward the government are more strongly impacted by the ideology of the President in power than those of progressives' (Morisi et al., 2019). As suggested by a reviewer, we additionally explored whether this asymmetric President-in-power effect also generalized to the ideological prejudice of conservatives and progressives. To this end, we refitted Models 4.1 and 4.2 with a political power index that reflects whether the party of the President *aligns* or *misaligns* with the ideology of the person (for more details, see [Supplemental Text S5](#)). These analyses showed that people in the ANES and ABC studies showed stronger ideological prejudice if their ideology did not align with the party of the President in power. In the ANES studies, conservatives' and progressives' ideological

prejudice increased alike if the party of the President in power misaligned with their ideology. In the ABC studies, however, conservatives' (vs. progressives') ideological prejudice increased more strongly if the party of the President in power misaligned with their ideology. [Supplemental Table Text S5.1](#) and [Figure Text S5.1](#) show these result patterns in more detail. Thus, we find partial support that the asymmetric President-in-power effect (Morisi et al., 2018) generalized from attitudes toward the government to the ideological prejudice of conservatives compared to progressives.

Discussion

Overall, this section supported our hypothesis that ideological prejudice becomes stronger in one ideological camp when the opposed-ideology party seizes power in the sense that it predominantly controls the current U.S. government. However, we note that political rule (vs. opposition) does not fully explain the heterogeneity in (a)symmetric ideological prejudice. We found progressive asymmetry in both ABC studies that ran in 2021 (see Section 1), although the U.S. government at that time was controlled by Democrats. Descriptively, the progressive asymmetries were weaker than in the two ABC studies that ran in 2017 when the U.S. government was controlled by Republicans (see [Supplemental Figure Text S2.3](#)). But

the result that progressives were still more prejudiced than conservatives when Democrats were in power suggests that there are other explanations of (a)symmetric ideological prejudice to be examined in follow-up research.

Section 4: Experimental Manipulation of Political Power Study 3

This section reports a third new study that experimentally manipulated which party controls the U.S. government. We hypothesized to find a stronger conservative asymmetry in ideological prejudice when people imagine that Democrats are in power and a stronger progressive asymmetry when people imagine that Republicans are in power.

Method

Participants. We sampled 994 people from the online worker population Prolific Academic. As preregistered, we excluded 12 people who recommended to not analyze their data due to inattentive responding. The final sample was 457 women, 513 men, and 12 other; $M_{\text{age}} = 42.54$ years; $M = 3.81$ and skew = 0.02 on the ANES's self-rated ideology scale ranged from 1 (*extremely liberal*) to 7 (*extremely conservative*).

Stimuli and Procedure. People imagined that the political power in the United States lies in the hands of Democrats (or Republicans). They read:

Imagine a scenario where the United States is led predominantly by [Democrats/Republicans]. This means that both the Senate and the House of Representatives, collectively known as Congress, are primarily composed of [Democratic/Republican] representatives. Consequently, those entrusted with the authority to legislate are largely aligned with [Democratic/Republican] ideologies. Moreover, the President and Vice President also belong to the [Democratic/Republican] party, indicating that executive powers, including law implementation and enforcement, are predominantly in the hands of [Democratic/Republican] officials. Additionally, consider that appointments to the Supreme Court, responsible for interpreting laws and upholding their constitutionality, are made by [Democratic/Republican] authorities.

Afterward, people rated their prejudiced feelings toward “groups of people who have conservative worldviews, beliefs, and ideals” (i.e., conservative groups) on one slider, and “groups of people who have liberal worldviews, beliefs, and ideals” (i.e., liberal groups) on another slider, as in the ANES studies. On the next screen, people imagined that the political power in the United States lies in the hands of Republicans (or Democrats). Afterward, they again rated their prejudiced feelings toward conservative and liberal groups. Next, people self-rated their ideology as in the ANES studies. It was determined randomly whether people first imagined that Democrats or Republicans rule the United States and whether people first rated their prejudiced feelings toward conservative or liberal groups. Finally, people indicated their age, gender, and whether they recommended to analyze the data that they had provided.

Measures. In the analyses below, prejudiced feelings ranged from warm to cold. We coded self-group dissimilarity in ideology as -0.5 for liberal people's (self-rated ideology <4) ratings of liberal groups and for conservative people's (self-rated ideology >4) ratings of conservative groups. We coded self-group dissimilarity in

ideology as 0.5 for liberal peoples' ratings of conservative groups and for conservative peoples' ratings of liberal groups. We coded self-group dissimilarity in ideology as 0 for moderate people's (self-rated ideology = 4) ratings of liberal and conservative groups. Republican political power was coded as -0.5 and Democratic political power was coded as 0.5 .

Results

As preregistered, we fitted a linear mixed model (Model 5.1) that predicted people's prejudice against the liberal and conservative groups from the following fixed effects: self-group dissimilarity in ideology, self-rated ideology, political power (Republican vs. Democratic), and their two-way interactions and three-way interaction. We included a random intercept for each person.

Descriptively, Model 5.1 showed that asymmetric ideological prejudice shifted toward a conservative asymmetry when people imagined that the Democrats, rather than Republicans, were in power, and it became a stronger progressive asymmetry when people imagined that the Republicans, rather than the Democrats, were in power. However, the respective three-way interaction between self-group dissimilarity in ideology, self-rated ideology, and political power did not reach statistical significance, $b = -0.08$, 95% confidence interval $[-0.16, 0.001]$, $t(2939) = -1.94$, $p = .052$. [Supplemental Table S9](#) in the supplement report all test statistics of Model 5.1.

We noticed that rating one's prejudice against liberal and conservative groups twice induced a pressure to rerate one's prejudice in the same way as the first time when the other political party was imagined to be in power, $r_{\text{conservative groups}} = .81$ and $r_{\text{progressive groups}} = .83$. To get around this consistency pressure, we switched from a within- to a between-subjects manipulation of political power by analyzing only the data from the first time when people imagined that one political party was in power. We fitted a linear mixed model³ (Model 5.2) that predicted prejudice from the same effects as Model 5.1.

Model 5.2 showed that people were more prejudiced against a group if its ideology appeared more dissimilar to the ideology of the self. Again, we refer to this effect as ideological prejudice (see effect 1 in Model 5.2 in [Table 5](#)), and it was more than 3 times larger than any other effect in the model. The effect size of ideological prejudice increased if the ideology of the self was more progressive (see the positive effect 3 in Model 5.2). This progressive-asymmetric ideological prejudice was attenuated if people imagined that Democrats are in power, and it was amplified when people imagined that Republicans are in power. [Figure 4](#) plots this significant three-way interaction (see effect 7 in Model 5.2).

Discussion

Experimental Study 3 supported our hypothesis that political rule (vs. opposition) explains some of the heterogeneity in (a)symmetric ideological prejudice. As hypothesized, we found a progressive asymmetry in ideological prejudice at baseline that was weaker (reduced to symmetry, to be precise) when people imagined that Democrats are in power in the United States (i.e., having the

³ Model 5.2's estimated random intercept variance was 0. To safeguard against bias from fitting an overly complex model, we refitted Model 5.2 without the random intercept. The results were identical.

Table 5
Asymmetric Ideological Prejudice Depends on Political Power

No.	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	1 – β
Model 5.2						
1	Self-group dissimilarity in ideology	0.49	[0.47, 0.51]	49.13	<.001	1.00
2	Progressive ideology of the self	0.03	[0.003, 0.06]	2.14	.032	
3	Dissimilarity \times Progressiveness	0.13	[0.07, 0.18]	4.49	<.001	0.95
4	Power (Democratic vs. Republican)	0.00	[–0.02, 0.02]	–0.11	.916	
5	Dissimilarity \times Power	–0.01	[–0.05, 0.03]	–0.63	.530	
6	Progressiveness \times Power	–0.12	[–0.18, –0.07]	–4.30	<.001	
7	Dissimilarity \times Progressiveness \times Power	–0.16	[–0.27, –0.05]	–2.87	.004	0.54 ^a

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound]; 1 – β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10 for interactions; ANES = American National Election Studies; ABC = agency-beliefs–communion.

^a Averaging across the reanalyses of the ANES and ABC studies in Section 3: Pooling and Re-Analyzing 27 Existing Studies, we observed a three-way interaction (between self-group dissimilarity in ideology, progressive ideology of the self, and power [Democratic vs. Republican]) with a size of *b* = –.16. When we relied on this effect size (vs. *b* = \pm .10 as stated in the Introduction section) to resimulate statistical power for detecting the three-way interaction, 1 – β increased from 0.54 to 0.86.

majority of seats in the Senate and the House of Representatives and holding the Presidency and Vice Presidency). The progressive asymmetry grew stronger, however, when people imagined that Republicans are in power in the United States.

General Discussion

Ideological prejudice means to be more prejudiced against societal groups if their ideology appears to be more dissimilar to

the ideology of the self (Brandt, 2017; Iyengar et al., 2019). Ideological prejudice is problematic because it operates spontaneously (Bergh & Brandt, 2022; Koch, Imhoff, et al., 2020) and predicts ideological discrimination in people's professional and private lives (Chen & Rohla, 2018; Gift & Gift, 2015). There is a debate about whether ideological prejudice is stronger in U.S. conservatives (vs. progressives; Baron & Jost, 2019; Jost, 2017) or equally strong in conservatives and progressives (Brandt & Crawford, 2020; Crawford & Brandt, 2020). A recent adversarial

Figure 4
Ideological Prejudice by Self-Rated Ideology and Manipulated Political Power



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and progressive self-rated ideologies correspond to –0.25 and 0.25, respectively, on a scale ranging from –0.5 (extremely conservative) to 0.5 (extremely progressive). See the online article for the color version of this figure.

collaboration on the matter adds nuance to the debate. Three studies unexpectedly find stronger ideological prejudice in progressives (vs. conservatives; Stern & Crawford, 2021).

We contributed to the debate by pooling more data than ever before to test whether ideological prejudice is stronger in conservatives, progressives, or neither. We examined two research programs. The first program is the ANES that ran between 1972/1973 and 2020/2021. The second program is the ABC studies that ran more recently, between 2016 and 2021. An aggregation of 21 ANES studies found stronger ideological prejudice in conservatives (vs. progressives). To the contrary, an aggregation of six ABC studies found stronger ideological prejudice in progressives (vs. conservatives), consistent with Stern and Crawford (2021).

We reported several analyses of the ANES and ABC studies and two new studies that varied features of the ANES and ABC studies. The analyses ruled out several explanations for the contradiction between the two research programs. The contradiction is not due to conservatively skewed sampling of participants in the ANES studies or progressively skewed sampling of participants in the ABC studies. The contradiction is not due to the ANES studies spanning over 5 decades versus the ABC studies spanning over the recent 5 years only. In fact, taking into account the year of study when analyzing the ANES studies accentuated the contradiction. Ideological prejudice flipped from stronger in progressives (vs. conservatives) in 1972/1973 to stronger in conservatives (vs. progressives) in 2020/2021. That is, a progressive asymmetry in 1972/1973 flipped to a conservative asymmetry in 2020/2021.

The ANES studies measured ideology narrowly (in terms of just politics) and measured people's prejudiced feelings toward groups. The ABC studies measured ideology broadly (in terms of politics, religion, and lifestyle) and measured people's prejudiced thoughts toward groups. Study 1 ran in 2022 and varied these ideology and prejudice measures and always found progressive asymmetry. Thus, the contradiction is neither due to the ideology measures in the ANES versus ABC studies nor due to the prejudice measures in the studies. The ANES studies drew nationally representative samples of participants, whereas the ABC studies and the studies in the recent adversarial collaboration on ideological prejudice (Stern & Crawford, 2021) drew convenient samples of participants. However, Study 2 ran in 2023 and drew both a (very costly) nationally representative sample and a convenient sample of participants and found symmetrical ideological prejudice in both cases.

Taken together, the 29 studies that we (re)examined here led us to conclude that ideological prejudice is robustly heterogeneous. Thus, the scientific debate about (a)symmetric ideological prejudice might benefit from focusing on *when and why* ideological prejudice is stronger in conservatives, progressives, or neither, instead of arguing that one of the three is the case throughout time and across situations.

Further analyses supported the hypothesis that ideological prejudice becomes stronger in one camp (e.g., conservatives) when the opposed ideology seizes power and popularity in the sense that the current U.S. government predominantly represents the political party that channels the opposed ideology into public policies (e.g., the Democratic administration led by Joe Biden as President, Kamala Harris as Vice President, and a Congress with a majority of Democrats). In both the ANES and ABC studies, the size of this three-way interaction was at least one third of the size of the large main effects of self-group dissimilarity in ideology on prejudiced feelings or thoughts. Thus, we perceive the prediction of

the direction of asymmetric ideological prejudice from political rule (vs. opposition) as nontrivial.

Experimental evidence from Study 3 provides further support for the hypothesis that political rule (vs. opposition) explains the heterogeneity in ideological prejudice (a)symmetries. We found a weaker progressive asymmetry in ideological prejudice when political power was manipulated to be predominantly Democratic and a stronger progressive asymmetry when political power was manipulated to be predominantly Republican. Moreover, the prediction is consistent with the worldview conflict hypothesis (Brandt & Crawford, 2020) under the assumption that political opposition (vs. rule) leads to feelings of greater ideological threat (for a similar assumption, see Stern & Crawford, 2021). This assumption is plausible given that people perceive competent and powerful adversaries as more threatening and immoral (Carrier et al., 2019; Roberts & Koch, 2024).

Additionally, the heterogeneity of ideological prejudice that we found speaks against the notion that ideological prejudice is consistently stronger in conservatives compared to progressives because personality traits (that are considered to be rather stable) of conservatives make them especially prone to prejudice (i.e., a conservative asymmetry; Badaan & Jost, 2020; Baron & Jost, 2019; Jost, 2017; Jost et al., 2003, 2017).

Limitations and Future Research

Although we consider the impact of political rule (vs. opposition) nontrivial, we want to emphasize that there probably is a large number of other moderators that vary throughout time and across situations and influence people's ideological prejudice (e.g., large-scale societal events like a pandemic or changing socioeconomic conditions of people). As outlined above, we believe that the scientific debate about and future research on (a)symmetric ideological prejudice will benefit from identifying and investigating these moderators. Gaining insight into other important and influential moderators might also help explain the puzzling robust symmetry in ideological prejudice that we found in Study 2 and (a)symmetries that are not perfectly in line with the political rule (vs. opposition) at this time.

Also, we note that the present research examined ideological dissimilarity computed as the absolute difference between the ideology of a person (i.e., the perceiver) and a target group. This approach is parsimonious but limited in that it does not capture directional effects. For example, a slightly progressive person might perceive an extremely progressive group as more (or less) dissimilar to the self than a slightly conservative group although these two self-group dissimilarities are the same when computed as absolute differences. Future research should test the simultaneous effects of absolute and directional self-group dissimilarity on (a)symmetric ideological prejudice.

In addition and importantly, future research should examine whether this effect generalizes to other national and cultural contexts (especially non-Western, educated, industrial, rich, and democratic ones; Muthukrishna et al., 2020) and ideological differences other than a conservative versus progressive mindset (e.g., different branches of a religion).

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