

Political rule (vs. opposition) predicts whether ideological prejudice
is stronger in U.S. conservatives or progressives

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Abstract

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 U.S. is stronger in conservatives, progressives, or neither.

Investigating the American National Election Studies (ANES), we found that between 1972 and 2021, ideological prejudice was stronger in conservatives. However, investigating studies conducted to develop the Agency-Beliefs-Communion (ABC) 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 U.S. was governed by Democrats, and toward being stronger in progressives when the U.S. was governed by Republicans.

Keywords: ideological prejudice; (a)symmetry; trend over time; ANES; ABC model

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 U.S. 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.

**Political rule (vs. opposition) predicts whether ideological prejudice
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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 paper 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 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, 2021). 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 (Baillet 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, 2009). 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 papers 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 paper found that conservatives' attitudes towards progressives were more negative than progressives' attitudes towards conservatives (Ganzach & Schul, 2021). Another recent empirical paper found that conservatives' (vs. progressives') prejudice against marginalized groups was, and recently grew, stronger (Ruisch et al., 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 (Crawford & Brandt, 2019; Brandt et al., 2015). 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 and colleagues (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 fundamentalism¹. Prejudice against ideologically dissimilar groups looks consistently stronger in conventional (vs. alternative) people in three out of the four studies by Brandt and colleagues (2015). On the other hand, two of the three studies by Crawford (2014) look like finding stronger ideological prejudice in progressives (vs. conservatives). What is more, in a laudable adversarial collaboration (2021), Stern and Crawford 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.

The Present Research

This paper 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

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

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 re-analyzed 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., anti-abortion 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 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 U.S. 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 allows 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 U.S. and neither pre-1972 nor post-2024.

Transparency and Openness

In Sections 1 and 3, we analyzed each study from two research programs if the study sampled at least two hundred people. Most of the studies were originally reported elsewhere (see 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 Table S2). Our analyses of the ABC and ANES studies are not pre-registered 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 3, including all their measures and manipulations.

In Section 2, we report Study 1 and Study 2 (these studies are part of neither research program). In Study 1, we excluded nine people because they failed the attention check or recommended not to analyze their data due to inattentive responding, as pre-registered ([link](#)). In Study 2, we did not exclude participants, as pre-registered ([link](#)). In Section 4, we report Study 3 (this study is part of neither research program). In Study 3, we excluded twelve people because they recommended not to analyze their data due to inattentive responding, as pre-registered ([link](#)).

All materials, data, code, and results are available on the websites of the ANES ([link](#)) and Open Science Framework ([link](#); 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

Methods

In Section 1, we examined two research programs that are suitable to investigate (a)symmetries in ideological prejudice: The American National Election Studies (ANES) and studies on the Agency-Beliefs-Communion (ABC) model by Koch and colleagues (2016; 2020).

American National Election Studies (ANES)

The first research program we investigated is the Time Series Studies, which are the core of the American National Election Studies (ANES). Every two to four 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 U.S. Among other measures, people rated various groups on a scale ranging from cold (0) to warm (100) feelings toward the groups (*prejudiced feelings*). People also rated their own ideology on a scale ranging from extremely liberal (1) to extremely conservative (7). 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 IRB-approved study recruited 440 online workers through Prolific Academic (196 women, 239 men, 3 other, 2 NA; $M_{\text{age}} = 41.68$ years; $M_{\text{ideology}} = 4.02$ on a scale ranging from extremely liberal [1] to extremely conservative [7]). 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 and colleagues (2013), who examined the same ANES studies, but only up until 2012 (vs. 2020 in the present research). Chambers and colleagues (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 and colleagues (2013).

Agency-Beliefs-Communion (ABC) Model Studies

The second research program that we investigated is studies conducted to develop the Agency-Beliefs-Communion (ABC) 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 multi-attribute scale ranging from the group making an untrustworthy, dishonest, threatening, repellent, cold, and selfish impression (0) to the group making a trustworthy, sincere, benevolent, likable, warm, and altruistic impression (100). This scale (Koch et al., 2016) measured *prejudiced thoughts*. People also rated their own ideology on a factor-analytically developed multi-attribute 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.

Tables S1 and S2 show details about the people and groups in all studies examined here. The ANES (vs. ABC) studies sampled more people ($N_{ANES} = 34,071$; $N_{ABC} = 5,874$) 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 etc. to untrustworthy etc. 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.

Table 1

Contradictory asymmetric ideological prejudice in the ANES versus ABC studies

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
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

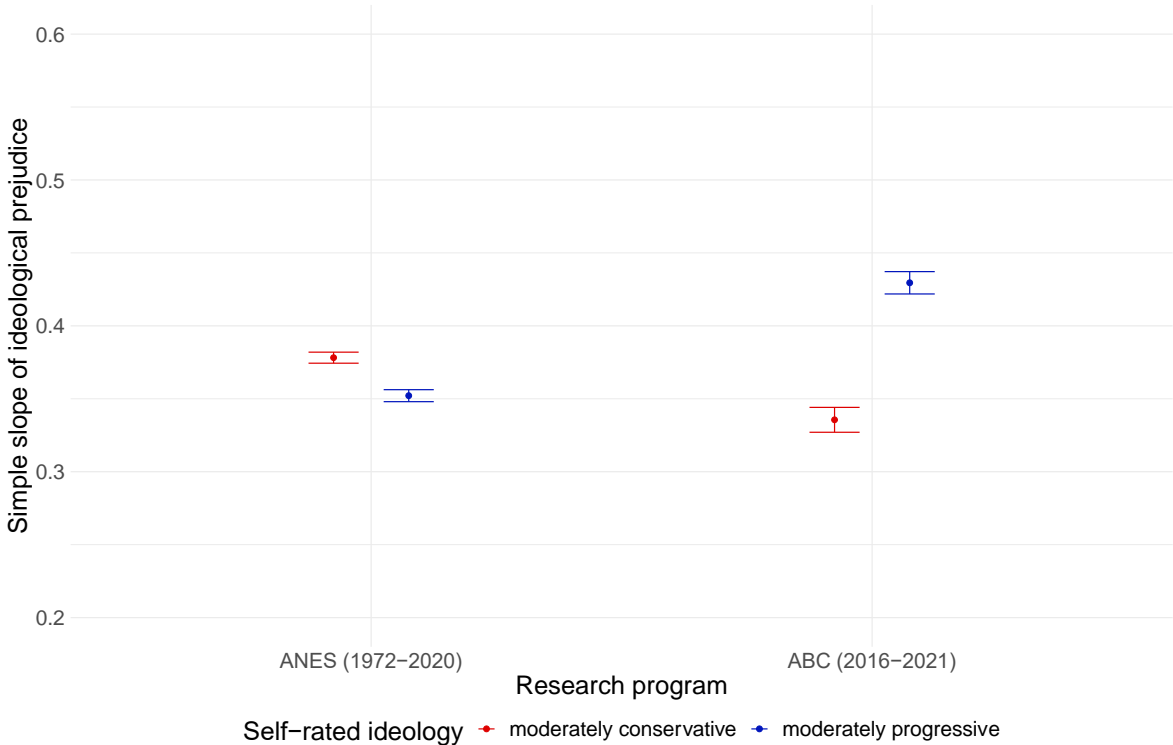
Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

1-β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10 for interaction effects.

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 #1 in Table 1). Notably, this effect was more than seven and two 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 of #3). In the ABC studies, the effect size of ideological prejudice increased if the ideology of the self was more progressive (see the positive effect of #3), 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.

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 extremely conservative (-0.5) to extremely progressive (0.5).

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.** 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. 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 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 find a conservative asymmetry before roughly 2010, but find a progressive asymmetry after roughly 2010. This progressive asymmetry would replicate the more recent progressive asymmetry that the ABC studies find. The conservative asymmetry in the ANES studies would overshadow the progressive

asymmetry in the ANES studies, however, because the duration of the former (vs. latter) asymmetry is longer. 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 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; ANES) versus broadly (politics, religion, and lifestyle; ABC), or construing and measuring prejudice (the dependent variable) in terms of feelings (ANES) or thoughts (ABC).

Methods

Participants. We sampled 1,004 people from the online worker population Prolific Academic. As pre-registered, 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, 7 other, and 5 NA; $M_{\text{age}} = 41.40$ years; $M = 3.81$ and $\text{Skew} = 0.03$ on the ANES's self-rated ideology scale ranging from extremely liberal (1) to extremely conservative (7), and $M = 58.24$ and $\text{Skew} = -0.32$ on the ABC's self-rated ideology scale ranging from traditional etc. (1) to modern etc. (100).

Stimuli and Procedure. People rated all groups that people in the 2020 ANES study had rated (see 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 re-rated 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 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 etc. to

untrustworthy etc. 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 paper 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 #1 in Table 4). 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 of #3) in all four models: All models found a progressive asymmetry in ideological prejudice.

Table 2*Predicting prejudiced feelings vs. thoughts from narrowly vs. broadly construed ideology*

#	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 * 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 * 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 * 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 * Progressiveness	0.38	[0.31, 0.46]	10.48	< .001	0.73

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

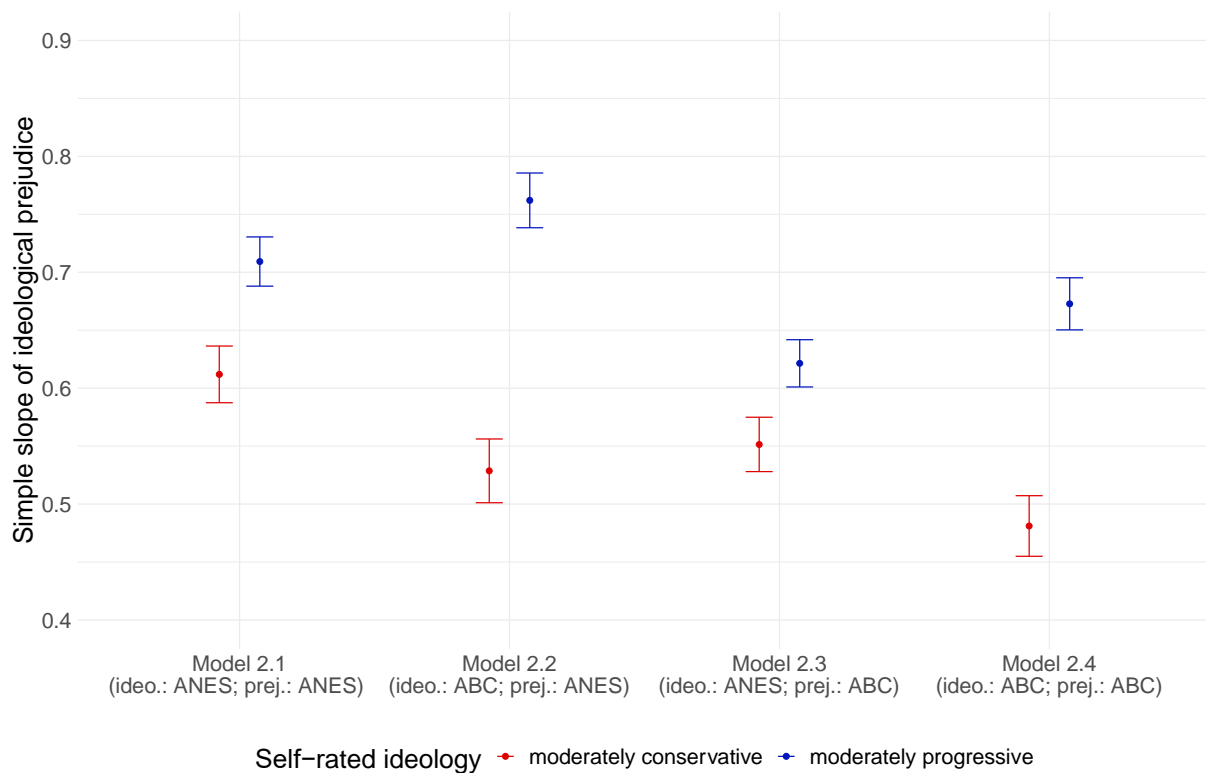
1- β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10 for interactions; ideo. = ideology measure; prej. = prejudice measure.

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.

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 extremely conservative (-0.5) to extremely progressive (0.5). Ideo. = ideology measure; prej. = prejudice measure.

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 re-fitted 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. 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 re-fit 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 (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 (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 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); the 2000-2020 ANES studies find conservative asymmetry (see 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 three 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 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 find progressive rather than conservative asymmetry because university students and online workers are not representative of the U.S. population in some regard(s) 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.

Methods

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, 8 other, and 1 NA; $M_{\text{age}} = 42.96$ years; $M = 3.10$ and $\text{Skew} = -0.16$ on a self-rated ideology scale ranging from very liberal (1) to very conservative (5). 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, 9 other, and 6 NA; $M_{\text{age}} = 49.87$ years; $M = 2.94$ and $\text{Skew} = 0.06$ on a self-rated ideology scale ranging from very liberal (1) to very conservative (5). For each

source of participants, 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, sub-urban, or urban). It is worth noting that drawing the nationally representative sample was more than nine 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. 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 U.S. 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 & influencers, teachers, politicians, immigrants, and military & 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 "very conservative" (1) to "very liberal" (5). 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, sub-urban, 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.

Table 3

Symmetric ideological prejudice regardless of convenient vs. representative sampling

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
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 * 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 * Sampling	-0.03	[-0.04, -0.01]	-3.82	< .001	
6	Progressiveness * Sampling	0.01	[-0.04, 0.05]	0.26	.796	
7	Dissimilarity * Progressiveness * 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 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 prejudice (see #1 in Table 3). Notably, this effect was ten 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 of #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 of #7). These effects hold for separate analyses of the convenient and nationally representative samples (see 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 Re-analyzing 27 Existing Studies

As discussed in the first empirical section of this paper, 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

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

years (see #7 in 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 U.S. 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.

Methods

We re-analyzed the 21 ANES and six ABC studies separately and in the same way as described in Section 1 of this paper, 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 U.S. 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 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; max. Republican power) and 0.5 (all institutions are [predominantly] Democratic; max. 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 paper refers to this effect as ideological prejudice (see #1 in Table 4), and it was 3.6 and 1.7 times larger than any other effect in the ANES and ABC studies, respectively.

Table 4

Ideological prejudice by self-rated ideology and political power

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
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 * 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 * Power	-0.05	[-0.06, -0.03]	-6.17	< .001	
6	Progressiveness * Power	-0.04	[-0.06, -0.03]	-2.23	.026	
7	Dissimilarity * Progressiveness * 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 * 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 * Power	0.04	[0.03, 0.06]	6.82	< .001	
6	Progressiveness * Power	0.04	[0.02, 0.07]	3.14	.002	
7	Dissimilarity * Progressiveness * Power	-0.21	[-0.27, -0.16]	-7.14	< .001	0.92

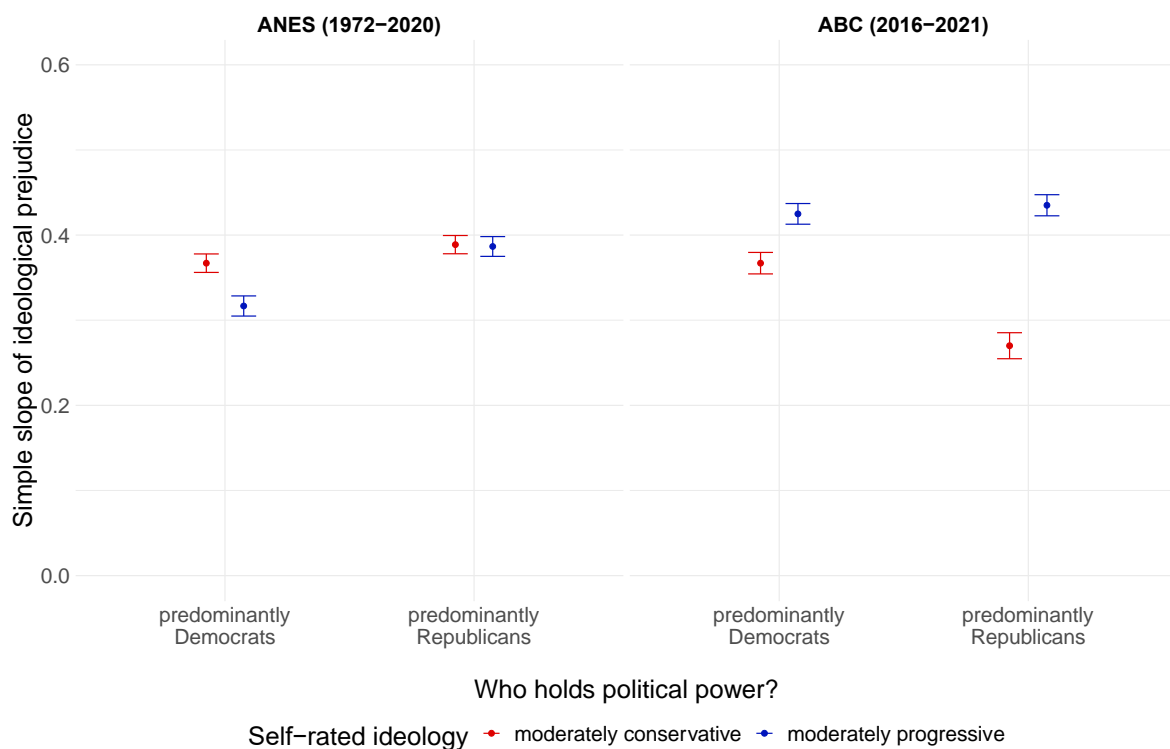
Note. b = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

$1-\beta$ = simulated statistical power to detect the effect size $b = .30$ for main effects and $b = .10$ for interactions.

In the ANES studies, the effect size of ideological prejudice increased if the ideology of the self was more conservative (see the negative effect of #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 #7 in Model 4.1).

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 extremely conservative (-0.5) to extremely progressive (0.5).

Republicans and Democrats ruling corresponds to -0.5 and 0.5, respectively, on a scale from the President, the Vice President, and the partisan make-up of the Senate and the House of Representatives all being Republicans (-0.5) to all being Democratic (0.5).

In the ABC studies, the effect size of ideological prejudice increased if the ideology of the self was more progressive (see the positive effect of #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 #7 in Model 4.2).

To cross-check the validity this inference, we re-fitted 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 make-up 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 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 datasets, see Tables S8 and S9 and Figures S1 and S2. Thus, the interaction emerged in one of two datasets 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., 2018). 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 re-fitted 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 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. 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.

Overall, Section 3 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 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

Section 4 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.

Methods

Participants. We sampled 994 people from the online worker population Prolific Academic. As pre-registered, 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; and $M = 3.81$ and $\text{Skew} = 0.02$ on the ANES's self-rated ideology scale ranging from extremely liberal (1) to extremely conservative (7).

Stimuli and Procedure. People imagined that the political power in the U.S. 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 towards "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 U.S. lies in the hands of Republicans (or Democrats). Afterward, they again rated their prejudiced feelings towards 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 U.S, and whether people first rated their prejudiced feelings towards conservative or liberal groups. Finally, people indicated their age, gender, and whether they recommended to analyze the data they had provided.

Measures. In the below analyses, 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 pre-registered, 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 towards 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 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% CI [-0.16, 0.001], $t(2939) = -1.94$, $p = .052$. 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 re-rate 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.

Table 5

Asymmetric ideological prejudice depends on political power

#	Effect	b	95% CI	t	p	$1-\beta$
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 * 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 * Power	-0.01	[-0.05, 0.03]	-0.63	.530	
6	Progressiveness * Power	-0.12	[-0.18, -0.07]	-4.30	< .001	
7	Dissimilarity * Progressiveness * Power	-0.16	[-0.27, -0.05]	-2.87	.004	0.54 ⁴

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.

⁴ Averaging across the re-analyses of the ANES and ABC studies in Section 3, 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) to re-simulate statistical power for detecting the three-way interaction, $1-\beta$ increased from 0.54 to 0.86.

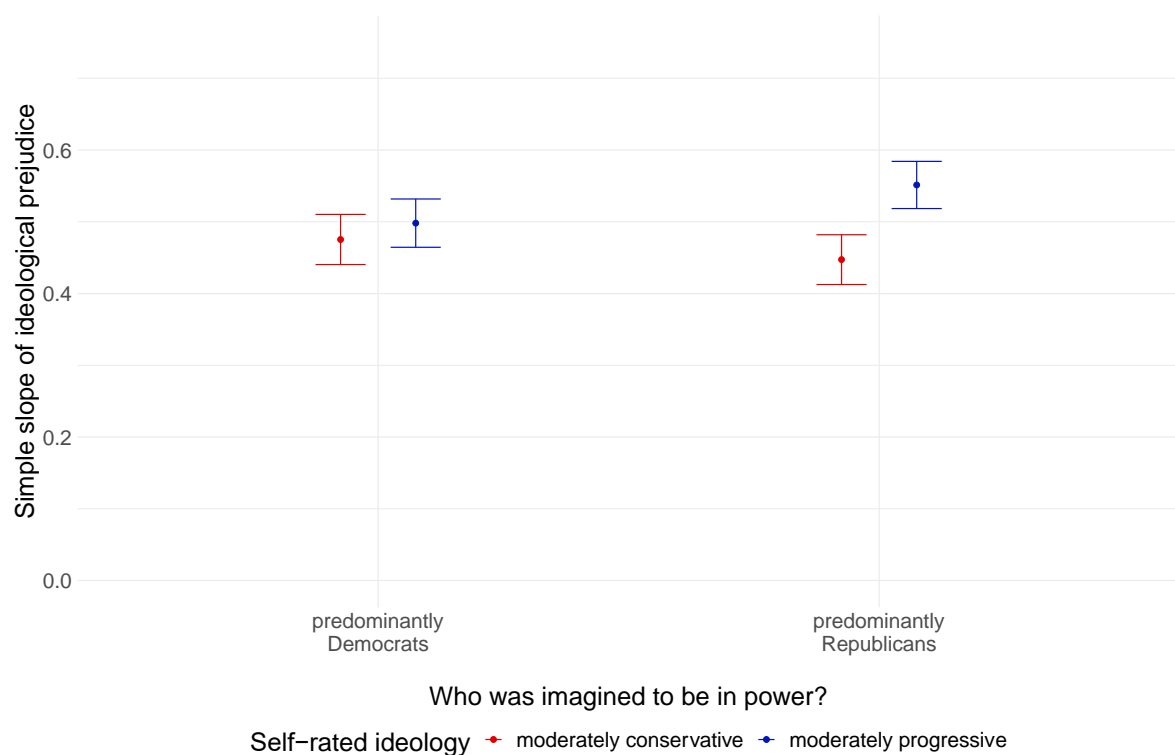
Note. b = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

$1-\beta$ = simulated statistical power to detect the effect size $b = .30$ for main effects and $b = .10$ for interactions.

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 #1 in Table 5), and it was more than three 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 of #3). 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 #7).

Figure 4

Ideological prejudice by self-rated ideology and manipulated political power



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. A self-rated ideology of -0.25 (vs. 0.25) corresponds to moderately conservative (vs. progressive) on a scale ranging from extremely conservative (-0.5) to extremely progressive (0.5).

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 U.S. (i.e., having the 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 U.S.

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, 2021; Koch, Imhoff et al., 2020) and predicts ideological discrimination in people's professional and private lives (Gift & Gift, 2015; Chen & Rohla, 2018). 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 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 American National Election Studies (ANES) that

ran between 1972/1973 and 2020/2021. The second program is the Agency-Beliefs-Communion (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 five decades versus the ABC studies spanning over five recent 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 / thoughts. Thus, we perceive the prediction of the direction of asymmetric ideological prejudice from political rule (vs. opposition) as non-trivial.

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) non-trivial, 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 socio-economic 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 ideology prejudice.

In addition and importantly, future research should examine whether this effect generalizes to other national and cultural contexts (especially non-WEIRD 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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**Political rule (vs. opposition) predicts whether ideological prejudice
is stronger in U.S. conservatives or progressives**

Supplementary Material

Table S1*Details about the people and groups in all 21 ANES studies and six ABC studies examined in the present research*

#	Study	Year	N_{People}	N_{Groups}	Ideology measure						Prejudice measure
					Self	M_{Self}	S_{Self}	Groups	M_{Group}	S_{Group}	
<u>ANES Research Program</u>											
1	TSS 1972	1972-1973	1,548	22	Narrow	-0.02	0.19	Narrow	0.01	0.01	Feelings
2	TSS 1974	1974-1975	333	19	Narrow	0.00	0.03	Narrow	0.03	-0.18	Feelings
3	TSS 1976	1976-1977	864	25	Narrow	-0.02	0.10	Narrow	0.02	-0.14	Feelings
4	TSS 1978	1978-1979	1,673	2	Narrow	-0.03	0.11	Narrow	-0.02	0.00	Feelings
5	TSS 1980	1980-1981	1,004	26	Narrow	-0.05	0.26	Narrow	0.03	-0.25	Feelings
6	TSS 1982	1982-1983	897	9	Narrow	-0.05	0.22	Narrow	0.01	-0.11	Feelings
7	TSS 1984	1984-1985	1,555	23	Narrow	-0.04	0.24	Narrow	0.02	-0.16	Feelings
8	TSS 1986	1986-1987	1,633	10	Narrow	-0.04	0.16	Narrow	0.13	-1.19	Feelings
9	TSS 1988	1988-1989	1,425	24	Narrow	-0.06	0.26	Narrow	0.01	-0.19	Feelings
10	TSS 1990	1990-1991	1,317	11	Narrow	-0.03	0.16	Narrow	0.09	-0.81	Feelings
11	TSS 1992	1992-1993	857	23	Narrow	-0.03	0.13	Narrow	0.03	-0.20	Feelings
12	TSS 1994	1994-1995	773	17	Narrow	-0.08	0.34	Narrow	0.06	-0.51	Feelings
13	TSS 1996	1996	284	17	Narrow	-0.03	0.18	Narrow	0.04	-0.28	Feelings
14	TSS 1998	1998	1,018	10	Narrow	-0.04	0.21	Narrow	0.05	-0.41	Feelings
15	TSS 2000	2000	673	22	Narrow	-0.04	0.18	Narrow	0.03	-0.13	Feelings
16	TSS 2002	2002	266	19	Narrow	-0.04	0.20	Narrow	0.01	-0.03	Feelings
17	TSS 2004	2004	920	27	Narrow	-0.04	0.22	Narrow	0.02	-0.12	Feelings
18	TSS 2008	2008	1,626	25	Narrow	-0.02	0.13	Narrow	0.00	0.00	Feelings
19	TSS 2012	2012-2013	5,300	22	Narrow	-0.03	0.15	Narrow	0.00	0.01	Feelings
20	TSS 2016	2016-2017	3,049	20	Narrow	-0.02	0.11	Narrow	0.00	-0.02	Feelings
21	TSS 2020	2020-2021	7,056	18	Narrow	-0.02	0.05	Narrow	0.00	-0.04	Feelings
Combined		1972/1973-2020/2021	34,071	40	Narrow	-0.03	0.15	Narrow	0.01	-0.13	Feelings

Table S1 (continued)

#	Study	Year	N_{People}	N_{Groups}	Ideology measure						Prejudice measure
					Self	M_{Self}	S_{Self}	Groups	M_{Group}	S_{Group}	
ABC Research Program											
1	S5 in Koch, Imhoff, et al. (2020)	2016	291	42	Broad	0.04	-0.19	Broad	0.03	-0.21	Thoughts
2	Koch, Dorrough, et al. (2020)	2017	583	30	Broad	0.11	-0.52	Broad	0.01	-0.07	Thoughts
3	Reported first here	2017	1,200	30	Broad	0.15	-0.64	Broad	0.01	-0.14	Thoughts
4	S1 in Woitzel & Koch (in press)	2019	700	30 / 184	Broad	0.02	-0.05	Broad	0.03	-0.38	Thoughts
5	S2 in Woitzel & Koch (in press)	2021	1,051	30	Broad	0.02	-0.03	Broad	0.02	-0.09	Thoughts
6	Reported first here	2021	2,049	32 / 176	Broad	0.03	-0.14	Broad	0.00	0.07	Thoughts
Combined		2016-2021	5,874	184	Broad	0.06	-0.25	Broad	0.01	-0.08	Thoughts

Note. S = skew ($S < 0$ indicates progressive skew, $S > 0$ indicates conservative skew). TSS = Time Series Study. Narrow = political ideology as measured in the ANES studies ranging from -0.5 (most conservative) to 0.5 (most liberal/progressive). Broad = political, religious, and lifestyle ideology as measured in the ABC studies ranging from -0.5 (most traditional, religious, conventional, conservative) to 0.5 (modern, science-oriented, alternative, liberal). Feelings = prejudiced feelings ranging from -0.5 (warm) to 0.5 (cold). Thoughts = prejudiced thoughts ranging from -0.5 (trustworthy, sincere, benevolent, likable, warm, altruistic) to 0.5 (untrustworthy, dishonest, threatening, repellent, cold, selfish). Most ANES studies ran in pre- and post-election waves. Prejudiced feelings toward groups were always measured *after* the election. These post-election waves ran between November of the election year (right after the election) and December of the same year to February of the next year.

Table S2*Details about the groups studied in the 21 ANES studies and 6 ABC studies*

#	Study	Groups
ANES Research Program		
1	TSS 1972	Black Militants, Blacks, Businesspeople, Catholics, Civil Rights Leaders, Conservatives, Democrats, Farmers, Jews, Labor Unions, Liberals, Middle Class People, Military, Police, Poor People, Protestants, Radical Students, Republicans, Southerners, Whites, Womens Libbers, Young People
2	TSS 1974	Black Militants, Blacks, Businesspeople, Civil Rights Leaders, Conservatives, Democrats, Elderly, Farmers, Labor Unions, Liberals, Middle Class People, Military, Police, Poor People, Radical Students, Republicans, Whites, Womens Libbers, Young People
3	TSS 1976	Black Militants, Blacks, Businesspeople, Catholics, Civil Rights Leaders, Conservatives, Democrats, Elderly, Hispanics, Jews, Labor Unions, Liberals, Middle Class People, Military, Police, Poor People, Protestants, Radical Students, Republicans, Southerners, Welfare Recipients, Womens Libbers, Whites, Women, Young People
4	TSS 1978	Democratic Party, Republican Party
5	TSS 1980	Black Militants, Blacks, Businesspeople, Civil Rights Leaders, Conservatives, Democratic Party, Democrats, Elderly, Environmentalists, Evangelical Groups, Farmers, Hispanics, Labor Unions, Liberals, Middle Class People, Military, Political Independents, Poor People, Radical Students, Republican Party, Republicans, Southerners, Welfare Recipients, Womens Libbers, Whites, Young People, <i>Congress, Federal Government, Political Parties, Supreme Court</i>
6	TSS 1982	Blacks, Conservatives, Democratic Party, Democrats, Liberals, Political Independents, Republican Party, Republicans, Whites, <i>Political Parties</i>
7	TSS 1984	Anti Abortionists, Black Militants, Blacks, Businesspeople, Catholics, Civil Rights Leaders, Conservatives, Democratic Party, Elderly, Evangelical Groups, Hispanics, Homosexuals, Labor Unions, Liberals, Middle Class People, Military, Political Independents, Poor People, Republican Party, Welfare Recipients, Whites, Women, Womens Libbers, <i>Political Parties, Supreme Court</i>
8	TSS 1986	Black Militants, Blacks, Conservatives, Democratic Party, Labor Unions, Liberals, Poor People, Republican Party, Welfare Recipients, Womens Libbers, <i>Political Parties</i>

Table S2 (continued)

#	Study	Groups
9	TSS 1988	Anti Abortionists, Blacks, Businesspeople, Catholics, Christian Fundamentalists, Civil Rights Leaders, Conservatives, Democratic Party, Elderly, Environmentalists, Evangelical Groups, Feminists, Hispanics, Homosexuals, Illegal Aliens, Jews, Labor Unions, Liberals, Military, Poor People, Republican Party, Welfare Recipients, Whites, Women, <i>Congress, Federal Government, Supreme Court</i>
10	TSS 1990	Anti Abortionists, Blacks, Conservatives, Democratic Party, Environmentalists, Labor Unions, Liberals, Poor People, Republican Party, Welfare Recipients, Womens Libbers, <i>Political Parties</i>
11	TSS 1992	Asian Americans, Blacks, Businesspeople, Catholics, Christian Fundamentalists, Conservatives, Democratic Party, Environmentalists, Feminists, Hispanics, Homosexuals, Illegal Aliens, Jews, Labor Unions, Liberals, Military, Police, Poor People, Republican Party, Southerners, Welfare Recipients, Whites, Womens Libbers, <i>Congress, Federal Government</i>
12	TSS 1994	Blacks, Businesspeople, Christian Fundamentalists, Conservatives, Democratic Party, Elderly, Environmentalists, Hispanics, Homosexuals, Illegal Aliens, Labor Unions, Liberals, Poor People, Republican Party, Welfare Recipients, Whites, Womens Libbers, <i>Political Parties</i>
13	TSS 1996	Blacks, Businesspeople, Christian Fundamentalists, Conservatives, Democratic Party, Elderly, Environmentalists, Hispanics, Homosexuals, Labor Unions, Liberals, Military, Poor People, Republican Party, Welfare Recipients, Whites, Womens Libbers, <i>Congress, Federal Government, Political Parties, Supreme Court</i>
14	TSS 1998	Blacks, Conservatives, Democratic Party, Homosexuals, Labor Unions, Liberals, Poor People, Republican Party, Rich People, Whites, <i>Congress</i>
15	TSS 2000	Asian Americans, Blacks, Businesspeople, Catholics, Christian Fundamentalists, Conservatives, Democratic Party, Elderly, Environmentalists, Feminists, Hispanics, Homosexuals, Jews, Labor Unions, Liberals, Military, Poor People, Protestants, Republican Party, Welfare Recipients, Whites, Womens Libbers, <i>Congress, Federal Government, Political Parties, Supreme Court</i>
16	TSS 2002	Asian Americans, Blacks, Businesspeople, Catholics, Christian Fundamentalists, Conservatives, Elderly, Environmentalists, Feminists, Hispanics, Homosexuals, Jews, Labor Unions, Liberals, Military, Poor People, Protestants, Welfare Recipients, Whites, <i>Congress, Federal Government, Supreme Court</i>
17	TSS 2004	Asian Americans, Blacks, Businesspeople, Catholics, Christian Fundamentalists, Conservatives, Democratic Party, Elderly, Environmentalists, Feminists, Hispanics, Homosexuals, Illegal Aliens, Jews, Labor Unions, Liberals, Middle Class People, Military, Muslims, Poor People, Republican Party, Rich People, Southerners, Welfare Recipients, Whites, Women, Young People, <i>Congress, Federal Government, Supreme Court</i>

Table S2 (continued)

#	Study	Groups
18	TSS 2008	Asian Americans, Blacks, Businesspeople, Catholics, Christian Fundamentalists, Christians, Conservatives, Democratic Party, Environmentalists, Feminists, Hispanics, Homosexuals, Illegal Aliens, Jews, Labor Unions, Liberals, Middle Class People, Military, Muslims, Poor People, Republican Party, Rich People, Southerners, Welfare Recipients, Whites, <i>Congress, Federal Government, Supreme Court</i>
19	TSS 2012	Asian Americans, Blacks, Businesspeople, Catholics, Christian Fundamentalists, Christians, Conservatives, Democratic Party, Feminists, Hispanics, Homosexuals, Illegal Aliens, Labor Unions, Liberals, Middle Class People, Military, Muslims, Poor People, Republican Party, Rich People, Welfare Recipients, Whites, <i>Congress, Federal Government, Supreme Court</i>
20	TSS 2016	Asian Americans, Blacks, Businesspeople, Christian Fundamentalists, Christians, Conservatives, Democratic Party, Feminists, Hispanics, Homosexuals, Illegal Aliens, Jews, Labor Unions, Liberals, Muslims, Police, Poor People, Republican Party, Rich People, Whites, <i>Congress, Supreme Court</i>
21	TSS 2020	Asian Americans, Blacks, Businesspeople, Christian Fundamentalists, Christians, Conservatives, Democratic Party, Feminists, Hispanics, Homosexuals, Illegal Aliens, Jews, Labor Unions, Liberals, Muslims, Police, Republican Party, Whites, <i>Congress, Supreme Court</i>
ABC Research Program		
1	ABC 1	Asians, Atheists, Athletes, Blacks, Blue Collar, Celebrities, Christians, Conservatives, Democrats, Drug Users, Elderly, Gays, Goths, Hippies, Hipsters, Hispanics, Homeless People, Homosexuals, Immigrants, Jews, Jocks, Lesbians, Liberals, Lower Class People, Men, Middle Class People, Muslims, Nerds, Parents, Politicians, Poor People, Religious People, Republicans, Rich People, Students, Teenagers, Transgender People, Upper Class People, White Collar, Whites, Women, Working Class People
2	ABC 2	Asians, Atheists, Athletes, Blacks, Blue Collar, Christians, Conservatives, Democrats, Elderly, Gays, Hippies, Hispanics, Immigrants, Lesbians, Liberals, Men, Middle Class People, Muslims, Nerds, Parents, Poor People, Religious People, Republicans, Rich People, Students, Transgender People, Upper Class People, Whites, Women, Working Class People
3	ABC 3	Asians, Atheists, Athletes, Blacks, Blue Collar, Christians, Conservatives, Democrats, Elderly, Gays, Hippies, Hispanics, Immigrants, Lesbians, Liberals, Men, Middle Class People, Muslims, Nerds, Parents, Poor People, Religious People, Republicans, Rich People, Students, Transgender People, Upper Class People, Whites, Women, Working Class People

Table S2 (continued)

#	Study	Groups
4	ABC 4	Academics, Activists, Actors, Adults, Agers, Agnostics, Alcoholics, Americans, Amish, Anarchists, Arabs, Artists, Asians, Atheists, Athletes, Baby Boomers, Bankers, Baptists, Baseball Fans, Bikers, Bisexuals, Blacks, Blue Collar, Book Clubs, Boy Scouts, Buddhists, Businesspeople, Canadians, Catholics, Celebrities, Cheerleaders, Children, Chinese People, Christians, Classmates, Clubs, College Students, Communists, Conservatives, Coworkers, Criminals, Cubans, Dancers, Democrats, Disabled People, Divorced People, Doctors, Drug Users, Educated People, Elderly, Elites, Emos, Employed People, Engineers, Environmentalists, Ethnic People, Europeans, Families, Farmers, Fat People, Fathers, Females, Feminists, Fire Fighters, Foodies, Football Fans, Foreigner, Fraternities, Friends, Gamers, Gangsters, Gays, Geeks, Generation Y, Girl Scouts, Golfers, Goths, Gun Owners, Heterosexuals, Hindus, Hippies, Hipsters, Hispanics, Homeless People, Homosexuals, Hunters, Illegal Aliens, Immigrants, Independents, Indians, Intellectuals, Intelligent People, Jews, Jocks, Latinx, Lawyers, Lesbians, Liberals, Libertarians, Loners, Lower Class People, Married People, Men, Mentally Ill People, Mexicans, Middle Aged People, Middle Class People, Military, Millennials, Minorities, Mormons, Mothers, Movie Fans, Musicians, Muslims, Native Americans, Neighborhoods, Nerds, Northerners, Nurses, Old People, Outcasts, Parents, Poets, Police, Politicians, Poor People, Preps, Professionals, Professors, Protestants, Punks, Racists, Rebels, Rednecks, Religious People, Republicans, Retirees, Rich People, Rockers, Rural People, Scientists, Seniors, Short People, Single Parents, Singles, Skaters, Skinny People, Smart People, Smokers, Snobs, Soccer Moms, Socialists, Socialites, Soldiers, Southerners, Sports Fans, Stoners, Students, Surfers, Tall People, Tea Party, Teachers, Techies, Teenagers, Tomboys, Transgender People, Uneducated People, Unemployed People, Unions, Upper Class People, Urban People, Vegans, Vegetarians, Veterans, Wealthy People, Welfare Recipients, White Collar, Whites, Women, Working Class People, Writers, Young People, Zealots
5	ABC 5	Asians, Atheists, Athletes, Blacks, Blue Collar, Christians, Conservatives, Democrats, Elderly, Gays, Hippies, Hispanics, Immigrants, Lesbians, Liberals, Men, Middle Class People, Muslims, Nerds, Parents, Poor People, Religious People, Republicans, Rich People, Students, Transgender People, Upper Class People, Whites, Women, Working Class People
6	ABC 6	Academics, Activists, Actors, Adults, Agnostics, Alcoholics, Americans, Amish, Anarchists, Arabs, Artists, Asians, Atheists, Athletes, Baby Boomers, Bankers, Baptists, Baseball Fans, Bikers, Bisexuals, Blacks, Blue Collar, Book Clubs, Boy Scouts, Buddhists, Businesspeople, Canadians, Catholics, Celebrities, Cheerleaders, Children, Christians, Classmates, Clubs, College Students, Communists, Conservatives, Coworkers, Criminals, Cubans, Dancers, Democrats, Disabled People, Divorced People, Doctors, Drug Users, Educated People, Elderly, Elites, Emos, Employed People, Engineers, Environmentalists, Ethnic People, Europeans, Families, Farmers, Fat People, Fathers, Females, Feminists, Fire Fighters, Foodies, Football Fans, Fraternities, Friends, Gamers, Gangsters, Gays, Geeks, Generation Y, Girl Scouts, Golfers, Goths, Gun Owners, Heterosexuals, Hindus, Hippies, Hipsters, Homeless People, Homosexuals, Hunters, Illegal Aliens, Immigrants, Independents, Indians, Intellectuals, Intelligent People, Jews, Jocks, Latinx, Lawyers, Lesbians, Liberals, Libertarians, Loners, Lower Class People, Married People, Mentally Ill People, Mexicans, Middle Aged People, Middle Class People, Military, Millennials, Minorities, Mormons, Mothers, Movie Fans, Musicians, Muslims, Native Americans, Neighborhoods, Nerds, Northerners, Nurses, Old People, Outcasts, Parents, Poets, Police, Politicians, Poor People, Professionals, Professors, Protestants, Punks, Racists, Rebels, Rednecks, Religious People, Republicans, Retirees, Rich People, Rockers, Rural People, Scientists, Seniors, Short People, Single Parents, Singles, Skaters, Skinny People, Smart People, Smokers, Snobs, Socialists, Socialites, Soldiers, Southerners, Sports Fans, Stoners, Students, Surfers, Tea Party, Teachers, Techies, Teenagers, Tomboys, Transgender People, Uneducated People, Unemployed People,

Unions, Upper Class People, Urban People, Vegans, Vegetarians, Veterans, Wealthy People, Welfare Recipients, White Collar, Whites, Women,
Working Class People, Writers, Young People, Zealots

Note. Groups in italics were excluded because they are ambiguous (“political parties”) or societal institutions (“Supreme Court”, “Federal Government”, and “Congress”) rather than social categories, task groups, or intimacy groups.

Text S1

To illustrate why and how ideologically skewed sampling might explain the contradiction between the ANES and ABC studies, this section reports three simulations before analyzing real data.

Simulated data. In this paper, progressive skew refers to an analysis that samples few extreme conservatives, and successively more slight conservatives, slight progressives, and extreme progressives. Let there be progressive skew in a first analysis that tests for stronger ideological prejudice in conservatives (vs. progressives) but does not test for stronger ideological prejudice in ideological extremes (vs. moderates), a robust and large effect (Woitzel & Koch, in press). If the ground truth is no difference in ideological prejudice between conservatives and progressives, the analysis (note: the same model as Models 1.1 and 1.2) nevertheless finds stronger ideological prejudice in progressives (vs. conservatives; see Simulation S1) because it examines progressives with a more extreme ideology (vs. the extremeness of the ideology of the conservatives it examines). This erroneous progressive asymmetry vanishes, however, when the analysis also tests for stronger ideological prejudice in ideological extremes (vs. moderates).

In a second analysis, let there be progressive skew, a test of stronger ideological prejudice in conservatives (vs. progressives), but again no test of stronger ideological prejudice in ideological extremes (vs. moderates). If now the ground truth is conservative asymmetry with some effect size, the erroneous progressive asymmetry can have an even larger size. Thus, the second analysis also finds erroneous progressive asymmetry (see Simulation S2) as the error overshadows the ground truth. Again, testing for stronger ideological prejudice in ideological extremes (vs. moderates) reveals the ground truth. Thus, concluding progressive asymmetry reliably requires finding it in studies that either do not feature progressive skew (see Simulation S3) or test for stronger ideological prejudice in ideological extremes (vs. moderates; Woitzel & Koch, 2023).

Of course, the reverse logic is true as well: Concluding conservative asymmetry reliably requires finding it in studies that either do not feature conservative skew or test for stronger ideological prejudice in ideological extremes (vs. moderates). This raises the question: Is there systematic ideological skew in the ABC or ANES studies?

Real data. The ABC studies find progressive asymmetry in participants sampled from the online worker populations Mechanical Turk and Prolific Academic (Model 1.2). These populations include progressives with more extreme beliefs (vs. the extremeness of the beliefs of the conservatives in the populations; Krupnikov & Levine, 2014; Levay et al., 2016). Thus, there may be progressive skew in the ABC studies. In the present research, $S < 0$ indicates progressives skew, whereas $S > 0$ indicates conservative skew. Analyzing study-level S suggested progressive skew in the small and underpowered sample of the six ABC studies, $M = -0.26$, 95% CI = [-0.53, 0.01], $t(5) = -2.50$, $p = .055$. The ANES studies find conservative asymmetry in participants sampled from the population of people with a residential address (Model 1.1). According to the Gallup Polls (Saad, 2021; [link](#)), this population includes more conservatives than progressives. Thus, there may be conservative skew in the ANES studies. Analyzing study-level S showed conservative skew in the 21 ANES studies, $M = 0.17$, 95% CI = [0.14, 0.21], $t(20) = 10.91$, $p < .001$.

The progressive asymmetry in the ABC studies and the conservative asymmetry in the ANES studies may be more apparent than real. As in Simulations S1 and S2, both asymmetries may vanish in analyses that also test for stronger ideological prejudice in ideological extremes (vs. moderates; Woitzel & Koch, 2023). This vanishing would be entirely consistent with worldview conflict research, which claims that ideological prejudice is stronger in neither conservatives nor progressives.

Model S1.1.1 added two fixed effects to Model 1.1 of the ANES data. Model S1.2.1 added the same effects to Model 1.2 of the ABC data. These effects were extremeness of self-rated ideology and extremeness of self-rated ideology interacting with self-group

dissimilarity in ideology. Thus, Models S1.1.1 and S1.2.1 tested for stronger ideological prejudice in conservatives (vs. progressives) while also testing, and thereby statistically controlling for stronger ideological prejudice in ideological extremes (vs. moderates).

Results showed that in the ANES studies, the effect size of ideological prejudice continued to increase if the ideology of the self was more conservative (see the negative effect of #3 in Table Text 1). In the ABC studies, the effect size of ideological prejudice continued to increase if the ideology of the self was more progressive (see the positive effect of #3). Again, the ANES studies suggested a conservative asymmetry, whereas the ABC studies suggested a progressive asymmetry. Thus, their contradiction is neither due to progressively skewed sampling of participants in the ABC studies, nor due to conservatively skewed sampling of participants in the ANES studies.

Table Text S1

Additionally testing for stronger ideological prejudice in ideological extremes (vs. moderates)

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S1.1.1 (ANES studies)						
1	Self-group dissimilarity in ideology	0.32	[0.32, 0.32]	213.36	< .001	1.00
2	Progressive ideology of the self	-0.02	[-0.03, -0.02]	-7.65	< .001	
3	Dissimilarity * Progressiveness	-0.02	[-0.03, -0.01]	-3.76	< .001	1.00
4	Extremeness of ideology of the self	0.02	[0.02, 0.03]	7.98	< .001	
5	Dissimilarity * Extremeness	0.49	[0.48, 0.50]	94.55	< .001	
Model S1.2.1 (ABC studies)						
1	Self-group dissimilarity in ideology	0.28	[0.28, 0.29]	87.82	< .001	1.00
2	Progressive ideology of the self	0.03	[0.02, 0.04]	4.90	< .001	
3	Dissimilarity * Progressiveness	0.11	[0.09, 0.13]	8.83	< .001	1.00
4	Extremeness of ideology of the self	-0.03	[-0.04, -0.02]	-5.22	< .001	
5	Dissimilarity * Extremeness	0.62	[0.60, 0.64]	64.11	< .001	

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.

Noteworthy, stronger ideological prejudice in ideological extremes (vs. moderates; see #5) had a larger effect size than both conservative asymmetry in the ANES studies and progressive asymmetry in the ABC studies, which replicates Woitzel and Koch (2023).

Simulations S1-S3

For Simulations S1-S3, we invented seven persons: An extremely conservative person (*ideology* = -0.500), a conservative person (-0.333), a slightly conservative person (-0.167), an exactly moderate person (0.00), a slightly progressive person (0.167), a progressive person (0.333), and an extremely progressive person (0.500). Each person rated 32 invented groups covering the ideology scale from extremely conservative (-0.500) to extremely progressive (0.500) in increments of 0.033. We computed *extremeness of ideology* as the absolute difference between a person's ideology and the midpoint of the ideology scale. We computed *self-group dissimilarity in ideology* as the absolute difference between a person's ideology and the ideology of a group. We computed a person's prejudice towards a group as a linear function of the ideological dissimilarity between that person and that group. Specifically, prejudice increased with ideological dissimilarity. To each prejudice rating we added random noise sampled from a distribution with $M = 0$ and $SD = 0.1$. We rescaled prejudice to vary between 0 (lowest) and 1 (highest).

Ground truth in Simulation S1. In Simulation S1, the ground truth was symmetrical ideological prejudice combined with extreme-asymmetrical ideological prejudice. This means that the effect of ideological dissimilarity on prejudice was equal-sized for conservative persons, compared to progressive persons (symmetrical). At the same time, the effect of ideological dissimilarity on prejudice was larger for persons with a more extreme ideology, compared to persons whose ideology was exactly moderate. To simulate this ground truth, we multiplied the effect of ideological dissimilarity on prejudice by 2, 1.5, 1, 0.5, 1, 1.5, and 2 for the extremely conservative person, the conservative person, the slightly conservative person, the exactly moderate person, the slightly progressive person, the progressive person, and the extremely progressive person, respectively.

Ground truth in Simulation S2. In Simulation S2, the ground truth was conservative-asymmetrical ideological prejudice combined with extreme-asymmetrical

ideological prejudice. Thus, the effect of ideological dissimilarity on prejudice was larger for conservative persons, compared to progressive persons (conservative-asymmetrical). At the same time, the effect of ideological dissimilarity on prejudice was larger for persons with a more extreme ideology, compared to persons whose ideology was exactly moderate. To simulate this ground truth, we multiplied the effect of ideological dissimilarity on prejudice by 2.375, 1.75, 1.125, 0.5, 0.875, 1.25, and 1.625 for the extremely conservative person, the conservative person, the slightly conservative person, the exactly moderate person, the slightly progressive person, the progressive person, and the extremely progressive person, respectively.

Ground truth in Simulation S3. In Simulation S3, the ground truth was progressive-asymmetrical ideological prejudice combined with extreme-asymmetrical ideological prejudice. Thus, the effect of ideological dissimilarity on prejudice was larger for progressive persons, compared to conservative persons (progressive-asymmetrical). At the same time, the effect of ideological dissimilarity on prejudice was larger for persons with a more extreme ideology, compared to persons whose ideology was exactly moderate. To simulate this ground truth, we multiplied the effect of ideological dissimilarity on prejudice by 1.625, 1.25, 0.875, 0.5, 1.125, 1.75, and 2.375 for the extremely conservative person, the conservative person, the slightly conservative person, the exactly moderate person, the slightly progressive person, the progressive person, and the extremely progressive person, respectively.

Progressively skewed sampling in Simulations S1 and S2, and non-skewed sampling in Simulation S3. We drew progressively skewed samples ($S = -0.60$) by including the extremely conservative person, the conservative person, the slightly conservative person, the exactly moderate person, the slightly progressive person, the progressive person, and the extremely progressive person 10, 25, 40, 55, 70, 85, and 100 times, respectively. We drew a non-skewed sample ($S = 0$) by including the extremely conservative person, the

conservative person, the slightly conservative person, the exactly moderate person, the slightly progressive person, the progressive person, and the extremely progressive person 55, 55, 55, 55, 55, 55, and 55 times, respectively.

Simulation S1

Simulation S1 fitted two linear mixed models with random intercepts for 420 people and 32 groups. Model Sim1.1 predicted prejudice from self-group dissimilarity in ideology (1), self-rated ideology ranging from conservative to progressive (2), and the interaction of these two fixed effects (3). Model Sim1.2 was the same except that it also included fixed effects for extremeness of self-rated ideology (4) and extremeness of self-rated ideology interacting with self-group dissimilarity in ideology (5). Note that in Simulation S1, the ground truth was symmetrical ideological prejudice combined with extreme-asymmetrical ideological prejudice, whereas the sampling of people was progressively skewed.

Table Simulation 1

Examining symmetrical ideological prejudice in a progressively skewed sample

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>
Model Sim1.1					
1	Self-group dissimilarity in ideology	0.55	[0.55, 0.56]	211.63	< .001
2	Progressive ideology of the self	-0.03	[-0.04, -0.02]	-5.18	< .001
3	Dissimilarity * Progressiveness	0.37	[0.35, 0.39]	41.82	< .001
Model Sim1.2					
1	Self-group dissimilarity in ideology	0.48	[0.48, 0.48]	246.01	< .001
2	Progressive ideology of the self	0.00	[-0.01, 0.00]	-1.63	.105
3	Dissimilarity * Progressiveness	0.00	[-0.01, 0.01]	-0.09	.927
4	Extremeness of ideology of the self	0.00	[0.00, 0.00]	0.58	.565
5	Dissimilarity * Extremeness	0.58	[0.57, 0.59]	109.54	< .001

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

$1-\beta$ = simulated statistical power to detect the effect size $b = .30$ for main effects and $b = .10$ for interactions.

Simulation S2

Simulation S2 fitted two linear mixed models with random intercepts for 420 people and 32 groups. Model Sim2.1 predicted prejudice from self-group dissimilarity in ideology (1), self-rated ideology ranging from conservative to progressive (2), and the interaction of these two fixed effects (3). Model Sim2.2 was the same except that it also included fixed effects for extremeness of self-rated ideology (4) and extremeness of self-rated ideology interacting with self-group dissimilarity in ideology (5). Note that in Simulation S2, the ground truth was conservative-asymmetrical ideological prejudice combined with extreme-asymmetrical ideological prejudice, whereas the sampling of people was progressively skewed.

Table Simulation 2

Examining conservative-asymmetrical ideological prejudice in a progressively skewed sample

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>
Model Sim2.1					
1	Self-group dissimilarity in ideology	0.53	[0.52, 0.53]	210.60	< .001
2	Progressive ideology of the self	-0.03	[-0.04, -0.02]	-4.96	< .001
3	Dissimilarity * Progressiveness	0.07	[0.05, 0.08]	8.02	< .001
Model Sim2.2					
1	Self-group dissimilarity in ideology	0.46	[0.45, 0.46]	244.41	< .001
2	Progressive ideology of the self	0.00	[0.00, 0.00]	-0.56	.577
3	Dissimilarity * Progressiveness	-0.27	[-0.28, -0.26]	-51.16	< .001
4	Extremeness of ideology of the self	0.00	[0.00, 0.01]	1.00	.316
5	Dissimilarity * Extremeness	0.55	[0.54, 0.56]	107.32	< .001

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

$1-\beta$ = simulated statistical power to detect the effect size $b = .30$ for main effects and $b = .10$ for interactions.

Simulation 3

Simulation S3 fitted two linear mixed models with random intercepts for 420 people and 32 groups. Model Sim3.1 predicted prejudice from self-group dissimilarity in ideology (1), self-rated ideology ranging from conservative to progressive (2), and the interaction of these two fixed effects (3). Model Sim3.2 was the same except that it also included fixed effects for extremeness of self-rated ideology (4) and extremeness of self-rated ideology interacting with self-group dissimilarity in ideology (5). Note that in Simulation S3, the ground truth was progressive-asymmetrical ideological prejudice combined with extreme-asymmetrical ideological prejudice, whereas the sampling of people was non-skewed.

Table Simulation 3

Examining progressive-asymmetrical ideological prejudice in a non-skewed skewed sample

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>
Model Sim3.1					
1	Self-group dissimilarity in ideology	0.58	[0.58, 0.59]	289.33	< .001
2	Progressive ideology of the self	0.00	[-0.01, 0.01]	0.10	.924
3	Dissimilarity * Progressiveness	0.27	[0.25, 0.28]	33.86	< .001
Model Sim3.2					
1	Self-group dissimilarity in ideology	0.45	[0.45, 0.45]	272.28	< .001
2	Progressive ideology of the self	0.00	[0.00, 0.00]	0.60	.546
3	Dissimilarity * Progressiveness	0.27	[0.26, 0.27]	79.00	< .001
4	Extremeness of ideology of the self	0.00	[0.00, 0.00]	0.23	.816
5	Dissimilarity * Extremeness	0.55	[0.54, 0.55]	127.01	< .001

Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

$1-\beta$ = simulated statistical power to detect the effect size $b = .30$ for main effects and $b = .10$ for interactions.

Text S2

The ANES studies span 48 years (1972/1973-2020/2021) versus a span of five years (2016-2021) between the ABC studies. It could be that the ANES studies find a conservative asymmetry before roughly 2010, but find a progressive asymmetry after roughly 2010. This progressive asymmetry would replicate the more recent progressive asymmetry that the ABC studies find. The conservative asymmetry in the ANES studies would overshadow the progressive asymmetry in the ANES studies, however, because the duration of the former (vs. latter) asymmetry is longer.

Table Text S2.1

Additionally testing for time trends in (a)symmetric ideological prejudice

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S1.1.2 (ANES studies)						
1	Self-group dissimilarity in ideology	0.32	[0.31, 0.32]	206.76	< .001	1.00
2	Progressive ideology of the self	-0.01	[-0.02, -0.01]	-3.53	< .001	
3	Dissimilarity * Progressiveness	-0.03	[-0.04, -0.02]	-4.57	< .001	1.00
4	Year of study	0.05	[0.01, 0.10]	2.19	.043	
5	Year * Dissimilarity	0.32	[0.31, 0.33]	76.19	< .001	
6	Year * Progressiveness	-0.05	[-0.07, -0.03]	-5.49	< .001	
7	Year * Dissimilarity * Progressiveness	-0.22	[-0.26, -0.19]	-12.40	< .001	
Model S1.2.2 (ABC studies)						
1	Self-group dissimilarity in ideology	0.37	[0.37, 0.38]	128.33	< .001	1.00
2	Progressive ideology of the self	0.00	[-0.01, 0.01]	0.15	.878	
3	Dissimilarity * Progressiveness	0.22	[0.20, 0.25]	16.42	< .001	1.00
4	Year of study	-0.04	[-0.10, 0.02]	-1.31	.261	
5	Year * Dissimilarity	0.05	[0.03, 0.06]	6.73	< .001	
6	Year * Progressiveness	0.05	[0.02, 0.08]	3.40	.001	
7	Year * Dissimilarity * Progressiveness	-0.20	[-0.27, -0.14]	-6.00	< .001	

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.

To test this resolution of the contradiction between the two research programs, the paper fitted models that take into account the year in which each ANES and ABC study ran. Models S1.1.2 and S1.2.2 added the same four fixed effects to Models 1.1 (ANES) and 1.2 (ABC). These effects were year of study, year of study interacting with self-group dissimilarity in ideology, year of study interacting with self-rated ideology, and the three-way interaction between year of study, self-group dissimilarity in ideology, and self-rated ideology.

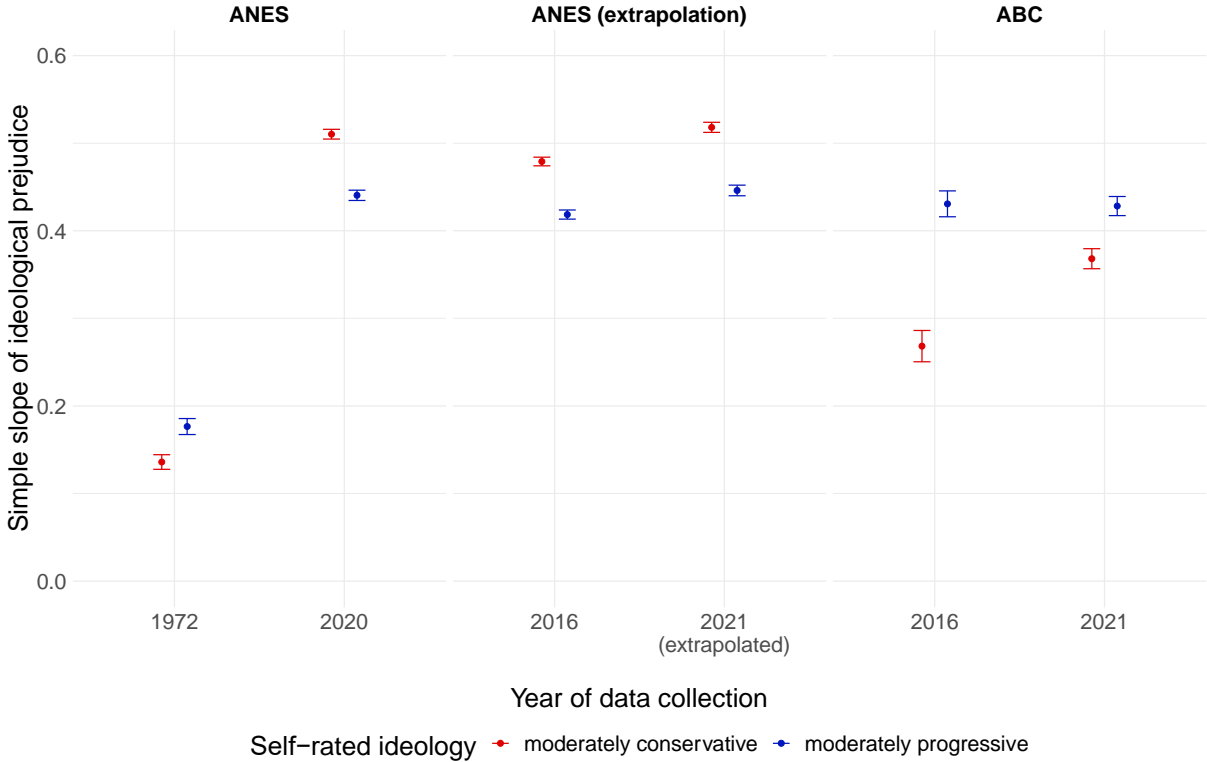
Note that most ANES studies ran in pre- and post-election waves. Prejudiced feelings toward groups were always measured *after* the election. These post-election waves ran between November of the election year (right after the election) and December of the same year to February of the next year. For example, the 2020 ANES study's post-election wave ran until January 2021. For analyses of time trends, we always consider the year in which the post-election wave started (e.g., 2020 for the 2020 ANES study).

In the ANES studies, conservative asymmetry (see the negative effect of #3 in Table Text S2.1) increased between 1972 and 2020 (see the negative effect of #7; see also Footnote 1). To probe this three-way interaction, the paper computed simple slopes (Aiken & West, 1991) of ideological prejudice at moderate conservatives versus moderate progressives (-0.25 vs. 0.25 on the self-rated ideology scale ranging from -0.5 to 0.5) by 1972 versus 2020. To probe the three-way interaction in comparison with the time span of the ABC studies, the paper also computed simple slopes of ideological prejudice at moderate conservatives versus moderate progressives by 2016 versus 2021. The simple slopes for 2021 were minimal extrapolations rather than estimations because the last ANES study started to run in 2020. In the ABC studies, progressive asymmetry (see the positive effect of #3 in Table 3) decreased between 2016 and 2021 (see the positive effect of #7). Again, the paper computed simple slopes of ideological prejudice at moderate conservatives versus moderate progressives by 2016 versus 2021 (this time based on the ABC data, however).

Figure Text S2.1 shows that in the ANES data, ideological prejudice developed from a progressive asymmetry in 1972 to a conservative asymmetry in 2020. In the ABC data, ideological prejudice developed from a progressive asymmetry in 2016 to a slightly weaker progressive asymmetry in 2020. Thus, taking into account the year in which each ANES study ran did not resolve the contradiction between their results and the results of the ABC studies. On the contrary, taking into account the year of study accentuated the contradiction. The effect size difference between the ANES’s conservative asymmetry in the years 2016-2021 and the ABC’s progressive asymmetry in the same years (Figure Text S2.1) is larger than the effect size difference between the ANES’s conservative asymmetry in the years 1972-2020 and the ABC’s progressive asymmetry in the years 2016-2021 (Table Text S2.1).

Figure Text S2.1

Testing for ideological prejudice by dataset, year of study, and self-rated ideology



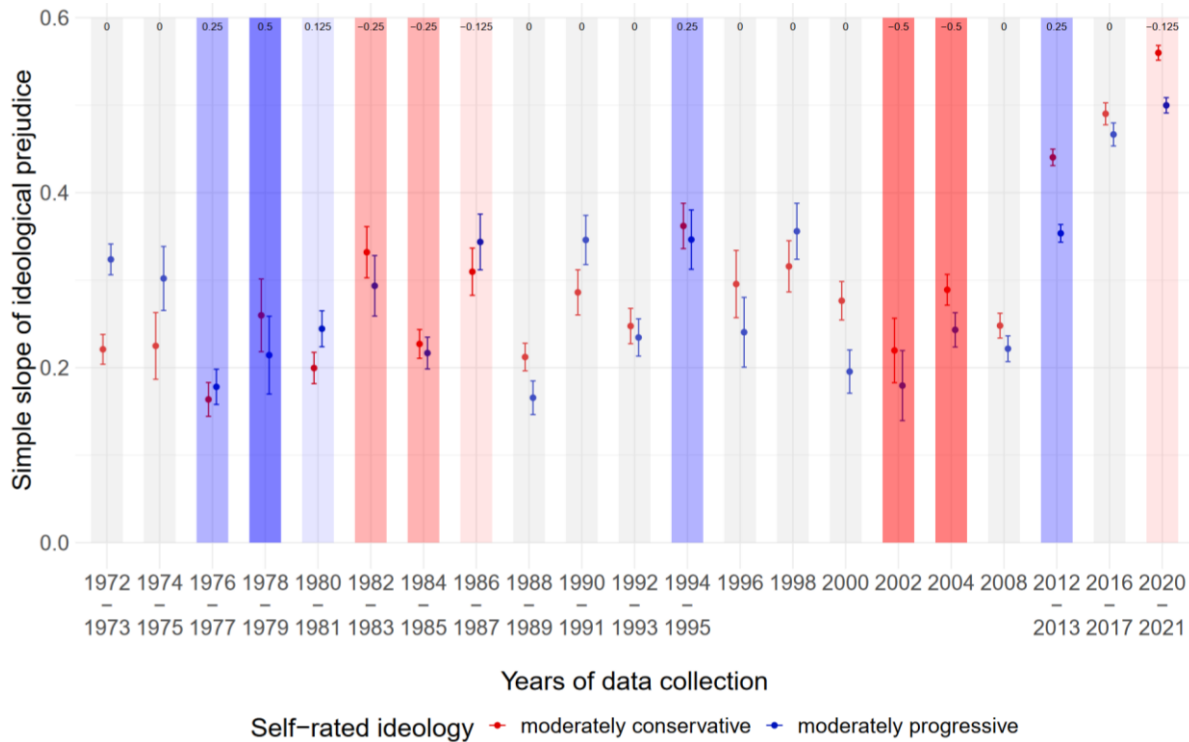
Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and moderately progressive self-rated ideologies correspond to -0.25 and 0.25, respectively, on a scale ranging from most conservative (-0.5) to most progressive (0.5).

To crosscheck the validity of this conclusion, the paper re-fitted Model 1.1 separately for each of the 21 ANES studies. The paper also re-fitted Model 1.2 separately for each of the six ABC studies. Then, the paper computed simple slopes of ideological prejudice at moderate conservatives versus moderate progressives per each of the 26 models. Figures Text S2.2 and Text S2.3, and Table Text S2.2 show that the conclusion is valid. The contradiction held true regardless of first pooling and then modeling all ANES versus ABC data or separately modeling the data from each ANES and ABC study as reported in the supplemental materials.

Noteworthy, ideological prejudice increased over time in the ANES and ABC studies (see #5), consistent with previous research (Boxell et al., 2020; Iyengar et al., 2019).

Figure Text S2.2

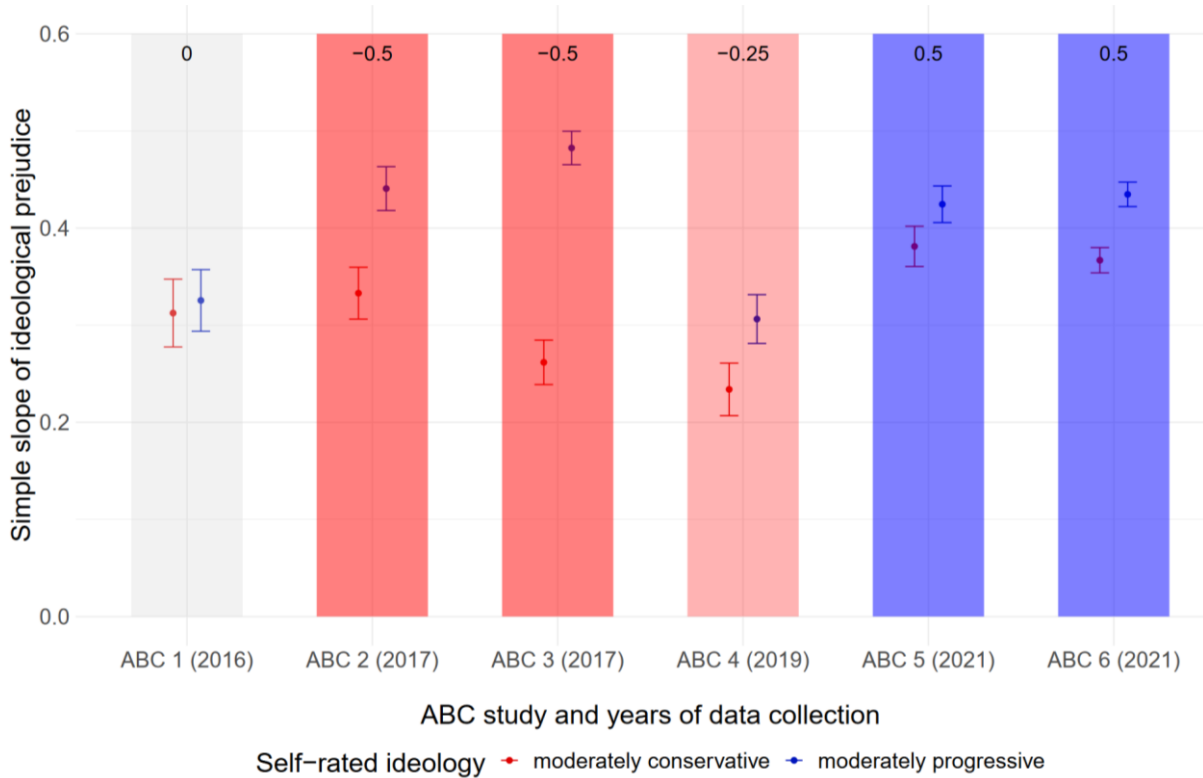
Testing for ideological prejudice by ANES dataset / year of study, self-rated ideology, and political power



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and moderately progressive self-rated ideologies correspond to -0.25 and 0.25, respectively, on a scale ranging from extremely conservative (-0.5) to extremely progressive (0.50). Red and blue rectangles indicate that Democrats and Republicans predominantly held political power when the respective study ran, which corresponds to a political power index below 0 and above 0, respectively (as indicated at the top). Grey rectangles indicate that political power was ambiguous when the respective study ran (political power index = 0).

Figure Text S2.3

Testing for ideological prejudice by ABC dataset / year of study, self-rated ideology, and political power



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and moderately progressive self-rated ideologies correspond to -0.25 and 0.25, respectively, on a scale ranging from extremely conservative (-0.5) to extremely progressive (0.50). Red and blue rectangles indicate that Democrats and Republicans predominantly held political power when the respective study ran, which corresponds to a political power index below 0 and above 0, respectively (as indicated at the top). Grey rectangles indicate that political power was ambiguous when the respective study ran (political power index = 0).

Table Text S2.2*Asymmetric ideological prejudice in the ANES versus ABC studies (separate analyses)*

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
ANES studies						
Model S1.1.2.1 (1972-1973)						
1	Self-group dissimilarity in ideology	0.27	[0.26, 0.28]	45.22	< .001	1.00
2	Progressive ideology of the self	0.00	[-0.02, 0.03]	0.13	.900	
3	Dissimilarity * Progressiveness	0.21	[0.15, 0.26]	7.95	< .001	1.00
Model S1.1.2.2 (1974-1975)						
1	Self-group dissimilarity in ideology	0.26	[0.24, 0.29]	20.22	< .001	1.00
2	Progressive ideology of the self	0.04	[0.00, 0.08]	1.87	.063	
3	Dissimilarity * Progressiveness	0.15	[0.05, 0.26]	2.77	.006	0.42
Model S1.1.2.3 (1976-1977)						
1	Self-group dissimilarity in ideology	0.17	[0.16, 0.18]	24.61	< .001	1.00
2	Progressive ideology of the self	0.01	[-0.04, 0.06]	0.34	.735	
3	Dissimilarity * Progressiveness	0.03	[-0.03, 0.09]	0.99	.324	0.94
Model S1.1.2.4 (1978-1979)						
1	Self-group dissimilarity in ideology	0.24	[0.21, 0.27]	14.97	< .001	1.00
2	Progressive ideology of the self	0.01	[-0.02, 0.05]	0.76	.450	
3	Dissimilarity * Progressiveness	-0.09	[-0.21, 0.03]	-1.50	.135	0.46
Model S1.1.2.5 (1980-1981)						
1	Self-group dissimilarity in ideology	0.22	[0.21, 0.24]	32.96	< .001	1.00
2	Progressive ideology of the self	-0.01	[-0.04, 0.03]	-0.29	.773	
3	Dissimilarity * Progressiveness	0.09	[0.03, 0.15]	3.14	.002	0.97
Model S1.1.2.6 (1982-1983)						
1	Self-group dissimilarity in ideology	0.31	[0.29, 0.34]	26.90	< .001	1.00
2	Progressive ideology of the self	0.02	[-0.01, 0.06]	1.27	.205	
3	Dissimilarity * Progressiveness	-0.08	[-0.17, 0.01]	-1.67	.095	0.65
Model S1.1.2.7 (1984-1985)						
1	Self-group dissimilarity in ideology	0.22	[0.21, 0.23]	36.95	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.06, 0.00]	-1.85	.065	
3	Dissimilarity * Progressiveness	-0.02	[-0.07, 0.03]	-0.80	.422	0.98
Model S1.1.2.8 (1986-1987)						
1	Self-group dissimilarity in ideology	0.33	[0.31, 0.35]	30.40	< .001	1.00
2	Progressive ideology of the self	0.04	[0.01, 0.08]	2.74	.006	
3	Dissimilarity * Progressiveness	0.07	[-0.01, 0.15]	1.62	.106	0.64

Table Text S2.2 (continued)

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
ANES studies						
Model S1.1.2.9 (1988-1989)						
1	Self-group dissimilarity in ideology	0.19	[0.18, 0.20]	30.18	< .001	1.00
2	Progressive ideology of the self	0.00	[-0.04, 0.03]	-0.22	.825	
3	Dissimilarity * Progressiveness	-0.09	[-0.14, -0.04]	-3.62	< .001	0.97
Model S1.1.2.10 (1990-1991)						
1	Self-group dissimilarity in ideology	0.32	[0.30, 0.34]	31.86	< .001	1.00
2	Progressive ideology of the self	0.05	[0.02, 0.08]	3.35	.001	
3	Dissimilarity * Progressiveness	0.12	[0.04, 0.19]	3.13	.002	0.71
Model S1.1.2.11 (1992-1993)						
1	Self-group dissimilarity in ideology	0.24	[0.23, 0.26]	32.71	< .001	1.00
2	Progressive ideology of the self	-0.01	[-0.05, 0.03]	-0.41	.683	
3	Dissimilarity * Progressiveness	-0.03	[-0.09, 0.03]	-0.86	.391	0.92
Model S1.1.2.12 (1994-1995)						
1	Self-group dissimilarity in ideology	0.35	[0.33, 0.38]	31.75	< .001	1.00
2	Progressive ideology of the self	-0.01	[-0.05, 0.03]	-0.45	.652	
3	Dissimilarity * Progressiveness	-0.03	[-0.11, 0.05]	-0.73	.463	0.67
Model S1.1.2.13 (1996)						
1	Self-group dissimilarity in ideology	0.27	[0.24, 0.29]	19.66	< .001	1.00
2	Progressive ideology of the self	-0.09	[-0.17, -0.02]	-2.44	.015	
3	Dissimilarity * Progressiveness	-0.11	[-0.22, 0.00]	-1.88	.060	0.43
Model S1.1.2.14 (1998)						
1	Self-group dissimilarity in ideology	0.34	[0.31, 0.36]	30.04	< .001	1.00
2	Progressive ideology of the self	0.04	[0.01, 0.08]	2.43	.015	
3	Dissimilarity * Progressiveness	0.08	[-0.01, 0.17]	1.83	.067	0.65
Model S1.1.2.15 (2000)						
1	Self-group dissimilarity in ideology	0.24	[0.22, 0.25]	28.71	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.08, 0.02]	-1.03	.302	
3	Dissimilarity * Progressiveness	-0.16	[-0.23, -0.09]	-4.68	< .001	0.82
Model S1.1.2.16 (2002)						
1	Self-group dissimilarity in ideology	0.20	[0.17, 0.22]	15.55	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.11, 0.05]	-0.70	.487	
3	Dissimilarity * Progressiveness	-0.08	[-0.20, 0.04]	-1.35	.176	0.39
Model S1.1.2.17 (2004)						
1	Self-group dissimilarity in ideology	0.27	[0.25, 0.28]	40.95	< .001	1.00
2	Progressive ideology of the self	0.00	[-0.03, 0.04]	0.20	.842	
3	Dissimilarity * Progressiveness	-0.09	[-0.15, -0.04]	-3.30	.001	0.95

Table Text S2.2 (continued)

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
ANES studies						
Model S1.1.2.18 (2008)						
1	Self-group dissimilarity in ideology	0.23	[0.22, 0.24]	46.18	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.06, 0.00]	-2.19	.029	
3	Dissimilarity * Progressiveness	-0.05	[-0.09, -0.01]	-2.46	.014	1.00
Model S1.1.2.19 (2012-2013)						
1	Self-group dissimilarity in ideology	0.40	[0.39, 0.40]	114.68	< .001	1.00
2	Progressive ideology of the self	-0.05	[-0.06, -0.03]	-5.87	< .001	
3	Dissimilarity * Progressiveness	-0.17	[-0.20, -0.15]	-12.07	< .001	1.00
Model S1.1.2.20 (2016-2017)						
1	Self-group dissimilarity in ideology	0.48	[0.47, 0.49]	108.63	< .001	1.00
2	Progressive ideology of the self	-0.05	[-0.07, -0.04]	-7.07	< .001	
3	Dissimilarity * Progressiveness	-0.05	[-0.09, -0.01]	-2.43	.015	1.00
Model S1.1.2.21 (2020-2021)						
1	Self-group dissimilarity in ideology	0.53	[0.52, 0.54]	178.83	< .001	1.00
2	Progressive ideology of the self	-0.02	[-0.04, -0.01]	-4.02	< .001	
3	Dissimilarity * Progressiveness	-0.12	[-0.15, -0.09]	-9.32	< .001	1.00
ABC studies						
Model S1.2.2.1 (ABC study 1)						
1	Self-group dissimilarity in ideology	0.32	[0.30, 0.34]	29.32	< .001	1.00
2	Progressive ideology of the self	0.00	[-0.05, 0.04]	-0.14	.889	
3	Dissimilarity * Progressiveness	0.03	[-0.08, 0.13]	0.50	.620	0.48
Model S1.2.2.2 (ABC study 2)						
1	Self-group dissimilarity in ideology	0.39	[0.37, 0.40]	47.19	< .001	1.00
2	Progressive ideology of the self	-0.02	[-0.05, 0.01]	-1.10	.270	
3	Dissimilarity * Progressiveness	0.22	[0.14, 0.29]	5.63	< .001	0.74
Model S1.2.2.3 (ABC study 3)						
1	Self-group dissimilarity in ideology	0.37	[0.36, 0.39]	53.58	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.06, 0.00]	-2.20	.028	
3	Dissimilarity * Progressiveness	0.44	[0.38, 0.50]	14.41	< .001	0.90
Model S1.2.2.4 (ABC study 4)						
1	Self-group dissimilarity in ideology	0.27	[0.25, 0.29]	32.20	< .001	1.00
2	Progressive ideology of the self	0.03	[0.00, 0.05]	1.91	.057	
3	Dissimilarity * Progressiveness	0.14	[0.06, 0.23]	3.50	< .001	0.63

Table Text S2.2 (continued)

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
ABC studies						
Model S1.2.2.5 (ABC study 5)						
1	Self-group dissimilarity in ideology	0.40	[0.39, 0.42]	61.42	< .001	1.00
2	Progressive ideology of the self	0.01	[-0.02, 0.03]	0.47	.639	
3	Dissimilarity * Progressiveness	0.09	[0.03, 0.15]	2.82	.005	0.85
Model S1.2.2.6 (ABC study 6)						
1	Self-group dissimilarity in ideology	0.40	[0.39, 0.41]	96.97	< .001	1.00
2	Progressive ideology of the self	0.03	[0.01, 0.04]	3.23	.001	
3	Dissimilarity * Progressiveness	0.14	[0.10, 0.18]	6.69	< .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 interactions.

Table S3

Predicting prejudiced feelings versus thoughts from a narrow versus broad ideology with self-group dissimilarity in ideology computed as the absolute difference between a person's self-rated ideology and that person's rating of that group's ideology

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S2.1.1 (ideo.: ANES; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.59	[0.58, 0.60]	97.74	< .001	1.00
2	Progressive ideology of the self	-0.05	[-0.08, -0.02]	-3.29	.001	
3	Dissimilarity * Progressiveness	0.12	[0.08, 0.16]	5.61	< .001	1.00
Model S2.2.1 (ideo.: ABC; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.58	[0.56, 0.59]	90.69	< .001	1.00
2	Progressive ideology of the self	-0.04	[-0.07, -0.01]	-2.73	.006	
3	Dissimilarity * Progressiveness	0.18	[0.14, 0.21]	9.03	< .001	1.00
Model S2.3.1 (ideo.: ANES; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.53	[0.52, 0.54]	91.76	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.06, 0.00]	-2.16	.031	
3	Dissimilarity * Progressiveness	0.06	[0.02, 0.10]	2.84	.005	1.00
Model S2.4.1 (ideo.: ABC; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.53	[0.52, 0.54]	88.22	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.05, 0.00]	-1.74	.081	
3	Dissimilarity * Progressiveness	0.11	[0.07, 0.15]	6.02	< .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 interactions; ideo. = ideology measure; prej. = prejudice measure.

Table S4

Predicting prejudiced feelings versus thoughts from a narrow versus broad ideology in a model including order of ideology measures (ANES first vs. ABC first)

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S2.1.2 (ideo.: ANES; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.64	[0.62, 0.67]	58.26	< .001	1.00
2	Progressive ideology of the self	-0.04	[-0.08, 0.01]	-1.55	.121	
3	Dissimilarity * Progressiveness	0.22	[0.15, 0.30]	5.59	< .001	0.73
4	Order of ideology measure	0.02	[0.00, 0.04]	2.11	.035	
5	Dissimilarity * Order ₁	0.03	[0.00, 0.06]	2.09	.036	
6	Progressiveness * Order ₁	-0.02	[-0.09, 0.04]	-0.74	.460	
7	Dissimilarity * Progressiveness * Order ₁	-0.06	[-0.14, 0.03]	-1.33	.185	
Model S2.2.2 (ideo.: ABC; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.63	[0.61, 0.66]	51.10	< .001	1.00
2	Progressive ideology of the self	0.01	[-0.04, 0.05]	0.34	.737	
3	Dissimilarity * Progressiveness	0.51	[0.42, 0.60]	11.32	< .001	0.64
4	Order of ideology measure	0.02	[0.00, 0.04]	1.60	.110	
5	Dissimilarity * Order ₁	0.03	[-0.01, 0.06]	1.59	.111	
6	Progressiveness * Order ₁	-0.08	[-0.15, -0.02]	-2.57	.010	
7	Dissimilarity * Progressiveness * Order ₁	-0.09	[-0.18, 0.00]	-1.89	.059	
Model S2.3.2 (ideo.: ANES; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.59	[0.57, 0.61]	55.38	< .001	1.00
2	Progressive ideology of the self	-0.03	[-0.07, 0.02]	-1.25	.213	
3	Dissimilarity * Progressiveness	0.17	[0.10, 0.25]	4.47	< .001	0.75
4	Order of ideology measure	0.01	[-0.01, 0.04]	1.43	.152	
5	Dissimilarity * Order ₁	0.00	[-0.03, 0.03]	-0.19	.851	
6	Progressiveness * Order ₁	0.00	[-0.07, 0.06]	-0.11	.914	
7	Dissimilarity * Progressiveness * Order ₁	-0.07	[-0.15, 0.01]	-1.62	.105	
Model S2.4.2 (ideo.: ABC; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.57	[0.55, 0.59]	48.23	< .001	1.00
2	Progressive ideology of the self	0.02	[-0.03, 0.06]	0.79	.429	
3	Dissimilarity * Progressiveness	0.42	[0.33, 0.50]	9.74	< .001	0.72
4	Order of ideology measure	0.01	[-0.01, 0.03]	1.22	.224	
5	Dissimilarity * Order ₁	0.00	[-0.03, 0.04]	0.16	.871	
6	Progressiveness * Order ₁	-0.07	[-0.13, -0.01]	-2.25	.025	
7	Dissimilarity * Progressiveness * Order ₁	-0.10	[-0.18, -0.01]	-2.25	.025	

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.

Table S5

Predicting prejudiced feelings versus thoughts from a narrow versus broad ideology in a model including order of prejudice measures (ANES first vs. ABC first)

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S2.1.3 (ideo.: ANES; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.64	[0.62, 0.66]	58.36	< .001	1.00
2	Progressive ideology of the self	-0.04	[-0.08, 0.01]	-1.48	.139	
3	Dissimilarity * Progressiveness	0.19	[0.11, 0.27]	4.66	< .001	0.72
4	Order of prejudice measure	-0.02	[-0.04, 0.00]	-1.52	.129	
5	Dissimilarity * Order _P	0.04	[0.01, 0.07]	2.64	.008	
6	Progressiveness * Order _P	-0.03	[-0.10, 0.03]	-0.96	.338	
7	Dissimilarity * Progressiveness * Order _P	0.02	[-0.07, 0.10]	0.40	.690	
Model S2.2.3 (ideo.: ABC; prej.: ANES)						
1	Self-group dissimilarity in ideology	0.64	[0.61, 0.66]	50.84	< .001	1.00
2	Progressive ideology of the self	-0.02	[-0.07, 0.03]	-0.82	.412	
3	Dissimilarity * Progressiveness	0.45	[0.36, 0.54]	9.92	< .001	0.65
4	Order of prejudice measure	-0.03	[-0.05, 0.00]	-2.39	.017	
5	Dissimilarity * Order _P	0.02	[-0.02, 0.05]	0.87	.383	
6	Progressiveness * Order _P	-0.03	[-0.10, 0.03]	-1.00	.319	
7	Dissimilarity * Progressiveness * Order _P	0.03	[-0.06, 0.12]	0.74	.457	
Model S2.3.3 (ideo.: ANES; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.57	[0.55, 0.59]	54.20	< .001	1.00
2	Progressive ideology of the self	-0.01	[-0.06, 0.03]	-0.62	.536	
3	Dissimilarity * Progressiveness	0.10	[0.02, 0.17]	2.50	.012	0.75
4	Order of prejudice measure	0.00	[-0.02, 0.02]	0.16	.873	
5	Dissimilarity * Order _P	0.03	[0.00, 0.06]	2.26	.024	
6	Progressiveness * Order _P	-0.03	[-0.10, 0.03]	-1.02	.307	
7	Dissimilarity * Progressiveness * Order _P	0.09	[0.01, 0.17]	2.19	.029	
Model S2.4.3 (ideo.: ABC; prej.: ABC)						
1	Self-group dissimilarity in ideology	0.57	[0.55, 0.59]	47.42	< .001	1.00
2	Progressive ideology of the self	0.00	[-0.04, 0.04]	0.03	.977	
3	Dissimilarity * Progressiveness	0.33	[0.24, 0.41]	7.48	< .001	0.67
4	Order of prejudice measure	-0.01	[-0.03, 0.01]	-0.72	.472	
5	Dissimilarity * Order _P	0.01	[-0.03, 0.04]	0.36	.720	
6	Progressiveness * Order _P	-0.04	[-0.10, 0.02]	-1.20	.231	
7	Dissimilarity * Progressiveness * Order _P	0.08	[0.00, 0.17]	1.91	.056	

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.

Text S3

We sampled at least 150, 150, and 150 U.S. residents who in a pre-screening conducted by the online worker platform Prolific Academic had indicated that their ideology is conservative, moderate, and liberal, respectively. In total, we sampled 574 people ($M_{age} = 39.24$, $SD_{age} = 14.06$; 258 men, 312 women, 2 non-binary people, 1 prefer to self-describe, 1 prefer not to say). People read “The people in a societal group are similar, think similarly, feel similarly, or behave similarly. Off the top of your head, what various types of people do you think today’s society categorizes into groups? In the text boxes below, list 20 different societal groups in today’s U.S. society.” People provided demographic information, including their age and gender, after listing the 20 groups.

Table S6*Symmetric ideological prejudice regardless of convenient vs. representative sampling*

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S3.1 (convenient sampling)						
1	Self-group dissimilarity in ideology	0.31	[0.30, 0.32]	69.56	< .001	1.00
2	Progressive ideology of the self	0.01	[-0.02, 0.04]	0.54	.587	
3	Dissimilarity * Progressiveness	-0.02	[-0.05, 0.01]	-1.34	.180	1.00
Model S3.2 (representative sampling)						
1	Self-group dissimilarity in ideology	0.28	[0.27, 0.30]	54.56	< .001	1.00
2	Progressive ideology of the self	0.02	[-0.02, 0.05]	0.86	.393	
3	Dissimilarity * Progressiveness	0.02	[-0.02, 0.04]	0.74	.459	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.

Table S7*Demographics in the convenient and nationally representative samples in Study 2*

	Convenient sample (Prolific)	Representative sample (SSRS)
Household income		
< \$50,000 ^{ab}	355	384
\$50,000 - \$74,999 ^{ab}	222	182
\$75,000 - \$99,999 ^{ab}	195	142
> \$100,000 ^{ab}	260	289
NA	12	3
Highest level of education		
Less than high school ^{ab}	6	10
High school incomplete ^{ab}	17	48
High school graduate ^{ab}	137	215
Some college, no degree ^{ab}	211	189
Two year associate degree from a college or university ^{ab}	96	92
Four year college or university degree/Bachelor's degree ^{ab}	399	207
Some postgraduate or professional schooling, no postgraduate degree ^{ab}	18	49
Postgraduate or professional degree, including master's, doctorate, medical or law degree ^{ab}	157	182
NA	3	8
U.S. region of residence		
Northeast ^{ab}	221	184
Midwest ^{ab}	198	209
South ^{ab}	399	365
West ^{ab}	226	241
NA	0	1

Table S7 (continued)

	Convenient sample (Prolific)	Representative sample (SSRS)
Race / ethnicity		
White ^a White (Non-Hispanic) ^b	793	635
Black ^a Black (Non-Hispanic) ^b	81	86
Hispanic ^a	48	
White Hispanic ^{bc}	20	89
Black Hispanic ^{bc}	3	3
Unspecified Hispanic ^b		61
Asian ^a Asian/Chinese/Japanese ^b	60	63
Native American/American Indian/Alaska Native ^b		6
Native Hawaiian and other Pacific Islander ^b		0
Other ^a Other Race ^b	7	5
Mixed ^{bc}	26	13
NA	6	39
U.S. division of residence		
Alaska and Hawaii ^{ab}	6	1
New England ^{ab}	67	41
Mid Atlantic ^{ab}	142	143
East North Central ^{ab}	154	133
West North Central ^{ab}	53	76
South Atlantic ^{ab}	179	186
East South Central ^{ab}	119	55
West South Central ^{ab}	95	124
Mountain ^{ab}	73	78
Pacific ^{ab}	156	162
NA	0	1

Table S7 (continued)

	Convenient sample (Prolific)	Representative sample (SSRS)
Internet usage		
Almost constantly ^{ab}	666	439
Several times a day ^{ab}	372	470
About once a day ^{ab}	3	52
Several times a week ^{ab}	3	18
Less often ^{ab}	0	11
Not an internet user ^{ab}	0	10
NA	0	0
Neighborhood		
Urban / city ^a	269	
Center City (Metro) ^b		332
Center City County (Metro) ^b		337
Non-Center City (Metro) ^b		0
Sub-urban ^a Suburban (Metro) ^b	563	169
Rural / countryside ^a	212	
Non-Metro ^b		130
No metro status ^b		0
Refused ^b		0
NA	0	32

Note. ^a denotes labels that were presented to the convenient Prolific sample. ^b denotes labels that were presented to the representative SSRS sample.

The participants in the convenient Prolific sample were able to select multiple labels when asked about their race. For example, participants who

selected White and Hispanic are categorized as White Hispanic here, and participants who selected White, Hispanic, and Asian were categorized as Mixed. ° denotes such labels that are the result of selecting multiple labels at once but were not presented as such to the convenient Prolific sample.

Text S4

For each ANES and ABC study, we coded which party held (a) the presidency, (b) the vice presidency, and the majority of seats in (c) the Senate and (d) the House of Representatives during its data collection period. To code the ANES studies, we always used the post-election data collection period as prejudiced feelings toward the groups were always measured in the post-election wave. We always considered the official start and end dates of the terms of the four institutions (e.g., the President's inauguration date instead of the election date). We coded political power in one institution with -0.5 if Republicans held the presidency or vice presidency or had the majority of seats in the Senate or the House of Representatives. We coded political power in one institution with 0.5 if Democrats held the presidency or vice presidency or had the majority of seats in the Senate or the House of Representatives. We coded political power in one institution with 0 (i.e., ambiguous) if a factual party switch happened during the data collection period. For example, prejudiced feelings towards groups for the 1980 ANES study were measured between November 5, 1980, and February 7, 1981. On January 20, 1981, the term of the newly elected President started. Before January 20, Jimmy Carter was President (a Democrat). Starting January 20, Ronald Reagan was President (a Republican). Thus, for the 1980 ANES study, we coded presidential power with 0. For each person in Study 3, we then summed the four individual political power codings, resulting in a political power index that varied between -2 (all of the four institutions are [predominantly] Republican; strongest Republican power) and 2 (all of the four institutions are [predominantly] Democratic; strongest Democratic power). Like all other predictors, we recoded this political power index so that it varied between -0.5 (strongest Republican power) and 0.5 (strongest Democratic power).

Table S8*Ideological prejudice by self-rated ideology and political power (without Vice President)*

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S4.1.1 (ANES studies)						
1	Self-group dissimilarity in ideology	0.37	[0.37, 0.37]	263.00	< .001	1.00
2	Progressive ideology of the self	-0.02	[-0.02, -0.01]	-5.02	< .001	
3	Dissimilarity * Progressiveness	-0.05	[-0.06, -0.04]	-8.85	< .001	1.00
4	Political power (without Vice President)	0.02	[-0.05, 0.09]	0.50	.627	
5	Dissimilarity * Power	-0.18	[-0.20, -0.16]	-17.34	< .001	
6	Progressiveness * Power	0.02	[-0.03, 0.06]	0.68	.496	
7	Dissimilarity * Progressiveness * Power	0.03	[-0.06, 0.11]	0.64	.519	0.66
Model S4.2.1 (ABC studies)						
1	Self-group dissimilarity in ideology	0.37	[0.37, 0.38]	126.73	< .001	1.00
2	Progressive ideology of the self	0.01	[0.00, 0.02]	1.46	.143	
3	Dissimilarity * Progressiveness	0.22	[0.19, 0.25]	15.87	< .001	1.00
4	Political power (without Vice President)	0.01	[-0.07, 0.09]	0.19	.860	
5	Dissimilarity * Power	0.04	[0.03, 0.05]	6.65	< .001	
6	Progressiveness * Power	0.04	[0.02, 0.07]	3.36	.001	
7	Dissimilarity * Progressiveness * Power	-0.21	[-0.27, -0.15]	-6.90	< .001	0.94

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.

Figure S1

Ideological prejudice by self-rated ideology and political power (without Vice President)



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and moderately progressive self-rated ideologies correspond to -0.25 and 0.25, respectively, on a scale ranging from extremely conservative (-0.5) to extremely progressive (0.50). Political power held by a Republican and predominantly Democratic President corresponds to -0.5 and 0.5, respectively.

Table S9*Ideological prejudice by self-rated ideology and presidential power*

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S4.1.2 (ANES studies)						
1	Self-group dissimilarity in ideology	0.37	[0.37, 0.37]	257.60	< .001	1.00
2	Progressive ideology of the self	-0.02	[-0.03, -0.01]	-6.01	< .001	
3	Dissimilarity * Progressiveness	-0.06	[-0.07, -0.05]	-10.00	< .001	1.00
4	Presidential power	0.02	[-0.01, 0.05]	1.17	.255	
5	Dissimilarity * Power	0.03	[0.03, 0.04]	10.52	< .001	
6	Progressiveness * Power	-0.03	[-0.04, -0.02]	-4.42	< .001	
7	Dissimilarity * Progressiveness * Power	-0.07	[-0.10, -0.05]	-5.75	< .001	1.00
Model S4.2.2 (ABC studies)						
1	Self-group dissimilarity in ideology	0.37	[0.37, 0.38]	126.29	< .001	1.00
2	Progressive ideology of the self	0.01	[0.00, 0.02]	1.64	.101	
3	Dissimilarity * Progressiveness	0.22	[0.20, 0.25]	16.03	< .001	1.00
4	Presidential power	0.04	[0.00, 0.09]	1.89	.175	
5	Dissimilarity * Power	0.04	[0.03, 0.05]	6.83	< .001	
6	Progressiveness * Power	0.03	[0.00, 0.05]	2.37	.018	
7	Dissimilarity * Progressiveness * Power	-0.21	[-0.26, -0.15]	-7.34	< .001	0.94

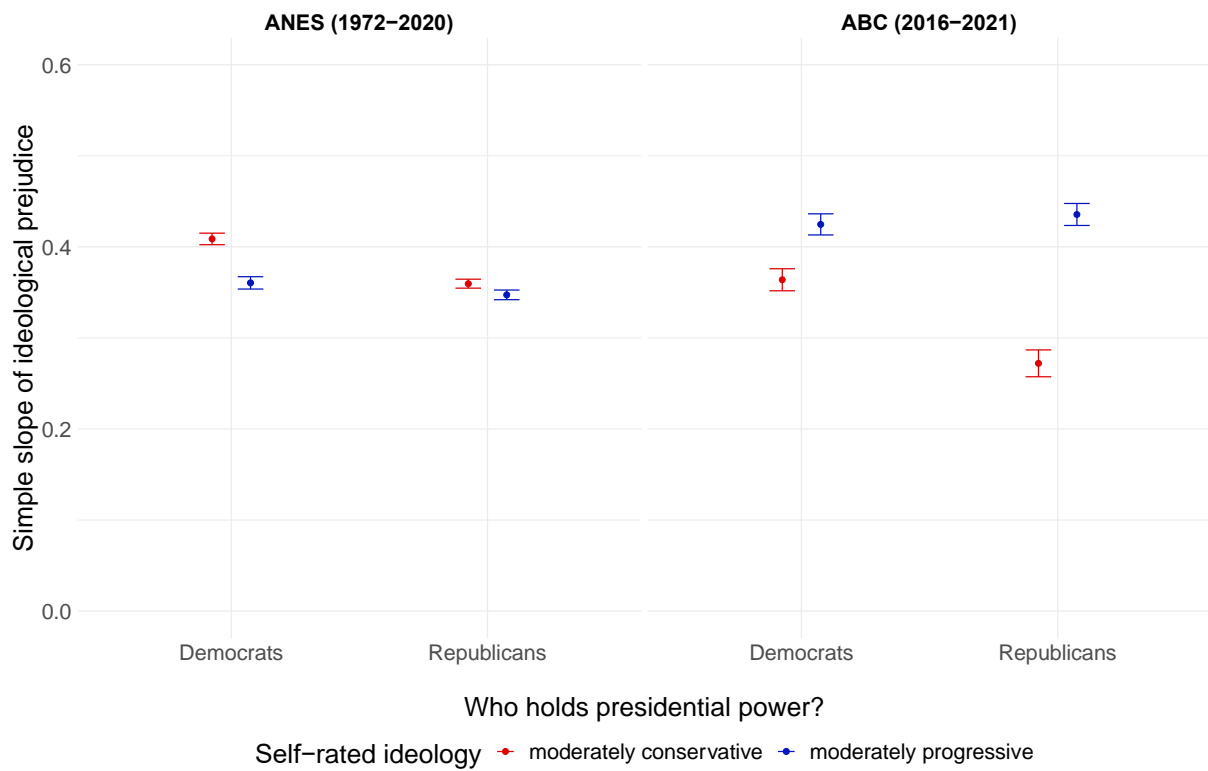
Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

1-β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10

for interactions.

Figure S2

Ideological prejudice by self-rated ideology and presidential power



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and moderately progressive self-rated ideologies correspond to -0.25 and 0.25, respectively, on a scale ranging from extremely conservative (-0.5) to extremely progressive (0.50). Political power held by a Republican and predominantly Democratic President corresponds to -0.5 and 0.5, respectively.

Text S5

We re-analyzed the 21 ANES and six ABC studies separately and in the same way as described in Section 1 of this paper, except that we expanded the two models in Table 1 by considering the ideological (dis-)alignment of a person and the party of the President in power when an ANES or ABC study ran.

For each person in each ANES and ABC study, we coded whether the party that held the presidency during the respective study's data collection period aligned with the self-rated ideology of the person or not. For conservative people (self-rated ideology < 0), we coded the ideological alignment index with -0.5 and 0.5 if, at the time of data collection, the President in power was Democratic or Republican, respectively. For progressive people (self-rated ideology > 0), we coded the ideological alignment index with -0.5 and 0.5 if, at the time of data collection, the President in power was Republican or Democratic, respectively. Thus, an ideological alignment index of -0.5 corresponds to an other-ideology President, and an ideological alignment index of 0.5 corresponds to an own-ideology President. For exactly moderate people (self-rated ideology = 0) and for data collection periods in which a factual presidential party switch happened, we coded the ideological alignment index with 0 (i.e., ambiguous).

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

Models S4.1.3 and S4.2.3 showed that people were more prejudiced against a group if its ideology appeared more dissimilar to the ideology of the self. Again, the paper refers to this effect as ideological prejudice (see #1 in Table Text S5.1). Models S4.1.3 and S4.2.3 also showed that people are more ideologically prejudiced if their ideology does not align with the party of the President in power (see #5 in Table Text S5.1).

In the ANES studies, the effect size of ideological prejudice increased if the ideology of the self was more conservative (see the negative effect of #3 in Model S4.1.3). This conservative-asymmetric ideological prejudice was equally strong if the party of the President in power aligned (own-ideology President) and did not align (other-ideology President) with the self-rated ideology of the person. In other words, conservatives in the ANES studies were not more strongly impacted by the President in power than progressives. The left panel of Figure Test S5.1 plots this non-significant three-way interaction (see #7 in Model S4.1.3).

In the ABC studies, the effect size of ideological prejudice increased if the ideology of the self was more progressive (see the positive effect of #3 in Model S4.2.3). This progressive-asymmetric ideological prejudice was amplified if the party of the President in power aligned (own-ideology President) with the self-rated ideology of the person, and it was attenuated if it did not align (other-ideology President). The difference in the slopes of ideological prejudice of conservatives for cases in which the President was Republican ($b_{own-ideology} = 0.29$) versus Democrat ($b_{other-ideology} = 0.35$) was three times larger the difference in the slopes of ideological prejudice of progressives for cases in which the President was Democratic ($b_{own-ideology} = 0.42$) versus Republican ($b_{other-ideology} = 0.44$). Thus, conservatives in the ABC studies seem to be more strongly impacted by the President in power than progressives. The right panel of Figure Test S5.1 plots this non-significant three-way interaction (see #7 in Model S4.2.3).

Table Text S5.1*Ideological prejudice by self-rated ideology and ideological alignment*

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	<i>1-β</i>
Model S4.1.3 (ANES studies)						
1	Self-group dissimilarity in ideology	0.37	[0.36, 0.37]	256.36	< .001	1.00
2	Progressive ideology of the self	-0.02	[-0.03, -0.01]	-6.16	< .001	
3	Dissimilarity * Progressiveness	-0.06	[-0.07, -0.05]	-10.24	< .001	1.00
4	Ideological alignment	-0.01	[-0.02, -0.01]	-5.65	< .001	
5	Dissimilarity * Alignment	-0.03	[-0.04, -0.02]	-7.15	< .001	
6	Progressiveness * Alignment	0.05	[0.04, 0.07]	5.73	< .001	
7	Dissimilarity * Progressiveness * Align.	0.01	[-0.01, 0.03]	1.15	.251	1.00
Model S4.2.3 (ABC studies)						
1	Self-group dissimilarity in ideology	0.38	[0.37, 0.38]	127.58	< .001	1.00
2	Progressive ideology of the self	0.01	[0.00, 0.02]	1.69	.092	
3	Dissimilarity * Progressiveness	0.22	[0.19, 0.25]	15.67	< .001	1.00
4	Ideological alignment	0.00	[-0.01, 0.01]	0.70	.486	
5	Dissimilarity * Alignment	-0.04	[-0.06, -0.01]	-3.18	.001	
6	Progressiveness * Alignment	0.07	[0.03, 0.12]	3.23	.001	
7	Dissimilarity * Progressiveness * Align.	0.10	[0.07, 0.13]	6.11	< .001	1.00

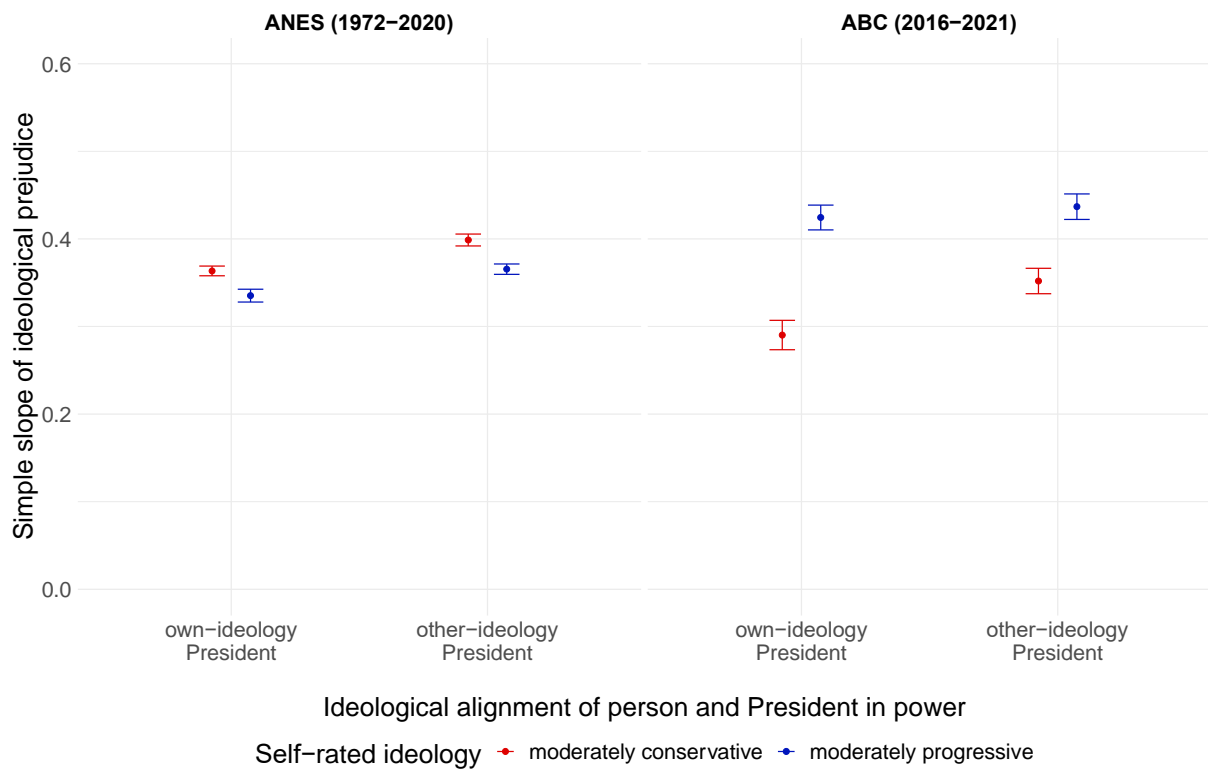
Note. *b* = estimate; 95% CI = 95% confidence interval [lower bound, upper bound];

1-β = simulated statistical power to detect the effect size *b* = .30 for main effects and *b* = .10

for interactions.

Figure Text S5.1

Testing for ideological prejudice by self-rated ideology and ideological alignment



Note. Points indicate simple slopes. Error bars indicate 95% confidence intervals. Moderately conservative and moderately progressive self-rated ideologies correspond to -0.25 and 0.25, respectively, on a scale ranging from extremely conservative (-0.5) to extremely progressive (0.50). Own-ideology President and other-ideology President correspond to 0.5 and -0.5, respectively, on the ideological alignment index.

Table S9

Ideological prejudice by self-rated ideology and political power in Study 3 (complete within-subjects data)

#	Effect	<i>b</i>	95% CI	<i>t</i>	<i>p</i>	1- β
Model 5.1						
1	Self-group dissimilarity in ideology	0.49	[0.48, 0.50]	68.30	< .001	1.00
2	Progressive ideology of the self	0.03	[0.01, 0.05]	2.80	.005	
3	Dissimilarity * Progressiveness	0.13	[0.09, 0.17]	6.34	< .001	1.00
4	Power (Democratic vs. Republican)	0.00	[-0.01, 0.01]	-0.08	.936	
5	Dissimilarity * Power	-0.02	[-0.05, 0.01]	-1.37	.170	
6	Progressiveness * Power	-0.10	[-0.14, -0.06]	-5.06	< .001	
7	Dissimilarity * Progressiveness * Power	-0.08	[-0.16, 0.00]	-1.94	.052	0.68

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.

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