From Gridlock to Polarization

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First version: July 17, 2023
Latest version here

This version: April 13, 2024

Abstract

We propose a mechanism linking legislative gridlock to voters' support for candidates who hold extreme policy positions. Moderate voters rationally discount extreme policy proposals from co-partisans on gridlocked policy issues because on these issues policy change is unlikely. We test our mechanism in a large-scale online experiment in which we randomly vary subjects' perceptions of gridlock and measure subjects' support for co-partisan candidates in candidate-choice tasks. We verify that greater perception of gridlock on a specific issue increases moderate subjects' propensity to vote for extreme co-partisan candidates on the gridlocked issue. We show that our experimental evidence is consistent with our mechanism and that other mechanisms are less likely to underlie our main result. Our theory offers a causal connection from gridlock to elite polarization that may inform further empirical work and suggests a novel tradeoff between elite polarization and policy stability in constitutional design.

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1 Introduction

Congress in the modern era is characterized by unprecedented—and *rising*—levels of polarization (Barber and McCarty, 2015; Hall, 2019; Hetherington, 2009). At the same time, key pieces of legislation increasingly fall victim to gridlock (Binder, 2003), raising doubts about the ability of the American democracy to deliver timely legislative solutions to a changing world. Scholars and pundits alike often view Congress' polarization as a key driving force behind the increasing levels of legislative gridlock (Krehbiel, 1998; McCarty, Poole and Rosenthal, 2006).

Yet the rise in elite polarization presents a puzzle. While legislators' ideologies have continued to polarize since the 1970s, the "emerging consensus is that most voters have been and remain overwhelmingly moderate in their policy positions" (Barber and McCarty, 2015, p. 25), and more recent scholarship on mass (or popular) polarization continues to support this view (e.g., Fowler et al., 2022). Furthermore, the polarization of legislators' ideologies predominately stems from elections whereby voters replace moderate legislators with more extreme ones (Bonica, 2014b; Fleisher and Bond, 2004; Moskowitz et al., 2019; Roberts and Smith, 2003; Theriault, 2006), not from legislators already in congress polarizing over time.[1] But if most voters are moderate, why do they vote for extremists?

One prominent theory is that voters do not have a choice anymore. In recent decades (and perhaps because of polarization itself), citizens with extreme policy preferences have faced relatively stronger incentives to influence policy compared to citizens with moderate policy preferences. This has then led citizens who hold extreme policy preferences and positions to run for office at *disproportionately higher* rates (Hall, 2019; Thomsen, 2017), despite moderate candidates being electorally advantaged. However, as we argue later, the pool of well-qualified moderates who could run for office is large. If they have been running at increasingly lower rates, it is because in fact, when they run, their electoral advantage has been *declining* (Utych, 2020). Furthermore, elite polarization has not occurred on all policy issues and, across issues that have polarized, it is not uniform (Moskowitz et al., 2019). Therefore, explaining the pattern of rising elite polarization requires a complementary demand-side theory whereby, on some issues more than on others, moderate voters are increasingly voting for more extreme candidates.

In this paper we propose that legislative gridlock itself may be a cause of moderate voters' increasing propensity to vote for extreme candidates. We argue that moderate—

[1] As noted by Poole and Rosenthal (2001), at the individual level, legislator ideology is roughly constant throughout time (see also Poole, 2007).

but partisan—voters vote for co-partisan candidates who hold extreme policy positions exactly *because* they expect those issues to be gridlocked. Legislative gridlock on specific issues may arise because Congress is 'internally' divided—finding it hard to reach agreement—or because of 'external' constraints, such as those imposed by the Supreme Court and the Constitution. However, our mechanism potentially generates a spiral by which gridlock (independent of its origins) causes elite polarization and polarization, in turn, exacerbates internal gridlock. Therefore, a novel implication of our theory is that we predict greater elite polarization on issues in which it is harder to enact policy change—even if the root cause of the gridlock is external to the composition of Congress (e.g., because of Supreme Court decisions).

A key feature of our theory is that Congress is less likely to pass legislation on gridlocked issues. As a result, while gridlock causes polarization, the increase in polarization does not automatically translate into more extreme legislation passed without minority party support. This is consistent with the patterns documented by Curry and Lee (2019, 2020): despite increasing levels of polarization since the 1970s, levels of bipartisanship in U.S. lawmaking have remained consistently high.[2]

In Section 4, we offer a precise mechanism to link legislative gridlock with voters' propensity to vote for candidates who hold more extreme policy positions on gridlocked issues. Our conceptual framework is based on the rational choice of informed partisan voters who appreciate that some policy issues are gridlocked, so that enacting policy changes on those issues is more difficult. When gridlock is more intense, moderate voters *discount extremism*: they vote for co-partisan candidates who hold extreme policy positions on a gridlocked issue even if they prefer the position of the opponent. They choose to do so precisely because they do not believe that the extremist co-partisan candidate will be able to realize her extreme agenda, while they believe that her seat in Congress will be useful for the party as a whole to achieve more moderate goals along the party line on other, less gridlocked, issues. We formalize this mechanism and derive precise hypotheses that we test experimentally.

In Section 5, we describe our large-scale online experiment ($N = 8\,774$). In our experiment, we first elicit subjects' partisan leanings and policy preferences. We then randomly assign subjects to a treatment that informs them about gridlock and measure subjects' be-

[2]Among initial roll call votes on bills that eventually became law, the average percentage of minority party support in the House was higher than 71% in every Congress between 1973 and 2016; similar patterns are observed in the Senate and also when focusing only on important, so-called landmark, laws. Furthermore, when a majority party has succeeded in passing programmatic policies aligned with their partisan agendas, they have usually done so with support of minority party leaders (86% of the time) or a majority of the minority party in at least one chamber (79% of the time). All of these measures of bipartisanship have remained stable and have not trended downward with time.

liefs about the likelihood of certain policy proposals becoming law. Finally, in candidate-choice tasks, we measure subjects' willingness to vote for a co-partisan candidate who holds either moderate or extreme policy positions. Specifically, our experiment adopts a block design with subjects being assigned to different versions of the survey on the basis of their self-identified partisan leaning. In total, we survey 3 154 Republican subjects and 3 637 Democratic subjects.[3] Our treatment experimentally varies subjects' perception of gridlock by randomly treating half of our sample with a message that informs them of the proportion of proposed bills that eventually become law and the historical failure of enacting major policy changes on a specific policy issue. In particular, in the treatment condition, we inform subjects who self-identify as Republican about the Republican party's failed attempts to cut funding for the Environmental Protection Agency (EPA), and we inform subjects who self-identify as Democrats about the Democratic party's failed attempts to increase the federal minimum wage.

Our main theoretical prediction focuses on partisan subjects who report moderate policy preferences in a given policy area. That is, they prefer moderate policy changes in their preferred partisan direction to the status quo, but dislike large policy changes in the same direction. For example, focusing on the federal minimum wage policy issue, a Democratic subject has "moderate" policy preferences if they prefer an increase in the federal minimum wage to \$10 per hour compared to the status quo policy (\$7.25 per hour) but would rather maintain the status quo than have a larger increase to \$35 per hour.[4,5]

In Section 6, we show that our treatment indeed causes subjects to have lower beliefs about the likelihood of policy proposals passing in the treated policy issue (i.e., EPA funding cuts for Republicans and increases in the federal minimum wage for Democrats). More importantly, we confirm our main prediction: our treatment increases moderate subjects' propensity to vote for co-partisan candidates who hold extreme policy positions on the treated issue. The magnitude of our effect is substantial: compared to non-treated subjects, Democratic subjects who are treated are 12 percentage points more likely to vote

[3]Subjects who do not self-identify as a Republican or Democrat were randomly assigned into either the Republican or Democratic block. These subjects, however, are not the focus of our theory since it relies on the notion of a co-partisan candidate. Hence, these non-partisan subjects are removed from our main analysis.

[4]The \$35 figure is intended to capture an extreme policy position. However, it is not far from the \$30 proposals from Senate candidate Juan Dominguez and House candidate Rebecca Parson—Parson even stated that "\$30 is the floor" (Miller, 2023; Sabes, 2022). A \$33 figure has been discussed in Senate hearings as needed "to keep pace with 'the top 1 percent of income earners" (Senate Hearing, 2013) and widely publicized on social media by Sen. Sanders and Rep. Jayapal.

[5]Focusing on the EPA funding policy issue, a Republican subject has "moderate" policy preferences if they prefer a 5% decrease in EPA funding to the status quo policy (no change) but would rather maintain the status quo than have a larger 35% decrease in EPA funding.

for an extreme co-partisan candidate over a moderate opponent proposing to maintain the status quo; the effect for Republicans is smaller: about 5 percentage points.

Our model links voters' propensity to support extreme candidates to a specific mechanism: discounting extremism. While we cannot completely exclude that other—perhaps psychological—effects may be at play, we show in Section 6.2 that our subjects' behavior is systematically consistent with our mechanism and model. We also exclude that our main effect is driven by other mechanisms in the voting theory literature (e.g., directional voting à la Rabinowitz and Macdonald, 1989). In Section 6.3, we discuss, theoretically and empirically, how voters' beliefs about correlation in gridlock across policy issues spreads polarization to other policy dimensions. Finally, in Section 7, we discuss some implications of our theory for the design of constitutions.

2 From polarization to gridlock

Elite vs mass polarization. Since the 1970s, Congress members' ideologies have polarized along partisan lines (see, e.g., Barber and McCarty, 2015).[6] Recent work by Moskowitz, Rogowski and Snyder (2019) shows that elite polarization is almost entirely explained by voters' decision to replace moderate legislators with extreme legislators (see also Bonica, 2014b; Fleisher and Bond, 2004; Roberts and Smith, 2003; Theriault, 2006). In contrast, there is little evidence that legislators become more ideologically extreme during their political careers (Moskowitz et al., 2019; Poole and Rosenthal, 2001; Poole, 2007).

At the same time as elites have polarized, voters' attitudes and voting behavior have increasingly aligned with political parties—a process referred to as "partisan sorting" (see, e.g., Barber and McCarty, 2015; Gentzkow, 2016; Levendusky, 2009; Layman and Carsey, 2002). However, as emphasized by Fiorina et al. (2011), partisan sorting is distinct from *mass (or popular) polarization*: voters' policy preferences becoming more polarized. Though some prominent scholars differ on this issue (see, e.g., Abramowitz and Saunders, 2008; Jacobson, 2000), the "emerging consensus" (Barber and McCarty, 2015) is that voters' policy preferences have not polarized or they have polarized to a much lesser extent than Congress (Ansolabehere et al., 2006; Barber and McCarty, 2015; DiMaggio et al., 1996; Hetherington, 2009; Fiorina et al., 2011; Fiorina and Levendusky, 2006; Fowler et al., 2022;

[6]The most common measure of elite polarization is Poole and Rosenthal's DW-Nominate: a roll-call based estimate of congress member ideology. Although measuring ideology via roll-call votes may conflate ideology and partisanship (Bateman et al., 2017; Canen et al., 2020, 2021; Lee, 2009), consistent patterns of polarization are also observed using alternative approaches (Hetherington, 2009), including campaign contributions (Bonica, 2014a) and survey-based measures (Moskowitz et al., 2019). For an overview, see Tausanovitch and Warshaw (2017).

Gentzkow, 2016).

Gridlock: causes and consequences. While Congress polarized, since the 1970s, it also failed to pass an increasing number of legislative items (Tukolski, 2018), passed fewer landmark laws (Mayhew, 1991), and left an increasing percentage of salient legislative issues unaddressed (Binder, 2003). What caused the increase in legislative gridlock is a topic of much debate. Perhaps the most prominent argument is that elite polarization causes gridlock (Krehbiel, 1998). Intuitively, as members of each party become more ideologically divided, their scope for common agreement decreases—the so called "gridlock interval" expands. Other causes of gridlock include: divided government (Binder, 2003; Howell et al., 2000), polarization across House and Senate (Binder, 2003), supermajority institutions (Brady and Volden, 1998; Koger, 2010; Dziuda and Loeper, 2018), interest groups influence (Bowling and Ferguson, 2001), Congress' ability to bundle legislation (Lee, 2022), parties' reputation and electoral concerns (Groseclose and McCarty, 2001; Cameron and McCarty, 2004; Ortner, 2017), frictions in policy search (Callander and McCarty, 2022; Callander, 2011; Acharya and Ortner, 2022), and declining legislative and bureaucratic capacity (Chen and Eraslan, 2017; Huber and McCarty, 2006; Crosson et al., 2021; Volden and Wiseman, 2014).

In contrast to the causes of gridlock, its consequences have received less attention. McCarty, Poole and Rosenthal (2006) argue that gridlock has increased economic inequality. Koger (2010) suggests that gridlock may lead legislative majorities to weaken supermajority institutions. Binder (2003) shows that more intense gridlock is associated with congress members retiring at higher rates and decreasing public approval of Congress. Krutz (2000, 2001), Sinclair (1997), and Shepsle (2017) argue that gridlock can lead to omnibus legislating, unorthodox lawmaking, and rule breaking. Dziuda and Loeper (2016) develop a formal model in which the anticipation of future gridlock leads political parties to (strategically) polarize their policy platforms.[7] We contribute to this literature by presenting formal arguments and experimental evidence in support of the idea that gridlock itself can cause elite polarization by inducing moderate voters to elect more extreme candidates. Our mechanism offers a way to reconcile rising levels of elite polarization without mass polarization and speaks directly to the "replacement effect" that Moskowitz et al. (2019) and others suggest as the primary cause of elite polarization.

[7]Similarly, Alesina and Rosenthal (2000) and Lee (2019) connect gridlock with politicians' choice to announce (but not necessarily achieve) more extreme agendas.

Discounting extremism. Our conceptual framework posits that gridlock reduces voters' belief that policy change is possible and, in turn, induces voters to discount candidate platforms that promise policy change. The idea that voters rationally discount candidate platforms is far from new: Downs (1957) notes that a voter "knows that no party will be able to do everything that it says it will do. Hence he cannot merely compare platforms; instead he must estimate in his own mind what the parties would actually do were they in power" (see also Grofman, 1985; Alesina and Rosenthal, 1996, 2000).[8] Our key intuition that voters may discount extreme policy platforms if they believe that policy change is unlikely also appears in Alesina and Rosenthal (2000)—in their model, parties can afford to adopt more extreme policy position because voters know that, with divided government, "they will translate into moderate policies." Similarly, in Krasa and Polborn (2018) and Howell et al. (2022), reducing the possibility of policy change on one (or all) policy issues can lead voters to cast their vote on the basis of other features of their local candidate or can increase the relevance of expressive dimensions of voting. When parties (or primary voters) strategically choose their candidate platforms, polarization ensues. An alternative perspective is that, in multi-district legislative elections, voters discount certain policy issues within a candidate's platform if the candidate is unlikely to be pivotal for this issue in the legislature (Hughes, 2020). However, the systematic connection that we establish between rising levels of gridlock, discounting policy platforms and, ultimately, polarization is new to the best of our knowledge.

Our framework incorporates voters' discounting of platforms but otherwise is embedded in a standard spatial (or proximity) voting model à la Downs (1957): voters prefer policy outcomes closer to their preferred policy. However, some of our theoretical predictions and experimental evidence are reminiscent of Rabinowitz and Macdonald's (1989) directional voting theory, whereby voters prefer candidates who are on their "side" of a political issue and—up to an "acceptability" point—the more extreme the better. In particular, our prediction and evidence that gridlock causes moderate voters to choose extreme co-partisan candidates is consistent with directional voting if gridlock expands the acceptability region in Rabinowitz and Macdonald's directional voting model. Whether voters engage in directional, discounting and/or proximity voting is unresolved and continues to be debated (Lewis and King, 1999; Tomz and Van Houweling, 2008; Adams et al., 2004; Patty and Penn, 2019; Kropko and Banda, 2018). Although we cannot exclude directional voting in its full generality, our theory offers a key prediction that is incom-

[8]The incentive for voters to discount policy platforms also appears in the literature on coalition-government systems (Austen-Smith and Banks, 1988; Baron and Diermeier, 2001; Kedar, 2005; Duch and Stevenson, 2008; Duch et al., 2010).

patible with some formulation of directional voting: moderate voters (independent of the presence of gridlock) are always more likely to vote for a moderate co-partisan than for an extreme co-partisan. Our experimental data support this prediction.

Extremism and primaries. On average, less than 50% of general election voters also vote in a primary election (States United Democracy Center, 2022). Therefore, our conceptual (and experimental) focus on general elections is likely to be a more familiar and natural setting for subjects in our experiment—particularly, for moderate subjects. There are also additional benefits: the general election setting helps to clarify our key mechanism and allows us to more directly measure a subject's preference for an extreme co-partisan over an opponent. It abstracts from complications related to voters' beliefs about the subsequent general election outcome (and beliefs about the distribution of general election voters' preferences) that would otherwise arise in a primary election.

However, in recent decades, general elections have grown less competitive and only a small number of swing districts remain (Wasserman, 2023). Therefore, much of the polarization we see today stems from primary elections. Our key prediction may itself explain the decline of competitive races and swing districts: according to our mechanism, rising levels of gridlock increase a moderate median voter's willingness to support an extreme co-partisan, therefore reducing the likelihood of their district swinging. Furthermore, the results that we establish in the general election context may continue to have implications for polarization at the primary stage. A well-established literature documents that, although primary voters may be more extreme than general electorate voters (Jacobson, 2012; Hill, 2015),[9] primary voters consider the (general election) "electability" of candidates when casting their vote (Abramowitz, 1989; Rickershauser and Aldrich, 2007; Simas, 2017). Via this electability mechanism, our key prediction that gridlock causes moderate (general election) voters to be more likely to support extreme co-partisans also implies that gridlock will cause primary voters to support more extreme primary candidates. Krasa and Polborn (2018) formalize this intuition in a distinct but related context.

3 Supply and demand for polarization

Our theory proposes a demand-side mechanism for the rise in elite polarization. However, in our theory (and experimental data), if moderate candidates were to run, they would most likely win. Therefore, our theory on its own cannot explain the rise in elite

[9] Sides et al. (2020) argues that the ideological extremity of primary voters compared to general election voters is small.

polarization—there must also be a supply-side constraint;[10] for example, due to primary elections as described in the previous section.

Hall (2019) and Thomsen (2017) offer an alternative supply-side mechanism: even if moderates have an electoral advantage, moderate citizens (and congress members) face relatively smaller incentives to seek office compared to extreme citizens. Hall argues that this arises because, compared to an extreme citizen, a moderate citizen's preferred policy is closer to the opposition's preferred policy. Like ours, these theories are unlikely to explain the rise of elite polarization on their own. As Hall and others argue (and consistent with our theory and experimental evidence), moderate candidates have an electoral advantage. Therefore, at least at the national level, a supply-side only explanation requires an unlikely short supply of moderate citizens who, despite their electoral advantage, are willing to run for office—despite the prospect of earning a salary more than 2.5 times the median household (Cranley, 2019). Indeed, analyzing the pool of state legislators—who typically earn far less than members of Congress (Thomson-DeVeaux, 2016)—Thomsen shows that there is no short supply of well-qualified and moderate candidates who could run for office.[11] Therefore, for the supply-side mechanism proposed by Hall (2019) and Thomsen (2017) to explain the rise in elite polarization, it needs a complementary mechanism that reduces the electoral advantage of moderate candidates. Indeed, Utych (2020) shows that, since the 1980s, the electoral advantage of moderate candidates has gradually declined (see also Bonica and Cox, 2018; Canes-Wrone and Kistner, 2022). Our demand-side theory provides such a mechanism.

Moskowitz et al. (2019) highlight that elite polarization has not occurred on all issues and, across issues that have polarized, polarization has not been uniform. Our theory implies that more intense gridlock on an issue induces greater polarization on this same issue. Verifying this implication is difficult because, as we reviewed in the previous section, polarization itself may cause gridlock. However, variation in gridlock may be induced by (partially) external events, such as Supreme Court rulings and changing interpretations of the Constitution.

Take for instance the issue of abortion rights. With *Roe v. Wade*, 410 U.S. 113 (1973), the Supreme Court induced external gridlock on this issue by ruling that the right to an abortion is protected by the Fourteenth amendment. Since then abortion rights has grown into one of the most polarized issues in Congress (Adams, 1997). But the recent decision to overturn Roe v. Wade (*Dobbs v. Jackson*, 597 U.S. __ (2022)) has suddenly re-

[10] In fact, Hall (2019) illustrates that 80% of today's polarization would have occurred even if, between 1980 and 2014, voters consistently elected the most moderate candidate available in each district.

[11] Historically, roughly half of all congress members were once state legislators (Chokshi, 2013).

duced external gridlock: Congress now faces less constitutional barriers to legislating on abortion. Our framework suggests that, prior to Dobbs v. Jackson, moderate voters were likely to discount extremism on abortion issues because extreme policy changes were unlikely to be realized. In turn, a candidate with extreme policy positions on abortion would face a relatively small electoral penalty from moderate voters—contributing to elite polarization on abortion. After Dobbs v. Jackson, our framework says that moderate voters will discount extremism less and penalize candidates with extreme positions more. Anecdotal evidence from Republican leaders and strategists is consistent with our framework. After the decision was leaked in May 2022—and after decades of trying to overturn Roe v. Wade—Republican congress members suddenly refrained from their usual rhetoric surrounding abortion rights and even backtracked from relatively extreme anti-abortion positions (Rogers et al., 2022). Aligning with our framework, a Republican strategist described that the Supreme Court decision would cause voters to discount extremism on abortion policy issues less and, in turn, lead to larger electoral penalties for extremism on abortion:

> "Over the years, it's been OK to advocate for the strictest abortion regulations [...] because abortion generally was protected by Roe v. Wade. Now it's no longer theoretical. So now the most restrictive policies have real-life consequences. And suburban women are giving a candidate's position on abortion greater weight as they consider who to vote for" —Yang (2022).

4 Conceptual framework

We introduce a simple stylized model of the voter's choice that captures the essential elements of our mechanism within the parameters of our survey experiment.

A voter ('he') chooses between a *co-partisan* candidate ('she') and an *opponent*. There are two policy issues: 1 and 2, so that the voter's choice and candidates' platforms will jointly determine the enacted policies $p := (p_1, p_2) \in \mathbb{R}^2$.

The candidates' platforms specify a position on each issue. On issue 1, all candidates hold the *party line*. Let p^c and p^o be the co-partisan and opponent party lines on issue 1, respectively. The opponent candidate's platform is (p^o, q), where q is the status quo. The co-partisan candidate can be *moderate*, in which case she runs on platform (p^c, m), or *extreme*, in which case she runs on platform (p^c, e), with $q < m < e$.

If the voter chooses the opponent, then the enacted platform equals the opponent's platform. If the voter chooses the co-partisan candidate, the enacted platform depends

on whether issue 2 is *gridlocked*. If the issue is not gridlocked, the enacted platform equals the co-partisan candidate's platform. If instead the issue is gridlocked, the enacted platform equals the co-partisan candidate's platform with probability $1 - g$, and $p = (p^c, q)$ otherwise. The probability $g \in (0, 1)$ that the co-partisan candidate is unable to enact change on issue 2 measures the intensity of gridlock on this issue.[12]

A voter maximizes $u(p) := (1 - \sigma)u_1(p_1) + \sigma u_2(p_2)$, where $\sigma \in (0, 1)$ is the relative salience of issue 2 for the voter, $u_1(p^o) < u_1(p^c)$, and u_2 represents a single-peaked preference on issue 2. To simplify notation, and without any effect to the hypotheses we derive, we assume that whenever indifferent the voter chooses the opponent. We study the behavior of three types of voters. In particular, we say that the voter is a *moderate* voter if $u_2(e) < u_2(q) < u_2(m)$,[13] an *extreme* voter if $u_2(q) < u_2(m) < u_2(e)$, and a *status quo* voter if $u_2(e) < u_2(m) < u_2(q)$.

It is easy to see that a voter with very low salience on issue 2 (low σ) bases his choice on the party line. Therefore, he always chooses the co-partisan candidate. However, a voter with higher salience will sometimes have to trade off issue 1 for issue 2. In particular, if σ is sufficiently large, the voter bases his choice on the comparison of the two platforms on issue 2. However, the threshold at which a voter may switch between choosing on one or the other dimension depends on whether issue 2 is gridlocked. Proposition 1 characterizes this threshold for a moderate voter. All proofs are in Appendix A.

Proposition 1 (Moderate voters) *A moderate voter always chooses a moderate co-partisan candidate. There exist $\underline{\sigma}_m$ and $\underline{\sigma}_m(g) > \underline{\sigma}_m$ such that, for $\sigma < \underline{\sigma}_m$, a moderate voter always chooses an extreme co-partisan candidate; for $\underline{\sigma}_m < \sigma < \underline{\sigma}_m(g)$, he chooses an extreme co-partisan candidate if and only if issue 2 is gridlocked; for $\sigma > \underline{\sigma}_m(g)$, he never chooses an extreme co-partisan candidate.*

Intuitively, a moderate voter always prefers a moderate co-partisan, whose platform perfectly aligns with his preferences, to an opponent. His choice is therefore independent of the salience of issue 2 or whether the issue is gridlocked. However, when choosing between an opponent and an extreme co-partisan candidate, he needs to compare the expected gains and losses on each issue: choosing the co-partisan maximizes the voter's utility from issue 1 but induces a lower utility on issue 2 because the voter prefers the

[12]For simplicity, we normalize the probability of enactment of policy change on a non-gridlocked issue to 1. Our results and predictions easily extend to allow for policy change to be enacted with probability $1 - g_\ell < 1$ if the issue is not gridlocked and $1 - g^h < 1 - g_\ell$ if it is gridlocked.

[13]For sake of brevity, and to align our model with our experiment, we do not include a theoretical analysis for "moderately extreme" voters whose preferences are represented by $u_2(q) < u_2(e) < u_2(m)$. From the point of view of our predictions, their behavior is identical to that of extreme voters.

opponent's status quo position q to the extreme co-partisan's position e. Therefore, he chooses to vote for the opponent if issue 2 is sufficiently salient to him. In particular, if the issue is not gridlocked, he chooses the opponent if and only if

$$\sigma \geq \underline{\sigma}_m := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + u_2(q) - u_2(e)}. \tag{1}$$

If instead the issue is gridlocked, he chooses the opponent if and only if

$$\sigma \geq \underline{\sigma}_m(g) := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + (1-g)[u_2(q) - u_2(e)]}, \tag{2}$$

where $\underline{\sigma}_m < \underline{\sigma}_m(g)$.

In reality, and in our experiment, different voters will have different salience σ and possibly different beliefs about the intensity of gridlock g. For a distribution of salience and intensity beliefs, Proposition 1 yields our main hypothesis:

Hypothesis 1 (From gridlock to polarization) *Gridlock increases moderate voters' propensity to vote for an extreme co-partisan candidate.*

We now turn to the other two types of voters. For extreme voters, there is no tradeoff between issue 1 and 2. Therefore, they always vote for the co-partisan candidate.

Proposition 2 (Extreme voters) *An extreme voter always chooses the co-partisan candidate.*

For status quo voters, the tradeoff between issue 1 and 2 is the most intense. Like moderate voters, they may prefer the opponent to an extreme co-partisan candidate if issue 2 is sufficiently salient to them. However, unlike moderate voters, if the issue is very salient to them, they may also prefer the opponent to a moderate co-partisan candidate. In fact, they prefer the status quo platform of the opponent to the moderate platform m of the moderate co-partisan candidate.

Proposition 3 (status quo voters) *There exist $\bar{\sigma}_q$ and $\bar{\sigma}_q(g) > \bar{\sigma}_q$ such that, for $\sigma < \bar{\sigma}_q$, a status quo voter always chooses a moderate co-partisan candidate; for $\bar{\sigma}_q < \sigma < \bar{\sigma}_q(g)$, he chooses a moderate co-partisan candidate if and only if issue 2 is gridlocked; for $\sigma > \bar{\sigma}_q(g)$, he never chooses a moderate co-partisan candidate.*

There exists $\underline{\sigma}_q < \bar{\sigma}_q$ and $\underline{\sigma}_q(g) > \underline{\sigma}_q$ with $\underline{\sigma}_q(g) < \bar{\sigma}_q(g)$ such that, for $\sigma < \underline{\sigma}_q$, a status quo voter always chooses an extreme co-partisan candidate; for $\underline{\sigma}_q < \sigma < \underline{\sigma}_q(g)$, he chooses an extreme co-partisan candidate if and only if issue 2 is gridlocked; for $\sigma > \underline{\sigma}_q(g)$, he never chooses an extreme co-partisan candidate.

The last two propositions naturally yield our next two hypotheses.

Hypothesis 2 (Extreme voters) *Gridlock does not change extreme voters' propensity to vote for an extreme or moderate co-partisan candidate.*

Hypothesis 3 (Status quo voters) *Gridlock increases status quo voters' propensity to vote for an extreme or a moderate co-partisan candidate.*

Finally we notice that our model makes further predictions about the behavior of moderate voters that will be useful in better understanding how the experimental data support our mechanism.

Hypothesis 4 (Moderate voters and moderate candidates) *Gridlock does not change moderate voters' propensity to vote for a moderate co-partisan candidate. Furthermore, moderate voters always support moderate co-partisan candidates with higher propensity than they support extreme co-partisan candidates.*

Our simple stylized model also captures an intuitive relationship between gridlock and voters' behavior. For any distribution of salience among a population of voters, as gridlock intensifies (g increases), more moderate and status quo voters choose an extreme co-partisan ($\underline{\sigma}_m(g)$, $\underline{\sigma}_q(g)$, and $\bar{\sigma}_q(g)$ increase).

We conclude this section by briefly remarking on our conception of gridlock. In our framework, gridlock reduces the *probability* that a policy proposal is enacted (our experimental treatment emphasizes this feature). Alternatively, gridlock may be conceived as *moderating* the difference between the enacted policy and the status quo. Both conceptions yield the hypotheses we derived above. However, if the moderating effect of gridlock is sufficiently large, a distinct implication arises: a moderate voter obtains higher utility from having an extreme rather than moderate co-partisan elected.[14] In contrast, in our framework, a moderate voter always obtains higher utility from electing a moderate rather than extreme co-partisan. In Section 6.2, we show evidence suggesting that the behavior of moderate voters is consistent with our framework and—on average—is inconsistent with the distinct implication that can arise from this alternative conception of gridlock.

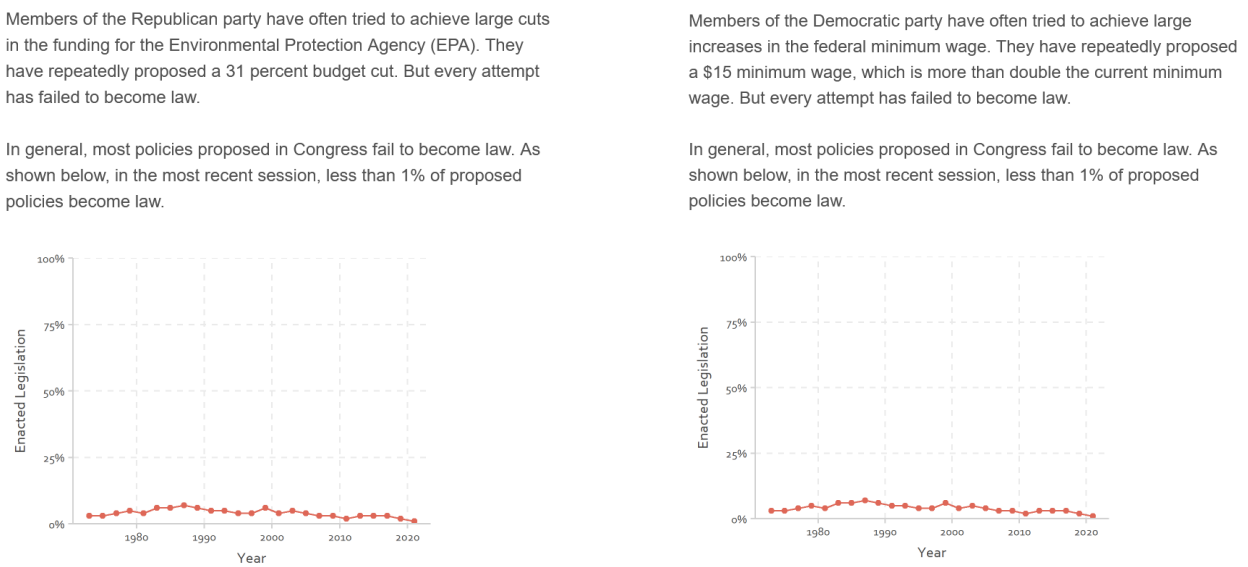
[14]This does *not* contradict the second prediction in Hypothesis 4: a moderate voter always chooses the co-partisan candidate over the opponent for any level of salience of issue 2.

5 Experimental design

We now describe our experimental design. We begin by providing an overview of the main structure. In the experiment, we first elicit subjects' partisan leanings and policy preferences. We then randomly assign subjects to a treatment that informs them about gridlock and measure subjects' beliefs about the likelihood that certain policy proposals will pass. Finally, using several candidate-choice tasks, we measure subjects' willingness to support a co-partisan candidate who holds either moderate or extreme policy positions. Our experiment adopts a block design with subjects being assigned to different versions of the survey on the basis of their self-identified partisan leaning. Below we describe each of these stages of the experiment in detail.

Partisan leanings and "blocking" subjects. We ask subjects to identify their partisan leaning (if any). We ask "Generally speaking, do you think of yourself as a...?" with possible responses: Democrat, Republican, Independent, Other, and Not Sure. We then split subjects into one of two blocks depending on their partisan leaning. The "Republican" block contains all subjects that self-identify as Republicans and the "Democratic" block contains all subjects that self-identify as Democrats. All other (non-partisan) subjects are randomly assigned to either the "Republican" or "Democratic" block but are not included in our analysis of partisan voters.

Policy preferences (status quo, moderate, and extreme). For 5 different policy issues, we ask subjects for their preferences over three policy positions within each of the policy issues. The specific policy issues and set of policy positions depend on the subjects' block (i.e., whether the subject was assigned to the Republican or Democratic block). For the Republican block, the policy issues cover: decreasing EPA funding (*EPA*); decreasing Corporate Income Tax (*Taxes*), relaxing gun control laws (*Gun Control*), restricting abortion (*Abortion*), and decreasing social security (*Social Security*). For the Democratic block, the policy issues cover: increasing the federal minimum wage (*Wage*), increasing Corporate Income Tax (*Taxes*), restricting gun sales (*Gun Control*), relaxing abortion laws (*Abortion*), and restricting the sale of gas-powered vehicles (*Vehicle*). Within each policy issue, we ask subjects to rank three policy positions from most to least preferred. The policy positions are specifically chosen such that they can be intuitively ordered. For the Republican (resp., Democratic) block and for each policy issue, one policy position corresponds to no policy change (i.e., the status quo policy); another policy position corresponds to a relatively small policy change in the conservative (resp., liberal) direction; the final policy position



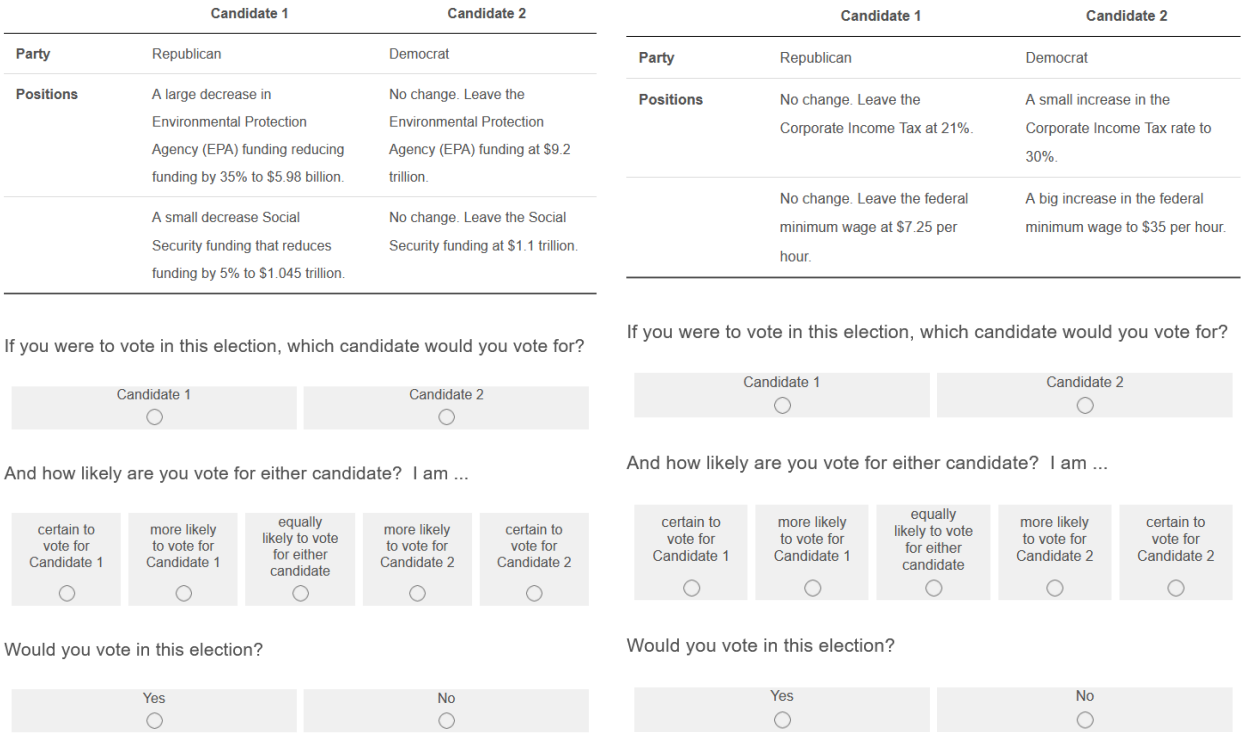
(a) Republican block treatment

(b) Democratic block treatment

Figure 1: Treatment conditions.

corresponds to a relatively large policy change in the conservative (resp., liberal) direction. Hence, for each policy issue, we describe a policy position as either being the *status quo*, *moderate*, or *extreme* position (see Appendix B.2 for details). For example, for *Wage*, we ask subjects in the Democratic block to rank policies that set the federal minimum wage at $\$7.25$, $\$10$, and $\$35$ per hour. Importantly, the descriptions of policy positions as *status quo*, *moderate*, or *extreme* are not presented to subjects and do not appear anywhere in the survey.

Treatment and placebo conditions. Subjects are randomly assigned to be in either the treatment or placebo condition of their assigned block. Figure 1a and 1b illustrate the Republican block's treatment and the Democratic block's treatment, respectively. The treatment condition for subjects in the Republican (resp., Democrat) block describes the Republican (resp., Democratic) party's failed attempts to achieve large cuts to EPA funding (resp., large increases in the federal minimum wage). In addition, the treatment condition for both blocks include text describing that "most policies proposed in Congress fail to become law" and a graph illustrating the percentage of proposed legislation that became law between 1972 and 2021. The placebo condition for the Republican and Democratic blocks describe the distribution of Winter 2022 Team USA members across states (illustrated in Appendix B.1).



	Candidate 1	Candidate 2
Party	Republican	Democrat
Positions	A large decrease in Environmental Protection Agency (EPA) funding reducing funding by 35% to $5.98 billion.	No change. Leave the Environmental Protection Agency (EPA) funding at $9.2 trillion.
	A small decrease Social Security funding that reduces funding by 5% to $1.045 trillion.	No change. Leave the Social Security funding at $1.1 trillion.

If you were to vote in this election, which candidate would you vote for?

Candidate 1 | Candidate 2

And how likely are you vote for either candidate? I am ...

certain to vote for Candidate 1 | more likely to vote for Candidate 1 | equally likely to vote for either candidate | more likely to vote for Candidate 2 | certain to vote for Candidate 2

Would you vote in this election?

Yes | No

(a) Republican subject candidate-choice task

	Candidate 1	Candidate 2
Party	Republican	Democrat
Positions	No change. Leave the Corporate Income Tax at 21%.	A small increase in the Corporate Income Tax rate to 30%.
	No change. Leave the federal minimum wage at $7.25 per hour.	A big increase in the federal minimum wage to $35 per hour.

If you were to vote in this election, which candidate would you vote for?

Candidate 1 | Candidate 2

And how likely are you vote for either candidate? I am ...

certain to vote for Candidate 1 | more likely to vote for Candidate 1 | equally likely to vote for either candidate | more likely to vote for Candidate 2 | certain to vote for Candidate 2

Would you vote in this election?

Yes | No

(b) Democratic subject candidate-choice task

Figure 2: Example of candidate-choice task.

Post-treatment enactment beliefs and policy preferences. We ask subjects a sequence of post-treatment questions about the likelihood of specific policy positions being enacted and also, once again, some policy preference questions. The specific policy issues and set of policy positions depend on the subjects' block. Within each of the 5 policy issues that the subject was previously asked for their policy preferences over, we ask the subject how likely each policy position (excluding the status quo policy) is to pass if their district's representative promises the policy change. For subjects in the Republican (resp., Democratic) block, the district representative is described as a Republican (resp., Democrat). The possible responses for subject include: Certainly, Extremely likely, Likely, Unlikely, Extremely unlikely, and Impossible. For details, see Appendix B.3. We also repeat 2 (pre-treatment) policy preference questions: we ask subjects for their policy preference over 2 of the 5 policy issues described earlier.[15]

Candidate-choice task. Finally, subjects are given 6 candidate-choice tasks. Each task features a Republican and a Democratic candidate running in the subject's district and

[15]The policy areas covered in the Republican and Democratic blocks were *EPA* and *Gun Control*, and *Wage* and *Gun Control*, respectively. For details, see Appendix B.2.

holding distinct positions on 2 randomly assigned policy issues. The specific details in each candidate-choice task depend on the subjects' block. Each policy issue (and policy position) featured in the task corresponds to 1 of the 5 policy issues that the subject had previously been asked for their policy preferences and their beliefs about the likelihood of specific policy positions being enacted. For the Republican (resp., Democratic) block, the Democratic candidate (resp., Republican candidate) in the candidate-choice task always holds the status quo policy position on each policy issue. For the Republican (resp., Democratic) block, the Republican candidate (resp., Democratic candidate) is randomly assigned to hold, on each policy issue, either a moderate or extreme position in the respective partisan direction. Figures 2a and 2b illustrate examples of a candidate-choice task that subjects in the Republican and Democratic block may receive. For details of the full set of possible candidate-choice tasks, see Tables B.1 and B.2 in Appendix B.4. As in Figure 2, for each candidate-choice task, we ask subjects which candidate they would vote for (a binary choice), how *likely* they are to vote for each candidate (on a 5-point scale), and whether they would *turn out* in such an election (a binary choice). The first binary choice allows us to measure a subjects' *propensity to vote* for a co-partisan candidate.

5.1 Fielding the survey and descriptive statistics

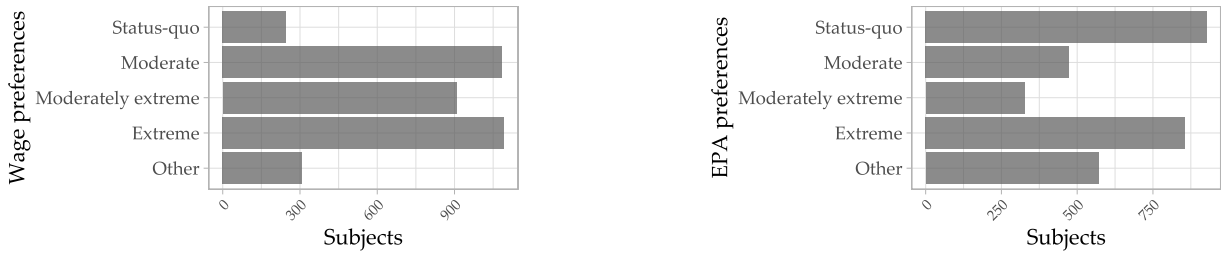
Our survey experiment was fielded in two waves. The first wave was fielded in October 2022, one month prior to the 2022 midterm election, with $N = 5\,465$ subjects.[16] The second wave was fielded in May 2023, with $N = 3\,309$ subjects. In total, we collected data from $8\,774$ subjects.[17] For all waves, the survey link was distributed by *Bilendi & Respondi*. Our survey experiment and analysis was preregistered (see Appendix B for additional survey details and a link to the preregistration plan).

Our dataset is representative on the basis of age, gender, and state of residence (see Appendix C). Of the $8\,774$ subjects, $3\,637$ self-identified as Democrats and $3\,154$ self-identified as Republicans (see Figure C.1).[18] For the remainder of the paper, and per our conceptual framework (Section 4), we restrict attention to partisan subjects: subjects who self-identify as Republicans or Democrats. This restriction means that subjects in the

[16] As planned in our preregistration, this includes subjects from a small-scale pilot study ($N = 311$) fielded in September 2022.

[17] As stated in our preregistration, our analysis always includes all subjects who answered the relevant question, even if they did not complete the entire survey. Therefore, the sample sizes we report in tables are typically smaller than the sample sizes mentioned above. Furthermore, these sample sizes vary between different specifications and analyses.

[18] In the second wave, subjects who did not self-identify as a Democrat or Republican were screened out of the survey.



(a) Democratic subjects and federal minimum wage

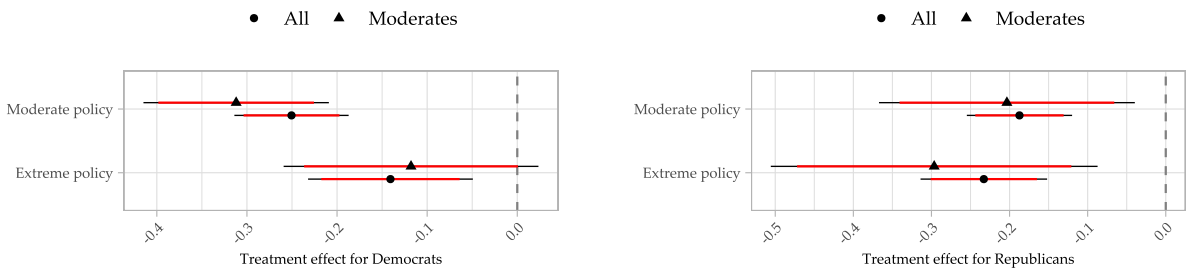
(b) Republican subjects and EPA funding

Figure 3: Distribution of policy preferences for treated policy issues

Republican block (resp., Democratic block) correspond precisely to self-identifying Republicans (resp., Democrats). In turn, our candidate-choice tasks mirror the settings from which we derived our hypotheses in Section 4: a partisan voter must choose between supporting a co-partisan candidate or an opposition party candidate who holds a status quo policy position.

As in Section 4, we categorize subjects in the Republican block and Democratic block in terms of their stated (partisan) policy preference for a given policy issue. Given a policy issue, a *moderate* subject's preference ordering (from most to least preferred) of the policy positions is: moderate, status quo, extreme. Given a policy issue, an *extreme* subject's preference ordering of the policy positions is: extreme, moderate, status quo. Given a policy issue, a *status quo* subject's preference ordering of the policy positions is: status quo, moderate, extreme. Given a policy issue, a *moderately extreme* subject's preference ordering of the policy positions is: moderate, extreme, status quo. Figure 3 illustrates the distribution of subjects' policy preferences over the treated policy issue. The "Other" category in the Figure 3 includes all subjects who do not have single-peaked preferences (i.e., do not have moderate, extreme, status quo, or moderately extreme preferences). For the Democratic block, 1 085 subjects have moderate preferences over the federal minimum wage. For the Republican block, 474 subjects have moderate preferences over EPA funding. Notice that, among subjects with single-peaked preferences in each block, a plurality of subjects have either moderate or status quo preferences on the treated policy issue.[19] Moreover, a large supermajority of subjects (66.9% of Democratic subjects and 67.7% of Republican subjects) prefer either the status quo or the moderate policy over the extreme one. Thus, our sample confirms the general consensus that most voters hold moderate

[19] Although our theory focuses on moderate voters, as defined above, it can also make sense to combine voters who hold either status quo or moderate preferences and consider this larger group as the set of "moderate" voters. Indeed, the key prediction of our theory applies to both moderate and status quo voters (see Section 4).



(a) Federal minimum wage

(b) EPA funding

Figure 4: Treatment effect on enactment likelihood for treated policy issues with 90% and 95% confidence intervals.

views and that our "extreme" policies are viewed by most voters as such.

6 Experimental evidence

We now report our experimental results. We begin by presenting experimental evidence in favor of our key preregistered predictions (see Appendix B for details): gridlock causes moderate voters to believe that policy change is less likely and support extreme co-partisan candidates more. We then verify that our experimental data is consistent with all of our hypotheses from Section 4. Finally, we discuss how our treatment effect spills over to non-treated policy issues. All regression tables are in Appendix D.

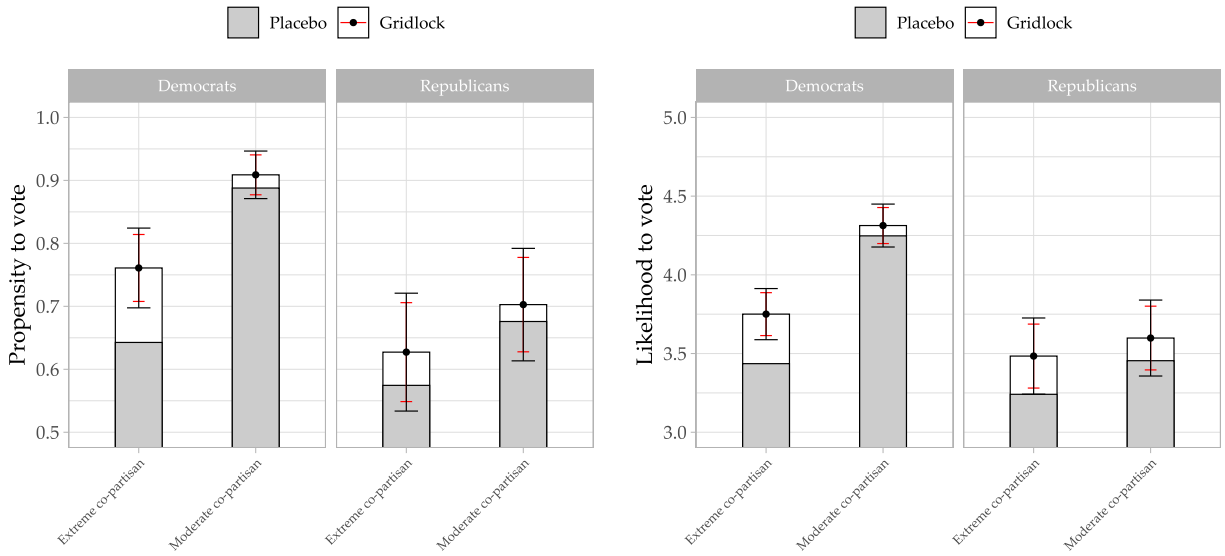
6.1 From gridlock to polarization

We first verify that indeed our treatment works as intended: it induces subjects to believe that policy change is less likely. Figure 4 shows the treatment effect, together with 90 and 95% confidence intervals, on subjects' responses to the enactment likelihood of differing policy positions on the treated issue. The figure reports the results for both the entire sample of subjects and also subjects who hold moderate policy preferences on the treated policy issue. Specifically, for each policy position and each partisan group, we estimate

$$y_s = \alpha + \beta T_s + \varepsilon_s, \tag{3}$$

where y_s is subject s's response to the enactment likelihood and T_s is the treatment variable (Tables D.1 and D.2).[20] When treated, both Democrat and Republican subjects are

[20] We estimate (3) with robust standard errors.



(a) Propensity to vote for co-partisan

(b) Likelihood to vote for co-partisan

Figure 5: Moderate subjects' propensity and likelihood to vote for co-partisan candidates by treatment group, with 90 and 95% confidence intervals of the treatment effect (as estimated in Table D.3) centered at the mean response of treated subjects. Treated policy issue only.

less likely to believe that moderate and extreme policy positions will be enacted. For moderate Democrats, we estimate β to be $-.312$ (p-value $.000$) for the moderate position and $-.118$ (p-value $.102$) for the extreme position. For moderate Republicans, the equivalent estimates are $-.203$ (p-value $.015$) and $-.296$ (p-value $.006$). For the whole sample of Democrats and the whole sample of Republicans, the estimates are similar and more precisely estimated (see tables).

We now show our main result: the treatment increases moderate subjects' decision to support co-partisan candidates who hold extreme positions on the treated policy issue. Figure 5 reports moderate subjects' support for co-partisan candidates. The figure plots both the propensity to vote (Panel a) and the likelihood of voting (Panel b) for their co-partisan candidate. Each figure splits the sample along two dimensions. First, whether the co-partisan candidate holds a moderate or extreme position on the treated issue. Second, the figure reports the mean choice for treated and non-treated subjects. Specifically, for each partisan group and restricting the sample to subjects s who have moderate preferences on the treated issue, we estimate

$$y_{c,s} = \alpha + \beta T_s + \varepsilon_{c,s} \tag{4}$$

for the appropriate set of choices c, where $y_{c,s}$ is either the propensity or the likelihood of voting for their co-partisan candidate and T_s is the treatment variable (Table D.3).[21] Our key prediction is that, when restricting to the set of choices where the co-partisan holds an extreme position of the treated issue, β is positive. For Democrats, we estimate β to be $.118$ (p-value $.000$) for the propensity to vote and to be $.315$ (p-value $.000$) for the likelihood of voting. For Republicans, the equivalent estimates are $.053$ (p-value $.270$) and $.243$ (p-value $.050$). The effect for Republicans appears to be smaller and less precisely estimated. The magnitude of our effects are substantial. For Democrats (resp., Republicans), being exposed to our gridlock treatment increases their propensity to vote for an extreme co-partisan by 11.8 (resp., 5.3) percentage points from a baseline of 64.3 (resp., 57.4).

A voter's choice between candidates matters only if they also choose to turn out: a candidate's vote share equals the number of voters that chose to both vote for that candidate *and* turn out. In our experiment, subjects are asked whether they would vote in each candidate-choice task. Although the decision to turn out is costless in our experiment, there is variation in subjects' stated willingness to vote. Therefore, the relevance of our main result may be called into question if our treatment effect is not robust when accounting for turn out. As suggestive evidence, we estimate (4) with $y_{c,s}$ equal to the product of the propensity to vote for a co-partisan candidate and the decision to turn out (Table D.4). We obtain results that are similar to those based solely on the propensity to vote.

6.2 Exploring the mechanism

In Section 4, we proposed a specific mechanism to causally link gridlock to polarization: moderate voters discount extremism. In formalizing this idea, we derived a number of precise hypotheses beyond the main result that gridlock induces moderate voters to vote for co-partisan candidates who hold extreme positions on gridlocked issues. We now show that our experimental evidence agrees with the patterns predicted by our model and is, therefore, consistent with our mechanism. In doing so, we discuss how other mechanisms—which differ in their predictions—are less likely to underlie our main result.

Status quo voters (Hypothesis 3). Our model predicts that, in addition to moderate voters, voters whose preferences are single-peaked on the treated issue and prefer the status quo over all other policies should also discount extremism when treated. Therefore, we

[21] When estimating (4), we cluster robust standard errors at the subject level.

should observe that treated subjects in this group increase their propensity to vote for extreme and moderate co-partisan candidates. We verify this additional prediction. Specifically, we estimate (4), restricting the sample to subjects who prefer the status quo over the moderate position and the moderate position over the extreme one on the treated policy issue and choices with co-partisan candidates who hold extreme or moderate positions on the treated issue (Table D.5). The sample of status quo voters is small for Democrats (only 245 subject-choice pairs), so our test is under-powered. For both Democratic and Republican status quo subjects, we find that treatment causes a sizable (and, for Republican voters, somewhat precisely estimated) increase in the propensity to vote for extreme co-partisan candidates: we estimate β to equal $.045$ (p-value $.563$) for Democratic subjects and $.063$ (p-value $.101$) for Republican subjects. For moderate co-partisan candidates, we estimate β to equal $-.016$ (p-value $.800$) for Democratic subjects and $.006$ (p-value $.868$) for Republican subjects. For the likelihood of voting, the corresponding estimates are $-.081$ (p-value $.691$) and $.085$ (p-value $.639$) for Democratic subjects and $.180$ (p-value $.071$) and $.059$ (p-value $.539$) for Republican subjects. The lack of a result for moderate co-partisan candidates may be accounted for in our model if there are few status quo subjects for whom the treated issue is moderately salient (σ is predominately outside of the interval $[\bar{\sigma}_q, \bar{\sigma}_q(g)]$).

Extreme voters (Hypothesis 2). The connection between our main result and our mechanism would be put in doubt if the treatment were to cause all subjects—not only moderate and status quo subjects—to increase their support for extreme co-partisan candidates. In fact, our model predicts that extreme voters who are treated should not change their propensity to vote for extreme co-partisan candidates. We now show that our data is consistent with our model. Specifically, we estimate (4), restricting the sample to subjects who hold extreme policy preferences on the treated policy issue and choices with co-partisan candidates who hold extreme positions on the treated issue (Table D.6). For the propensity to vote for extreme co-partisan candidates, we estimate β to equal $-.017$ (p-value $.291$) for Democratic subjects and $.033$ (p-value $.258$) for Republican subjects. For moderate co-partisan candidates, we estimate β to equal $-.012$ (p-value $.443$) for Democratic subjects and $.031$ (p-value $.279$) for Republican subjects. For the likelihood of voting, the corresponding estimates are $-.018$ (p-value $.771$) and $-.090$ (p-value $.151$) for Democratic subjects and $.155$ (p-value $.073$) and $.010$ (p-value $.911$) for Republican subjects. Therefore, we conclude, as in our model, that gridlock does not increase extreme voters' support for extreme co-partisans.

We also repeat the same analysis for "moderately extreme" voters whose preferred

policy is moderate but prefer the extreme position to the status quo (see Table D.6). As discussed in Footnote 13, our model predicts their behavior to be identical to that of extreme voters. In fact, for the propensity to vote for extreme co-partisan candidates, we estimate β to equal $.002$ (p-value $.919$) for Democratic subjects and $.001$ (p-value $.980$) for Republican subjects. For moderate co-partisan candidates, we estimate β to equal $-.011$ (p-value $.511$) for Democratic subjects and $-.018$ (p-value $.724$) for Republican subjects. For the likelihood of voting, the corresponding estimates are $-.030$ (p-value $.700$) and $-.050$ (p-value $.476$) for Democratic subjects and $-.063$ (p-value $.677$) and $-.169$ (p-value $.237$) for Republican subjects.

Moderate voters and moderate candidates (Hypothesis 4). One possible mechanism behind a causal relation between gridlock and polarization, consistent with our main result, is that gridlock focuses the attention of voters on the party-line division, so that, for any policy platform, moderate voters vote more for co-partisans. In contrast, in our model gridlock does not directly increase the importance of party-line divisions and only causes moderate voters to support extreme candidates more. We now show that our data is consistent with our model. Specifically, we estimate (4), restricting the sample to subjects who hold moderate policy preferences on the treated policy issue and choices with co-partisan candidates who hold moderate positions on the treated issue (Table D.3). For the propensity to vote, we estimate β to equal $.021$ (p-value $.277$) for Democratic subjects and $.027$ (p-value $.557$) for Republican subjects. For the likelihood of voting, the corresponding estimates are $.065$ (p-value $.347$) for Democratic subjects and $.144$ (p-value $.243$) for Republican subjects.

From gridlock to extreme preferences. An alternative explanation for our main result is that our treatment causes subjects to have more extreme policy preferences and, therefore, more likely to vote for co-partisans who hold extreme policy positions. Our data does not support this explanation. In our survey, for two policy issues (the treated issue and one non-treated issue), we ask both pre- and post-treatment questions on policy preferences.[22] Specifically, for each of these policy issues and each partisan group, and restricting the sample to subjects who hold moderate pre-treatment policy preferences on that issue, we estimate (3) with y_s equal to one if subject s holds an extreme post-treatment policy preference and zero otherwise (Table D.7). For the treated issue, we estimate β to equal $-.004$ (p-value $.644$) for Democratic subjects and .005 (p-value $.834$) for Republican subjects. For the non-treated issue, we estimate β to equal $-.021$ (p-value $.579$) for Demo-

[22]For both partisan groups, this non-treated issue corresponds to gun control.

cratic subjects and $.006$ (p-value $.554$) for Republican subjects. We therefore conclude that, as in our model, gridlock does not cause moderate voters to have more extreme policy preferences.

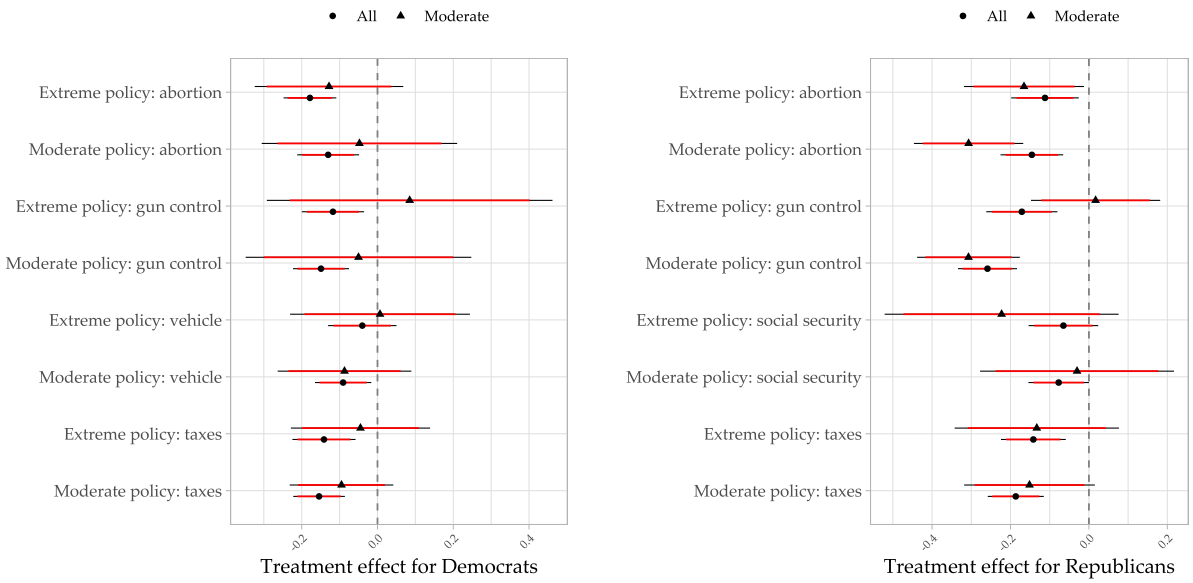
Alternative mechanisms. In our model, gridlock induces a voting behavior that is reminiscent of directional voting models, whereby voters choose more extreme candidates in order to generate policy changes in their preferred direction. However, according to this view, one would expect that moderate voters choose extreme co-partisan candidates more often than moderate co-partisan candidates. In contrast, Figure 5 shows that moderate subjects always support moderate co-partisan candidates with a higher propensity than they support extreme co-partisan candidates. Importantly, this pattern occurs for both the treated and non-treated subjects. These results are consistent with our model if some voters have salience $\sigma < \underline{\sigma}_m$ and some voters have salience $\sigma > \underline{\sigma}_m$.

6.3 Spillover effects

While our treatment informs subjects about past gridlock on a specific policy issue, our subjects may also conclude that gridlock is present on other policy issues and, therefore, believe that policy change is less likely on those issues. A subject may rationally do so if gridlock is correlated across some policy issues. So long as the benefit for voting for a co-partisan is still present on some non-gridlocked issues, our mechanism will spillover to the other policy issues that the voter now estimates to be gridlocked.[23] In this section, we explore how our treatment effect spills over to subjects' support for co-partisans who hold extreme positions on other (non-treated) policy issues.

We first explore whether our treatment induces subjects to believe that policy change is less likely for the non-treated issues. Figure 6 shows the treatment effect, together with 90 and 95% confidence intervals, on subjects' response to the enactment likelihood of differing policy positions. Here we define a subject to be moderate if they have moderate preferences on the respective policy issue. When treated, both Democrat and Republican subjects are on average less likely to believe that moderate and extreme policy positions on all issues will be enacted. The effects for moderate Republicans are larger and more precisely estimated than for moderate Democratic subjects. However, it is important to note that, because of differing baseline enactment beliefs, floor effects may be present for some issues (see Tables D.8 and D.9). Alternatively, Republican subjects may be-

[23] Our conceptual framework naturally extends to a non-gridlocked policy issue 1 and $n-1$ (possibly gridlocked) issues with salience σ_i and gridlock intensity g_i, $i = 2, \ldots, n-1$. Spillovers are present if gridlock is correlated across the $n-1$ issues.



(a) Democratic subjects

(b) Republican subjects

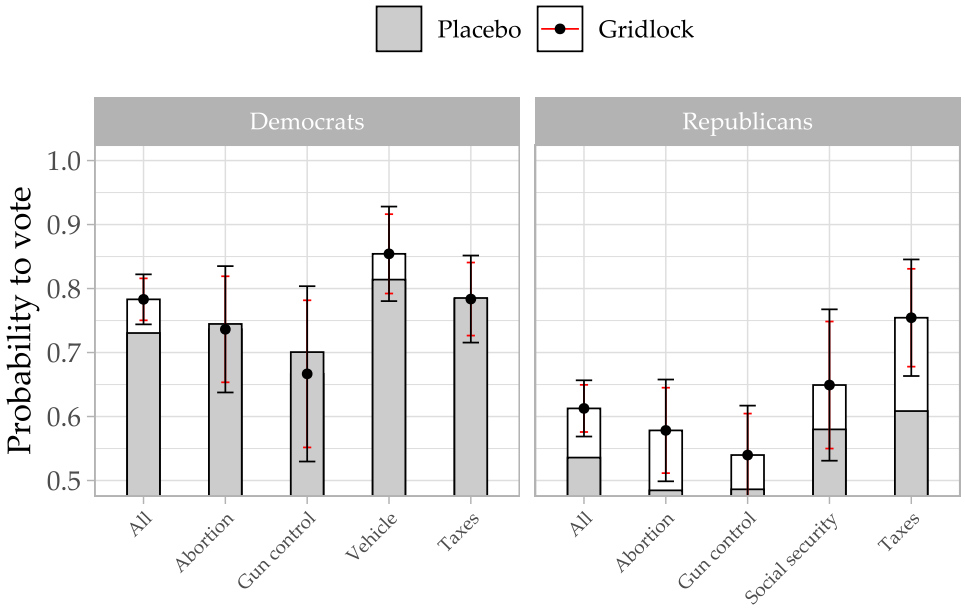
Figure 6: Treatment effect on enactment likelihood for non-treated policy issues with 90% and 95% confidence intervals.

lieve that there is greater correlation of gridlock across policy issues—perhaps explaining why elite polarization in the past decades has accelerated faster for Republicans than for Democrats (e.g., Barber and McCarty, 2015).

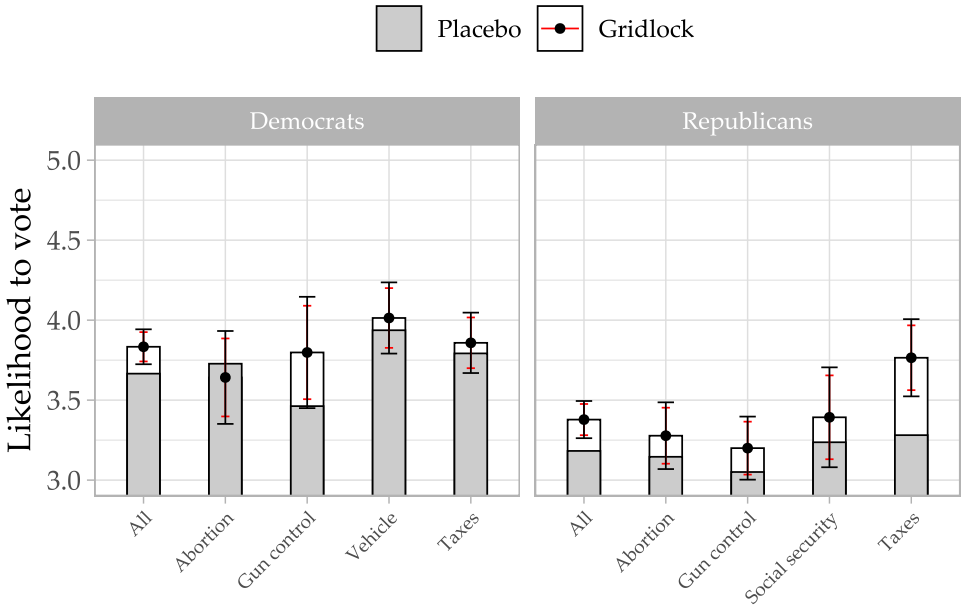
We now study how our main result extends to non-treated policy issues. Figure 7 reports moderate subjects' support for co-partisan candidates who hold extreme policy positions on the non-treated issues. The figure plots both the propensity to vote (Panel a) and the likelihood of voting (Panel b) for their co-partisan candidate. The figure reports the mean choice for treated and non-treated subjects. Specifically, for each issue, we estimate (4), restricting the sample to subjects who hold moderate policy preferences on the corresponding non-treated issue and choices with co-partisan candidates who hold an extreme position on this same issue. We also estimate (4), restricting the sample to subject-choice pairs such that, on at least one (treated or non-treated) issue, the subject has a moderate policy preference and the co-partisan holds an extreme position (the *All* category in Figure 7).

Our results suggest that spillover effects are present across a range of policy issues. In particular, treated moderate Republican subjects appear to discount extremism across almost every (non-treated) policy issue (see Tables D.10).[24]

[24]We conjecture that ceiling effects (combined with the above-mentioned floor effects on enactment likelihood) are likely to obscure possible results for Democratic subjects: baseline Democrat propensity to vote



(a) Propensity to vote for co-partisan



(b) Likelihood to vote for co-partisan

Figure 7: Moderate subjects' propensity and likelihood to vote for co-partisan candidates by treatment group, with 90 and 95% confidence intervals of the treatment effect (as estimated in Tables D.10) centered at the mean response of treated subjects. Non-treated policy issues and *All* policies.

7 Conclusion

Scholars and commentators fear that increasing elite polarization and legislative gridlock threaten the effectiveness, and perhaps the stability, of American democracy. Careful empirical studies, such as those reviewed in Sections 2 and 3, highlight potential causes and identify some of the possible consequences of polarization and gridlock. Further progress relies on the accuracy with which our theories allow us to identify some causal mechanisms and exclude others in the data. We have put forward a mechanism by which gridlock may generate elite polarization: moderate partisan voters who believe that policy change is unlikely discount extremism and, because of this, support candidates who hold more extreme positions. In practice, our mechanism points toward a spiraling effect whereby polarization and gridlock feed into one another.

However, our mechanism also casts a less pessimistic light over polarization. In our theory, moderate voters elect candidates who hold extreme policy positions only when they expect gridlock to prevent such policies from being enacted. In practice, much of the gridlock we see is likely induced by institutions that were *designed* to limit policy change (separation of powers, checks and balances, bicameralism, anti-majoritarian rules). Therefore, our theory would suggest that elite polarization may simply be a sign that these institutions are effectively working as intended. Furthermore, if we believe that voters' beliefs about gridlock and the likelihood of extreme policies being enacted are correct, then polarization should not be expected to have severe policy consequences.[25]

This optimistic reading of our theory and experimental results is not to be taken for granted. Voters' beliefs about gridlock may be incorrect (indeed, our subjects exhibit a variety of beliefs). If voters systematically overestimate the extent of gridlock, they may elect extreme politicians who—to voters' surprise—are then able to enact extreme policies that voters themselves do not support. Moreover, even if voters' beliefs are correct, elite polarization may have broader costs for society that voters may fail to internalize or predict. For example, elite polarization may erode other intangible assets of democracy and social capital by generating greater affective polarization (Diermeier and Li, 2023; Boxell et al., 2022; Druckman et al., 2013) or lowering the quality of the supply of candidates (Hall, 2019; Thomsen, 2017). Our theory also suggest that extreme politicians have

for co-partisan candidates who hold extreme positions is above 70% for all non-treated issues, and sometimes above 80% (compared to 64% on the treated issue); in contrast, Republican baseline propensity is always below 65% and often below 50% (in line with the treated issue: 57%).

[25]Indeed, focusing on US state legislatures, Repetto and Sosa Andrés (2023) show that divided government causes both an increase in elite polarization and a moderating effect on the policies that are actually enacted (see also Buhr et al., 2024).

an electoral interest in highlighting gridlock to voters.[26] More broadly, foreign actors who are able to manipulate voters' information may strategically emphasize gridlock to cause elite polarization.

Because elite polarization may have negative consequences for democracy beyond short-term policy-making, in designing institutions, low elite polarization may be included in the list of desiderata. However, our theory suggests a tradeoff between low polarization and policy stability. Limiting the power of the majority or introducing more checks and balances brings about policy stability, but induces elite polarization (Alesina and Rosenthal, 2000). Weakening these institutions may reduce elite polarization, but exposes policy-making to larger swings whenever the majority changes. In the U.S., an intricate system of checks and balances and supermajoritarian rules help policymaking remain stable but have induced exceptionally high and increasing levels of elite polarization (McCarty, 2019). By contrast, Westminster systems give greater power to the majority to change policies (Lijphart, 2012), but in these countries elite polarization has historically fluctuated at relatively lower levels (Rehm and Reilly, 2010; Adams et al., 2012). Perhaps paradoxically, elite polarization may then arise as a feature of more stable democracies with stronger limits on the power of the majority; centrism and grand coalitions may be more typical of democracies that grant more powers to the majority.

[26]Similarly to how, in Bueno de Mesquita and Dziuda (2023), politicians highlight the partisan nature of politics to engineer a long-run electoral advantage.

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Appendices

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A Omitted proofs

Proof of Proposition 1. In the absence of gridlock, choosing a co-partisan candidate maximizes the voter's utility if and only if

$$(1-\sigma)u_1(p^c) + \sigma u_2(p_2) > (1-\sigma)u_1(p^o) + \sigma u_2(q); \tag{A.1}$$

in the presence of gridlock, choosing a co-partisan candidate maximizes the voter's utility if and only if

$$(1-\sigma)u_1(p^c) + \sigma[(1-g)u_2(p_2) + gu_2(q)] > (1-\sigma)u_1(p^o) + \sigma u_2(q). \tag{A.2}$$

For a moderate voter and a moderate co-partisan candidate, i.e., $p_2 = m$, (A.1) and (A.2) are always satisfied. For a moderate voter and an extreme co-partisan candidate, i.e., $p_2 = e$, (A.1) is satisfied if and only if $\sigma < \underline{\sigma}_m$, where $\underline{\sigma}_m$ is defined in (1), and (A.2) is satisfied if and only if $\sigma < \underline{\sigma}_m(g)$, where $\underline{\sigma}_m(g)$ is defined in (2). Finally, notice that $0 < \underline{\sigma}_m < \underline{\sigma}_m(g) < 1$. ■

Proof of Proposition 2. Recall (A.1) and (A.2) within the proof of Proposition 1. For an extreme voter and a moderate or extreme co-partisan candidate, i.e., $p_2 \in \{m, e\}$, (A.1) and (A.2) are always satisfied. ■

Proof of Proposition 3. Recall (A.1) and (A.2) within the proof of Proposition 1. For a status quo voter and a moderate co-partisan candidate, i.e., $p_2 = m$, (A.1) is satisfied if and only if

$$\sigma < \bar{\sigma}_q := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + u_2(q) - u_2(m)}; \tag{A.3}$$

(A.2) is satisfied if and only if

$$\sigma < \bar{\sigma}_q(g) := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + (1-g)[u_2(q) - u_2(m)]}. \tag{A.4}$$

For a status quo voter and an extreme co-partisan candidate, i.e., $p_2 = e$, (A.1) is satisfied if and only if

$$\sigma < \underline{\sigma}_q := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + u_2(q) - u_2(e)}; \tag{A.5}$$

(A.2) is satisfied if and only if

$$\sigma < \underline{\sigma}_q(g) := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + (1-g)[u_2(q) - u_2(e)]}. \tag{A.6}$$

Finally, notice that $0 < \bar{\sigma}_q < \bar{\sigma}_q(g) < 1$ and $0 < \underline{\sigma}_q < \underline{\sigma}_q(g) < 1$ and $\underline{\sigma}_q < \bar{\sigma}_q$ and $\underline{\sigma}_q(g) < \bar{\sigma}_q(g)$. ■

B Additional survey details

The experiment and analysis was preregistered. The survey link was distributed by *Bilendi & Respondi* to a nationally representative panel of respondents. Participation in the survey was voluntary and required subjects to confirm that they were U.S. citizen and over the age of 18. Subjects were financially compensated for their time, with the payment process being handled by *Bilendi & Respondi*.

We report here the content of Section 1.1 (*Hypotheses*) of the preregistration. The full pregistration plan can be found at
https://osf.io/4re5x?view_only=c4d3efe17b28406fa22ffaabf676c80a.

Section 1.1 from preregistration report. The hypotheses in this section relate to voters with "moderate" policy preferences. Within the context of our study (online survey experiment), we define these formally in Section 3.5.2.

Our central thesis is that, for voters with moderate policy preferences, the lower they perceive the likelihood of radical policies to be enacted, the more likely they are to vote for co-partisan candidate proposing more radical policies than an out-partisan proposing moderate policies. Because voters' beliefs about the likelihood of policies being enacted may be correlated with voting behavior, our central thesis cannot be tested without experimentally varying voters' beliefs. We employ an experimental design that randomly treats subjects with information about the small number of bills passing Congress, elicits their beliefs about the likelihood of various policies being enacted, and asks subjects to choose between candidates in sequence of hypothetical elections. Below we summarize the 3 key hypothesis that we will examine using our experimental data to test our central thesis.

H1 When informed about the small number of bills passing Congress, voters with moderate policy preferences perceive the chances of policies being enacted as lower.

H2 When informed about the small number of bills passing Congress, voters with moderate policy preferences are more likely to vote for a co-partisan candidate proposing more radical policies than an out-partisan proposing more moderate policies.

We expect H1 to also hold for voters with "non-moderate" policy preferences. We expect H2 to hold more strongly for moderate voters compared to non-moderate voters.
The next hypothesis relates to the study's control group.

H3 For voters with moderate policy preferences, the lower they perceive the likelihood of radical policies to be enacted, the more likely they are to vote for a co-partisan candidate proposing more radical policies than an out-partisan proposing moderate policies.

We expect H3 to hold more strongly for moderate voters compared to non-moderate voters.

In the 2022 Winter Olympics, Team USA officially selected 223 athletes to compete. Below is an illustration of where 221 of these Team USA athletes call home. In terms of absolute numbers, the top 3 states are California, Colorado, and Minnesota with 29, 23, and 23 athletes, respectively.

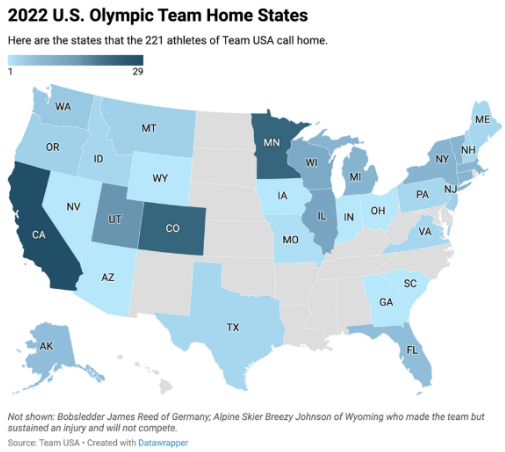

Figure B.1: Placebo condition for Republican and Democratic block.

B.1 Placebo condition

B.2 Policy preference questions

Below we provide the precise wording of the policy preference questions. All text that appears in square or curly brackets (i.e., "[...]" or "{ ... }") did not appear anywhere in the survey. The wording inside the square brackets labels each policy according to how we refer to it in our analysis. The wording inside the curly brackets contains information about when the question was asked relative to the treatment (e.g., whether the question was asked pre-treatment only or if the question was asked both pre- and post-treatment).

Republican block.

1. {pre treatment:} [*Taxes:*] Rank the following policies from most preferred to least preferred. The policies below relate to the Corporate Income Tax, which is a tax on the profits of U.S. corporations. Currently, the Corporate Income Tax rate is 21%.
   - [*Status quo:*] No change. Leave the Corporate Income Tax at 21%.
   - [*Moderate:*] A small decrease in the Corporate Income Tax rate to 20%.
   - [*Extreme:*] A big decrease in the Corporate Income Tax rate to 5%.

2. {pre treatment:} [*Social Security:*] Rank the following policies from most preferred to least preferred. The policies below relate to the Social Security program, which funds retirement benefits and disability income for qualified persons. Currently, the Social Security program receives funding of $1.1 trillion.
   - [*Status quo:*] No change. Leave the Social Security funding at $1.1 trillion.

- [*Moderate:*] A small decrease Social Security funding to $1.045 trillion (5% decrease).
- [*Extreme:*] A big decrease in Social Security funding to $0.660 trillion (40% decrease).

3. {pre and post treatment:} [*EPA:*] Rank the following policies from most preferred to least preferred. The policies below relate to the Environmental Protection Agency (EPA), which aims to protect human and environmental health. Currently, the EPA receives funding of $9.2 billion.
   - [*Status quo:*] No change. Leave the EPA funding at $9.2 billion.
   - [*Moderate:*] A small decrease in EPA funding to $8.74 billion (5% decrease).
   - [*Extreme:*] A big decrease in EPA funding to $5.98 billion (35% decrease).

4. {pre and post treatment:} [*Gun Control:*] Rank the following policies from most preferred to least preferred. The policies below relate to federal gun control laws. Currently, states do not have to recognize carry permits issued by other states. Some states have chosen to recognize gun-carrying permits issued by other states while some other states have chosen not to.
   - [*Status quo:*] The current federal gun control laws should remain unchanged.
   - [*Moderate:*] All states should be required to recognize the gun-carrying permits issued by any other state.
   - [*Extreme:*] People should be able to carry a loaded gun openly or concealed without a permit in all states.

5. {pre treatment:} [*Abortion:*] Rank the following policies from most preferred to least preferred. The policies below relate to federal abortion laws. Currently, abortion is legal most states.
   - [*Status quo:*] The current federal abortion law should remain unchanged.
   - [*Moderate:*] Abortion should be criminalized except if the abortion is required to save the life of the woman or if the pregnancy arises from incest or rape.
   - [*Extreme:*] Abortion should be criminalized without exception.

Democratic block.

1. {pre treatment:} [*Taxes:*] Rank the following policies from most preferred to least preferred. The policies below relate to the Corporate Income Tax, which is a tax on the profits of U.S. corporations. Currently, the Corporate Income Tax rate is 21%.
   - [*Status quo:*] No change. Leave the Corporate Income Tax at 21%.
   - [*Moderate:*] A small increase in the Corporate Income Tax rate to 30%.
   - [*Extreme:*] A big increase in the Corporate Income Tax rate to 46%.

2. {pre and post treatment:} [*Wage:*] Rank the following policies from most preferred to least preferred. The policies below relate to the federal minimum wage. Currently, the federal minimum wage is $7.25 per hour.
   - [*Status quo:*] No change. Leave the federal minimum wage at $7.25 per hour.
   - [*Moderate:*] A small increase in the federal minimum wage to $10 per hour.

- [*Extreme:*] A big increase in the federal minimum wage to $35 per hour.

3. {pre and post treatment:} [*Vehicle:*] Rank the following policies from most preferred to least preferred. The policies below relate to the sale of gas-powered vehicles, which contribute to high carbon emissions and pollution. Currently, there is no federal ban on the sale of gas-powered vehicles.
   - [*Status quo:*] There should never be a ban on the sale of new gas-powered vehicles.
   - [*Moderate:*] The sale of gas-powered vehicles should be banned by 2035.
   - [*Extreme:*] The sale of gas-powered vehicles should be banned as soon as possible and by 2024 at the latest.

4. {pre treatment:} [*Gun Control:*] Rank the following policies from most preferred to least preferred. The policies below relate to federal gun control laws. Currently, federal law requires background checks for all gun sales by licensed gun dealers—it does not require backgrounds checks for guns sold by unlicensed sellers (e.g., some online gun sales or some gun show sales).
   - [*Status quo:*] There should be no change to the federal gun control laws.
   - [*Moderate:*] All gun sales should require strict federal background checks.
   - [*Extreme:*] All gun sales should require strict federal background checks and there should be a complete ban on the sale of assault weapons.

5. {pre treatment:} [*Abortion:*] Rank the following policies from most preferred to least preferred. The policies below relate to federal abortion laws. Currently, abortion is legal in many U.S. States. However, some states have passed laws that restrict access to abortion services or make abortions illegal from fertilization.
   - [*Status quo:*] There should be no change to the federal abortion law.
   - [*Moderate:*] Federal law should protect women's access and rights to abortion services.
   - [*Extreme:*] Federal law should protect women's access and rights to abortion services. In addition, abortion services should be federally funded.

B.3 Enactment belief questions

Republican block. Suppose your district's representative is a Republican who promises ...

1. a big decrease in the Corporate Income Tax rate to 5%. How likely is it that the policy will pass?
2. a small decrease in the Corporate Income Tax rate to 20%. How likely is it that the policy will pass?
3. a big decrease in Social Security funding to $0.660 trillion (40% decrease). How likely is it that the policy will pass?
4. a small decrease Social Security funding to $1.045 trillion (5% decrease). How likely is it that the policy will pass?
5. a big decrease in EPA funding to $5.98 billion (35% decrease). How likely is it that the policy will pass?

6. a small decrease in EPA funding to $8.74 billion (5% decrease). How likely is it that the policy will pass?
7. to pass a law that allows any person to carry a loaded gun openly or concealed without a permit in any state. How likely is it that the policy will pass?
8. to pass a law that requires every state to recognize the gun-carrying permits issued by any other state. How likely is it that the policy will pass?
9. to pass a law that criminalizes all abortion procedures without exception. How likely is it that the policy will pass?
10. to pass a law that criminalizes all abortion procedures unless the abortion is required to save the life of the woman or if the pregnancy arises from incest or rape. How likely is it that the policy will pass?

Response set: Certainly, Extremely likely, Likely, Unlikely, Extremely unlikely, Impossible

Democratic block. Suppose your district's representative is a Democrat who promises ....

1. a big increase in the Corporate Income Tax rate to 46%. How likely is it that the policy will pass?
2. a small increase in the Corporate Income Tax rate to 30%. How likely is it that the policy will pass?
3. a big increase in the federal minimum wage to $35 per hour. How likely is it that the policy will pass?
4. a small increase in the federal minimum wage to $10 per hour. How likely is it that the policy will pass?
5. to ban the sale of gas-powered vehicles as soon as possible and by 2024 at the latest. How likely is it that the policy will pass?
6. to ban the sale of gas-powered vehicles by 2035. How likely is it that the policy will pass?
7. to pass a law that requires strict federal background checks on all gun sales and completely bans the sale of assault weapons. How likely is it that the policy will pass?
8. to pass a law that requires strict federal background checks on all gun sales. How likely is it that the policy will pass?
9. to pass a law that protects women's access and rights to abortion services and, in addition, guarantees federal funding for abortion services. How likely is it that the policy will pass?
10. to pass a law that protects women's access and rights to abortion services. How likely is it that the policy will pass?

Response set: Certainly, Extremely likely, Likely, Unlikely, Extremely unlikely, Impossible

B.4 Candidate-choice task

Issue	Republican	Democrat
Taxes	• A large decrease in the Corporate Income Tax rate that decreases the tax rate to 5%. • A small decrease the Corporate Income Tax rate that decreases the tax rate to 20%.	• No change. Leave the Corporate Income Tax at 21%.
Social security	• A large decrease in Social Security funding that reduces funding by 40% to $660 billion. • A small decrease Social Security funding that reduces funding by 5% to $1.045 trillion.	• No change. Leave the Social Security funding at $1.1 trillion.
EPA	• A large decrease in Environmental Protection Agency (EPA) funding reducing funding by 35% to $5.98 billion. • A small decrease in Environmental Protection Agency (EPA) funding reducing funding by 5% to $8.74 billion.	• No change. Leave the Environmental Protection Agency (EPA) funding at $9.2 trillion.
Gun Control	• People should be able to carry a loaded gun openly or concealed without a permit in all states. • All states should be required to recognize the gun-carrying permits issued by any other state.	• The current federal gun control laws should remain unchanged.
Abortion	• Abortion should be criminalized without exception. • Abortion should be criminalized except if the abortion is required to save the life of the woman or if the pregnancy arises from incest or rape.	• The current federal abortion law should remain unchanged.

Table B.1: Candidate-choice attributes for Republican block. *Randomization rule:* Show 6 candidate-choice profiles, where 2 policy issues are randomly drawn each time. Within these randomly drawn policy issues, for the Republican candidate, one out of the two policy position is randomly drawn. Within each policy issue, the Democratic candidate always holds the same policy position.

Issue	Democrat	Republican
Taxes	• A big increase in the Corporate Income Tax rate to 46%. • A small increase in the Corporate Income Tax rate to 30%.	• No change. Leave the Corporate Income Tax at 21%.
Wage	• A small increase in the federal minimum wage to $10 per hour. • A big increase in the federal minimum wage to $35 per hour.	• No change. Leave the federal minimum wage at $7.25 per hour.
Vehicle	• The sale of gas-powered vehicles should be banned as soon as possible and by 2024 at the latest. • The sale of gas-powered vehicles should be banned by 2035.	• There should be no change to the federal gun control laws.
Gun Control	• All gun sales should require strict federal background checks and there should be a complete ban on the sale of assault weapons. • All gun sales should require strict federal background checks.	• There should be no change to the federal gun control laws.
Abortion	• Federal law should protect women's access and rights to abortion services. • Federal law should protect women's access and rights to abortion services. In addition, abortion services should be federally funded.	• There should be no change to the federal abortion law.

Table B.2: Candidate-choice attributes for Democratic block. *Randomization rule:* Show 6 candidate-choice profiles, where 2 policy issues are randomly drawn each time. Within these randomly drawn policy issues, for the Democratic candidate, one out of the two policy position is randomly drawn. Within each policy issue, the Republican candidate always holds the same policy position.

C Descriptive statistics

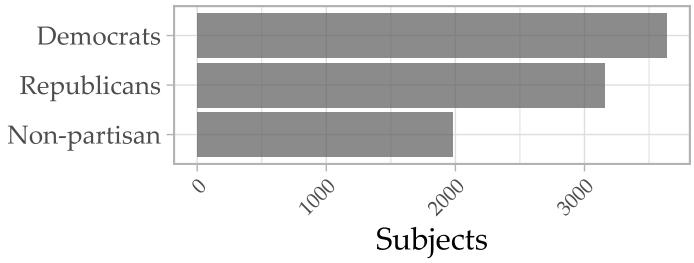

Figure C.1: Sample size of Democratic, Republican, and non-partisan subjects.

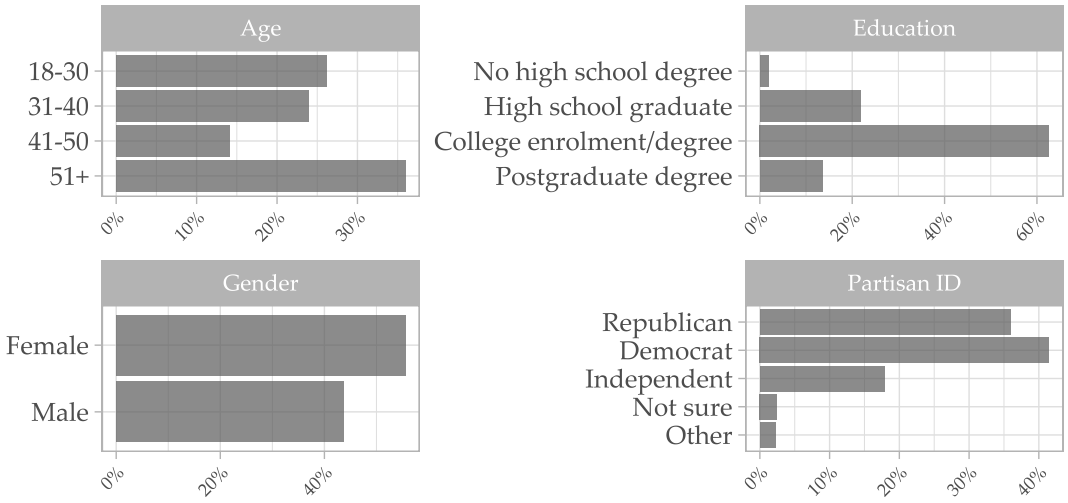

Figure C.2: Demographic and partisan summary statistics.

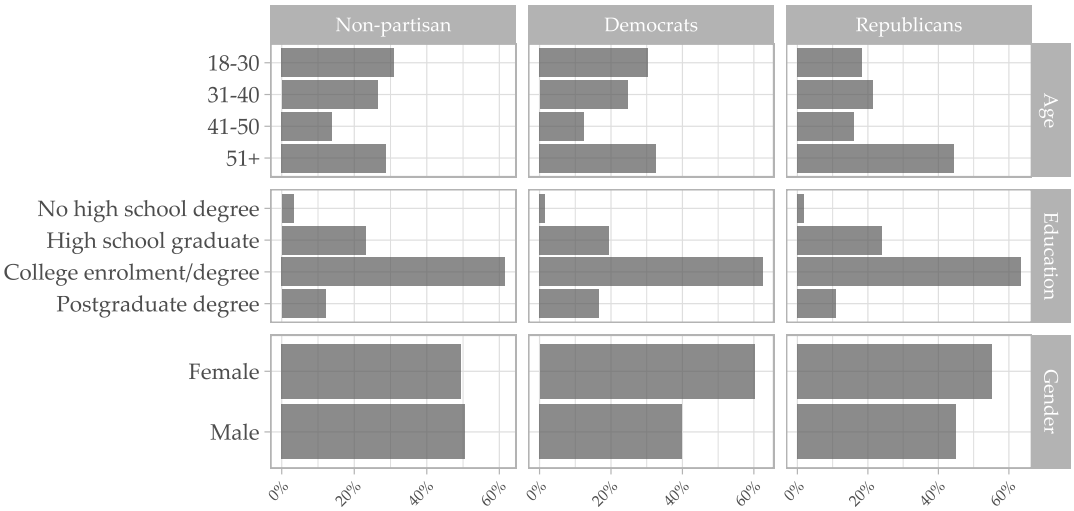

Figure C.3: Summary statistics by partisan affiliation.

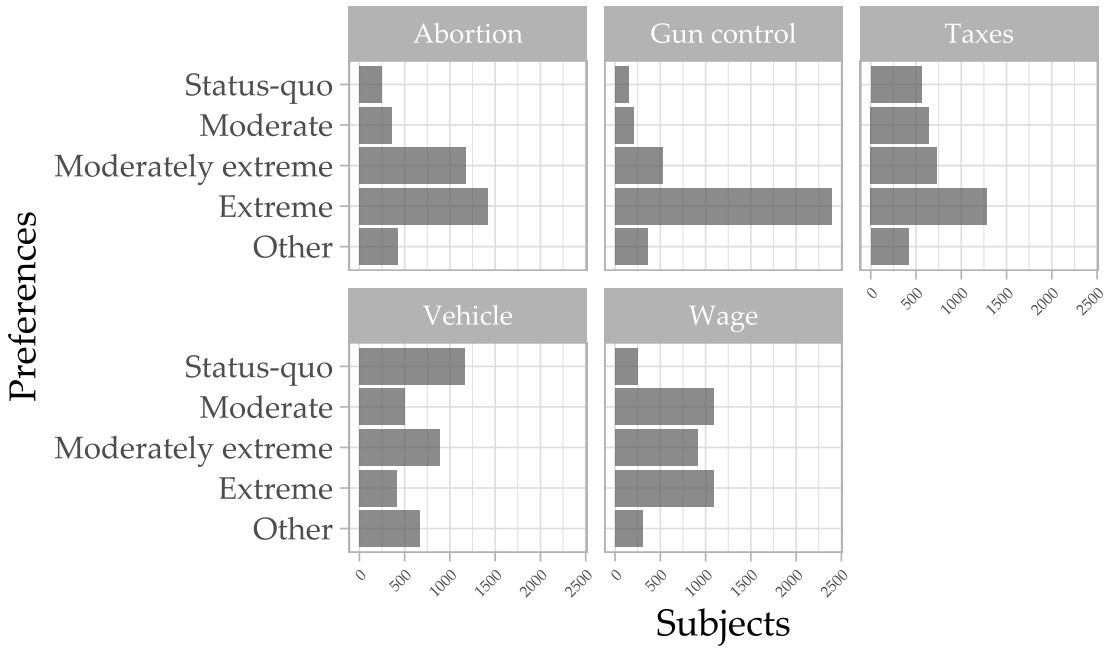

Figure C.4: Distribution of policy preferences among Democratic subjects.

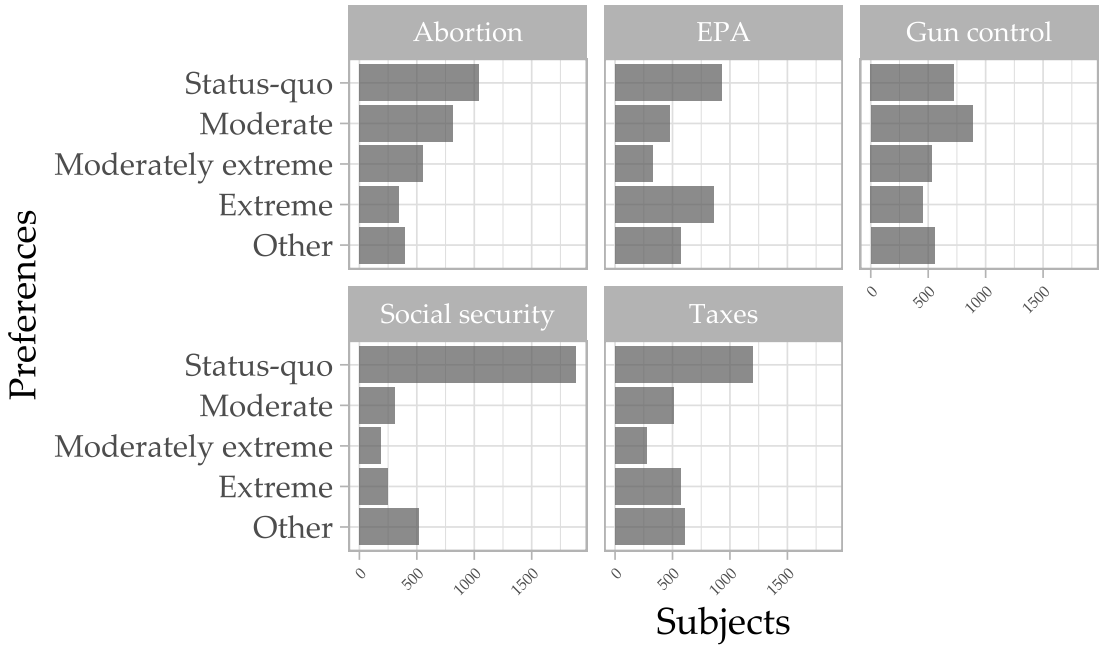

Figure C.5: Distribution of policy preferences among Republican subjects.

D Results in tabular form

D.1 From gridlock to polarization

	Dependent variable: Enactment likelihood			
	Sample: Moderate		Sample: All	
	Moderate: Wage	Extreme: Wage	Moderate: Wage	Extreme: Wage
Intercept	4.152^{***}	2.150^{***}	4.133^{***}	2.656^{***}
	(0.037)	(0.053)	(0.023)	(0.033)
Gridlock	-0.312^{***}	-0.118	-0.251^{***}	-0.141^{***}
	(0.052)	(0.072)	(0.032)	(0.047)
R^2	0.032	0.003	0.017	0.003
Adj. R^2	0.031	0.002	0.017	0.002
N Subjects	1064	1064	3472	3472

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.1: Treatment effect on enactment likelihood for Democratic subjects. Robust standard errors in parenthesis.

	Dependent variable: Enactment likelihood			
	Sample: Moderate		Sample: All	
	Moderate: EPA	Extreme: EPA	Moderate: EPA	Extreme: EPA
Intercept	3.797^{***}	3.190^{***}	3.722^{***}	3.313^{***}
	(0.055)	(0.075)	(0.024)	(0.029)
Gridlock	-0.203^{**}	-0.296^{***}	-0.187^{***}	-0.233^{***}
	(0.084)	(0.107)	(0.034)	(0.041)
R^2	0.013	0.016	0.010	0.010
Adj. R^2	0.010	0.014	0.009	0.010
N Subjects	466	466	2998	2998

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.2: Treatment effect on enactment likelihood for Republican subjects. Robust standard errors in parenthesis.

	Democrats: Moderate		Republicans: Moderate	
	Dependent variable:		*Dependent variable*:	
	Propensity	Likelihood	Propensity	Likelihood
Extreme co-partisan				
Intercept	0.643***	3.436***	0.574***	3.241***
	(0.024)	(0.062)	(0.032)	(0.084)
Gridlock	0.118***	0.315***	0.053	0.243*
	(0.032)	(0.083)	(0.048)	(0.123)
R^2	0.017	0.017	0.003	0.009
Adj. R^2	0.016	0.017	0.001	0.008
N Choices	1303	1303	561	561
N Subjects	773	773	344	344
Moderate co-partisan				
Intercept	0.888***	4.248***	0.676***	3.455***
	(0.015)	(0.049)	(0.032)	(0.086)
Gridlock	0.021	0.065	0.027	0.144
	(0.019)	(0.070)	(0.046)	(0.123)
R^2	0.001	0.001	0.001	0.003
Adj. R^2	0.000	0.000	−0.001	0.001
N Choices	1300	1300	512	512
N Subjects	796	796	322	322

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.3: Treatment effect on propensity and likelihood to vote for a co-partisan candidate who holds an extreme or moderate policy position on the treated policy issue (sample: moderate subjects). Robust standard errors clustered at the subject level in parenthesis.

	Dependent variable: Propensity to turn out *and* vote			
	Democrats: Moderate		Republicans: Moderate	
	Extr. co-partisan	Mod. co-partisan	Extr. co-partisan	Mod. co-partisan
Intercept	0.533^{***}	0.822^{***}	0.488^{***}	0.558^{***}
	(0.026)	(0.018)	(0.034)	(0.034)
Gridlock	0.122^{***}	0.012	0.050	0.074
	(0.035)	(0.025)	(0.050)	(0.049)
R^2	0.016	0.000	0.003	0.006
Adj. R^2	0.015	−0.001	0.001	0.004
N Choices	1332	1326	579	526
N Subjects	790	814	354	328

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.4: Treatment effect on propensity to turn out *and* vote for a co-partisan candidate who holds an extreme or moderate policy position on the treated policy issue (sample: moderate subjects). Robust standard errors clustered at the subject level in parenthesis.

D.2 Exploring the mechanism

	Democrats: Status-quo		Republicans: Status-quo	
	Dependent variable:		*Dependent variable*:	
	Propensity	Likelihood	Propensity	Likelihood
Extreme co-partisan				
Intercept	0.476***	3.048***	0.447***	2.979***
	(0.055)	(0.147)	(0.027)	(0.070)
Gridlock	0.045	−0.081	0.063	0.180*
	(0.077)	(0.205)	(0.038)	(0.100)
R^2	0.002	0.001	0.004	0.005
Adj. R^2	−0.002	−0.003	0.003	0.004
N Choices	245	245	1058	1058
N Subjects	163	163	644	644
Moderate co-partisan				
Intercept	0.680***	3.374***	0.563***	3.212***
	(0.042)	(0.127)	(0.026)	(0.069)
Gridlock	−0.016	0.085	0.006	0.059
	(0.061)	(0.180)	(0.036)	(0.096)
R^2	0.000	0.001	0.000	0.001
Adj. R^2	−0.003	−0.002	−0.001	−0.000
N Choices	317	317	1104	1104
N Subjects	184	184	673	673

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.5: Treatment effect on propensity and likelihood to vote for a co-partisan candidate who holds an extreme or moderate position on the treated policy issue (sample: moderate subjects). Robust standard errors clustered at the subject level in parenthesis.

	Democrats: Extreme		Republicans: Extreme	
	Dependent variable:		*Dependent variable*:	
	Propensity	Likelihood	Propensity	Likelihood
Extreme co-partisan				
Intercept	0.944***	4.500***	0.792***	3.908***
	(0.010)	(0.042)	(0.022)	(0.062)
Gridlock	−0.017	−0.018	0.033	0.155*
	(0.016)	(0.063)	(0.029)	(0.086)
R^2	0.001	0.000	0.002	0.004
Adj. R^2	0.000	−0.001	0.001	0.003
N Choices	1227	1227	1009	1009
N Subjects	760	760	621	621
Moderate co-partisan				
Intercept	0.934***	4.467***	0.798***	3.972***
	(0.011)	(0.042)	(0.021)	(0.059)
Gridlock	−0.012	−0.090	0.031	0.010
	(0.016)	(0.062)	(0.028)	(0.086)
R^2	0.001	0.002	0.002	0.000
Adj. R^2	−0.000	0.001	0.001	−0.001
N Choices	1278	1278	955	955
N Subjects	780	780	600	600
	Democrats: Moderately extreme		Republicans: Moderately extreme	
	Dependent variable:		*Dependent variable*:	
	Propensity	Likelihood	Propensity	Likelihood
Extreme co-partisan				
Intercept	0.897***	4.231***	0.653***	3.490***
	(0.016)	(0.051)	(0.043)	(0.118)
Gridlock	0.002	−0.030	0.001	−0.063
	(0.023)	(0.079)	(0.058)	(0.150)
R^2	0.000	0.000	0.000	0.001
Adj. R^2	−0.001	−0.001	−0.002	−0.002
N Choices	1053	1053	416	416
N Subjects	646	646	245	245
Moderate co-partisan				
Intercept	0.947***	4.433***	0.738***	3.723***
	(0.012)	(0.046)	(0.036)	(0.097)
Gridlock	−0.011	−0.050	−0.018	−0.169
	(0.017)	(0.069)	(0.052)	(0.142)
R^2	0.001	0.001	0.000	0.005
Adj. R^2	−0.000	−0.000	−0.002	0.002
N Choices	1026	1026	388	388
N Subjects	653	653	234	234

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.6: Treatment effect on propensity and likelihood to vote for a co-partisan candidate who holds an extreme or moderate position on the treated policy issue (sample: extreme/moderately extreme subjects). Robust standard errors clustered at the subject level in parenthesis.

	Democrats		Republicans	
	Dependent variable:		*Dependent variable*:	
	Wage	Gun control	EPA	Gun control
Intercept	0.030^{***}	0.141^{***}	0.080^{***}	0.032^{***}
	(0.006)	(0.026)	(0.016)	(0.007)
Gridlock	-0.004	-0.021	0.005	0.006
	(0.009)	(0.037)	(0.022)	(0.011)
R^2	0.000	0.001	0.000	0.000
Adj. R^2	-0.001	-0.002	-0.002	-0.001
N Choices	1434	335	609	1179
N Subjects	1434	335	609	1179

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.7: Treatment effect on extreme policy preferences for subjects who have moderate pre-treatment policy preferences. Robust standard errors clustered at the subject level in parenthesis.

D.3 Spillover effects

	Dependent variable: Enactment likelihood							
	Taxes		Vehicle		Gun control		Abortion	
	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme
Moderate								
Intercept	3.561^{***}	2.637^{***}	3.531^{***}	2.453^{***}	4.183^{***}	3.771^{***}	3.340^{***}	3.927^{***}
	(0.045)	(0.062)	(0.064)	(0.089)	(0.100)	(0.135)	(0.087)	(0.069)
Gridlock	−0.095	−0.045	−0.087	0.007	−0.050	0.085	−0.048	−0.128
	(0.070)	(0.094)	(0.090)	(0.121)	(0.152)	(0.192)	(0.132)	(0.100)
R^2	0.003	0.000	0.002	0.000	0.001	0.001	0.000	0.005
Adj. R^2	0.001	−0.001	−0.000	−0.002	−0.005	−0.004	−0.002	0.002
N Subjects	637	637	493	493	199	199	355	355
All								
Intercept	3.604^{***}	2.969^{***}	3.413^{***}	2.732^{***}	3.816^{***}	3.500^{***}	3.517^{***}	3.979^{***}
	(0.024)	(0.030)	(0.027)	(0.033)	(0.027)	(0.030)	(0.030)	(0.025)
Gridlock	-0.154^{***}	-0.141^{***}	-0.091^{**}	−0.040	-0.149^{***}	-0.118^{***}	-0.130^{***}	-0.178^{***}
	(0.035)	(0.042)	(0.038)	(0.046)	(0.038)	(0.042)	(0.042)	(0.036)
R^2	0.006	0.003	0.002	0.000	0.004	0.002	0.003	0.007
Adj. R^2	0.005	0.003	0.001	−0.000	0.004	0.002	0.003	0.007
N Subjects	3472	3472	3478	3478	3473	3473	3476	3476

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.8: Treatment effect on enactment likelihood for non-treated policy issues for moderate and all Democratic subjects. Robust standard errors in parenthesis.

	Dependent variable: Enactment likelihood							
	Taxes		Social security		Gun control		Abortion	
	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme
Moderate								
Intercept	3.749^{***}	3.212^{***}	3.521^{***}	3.160^{***}	3.794^{***}	2.806^{***}	3.886^{***}	2.987^{***}
	(0.061)	(0.074)	(0.101)	(0.114)	(0.048)	(0.061)	(0.051)	(0.057)
Gridlock	-0.152^{*}	-0.133	-0.030	-0.223	-0.307^{***}	0.017	-0.307^{***}	-0.166^{**}
	(0.085)	(0.107)	(0.126)	(0.152)	(0.067)	(0.084)	(0.071)	(0.078)
R^2	0.006	0.003	0.000	0.007	0.024	0.000	0.023	0.006
Adj. R^2	0.004	0.001	-0.003	0.004	0.023	-0.001	0.022	0.004
N Subjects	496	496	303	303	858	858	799	799
All								
Intercept	3.657^{***}	3.303^{***}	3.289^{***}	2.828^{***}	3.745^{***}	3.203^{***}	3.710^{***}	3.109^{***}
	(0.026)	(0.030)	(0.029)	(0.032)	(0.027)	(0.034)	(0.029)	(0.032)
Gridlock	-0.187^{***}	-0.142^{***}	-0.077^{**}	-0.065	-0.259^{***}	-0.171^{***}	-0.146^{***}	-0.112^{**}
	(0.036)	(0.042)	(0.039)	(0.045)	(0.038)	(0.046)	(0.041)	(0.044)
R^2	0.009	0.004	0.001	0.001	0.015	0.005	0.004	0.002
Adj. R^2	0.008	0.003	0.001	0.000	0.015	0.004	0.004	0.002
N Subjects	3001	3001	3001	3001	3001	3001	3004	3004

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.9: Treatment effect on enactment likelihood for non-treated policy issues for moderate and all Republican subjects. Robust standard errors in parenthesis.

Democrats					
	All	Taxes	Vehicle	Gun control	Abortion
			Dependent variable: Propensity		
Intercept	0.730^{***}	0.785^{***}	0.814^{***}	0.701^{***}	0.745^{***}
	(0.015)	(0.025)	(0.028)	(0.046)	(0.033)
Gridlock	0.053^{***}	-0.002	0.040	-0.034	-0.008
	(0.020)	(0.035)	(0.038)	(0.070)	(0.050)
R^2	0.004	0.000	0.003	0.001	0.000
Adj. R^2	0.003	-0.001	0.001	-0.003	-0.002
N Tasks	3252	835	596	246	436
N Subjects	1555	498	365	148	264
			Dependent variable: Likelihood		
Intercept	3.666^{***}	3.792^{***}	3.937^{***}	3.463^{***}	3.728^{***}
	(0.041)	(0.071)	(0.082)	(0.129)	(0.095)
Gridlock	0.168^{***}	0.066	0.077	0.335^{*}	-0.086
	(0.056)	(0.096)	(0.114)	(0.178)	(0.148)
R^2	0.005	0.001	0.001	0.017	0.001
Adj. R^2	0.005	-0.000	-0.001	0.013	-0.001
N Tasks	3252	835	596	246	436
N Subjects	1555	498	365	148	264
Republicans					
	All	Taxes	Social security	Gun control	Abortion
			Dependent variable: Propensity		
Intercept	0.536^{***}	0.609^{***}	0.580^{***}	0.486^{***}	0.485^{***}
	(0.016)	(0.037)	(0.046)	(0.028)	(0.029)
Gridlock	0.077^{***}	0.146^{***}	0.069	0.054	0.094^{**}
	(0.022)	(0.046)	(0.060)	(0.039)	(0.041)
R^2	0.006	0.025	0.005	0.003	0.009
Adj. R^2	0.006	0.023	0.002	0.002	0.008
N Tasks	3278	566	360	988	966
N Subjects	1591	354	218	619	579
			Dependent variable: Likelihood		
Intercept	3.183^{***}	3.281^{***}	3.237^{***}	3.051^{***}	3.146^{***}
	(0.041)	(0.090)	(0.116)	(0.070)	(0.073)
Gridlock	0.196^{***}	0.484^{***}	0.156	0.149	0.132
	(0.059)	(0.123)	(0.159)	(0.101)	(0.106)
R^2	0.006	0.039	0.004	0.003	0.003
Adj. R^2	0.006	0.038	0.001	0.002	0.002
N Tasks	3278	566	360	988	966
N Subjects	1591	354	218	619	579

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table D.10: Treatment effect on probability and likelihood to vote for a co-partisan candidate who holds an extreme policy position (sample: moderate Democratic/Republican subjects). Robust standard errors clustered at the subject level in parenthesis.