

# From Gridlock to Polarization?

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## Abstract

We propose a mechanism linking legislative gridlock to voters' support for candidates who hold extreme policy positions: voters rationally discount policy proposals on gridlocked policy issues because on these issues policy change is unlikely. When voters have preferences that are moderate and broadly aligned with a single party across policy issues, gridlock increases support for extreme co-partisan candidates. We test our mechanism in a large-scale online experiment in which we randomly vary subjects' perceptions of gridlock and measure subjects' support for candidates in candidate-choice tasks. We verify that greater perception of gridlock on a specific issue increases moderate, self-identified partisan 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. We discuss and analyze additional predictions of our mechanism, including a possibly moderating effect of gridlock that occurs when voters have preferences that are extreme and do not align with a single party across issues. Our theory offers a possible 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).<sup>1</sup> 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.<sup>2</sup> Scholars and pundits alike often view Congress’ polarization as a key driving force behind the increasing levels of legislative gridlock (Krehbiel, 1998; McCarty et al., 2006).<sup>3</sup>

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). More recent scholarship on mass (or popular) polarization continues to support this view (e.g., Fowler et al., 2022) and concludes 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; Fiorina and Levendusky, 2006; Fiorina et al., 2011; Fowler et al., 2022; Gentzkow, 2016; Hetherington, 2009). 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 (Poole, 2007; Poole and Rosenthal, 2001). 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

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<sup>1</sup>Besides roll-call based measures (Poole and Rosenthal, 1985), consistent patterns of polarization are observed using several alternative approaches (Bonica, 2014a; Hetherington, 2009; Moskowitz et al., 2019; Tausanovitch and Warshaw, 2017).

<sup>2</sup>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).

<sup>3</sup>Intuitively, as members of each party become more ideologically divided, their scope for common agreement decreases—the so called “gridlock interval” expands. This phenomenon may be exacerbated by institutional details (Acharya and Ortner, 2022; Binder, 2003; Brady and Volden, 1998; Callander, 2011; Callander and McCarty, 2022; Chen and Eraslan, 2017; Crosson et al., 2021; Dziuda and Loeper, 2018; Howell et al., 2000; Huber and McCarty, 2006; Koger, 2010; Lee, 2022; Volden and Wiseman, 2014) and electoral concerns (Bowling and Ferguson, 2001; Cameron and McCarty, 2004; Groseclose and McCarty, 2001; Ortner, 2017).

moderate candidates being electorally advantaged. However, at least at the national level, a supply-side only explanation requires an unlikely short supply of moderate citizens who are willing to run for office—despite their electoral advantage and the prospect of earning a salary more than 2.5 times the median household (Cranley, 2019).<sup>4</sup> If they have been running at increasingly lower rates, it is because in fact, when they run, their electoral advantage has been *declining* (Bonica and Cox, 2018; Canes-Wrone and Kistner, 2022; 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 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 some moderate voters—namely, those whose policy preferences broadly align with a party's platform across policy dimensions—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. In both cases, 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). However, we remark that 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.<sup>5</sup>

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<sup>4</sup>Analyzing the pool of state legislators—who typically earn far less than members of Congress (Thomson-DeVeaux, 2016)—Thomsen (2017) shows that there is no short supply of well-qualified and moderate candidates who could run for office.

<sup>5</sup>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

Our theoretical framework thus offers a possible solution to the empirical puzzle: why do moderate voters increasingly elect extreme legislators? Perhaps because legislative gridlock causes some of these voters to rationally “discount” the candidate’s extremism on gridlocked issues. However, the contribution of the paper is broader and more nuanced: there exist under-studied causal mechanisms linking greater legislative gridlock to voters’ attitudes towards more extreme or more moderate candidates, and such mechanisms, if empirically confirmed, may help explain some puzzling empirical patterns in voting behavior and differences between the preferences of voters and legislators. In particular, we show that, despite its simplicity, our theoretical framework suggests that gridlock may have multiple contrasting effects, including *moderating* ones. On the one hand, gridlock may cause elite polarization if voters are largely *moderate* and have preferences broadly *aligned* with a single party across policy dimensions. On the other hand, when voters have *extreme* preferences themselves and their preferences are *misaligned*—in the sense that they prefer the platforms of different parties on different policy issues—then gridlock may induce these extreme voters to focus on less gridlocked issues on which they have more moderate preferences, possibly leading to a more moderate Congress. By identifying the key variables determining which of these effects is more likely, our model offers a framework that we believe will be useful for future empirical research aimed at uncovering when and why the distribution of preferences among voters differs from those of the legislators they elect.

In Section 2, we offer a precise description of the mechanism linking legislative gridlock with voters’ propensity to vote for candidates who hold more or less extreme policy positions on gridlocked issues. Our conceptual framework is based on the rational choice of informed voters who appreciate that some policy issues are gridlocked, so that enacting policy changes on those issues is difficult. When gridlock is more intense, moderate aligned 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 extreme 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.<sup>6</sup> This polarizing effect of gridlock relies on

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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.

<sup>6</sup>This theoretical argument is grounded in the voter’s policy motivations on other, less gridlocked issues. However, the argument is potentially more general and could be derived from the voter’s preference for non-policy attributes of a candidate (such as their entertainment value or good looks) or their expressive preferences.

voters being broadly aligned with their co-partisan candidate on other (less gridlocked) policy issues. If, instead, voters are not broadly aligned with their co-partisan candidate on other policy issues, then gridlock may induce other effects, including a moderating effect among voters who hold extreme policy preferences. Thus, which effect dominates depends on the distribution of voters' policy preferences across gridlocked and non-gridlocked issues, how consistently voters' preferences align with a single party, and which issues are gridlocked. In Section 2.3, we discuss how these different preconditions resonate with ideas in the literature (such as partisan sorting and voters' ideological consistency) and suggest that the polarizing effect is more likely to be empirically relevant in the modern era. Our formal analysis allows us to pin down precise conditions for each mechanism and derive precise behavioral hypotheses that we test experimentally.

In Section 3, 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' beliefs 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.<sup>7</sup> 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 the polarizing effect of gridlock among moderate aligned voters. As such, we restrict attention to subjects who self-identify as a Democrat or Republican and focus on those voters 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

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<sup>7</sup>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 subjects are removed from our main analysis.

“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.<sup>8,9</sup>

In Section 4, 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 of a polarizing effect of gridlock: our treatment increases moderate, self-identified partisan 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 untreated subjects, Democratic subjects who are treated are 12 percentage points more likely to vote 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. We also test for the possible moderating effect of gridlock among self-identified partisan subjects with extreme policy preferences and who do not align with their co-partisan candidate on other (untreated) policy issues. While our experiment was not specifically designed to test this prediction, it nonetheless provides suggestive evidence. Our results are broadly—albeit “weakly” and not statistically significantly—consistent with the existence of a moderating effect of polarization among subjects with extreme policy preferences and who do not align with co-partisan candidates on other untreated issues.

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—perhaps particularly so 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, many have argued that general elections have grown

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<sup>8</sup>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.

<sup>9</sup>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.



less competitive and only a small number of swing districts remain.<sup>10</sup> From this perspective, much of the polarization we see today may stem from primary rather than general 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 aligned) 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 have further implications for polarization at the primary stage. A well-established literature documents that primary voters consider the (general election) “electability” of candidates when casting their vote ([Abramowitz, 1989](#); [Rickershauser and Aldrich, 2007](#); [Simas, 2017](#)). Thus, the median voter in a party’s primary may vote for a less-preferred candidate who is more likely to succeed in the general election. Compared to general-election voters, primary voters may, on average, view candidates holding extreme positions more favorably.<sup>11</sup> Therefore, if, as we argue, gridlock may cause general-elections moderate voters to discount extremism, then this may also result in primary voters discounting the un-electability of more extreme candidates, resulting in primaries selecting more extreme candidates.<sup>12</sup>

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 4.1.1 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. Finally, in Section 5, we discuss some implications of our theory for the design of constitutions.

## 1.1 Related literature

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

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<sup>10</sup>For example, [Wasserman \(2023\)](#) documents a steady decline in the number of swing districts, estimating a 50% decrease since 1999 (see also [Grossmann and Wlezien, 2024](#); [Kustov et al., 2021](#)). Recently, however, [Ebanks et al. \(2023\)](#) demonstrate that focusing on average vote shares without accounting for changes in variance may generate misleading conclusions.

<sup>11</sup>Especially in closed and semi-closed primaries, primary voters may be more extreme in their policy views ([Hill, 2015](#); [Jacobson, 2012](#)). Alternatively, candidates holding more extreme positions may on average have other attributes, such as greater party loyalty, that are viewed favorably by primary voters—even if primary voters are ideologically similar to their general election counterparts ([Sides et al., 2020](#)).

<sup>12</sup>[Krasa and Polborn \(2018\)](#) formalize this intuition in a distinct but related context.

estimate in his own mind what the parties would actually do were they in power” (see also [Alesina and Rosenthal, 1996, 2000](#); [Grofman, 1985](#)).<sup>13</sup> Our key intuition that voters may discount extreme policy platforms if they believe that policy change is unlikely also appears in [Alesina and Rosenthal \(2000\)](#); [Howell et al. \(2022\)](#); [Krasa and Polborn \(2018\)](#).<sup>14</sup> 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 some 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 ([Adams et al., 2004](#); [Kropko and Banda, 2018](#); [Lewis and King, 1999](#); [Patty and Penn, 2019](#); [Tomz and Van Houweling, 2008](#)). Although we cannot exclude directional voting in its full generality, our theory offers a key prediction that is incompatible with some formulation of directional voting: moderate aligned 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.

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 super-majority 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

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<sup>13</sup>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](#); [Duch and Stevenson, 2008](#); [Duch et al., 2010](#); [Kedar, 2005](#)).

<sup>14</sup>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](#)).



parties to (strategically) polarize their policy platforms.<sup>15</sup> 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 some 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.

## 2 Conceptual framework

We introduce a simple stylized model of the voter’s choice that captures the essential elements of our mechanism.

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  $p := (p_1, p_2) \in \mathbb{R}^2$ . Issue 2 is a specific policy issue which may or may not be gridlocked. In contrast, issue 1 bundles together the remaining policy issues.

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  $(p^o, o)$ . 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  $o < m < e$ .

The enacted platform depends on the candidate chosen by the voter and whether issue 2 is *gridlocked*. If the issue is not gridlocked, the enacted platform equals the chosen candidate’s platform. If instead the issue is gridlocked, the enacted platform equals the chosen candidate’s platform with probability  $1 - g$ ; otherwise,  $p = (p^c, q)$  if the voter chose the co-partisan candidate and  $p = (p^o, q)$  if the voter chose the opponent, where  $q < m$  is the status quo. The probability  $g \in (0, 1)$  that the chosen candidate is unable to enact change on issue 2 measures the intensity of gridlock on this issue.<sup>16</sup>

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, and  $u_2$  represents a single-peaked preference on issue 2. We assume that the voter is *partisan* in the sense that, on issue 2, he prefers at least one

<sup>15</sup>Similarly, Alesina and Rosenthal (2000) and Lee (2025) connect gridlock with politicians’ choice to announce (but not necessarily achieve) more extreme agendas.

<sup>16</sup>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.

co-partisan platform over the opponent's.<sup>17</sup>

**Assumption 1 (Partisanship.)** *There exists  $p_2 \in \{m, e\}$  such that  $u_2(p_2) > u_2(o)$ .*

We divide all possible cases of voter's preferences along two dimensions. First, we say that the voter is *aligned* if, absent issue 2, the voter would prefer to choose a co-partisan candidate:  $u_1(p^o) < u_1(p^c)$ . We say the voter is *misaligned* if, absent issue 2, the voter would prefer to choose the opponent:  $u_1(p^o) > u_1(p^c)$ . One can think of the misaligned case as a capturing a voter who identifies with her party because of a single issue (issue 2) but, otherwise, prefers the other party.<sup>18</sup>

Second, we say the voter is *moderate* if  $u_2(e) < u_2(o)$ , and *extreme* if  $u_2(o) < u_2(e)$ . Implicitly, this means we are interpreting the opponent's position  $o$  on issue 2 as a moderate position (i.e.,  $o$  is "close" to  $q$  and  $m$ ). In the survey experiment, we focus on the simplest case where the opponent candidate's platform on issue 2 equals the status quo:  $o = q$ .

To simplify notation, and without any effect to the hypotheses we derive, we assume that whenever indifferent the voter chooses the opponent. All proofs are in Appendix A.

## 2.1 Aligned voters: From gridlock to polarization

We now study the behavior of aligned voters, beginning with moderate voters. It is easy to see that a moderate aligned voter with very low salience on issue 2 (low  $\sigma$ ) bases his choice on the party line (issue 1). Therefore, he always chooses the co-partisan candidate. However, a moderate aligned voter with higher salience will sometimes have to trade off issue 1 for issue 2: when the co-partisan candidate's platform is extreme. In particular, if  $\sigma$  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 aligned voter. Figure 1 illustrates Proposition 1 for the case of a moderate aligned voter choosing between an extreme co-partisan and the opponent.

**Proposition 1 (Moderate aligned voters.)** *A moderate aligned voter always chooses a moderate co-partisan candidate. There exist  $\underline{\sigma}_a$  and  $\underline{\sigma}_a(g) > \underline{\sigma}_a$  such that, for  $\sigma < \underline{\sigma}_a$ , a moderate aligned*

<sup>17</sup>This assumption rules out the voter preferring the opponent's platform over any possible co-partisan platform on issue 2:  $u_2(o) > \max\{u_2(m), u_2(e)\}$ . Thus, the single-peaked utility function  $u_2$  will take one of 3 different forms:  $u_2(e) > u_2(m) > u_2(o)$ ,  $u_2(m) > u_2(e) > u_2(o)$ , or  $u_2(m) > u_2(o) > u_2(e)$ . In Appendix G, we derive predictions for "non-partisan" voters, i.e., those violating Assumption 1: holding preferences on the gridlocked issue  $u_2(o) > u_2(m) > u_2(e)$ . In Appendix G.1, we test the predictions for non-partisan aligned voters using our survey experiment.

<sup>18</sup>Some past scholars have attributed such voting patterns to a lack of political "sophistication" (Converse, 2006). In Section 2.3 we discuss other interpretations of voters' alignment.

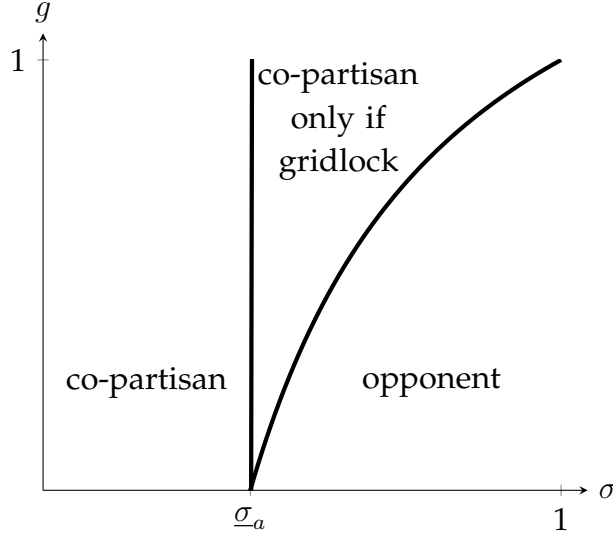


Figure 1: Illustration of Proposition 1. Moderate aligned voter's choice between extreme co-partisan and opponent. Parameter values:  $u_1(p^c) - u_1(p^o) = 0.5$ ,  $u_2(o) - u_2(e) = 0.75$ .

*voter always chooses an extreme co-partisan candidate; for  $\underline{\sigma}_a < \sigma < \underline{\sigma}_a(g)$ , he chooses an extreme co-partisan candidate if and only if issue 2 is gridlocked; for  $\sigma > \underline{\sigma}_a(g)$ , he never chooses an extreme co-partisan candidate.*

Intuitively, a moderate aligned voter always prefers a moderate co-partisan, whose platform most aligns with his preferences, to the opponent. His choice is therefore independent of the salience of issue 2 or whether the issue is gridlocked. However, when choosing between the 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 opponent's position  $o$  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

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

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

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

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

In reality, and in our experiment, different voters will have different salience  $\sigma$  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 aligned voters' propensity to vote for an extreme co-partisan candidate.*

We now turn to extreme aligned voters. For extreme aligned voters, there is no tradeoff between issues 1 and 2. Therefore, they always vote for the co-partisan candidate.

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

**Hypothesis 2 (No effect on extreme aligned voters.)** *Gridlock does not change extreme aligned voters' propensity to vote for an extreme or moderate co-partisan candidate.*

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

**Hypothesis 3 (Moderate aligned voters and moderate candidates.)** *Gridlock does not change moderate aligned voters' propensity to vote for a moderate co-partisan candidate. Furthermore, moderate aligned 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 aligned voters, as gridlock intensifies ( $g$  increases), more moderate aligned voters choose an extreme co-partisan ( $\sigma_a(g)$  increases).

We conclude this subsection 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: gridlock may cause a moderate aligned voter to obtain higher utility from an extreme rather than moderate co-partisan.<sup>19</sup> In contrast, in our framework, a moderate aligned voter always obtains higher utility from a moderate rather than extreme co-partisan. In Section 4.1.1, we show evidence suggesting

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<sup>19</sup>This does *not* contradict the second prediction in Hypothesis 3: a moderate aligned voter always chooses a moderate co-partisan candidate over the opponent for any level of salience of issue 2.

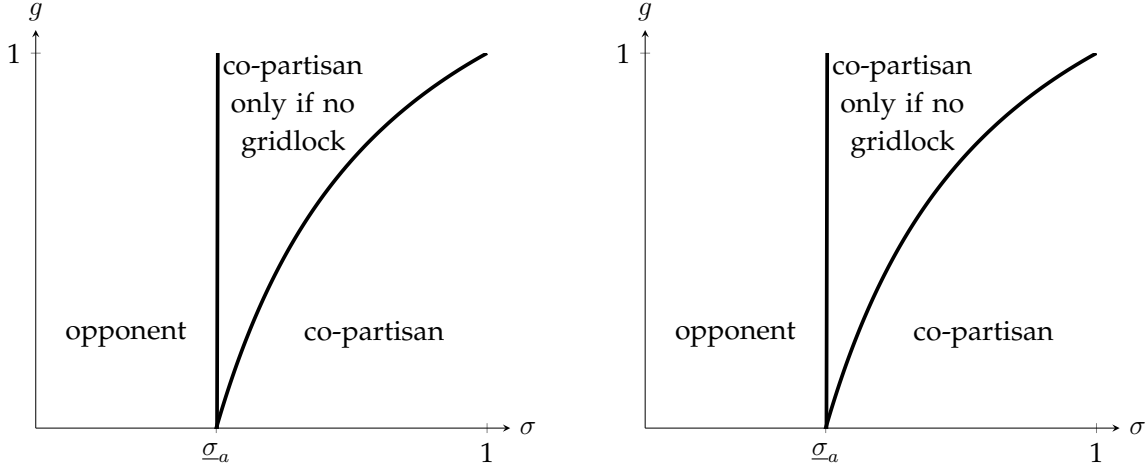
that the behavior of moderate aligned voters is consistent with our framework and—on average—is inconsistent with the distinct implication that can arise from this alternative conception of gridlock.

Another alternative conception of gridlock is that gridlock *differentially* affects the probability of extreme and moderate proposals being enacted. In particular, gridlock may be conceived as reducing the probability of extreme proposals being enacted but not reducing (or reducing less) the probability of moderate proposals being enacted. For moderate aligned voters, this conception of gridlock does not deliver any alternative hypotheses. However, for extreme aligned voters and when this differential effect is large, there is a distinct implication: an extreme aligned voter obtains higher utility from having a moderate rather than extreme co-partisan elected. In contrast, in our framework, an extreme aligned voter always obtains higher utility from electing an extreme rather than moderate co-partisan. In Section 4.1.1, we show evidence suggesting that the behavior of extreme aligned voters is consistent with our framework and (on average) is inconsistent with this distinct implication.

## 2.2 Misaligned voters and the moderating effect of gridlock

We now study the behavior of misaligned voters, beginning with moderate voters. It is easy to see that a moderate misaligned voter with very low salience on issue 2 (low  $\sigma$ ) bases his choice on the party line (issue 1). Therefore, he always chooses the opponent because the only reason for his partisanship is issue 2—the voter otherwise prefers the platform of the opponent. However, a moderate misaligned voter with higher salience will sometimes have to trade off issue 1 for issue 2: when the co-partisan candidate's platform is moderate. In particular, if  $\sigma$  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 3 characterizes this threshold for a moderate misaligned voter. Figure 2a provides illustration of Proposition 3 for the case where a moderate misaligned voter must choose between a moderate co-partisan and an opponent.

**Proposition 3 (Moderate misaligned voters.)** *A moderate misaligned voter never chooses an extreme 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 misaligned voter never chooses a moderate co-partisan candidate; for  $\underline{\sigma}_m < \sigma < \underline{\sigma}_m(g)$ , he chooses a moderate co-partisan candidate if and only if issue 2 is not gridlocked; for  $\sigma > \underline{\sigma}_m(g)$ , he always chooses a moderate co-partisan candidate.*



(a) Moderate misaligned voter's choice between moderate co-partisan and opponent. Parameter values:  $u_1(p^o) - u_1(p^c) = 0.5$ ,  $u_2(m) - u_2(o) = 0.75$ .

(b) Extreme misaligned voter's choice between moderate or extreme co-partisan and opponent. Parameter values:  $u_1(p^o) - u_1(p^c) = 0.5$ ,  $u_2(p_2) - u_2(o) = 0.75$ .

Figure 2: Illustration of Propositions 3 and 4.

Intuitively, a moderate misaligned voter is a supporter of the opponent if it were not for issue 2. When the co-partisan candidate's platform on issue 2 is extreme, the voter's choice is immediate: he never chooses the extreme co-partisan. However, when choosing between an opponent and a moderate 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 2 but induces a lower utility on issue 1 because the voter is misaligned. Therefore, he chooses to vote for the co-partisan only if issue 2 is sufficiently salient to him. However, if issue 2 is gridlocked, the voter anticipates a lower probability that the co-partisan is able to enact their moderate platform on issue 2 and, hence, the salience threshold required for the voter to choose the co-partisan is higher. Therefore, our framework predicts that: gridlock does not change moderate misaligned voters' propensity to vote for extreme co-partisan candidates; however, it decreases their propensity to vote for a moderate co-partisan candidate. Hence, whether gridlock has a polarizing or moderating effect depends on whether the opponent's platform  $o$  or the co-partisan platform  $m$  on issue 2 is more or less moderate.

We now turn to extreme misaligned voters. For any platform of the co-partisan,  $m$  or  $e$ , an extreme misaligned voter must trade off issue 1 for issue 2: on issue 2, he prefers the co-partisan's position but, on issue 1, he prefers the opponent. Therefore, he chooses the co-partisan only if the salience of issue 2 is sufficiently high, and this threshold is strictly higher if issue 2 is gridlocked.



**Proposition 4 (Extreme misaligned voters.)** *Given a co-partisan candidate with platform  $p_2 \in \{m, e\}$ , there exist  $\underline{\sigma}_{e,p_2}$  and  $\underline{\sigma}_{e,p_2}(g) > \underline{\sigma}_{e,p_2}$  such that, for  $\sigma < \underline{\sigma}_{e,p_2}$ , an extreme misaligned voter never chooses the co-partisan candidate; for  $\underline{\sigma}_{e,p_2} < \sigma < \underline{\sigma}_{e,p_2}(g)$ , he chooses the co-partisan candidate if and only if issue 2 is not gridlocked; for  $\sigma > \underline{\sigma}_{e,p_2}(g)$ , he always chooses the co-partisan candidate.*

Proposition 4 suggests a possibly moderating effect of gridlock. On the one hand, when faced with an extreme co-partisan, an extreme misaligned voter is more likely to choose the opponent if issue 2 is gridlocked. On the other hand, when faced with a moderate co-partisan, the effect is ambiguous and depends on whether the opponent's position  $o$  on issue 2 is more or less moderate than the co-partisan's moderate position  $m$ . If the opponent's position  $o$  is more moderate, then gridlock has a moderating effect; otherwise, gridlock has a polarizing effect. Figure 2b provides illustration of Proposition 4 for the case where an extreme misaligned voter must choose between a moderate or extreme co-partisan and an opponent.

Proposition 4 yields the following hypotheses.

**Hypothesis 4 (Moderating effect of gridlock.)** *Gridlock decreases extreme misaligned voters' propensity to vote for an extreme co-partisan candidate.*

**Hypothesis 5 (Ambiguous effect of gridlock.)** *Gridlock decreases extreme misaligned voters' propensity to vote for a moderate co-partisan candidate.*

Our experiment (and preregistration) were not designed with the above hypotheses in mind. Nonetheless, our design is flexible enough to provide a preliminary and suggestive investigation into the possible moderating effect of gridlock. We present these results in Section 4.2.

## 2.3 Empirical relevance of differing effects of gridlock

Our theoretical framework illustrates different effects of gridlock depending on whether voters are broadly aligned with a single party across most policy issue and whether they hold moderate policy preferences on gridlocked issues. In our model, gridlock has a polarizing effect when voters are broadly aligned with a single party ("aligned voters") and hold moderate policy preferences. In contrast, gridlock has a moderating effect when voters are not broadly aligned with a single party ("misaligned voters") and hold extreme policy preferences. Thus, the relative empirical relevance of each effect of gridlock depends on whether voters are largely aligned and hold moderate policy preferences or, instead,

misaligned and hold extreme policy preferences. These preconditions resonate with the literature and suggest that the polarizing effect may be more empirically relevant.

**Moderate and extreme voters.** We discussed at the beginning of Section 1 that, while there is still some debate, the “emerging consensus” is that, in the past decades, U.S. voters’ policy preferences have remained largely moderate while Congress members have polarized. Therefore, the analysis of our model for the case of moderate voters is more likely to provide insights into the questions and puzzles spurred by this consensus. We now focus on the literature that explores whether, in the same context, voters are broadly aligned with a single party.

**Aligned and misaligned voters.** A well-documented trend in American politics since the 1970s is *partisan sorting*: the increasing tendency for voters to sort themselves into parties that they agree with across most policy issues (Baldassarri and Gelman, 2008; Levendusky, 2009).<sup>20</sup> This process may be underscored by either an ideology-driven mechanism, whereby voters switch their party identification to achieve a match that better fits their ideology, or party-driven, whereby voters adopt the policy positions of the party they identify with (Levendusky, 2009; McCarty, 2019). In either case, partisan sorting suggests that voters are likely to be broadly aligned with a single party across most policy issues. Indeed, survey evidence from the Pew Research Center (2016) supports the view that most voters are aligned partisans: “about seven-in-ten Republicans (71%) and Democrats (70%) say they generally agree with their party’s position almost always or more than half the time.” Therefore, according to this literature, in the context of 21<sup>st</sup> century U.S., our analysis of the case of moderate aligned voter seems to be the most empirically relevant.

Despite the prevalence of aligned voters, there are many reasons for and occurrences of voters whose preference do not align well with a single party. First, periods of political realignment may cause greater incongruence between party platforms and voter preferences across different policy issues (as in the U.S. in the mid-19<sup>th</sup> and mid-20<sup>th</sup> centuries). Second, voters with intense preferences on a single policy issue (“single-issue voters”) may be willing to side with a party who aligns with their preference on this issue even if they otherwise would not support the party (Hill, 2022). Finally, some voters may simply

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<sup>20</sup>A related and long-running debate in the literature is whether voters’ preferences across different policy issues are well-explained by a single ideology (Converse, 2006). Although the literature is mixed (see, e.g., Broockman, 2016; McCarty, 2019), recent work by Fowler et al. (2022) estimates that more than 7 in 10 Americans hold preferences across a range of policy issues that are consistent with a one-dimensional spatial model of ideology à la Downs (1957).

have an “idiosyncratic mix of liberal and conservative” preferences that does not align well with any party (Broockman, 2016; Zaller, 2004).<sup>21</sup> While the majority of voters may be aligned and moderate, it is possible that the effects of gridlock on voting behavior may systematically materialize with greater intensity on single-issue or idiosyncratic extreme voters, so that, in total, gridlock may contribute to reduce elite polarization. Therefore, while we see the polarizing effect of gridlock to be relatively more empirically relevant in modern U.S. politics, the relative importance of differing effects of gridlock may change in time, across geographical contexts, and even across different groups of voters.

### 3 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 self-identified partisan subjects.

**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

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<sup>21</sup>Fowler et al. (2022) argue against this perspective (see also Footnote 20).

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 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.

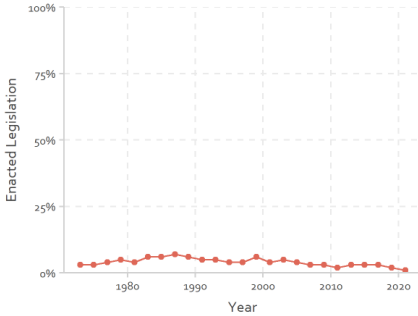
**Treatment and placebo conditions.** Subjects are randomly assigned to be in either the treatment or placebo condition of their assigned block. Figure 3a and 3b illustrate the Republican block’s treatment and the Democratic block’s treatment, respectively. The treatment condition for subjects in the 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 describes the distribution of Winter 2022 Team USA members across states (illustrated in Appendix B.1). Following Stantcheva (2023), the placebo condition was intentionally designed to present subjects with information that is neutral and unrelated to the legislative process and politics.<sup>22</sup>

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<sup>22</sup>One concern with using a placebo condition that is unrelated to politics is that it may induce confusion among subjects. If this confusion results in additional noise (that is not systematically biased in one direction), then this will simply lead to less precise estimates and, hence, is not an issue for the treatment effects that we find. In any case, we do not find evidence of untreated subjects being confused. In open text questions, subjects did not reference information related to the placebo condition. Furthermore, among subjects who progressed to the treatment stage of the survey, we do not find statistically significant differences in the completion rate of treated and untreated subjects, which are high in both cases: 97.3% and 96.9%, respectively.

Members of the Republican party have often tried to achieve large cuts in the funding for the Environmental Protection Agency (EPA). They have repeatedly proposed a 31 percent budget cut. But every attempt has failed to become law.

In general, most policies proposed in Congress fail to become law. As shown below, in the most recent session, less than 1% of proposed policies become law.



(a) Republican block treatment

Members of the Democratic party have often tried to achieve large increases in the federal minimum wage. They have repeatedly proposed a \$15 minimum wage, which is more than double the current minimum wage. But every attempt has failed to become law.

In general, most policies proposed in Congress fail to become law. As shown below, in the most recent session, less than 1% of proposed policies become law.



(b) Democratic block treatment

Figure 3: Treatment conditions.

**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 (6) possible responses for subjects include: Certainly, Extremely likely, Likely, Unlikely, Extremely unlikely, and Impossible. For details, see Appendix B.3. In our analysis, we linearly transform subjects' responses from the 6-point scale to values between 0 and 1, with 0 corresponding to "Impossible" and 1 corresponding to "Certainly." 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.<sup>23</sup>

**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 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

<sup>23</sup>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.

	Candidate 1	Candidate 2
<b>Party</b>	Republican	Democrat
<b>Positions</b>	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
<b>Party</b>	Republican	Democrat
<b>Positions</b>	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 4: Example of candidate-choice task.

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.<sup>24</sup> 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 4a and 4b 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 4, 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

<sup>24</sup>This corresponds to the special case of our model where  $o = q$ . Recall that in interpreting the model we implicitly assumed that the opponent held a moderate position on issue 2 (i.e.,  $o$  is “close” to  $q$  and  $m$ ). Thus, switching from voting for the opponent to voting for an extreme co-partisan can naturally be interpreted as having a polarizing effect; conversely, switching from voting from an extreme co-partisan to voting for an opponent has a moderating effect.



choice allows us to measure a subjects' *propensity to vote* for a co-partisan candidate. In our analysis, the binary variables (vote choice and turn out) are transformed into 0-1 variables, with 1 corresponding to the subject voting for their co-partisan candidate (for the vote choice variable) and stating that they would vote in this election (for the turn out variable). For likelihood to vote for each candidate, we linearly transform subjects' responses from the 5-point scale to values between 0 and 1, with 0 corresponding to certain to vote for the opponent and 1 corresponding to certain to vote for the co-partisan candidate.

### 3.1 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.<sup>25</sup> The second wave was fielded in May 2023, with  $N = 3\,309$  subjects. In total, we collected data from 8\,774 subjects.<sup>26, 27</sup> For all waves, the survey link was distributed by *Bilendi & Respondi* to a nationally representative panel of respondents.<sup>28</sup> Participation in the survey was voluntary and required subjects to confirm that they were a U.S. citizen and over the age of 18. Our survey experiment and analysis for Section 4.1 was preregistered (see Appendix B for additional survey details and a link to the preregistration plan). The analysis in Section 4.2 was not preregistered and, as such, should only be viewed as explorative analysis.

Our dataset is representative on the basis of age, gender, and state of residence (see Appendix C for descriptive statistics of our subjects). Of the 8\,774 subjects, 3\,637 self-

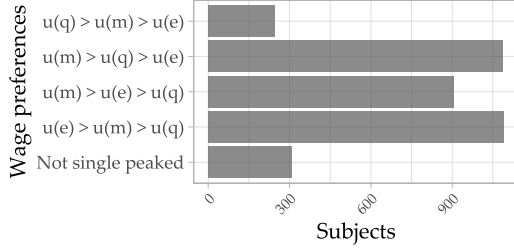
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<sup>25</sup>As planned in our preregistration, this includes subjects from a small-scale pilot study ( $N = 311$ ) fielded in September 2022. There was no change to the survey design or hypotheses as a result of the pilot study. For completeness, the results from our first wave (including subjects from the pilot study) are provided in Appendix F. The results from the first wave are similar to those of the full sample but are less precisely estimated.

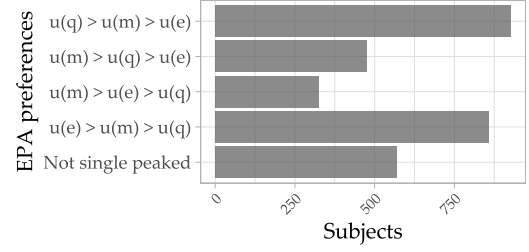
<sup>26</sup>As stated in our preregistration, our analysis always includes all subjects who answered the relevant question, even if they did not complete the entire survey. Therefore, the sample sizes we report in tables are typically smaller than the sample sizes mentioned above. Furthermore, these sample sizes vary between different specifications and analyses.

<sup>27</sup>The second wave was fielded because fewer than expected self-identified partisans selected a moderate policy order in the first wave. The number of moderate respondents was below the sample size threshold we assumed when running our power analysis. To achieve sufficient power for our analysis, we fielded the second wave aiming to obtain another 3\,000 subjects. We also added a 50% quota for Republican and Democrat subject to ensure that the additional data led to a sufficient sample size for self-identified Democrats and Republicans. In the second wave, we also reduced the survey questions to only the variables that were specified in our preregistration analysis.

<sup>28</sup>*Bilendi & Respondi* is a commercial survey company with ISO 20252:2019 certification. *Bilendi & Respondi* maintains a large panel of potential subjects with ongoing management and monitoring for quality assurance. Subjects' recruitment into our survey and compensation were handled by *Bilendi & Respondi*; the data was collected and stored in adherence to the EU GDPR (General Data Protection Regulation) guidelines and United States regulation laws. For more general information about the recruitment and quality assurance methods of commercial survey companies, see Supplemental Appendix A-1.2 of [Stantcheva \(2023\)](#).



(a) Democratic subjects and federal minimum wage



(b) Republican subjects and EPA funding

Figure 5: Distribution of policy preferences for treated policy issues. For each sample, we report the number of subjects with each of the four single-peaked possible preferences with respect to the three policy positions: extreme,  $e$ ; moderate,  $m$ ; status quo,  $q$ ; and the proportion of subjects with non-single-peaked preferences.

identified as Democrats and 3 154 self-identified as Republicans (see Figure C.1).<sup>29</sup> For the remainder of the paper, we restrict attention to *self-identified partisan* subjects: who responded “Democrat” or “Republican” to the partisan learning question (“Generally speaking, do you think of yourself as a ...?”). This restriction means that subjects in the Republican block (resp., Democratic block) correspond precisely to self-identifying Republicans (resp., Democrats). In turn, our candidate-choice tasks naturally mirror the settings from which we derived our hypotheses in Section 2: a voter must choose between supporting a co-partisan candidate or an opposition party candidate.

We categorize subjects in the Republican block and Democratic block in terms of their stated policy preference for a given policy issue. Using the terminology introduced in Section 2, given a policy issue, a *moderate* subject’s preference ordering (from most to least preferred) of the policy positions is: moderate, status quo, extreme; *extreme* subject’s preference ordering of the policy positions is: extreme, moderate, status quo or moderate, extreme, status quo. Figure 5 illustrates the distribution of subjects’ policy preferences over the treated policy issue, including non-single peaked preferences.<sup>30</sup> For the Democratic block, 1 085 subjects have moderate preferences over the federal minimum wage, i.e.,  $u_2(m) > u_2(q) > u_2(e)$ . 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 prefer the status quo policy over the extreme policy on the treated policy issue.<sup>31</sup> Moreover, a large supermajority of subjects (66.9% of Democratic

<sup>29</sup>In the second wave, subjects who did not self-identify as a Democrat or Republican were screened out of the survey.

<sup>30</sup>A non-single peaked preference implies that the subject ranked the moderate policy lower than both the status quo and extreme policies.

<sup>31</sup>Although our theory focuses on moderate voters, as defined above, it can also make sense to combine

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

Figure 5 also highlights differences between our sample of Republican and Democrat subjects. For their respective treated policy issue, Republican subjects are more likely to hold preferences  $u_2(q) > u_2(m) > u_2(e)$ , less likely to hold preferences  $u_2(m) > u_2(e) > u_2(q)$ , and more likely to hold non-single-peaked preferences. These differences do not affect our analysis since we analyze each partisan block of subjects separately. However, it is worth noting that the differences in Figure 5 are not directly comparable and may not result from fundamental differences preferences between Republicans and Democrats. For example, the differences may arise simply from the specific policy positions that we presented subjects with. As such, we refrain from over-interpreting the differences in Figure 5 (and similarly for partisan differences in our experimental analysis).

## 4 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 will cause subjects to believe that policy change is less likely and, among moderate, self-identified partisan subjects, support extreme co-partisan candidates more. We then verify that our experimental data is consistent with all of our hypotheses from Section 2. All omitted regression tables from the main text are in Appendix D.

Before turning to the tests of our theoretical hypotheses, we first verify that indeed our treatment works as intended: it induces subjects to believe that policy change is less likely. Figure 6 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

$$y_s = \alpha + \beta T_s + \varepsilon_s, \quad (3)$$

where  $y_s$  is subject  $s$ ’s response to the enactment likelihood and  $T_s$  is the treatment variable

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voters who hold moderate preferences with those that have preferences  $u_2(q) > u_2(m) > u_2(e)$  and consider this larger group as the set of “moderate” voters. Indeed, the key prediction of our theory for aligned voters applies to both of these preferences.

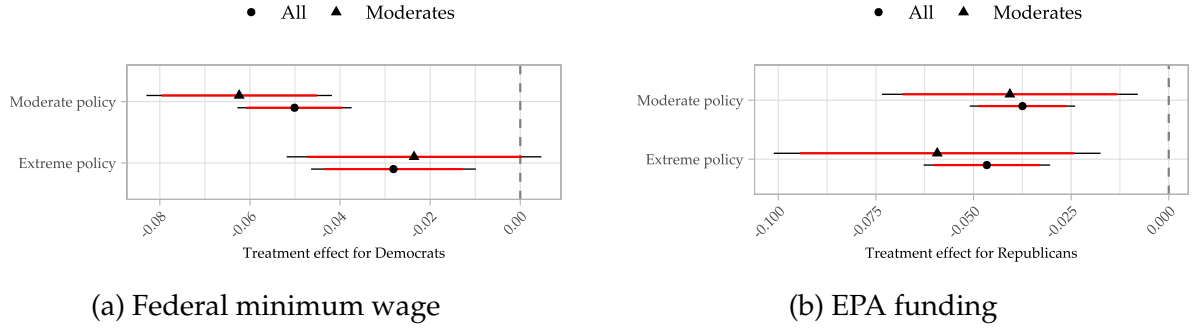


Figure 6: Treatment effect on enactment likelihood for treated policy. For each sample and subsample of moderate, self-identified partisan subjects, and each extreme and moderate policy in the respective treated policy issue, we plot the estimated treatment effect in (3), with 90% and 95% confidence intervals. The dependent variable is responses to how likely the policy position is to pass if their district’s representative promises it (see Section 3 for details).

(Tables 1 and 2).<sup>32</sup> When treated, both Democrat and Republican subjects are less likely to believe that moderate and extreme policy positions will be enacted. For moderate Democrats, we estimate  $\beta$  to be  $-.062$  ( $p$ -value .000) for the moderate position and  $-.024$  ( $p$ -value .102) for the extreme position. For moderate Republicans, the equivalent estimates are  $-.041$  ( $p$ -value .015) and  $-.059$  ( $p$ -value .006). For the whole sample of Democrats and the whole sample of Republicans, the estimates are similar and more precisely estimated (see tables).

#### 4.1 From gridlock to polarization (Hypothesis 1)

We now show our main result: among moderate, self-identified partisan subjects, the treatment increases subjects’ decision to support co-partisan candidates who hold extreme positions on the treated policy issue. Figure 7 reports moderate, self-identified partisan 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 untreated subjects. Specifically, for each partisan group and restricting the sample to self-identified partisan subjects  $s$  who have moderate preferences

<sup>32</sup>We estimate (3) with robust standard errors.

<i>Dependent variable: Enactment likelihood</i>				
	Sample: Moderate		Sample: All	
	Moderate: Wage	Extreme: Wage	Moderate: Wage	Extreme: Wage
Intercept	0.630*** (0.007)	0.230*** (0.011)	0.627*** (0.005)	0.331*** (0.007)
Gridlock	-0.062*** (0.010)	-0.024 (0.014)	-0.050*** (0.006)	-0.028*** (0.009)
R <sup>2</sup>	0.032	0.003	0.017	0.003
Adj. R <sup>2</sup>	0.031	0.002	0.017	0.002
N Subjects	1064	1064	3472	3472

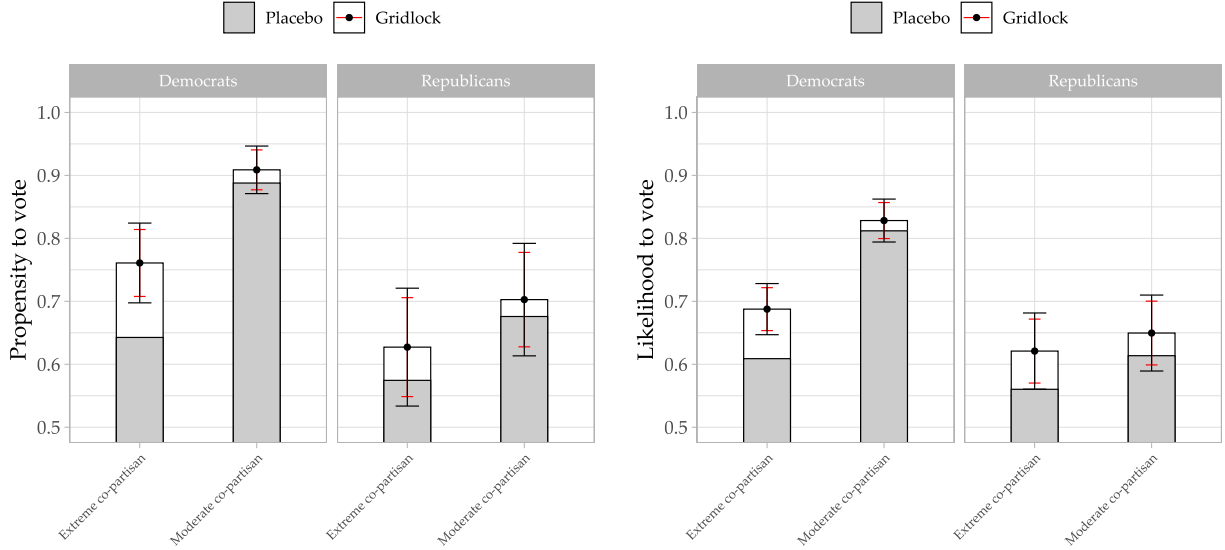
\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table 1: Treatment effect estimates of (3) on enactment likelihood for Democratic subjects. Robust standard errors in parenthesis. The dependent variable is responses to how likely the policy position is to pass if their district's representative promises it (see Section 3 for details).

<i>Dependent variable: Enactment likelihood</i>				
	Sample: Moderate		Sample: All	
	Moderate: EPA	Extreme: EPA	Moderate: EPA	Extreme: EPA
Intercept	0.559*** (0.011)	0.438*** (0.015)	0.544*** (0.005)	0.463*** (0.006)
Gridlock	-0.041** (0.017)	-0.059*** (0.021)	-0.037*** (0.007)	-0.047*** (0.008)
R <sup>2</sup>	0.013	0.016	0.010	0.010
Adj. R <sup>2</sup>	0.010	0.014	0.009	0.010
N Subjects	466	466	2998	2998

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table 2: Treatment effect estimates of (3) on enactment likelihood for Republican subjects. Robust standard errors in parenthesis. The dependent variable is responses to how likely the policy position is to pass if their district's representative promises it (see Section 3 for details).



(a) Propensity to vote for co-partisan

(b) Likelihood to vote for co-partisan

Figure 7: Moderate, self-identified partisan 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 by (4) in Table D.1) centered at the mean response of treated subjects. Treated policy issue only. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

on the treated issue, we estimate

$$y_{c,s} = \alpha + \beta T_s + \varepsilon_{c,s} \quad (4)$$

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.1).<sup>33</sup>

Our key prediction (per Hypothesis 1) is that, when restricting to the set of choices where the co-partisan holds an extreme position of the treated issue,  $\beta$  is positive. Our conceptual framework presented in Section 2 clarifies that this prediction holds when voters are moderate and aligned. Accordingly, our empirical strategy restricts attention to subjects who hold moderate preferences on the treated issue. Following the approach laid out in our preregistration, a subject's self-identified partisanship is taken to signify that they are broadly aligned with a single party.<sup>34,35</sup> Returning to our regression (4), for

<sup>33</sup>When estimating (4), we cluster robust standard errors at the subject level.

<sup>34</sup>If a subject's self-identified partisanship is only imperfectly correlated with them being aligned, then our conceptual work suggests that our estimates will underestimate the true effect (see Proposition 3).

<sup>35</sup>We adopt this same approach in Section 4.1.1. Later in Section 4.2, we explore a further restriction of our



Democrats, we estimate  $\beta$  to be .118 ( $p$ -value .000) for the propensity to vote and .079 ( $p$ -value .000) for the likelihood of voting. For Republicans, the equivalent estimates are .053 ( $p$ -value .270) and .061 ( $p$ -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).

It is tempting to interpret the differences between our estimates for Republican and Democrat subjects in Table D.1 (and also Figure 7) as evidence of partisan differences. However, we stress that our estimates between Republican and Democrat subjects are not directly comparable for at least 3 reasons. First, in our candidate-choice tasks, Republican and Democrat subjects face candidates who hold different policy positions on different policy issues. Second, there is no common (or natural) scale to measure the level of extremism across different policy issues. Third, the treatment conditions provided to Republican and Democrat subjects (Figure 3a and 3b) are similar but not exactly identical; hence, it is possible that treatment “intensity” varies across the partisan groups.

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.2). We obtain results that are similar to those based solely on the propensity to vote.

#### 4.1.1 Exploring the mechanism

In Section 2, we proposed a specific mechanism to causally link gridlock to polarization: voters discount extremism. In formalizing this idea, we derived a number of precise hypotheses beyond the main result that gridlock induces moderate aligned voters to vote for co-partisan candidates who hold extreme positions on gridlocked issues. Focusing on self-identified partisan subjects, we now show that our experimental evidence agrees with the patterns predicted by our model for aligned voters and is, therefore, consistent with

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subjects to those that may plausibly (or more likely to) be misaligned with the party they identified with.

our mechanism. In doing so, we discuss how other mechanisms—which differ in their predictions—are less likely to underlie our main result.

**Extreme aligned voters (Hypothesis 2 and other conceptualizations of gridlock).** 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 subjects—to increase their support for extreme co-partisan candidates. In fact, our model predicts that extreme aligned voters who are treated should not change their propensity to vote for extreme co-partisan candidates (or moderate co-partisan candidates). We now show that our data is consistent with our model. Specifically, we estimate (4), restricting the sample to self-identified partisan 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.3). For the propensity to vote for extreme co-partisan candidates, we estimate  $\beta$  to equal  $-.007$  ( $p$ -value  $.605$ ) for Democratic subjects and  $.022$  ( $p$ -value  $.424$ ) for Republican subjects. For the likelihood of voting, the corresponding estimates are  $-.004$  ( $p$ -value  $.742$ ) and  $.021$  ( $p$ -value  $.271$ ) for Democratic and Republican subjects, respectively. We repeat the same analyses for subjects’ support for moderate co-partisans (Table D.4). For propensity to vote, we estimate  $\beta$  to equal  $-.011$  ( $p$ -value  $.325$ ) for Democratic subjects and  $.018$  ( $p$ -value  $.485$ ) for Republican subjects. For the likelihood of voting, the corresponding estimates are  $-.018$  ( $p$ -value  $.12$ ) and  $-.009$  ( $p$ -value  $.615$ ) for Democratic and Republican subjects, respectively.

These results demonstrate, as in our model for extreme aligned voters, that gridlock does not increase extreme, self-identified partisan subjects’ support for extreme (or moderate) co-partisans. However, these results should perhaps be interpreted with caution because of possible ceiling effects: the high level of baseline support of extreme self-identified partisan subjects for co-partisan candidates (particularly among Democratic subjects) may reduce our ability to detect small treatment effects. For these reasons, a logit specification may be more appropriate. In Table D.5 in Appendix D, we present estimates from logit regressions that include an interaction term with the treatment and a subject’s preferences (moderate or extreme). These estimates are consistent with our results presented earlier: the coefficient on the singular gridlock (treatment) term is not statistically significant.

Our theory is built upon a specific conceptualization of gridlock. In contrast (and as mentioned at the end of Subsection 2.1), an alternative conception may conceive gridlock as disproportionately decreasing the probability of extreme proposals being enacted. When this differential effect is large, this conceptualization predicts that extreme aligned voters

will obtain higher utility from a moderate rather than extreme co-partisan when faced with gridlock. Accordingly, in our experiment, this suggests that treated extreme self-identified partisan subjects will: vote more often for a moderate co-partisan over the opponent compared to how often they vote for an extreme co-partisan over the opponent,<sup>36</sup> and vote for a moderate co-partisan more often than if they were untreated. In contrast, our theory predicts that treated and untreated extreme self-identified partisan subjects will vote for the co-partisan over the opponent at the same rate, and there will be no treatment effect. Our experimental evidence in Tables D.3 and D.4 is consistent with our theory’s predictions and inconsistent with this alternative conception of gridlock.

**Moderate aligned voters and moderate candidates (Hypothesis 3).** 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 aligned 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 aligned 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 self-identified partisan 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.1). For the propensity to vote, we estimate  $\beta$  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 .016 ( $p$ -value .347) for Democratic subjects and .036 ( $p$ -value .243) for Republican subjects.<sup>37</sup>

**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, be 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 untreated issue), we ask both pre- and post-treatment questions on policy preferences.<sup>38</sup> Specifically, for each of these policy issues and each partisan group, and restricting the sample to self-identified partisan subjects who hold moderate pre-treatment

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<sup>36</sup>This prediction crucially relies on the fact that the opponent’s policy platform is randomized in our experiment and, hence, on average, the opponent is identical across candidate-choice tasks.

<sup>37</sup>In Table D.6 in Appendix D, we present estimates from logit regressions that include an interaction term with the treatment and a subject’s preferences (moderate or extreme). Consistent with our results presented above, the coefficients on the gridlock (treatment) term and the interaction term are not statistically significant.

<sup>38</sup>For both partisan groups, this untreated issue corresponds to gun control.

policy preferences on that issue, we estimate (3) with  $y_s$  equal to 1 if subject  $s$  holds an extreme post-treatment policy preference and 0 otherwise (Table D.7). For the treated issue, we estimate  $\beta$  to equal .028 ( $p$ -value .192) for Democratic subjects and .030 ( $p$ -value .407) for Republican subjects. For the untreated issue, we estimate  $\beta$  to equal .046 ( $p$ -value .505) for Democratic subjects and .023 ( $p$ -value .322) for Republican subjects. We therefore conclude that, as in our model, gridlock does not cause moderate self-identified subjects 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. This prediction can also arise from the alternative conception of gridlock (discussed in the penultimate paragraph of Subsection 2.1), whereby gridlock has a moderating effect on policy outcomes. In contrast, Figure 7 shows that moderate self-identified partisan 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 untreated subjects. These results are consistent with our model if some voters have salience  $\sigma < \underline{\sigma}_m$  and some voters have salience  $\sigma > \underline{\sigma}_m$ .

**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.<sup>39</sup> In Appendix E, we explore how our treatment effect spills over to self-identified subjects' support for co-partisans who hold extreme positions on other (untreated) policy issues. 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

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<sup>39</sup>Our conceptual framework naturally extends to a non-gridlocked policy issue 1 and  $n - 1$  (possibly gridlocked) issues with salience  $\sigma_i$  and gridlock intensity  $g_i$ ,  $i = 2, \dots, n - 1$ . Spillovers are present if gridlock is correlated across the  $n - 1$  issues.

almost every (untreated) policy issue (see Tables E.3).<sup>40</sup>

## 4.2 Moderating effect of gridlock (Hypotheses 4 and 5)

We now turn to the possibility that gridlock may have a moderating effect by reducing voters' propensity to vote for an extreme co-partisan. As formalized in Section 2.2, this moderating possibility only arises when voters hold extreme policy preferences and are not broadly aligned with a single party's platform. Our survey experiment and preregistered analysis were designed with a focus on voters who are broadly aligned with a single party—as analyzed theoretically in Section 2.1 and empirically in Section 4.1. Nonetheless, our survey design is flexible enough to provide a preliminary investigation of the moderating effect of gridlock. We emphasize, however, that the analysis presented in this section was not preregistered and should be viewed as explorative.

Our empirical approach to analyzing subjects who are potentially misaligned with their co-partisan candidate involves exploiting the second (untreated) policy issue that appears in the candidate-choice task. In particular, we continue to restrict attention to self-identified partisan subjects but further restrict the sample to those subjects who prefer the status quo (opponent) policy on the second (untreated) policy issues over their co-partisans' moderate or extreme position.<sup>41</sup> This additional restriction generates a tension similar to our definition of a misaligned voter in Section 2.2. For example, suppose a subject is a self-identified Democrat but, on the (untreated) policy issue, prefers the position of the Republican candidate in a given candidate-choice task. If the subject places a sufficiently high level of importance on this untreated policy issue, then—absent the treated issue (or equivalently, with sufficiently high gridlock)—the subject will prefer the Republican opponent over Democrat co-partisan. In the words of our theory, she is misaligned. However, because we can not be sure whether a subject places a sufficiently high level of importance on the untreated policy issue to be considered “misaligned”, this analysis is likely to underestimate the true effect and, hence, is only a preliminary test of the hypotheses.<sup>42</sup>

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<sup>40</sup>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 for co-partisan candidates who hold extreme positions is above 70% for all untreated 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%).

<sup>41</sup>Combined with the requirement of single-peaked preferences, this implies that the subject's preference from most-to-least preferred is: status quo, moderate, extreme.

<sup>42</sup>If our theoretical framework were adjusted such that some share of voters are misaligned and aligned, the same relationship between gridlock and voting for an extreme (or moderate) co-partisan is predicted — albeit the effect sizes would be predicted to be smaller. This follows because an extreme aligned voter

**Hypotheses 4 and 5.** Our model predicts that extreme misaligned voters who are treated will reduce their propensity to vote for extreme co-partisan candidates (Hypothesis 4) and moderate-co-partisan candidates (Hypothesis 5). In the former case, this would lead to a moderating effect of gridlock as extreme co-partisans are less likely to be elected when facing a moderate opponent. In the latter case, however, the implication of gridlock on polarization is ambiguous. Gridlock leads moderate co-partisans to be less likely elected when facing a moderate opponent. Thus, depending on whether the opponent’s position is more or less moderate relative to the co-partisans generates different implications for polarization.

While acknowledging the limitations of our experiment for testing these hypotheses, our data is “weakly” consistent with both predictions. We do not find any statistically significant treatment effect in either case.<sup>43</sup> However, for each prediction, across the two self-identified partisan groups and two measures of support, we estimate a negative treatment effect in all but one case. Specifically, we estimate (4), restricting the sample to self-identified partisan subjects who: hold extreme policy preferences on the treated issue, prefer the status quo on the untreated policy issue (recall Footnote 41), and face a candidate-choice task where the co-partisan holds an extreme policy position on the treated issue (Table D.8). For the propensity to vote for extreme co-partisan candidates, we estimate  $\beta$  to equal  $-.055$  ( $p$ -value .326) for Democratic subjects and  $-.017$  ( $p$ -value .73) for Republican subjects. For the likelihood of voting, the corresponding estimates are  $-.014$  ( $p$ -value .721) and  $.013$  ( $p$ -value .682) for Democratic subjects and Republican subjects, respectively. We repeat the same analyses for subjects’ support for moderate co-partisans (Table D.9). For propensity to vote, we estimate  $\beta$  to equal  $.036$  ( $p$ -value .472) for Democratic subjects and  $-.039$  ( $p$ -value .377) for Republican subjects. For the likelihood of voting, the corresponding estimates are  $-.030$  ( $p$ -value .405) and  $-.009$  ( $p$ -value .772) for Democratic subjects and Republican subjects, respectively.

Our null results may be explained by either a true null effect (which is consistent with our theory, see Footnote 43) or simply due to a lack of statistical power. Indeed, although the sample size for Republican subjects is similar to our main analysis (Table D.1), the sample size for Democratic subjects is much smaller—approximately one-fifth of the size. The lack of subjects who we are able to identify as plausibly misaligned subjects may be a limitation of our experimental design or a reflection that such constellations of

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always votes for an extreme (or moderate) co-partisan and there is no effect of gridlock (Proposition 2).

<sup>43</sup>For support of extreme co-partisans, our theory predicts a null effect if the distribution of salience parameters is such that most voters have  $\sigma > \underline{\sigma}_{e,p_2}(g)$  or  $\sigma < \underline{\sigma}_{e,p_2}$ . For support of moderate co-partisans, our theory predicts a null effect if the distribution of salience parameters is such that most voters have  $\sigma > \underline{\sigma}_m(g)$  or  $\sigma < \underline{\sigma}_m$ .



preferences are empirically rare. To disentangle these possible explanations and provide a more rigorous analyses of whether gridlock can have a moderating effect requires further investigation, which we leave to future research.

## 5 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 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 simple stylized theory of how gridlock on one policy issue may affect voters' propensity to vote for candidates who propose more or less extreme platforms. In particular, our theory allows us to establish (theoretical) causal mechanisms linking gridlock to elite polarization. We show that if—as likely prevalent in contemporary U.S. politics—voters hold moderate policy preferences and broadly align with their party's platform across policy issues, then gridlock may generate elite polarization: moderate aligned voters who believe that policy change is unlikely discount extremism and, because of this, support candidates who hold more extreme positions. However, our theoretical contribution is broader and highlights how gridlock may cause a broader decoupling between what voters want and what preferences are represented in Congress. In fact, we show that, if voters have extreme preferences on gridlocked issues and their preferences tend to be misaligned with their party's party platform across policy issues, then gridlock may in fact contribute to decrease elite polarization. Thus, despite its simplicity, our theory allows us to pin down the conditions under which gridlock should contribute to more or less elite polarization.

In practice, the possibility of gridlock causing polarization points toward a spiraling effect whereby polarization and gridlock feed into one another. However, it also casts a less pessimistic light over polarization. In our theory, moderate aligned 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.<sup>44</sup>

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 (Boxell et al., 2022; Diermeier and Li, 2023; 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 an electoral interest in highlighting gridlock to voters.<sup>45</sup> 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 possible tradeoff between low polarization and policy stability. Limiting the power of the majority or introducing more checks and balances brings about policy stability, but, when voters are moderate and aligned with parties' platforms, checks and balances may also induce 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 (Adams et al., 2012; Rehm and Reilly, 2010). 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.

Our theory and experimental evidence lend support to the possibility that legislative gridlock may contribute to elite polarization. However, our contribution should perhaps

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<sup>44</sup>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).

<sup>45</sup>Similarly to how, in Bueno de Mesquita and Dziuda (2023), politicians highlight the partisan nature of politics to engineer a long-run electoral advantage.

be viewed as a proof of concept. A more complete understanding of the relationship between gridlock and polarization requires further work. As highlighted in our theory, legislative gridlock may also have a moderating effect among voters who hold extreme policy preferences and do not broadly align with their party's platform on other policy issues. Our experiment provides some evidence of this moderating effect. The empirical relevance of these two competing effects likely depends on whether voters largely hold moderate policy preferences and align with their party's platform on most policy issues or, instead, hold extreme policy preferences and are not broadly aligned with their party's platform. Furthermore, our theory and experiment have abstracted from other important considerations that could distort our findings. For example, if there is a relationship between gridlock and polarization, then candidates may strategically adjust their policy platforms. Similarly, we did not focus on voters' dynamic concerns and the possibility that voters might anticipate that electing an extreme candidates may further exacerbate gridlock in future congresses. Further theoretical, experimental, and empirical research is needed to fill these important gaps.

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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

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

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

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

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

**Proof of Proposition 2.** Recall (A.1) and (A.2) within the proof of Proposition 1. For an extreme aligned 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 moderate misaligned voter and an extreme co-partisan (A.1) and (A.2) are never satisfied. For a moderate misaligned voter and a moderate co-partisan candidate, i.e.,  $p_2 = m$ , (A.1) is satisfied if and only if  $\sigma > \underline{\sigma}_m$ , where

$$\underline{\sigma}_m := \frac{u_1(p^o) - u_1(p^c)}{u_1(p^o) - u_1(p^c) + u_2(m) - u_2(o)},$$

and (A.2) is satisfied if and only if  $\sigma > \underline{\sigma}_m(g)$ , where

$$\underline{\sigma}_m(g) := \frac{u_1(p^o) - u_1(p^c)}{u_1(p^o) - u_1(p^c) + (1 - g)[u_2(m) - u_2(o)]}.$$

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

**Proof of Proposition 4.** Recall (A.1) and (A.2) within the proof of Proposition 1. For an extreme misaligned voter and a moderate or extreme co-partisan i.e.,  $p_2 \in \{m, e\}$ , (A.1) is satisfied if and only if  $\sigma > \underline{\sigma}_{e,p_2}$ , where

$$\underline{\sigma}_{e,p_2} := \frac{u_1(p^o) - u_1(p^c)}{u_1(p^o) - u_1(p^c) + u_2(p_2) - u_2(o)},$$

and (A.2) is satisfied if and only if  $\sigma > \underline{\sigma}_{e,p_2}(g)$ , where

$$\underline{\sigma}_{e,p_2}(g) := \frac{u_1(p^o) - u_1(p^c)}{u_1(p^o) - u_1(p^c) + (1 - g)[u_2(p_2) - u_2(o)]}.$$

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

## 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 a 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 preregistration plan can be found at

[https://osf.io/4re5x?view\\_only=c4d3efe17b28406fa22ffaabf676c80a](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.



## B.1 Placebo condition

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.

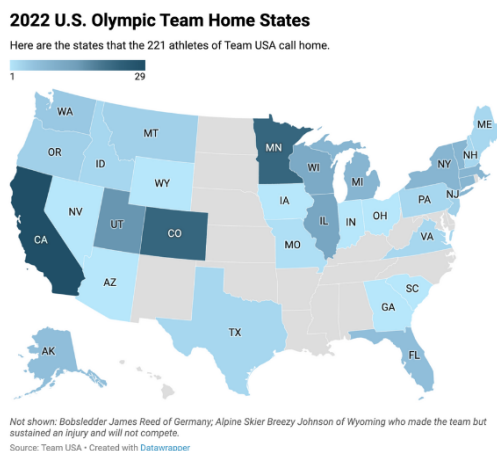


Figure B.1: Placebo condition for Republican and Democratic block.

## B.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 in 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 background 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
<i>Taxes</i>	<ul style="list-style-type: none"> <li>• A large decrease in the Corporate Income Tax rate that decreases the tax rate to 5%.</li> <li>• A small decrease the Corporate Income Tax rate that decreases the tax rate to 20%.</li> </ul>	<ul style="list-style-type: none"> <li>• No change. Leave the Corporate Income Tax at 21%.</li> </ul>
<i>Social security</i>	<ul style="list-style-type: none"> <li>• A large decrease in Social Security funding that reduces funding by 40% to \$660 billion.</li> <li>• A small decrease Social Security funding that reduces funding by 5% to \$1.045 trillion.</li> </ul>	<ul style="list-style-type: none"> <li>• No change. Leave the Social Security funding at \$1.1 trillion.</li> </ul>
<i>EPA</i>	<ul style="list-style-type: none"> <li>• A large decrease in Environmental Protection Agency (EPA) funding reducing funding by 35% to \$5.98 billion.</li> <li>• A small decrease in Environmental Protection Agency (EPA) funding reducing funding by 5% to \$8.74 billion.</li> </ul>	<ul style="list-style-type: none"> <li>• No change. Leave the Environmental Protection Agency (EPA) funding at \$9.2 trillion.</li> </ul>
<i>Gun Control</i>	<ul style="list-style-type: none"> <li>• People should be able to carry a loaded gun openly or concealed without a permit in all states.</li> <li>• All states should be required to recognize the gun-carrying permits issued by any other state.</li> </ul>	<ul style="list-style-type: none"> <li>• The current federal gun control laws should remain unchanged.</li> </ul>
<i>Abortion</i>	<ul style="list-style-type: none"> <li>• Abortion should be criminalized without exception.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• The current federal abortion law should remain unchanged.</li> </ul>

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
<i>Taxes</i>	<ul style="list-style-type: none"> <li>• A big increase in the Corporate Income Tax rate to 46%.</li> <li>• A small increase in the Corporate Income Tax rate to 30%.</li> </ul>	<ul style="list-style-type: none"> <li>• No change. Leave the Corporate Income Tax at 21%.</li> </ul>
<i>Wage</i>	<ul style="list-style-type: none"> <li>• A small increase in the federal minimum wage to \$10 per hour.</li> <li>• A big increase in the federal minimum wage to \$35 per hour.</li> </ul>	<ul style="list-style-type: none"> <li>• No change. Leave the federal minimum wage at \$7.25 per hour.</li> </ul>
<i>Vehicle</i>	<ul style="list-style-type: none"> <li>• The sale of gas-powered vehicles should be banned as soon as possible and by 2024 at the latest.</li> <li>• The sale of gas-powered vehicles should be banned by 2035.</li> </ul>	<ul style="list-style-type: none"> <li>• There should be no change to the federal gun control laws.</li> </ul>
<i>Gun Control</i>	<ul style="list-style-type: none"> <li>• All gun sales should require strict federal background checks and there should be a complete ban on the sale of assault weapons.</li> <li>• All gun sales should require strict federal background checks.</li> </ul>	<ul style="list-style-type: none"> <li>• There should be no change to the federal gun control laws.</li> </ul>
<i>Abortion</i>	<ul style="list-style-type: none"> <li>• Federal law should protect women's access and rights to abortion services.</li> <li>• Federal law should protect women's access and rights to abortion services. In addition, abortion services should be federally funded.</li> </ul>	<ul style="list-style-type: none"> <li>• There should be no change to the federal abortion law.</li> </ul>

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

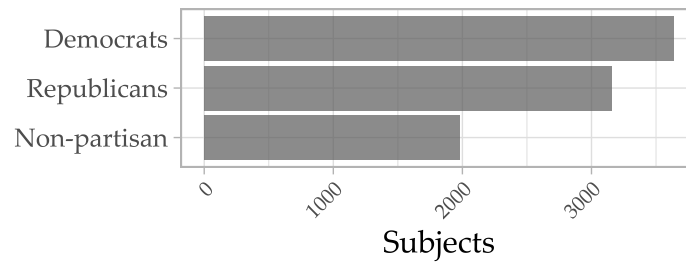


Figure C.1: Sample size of Democratic, Republican, and non (self-identifying) partisan subjects.

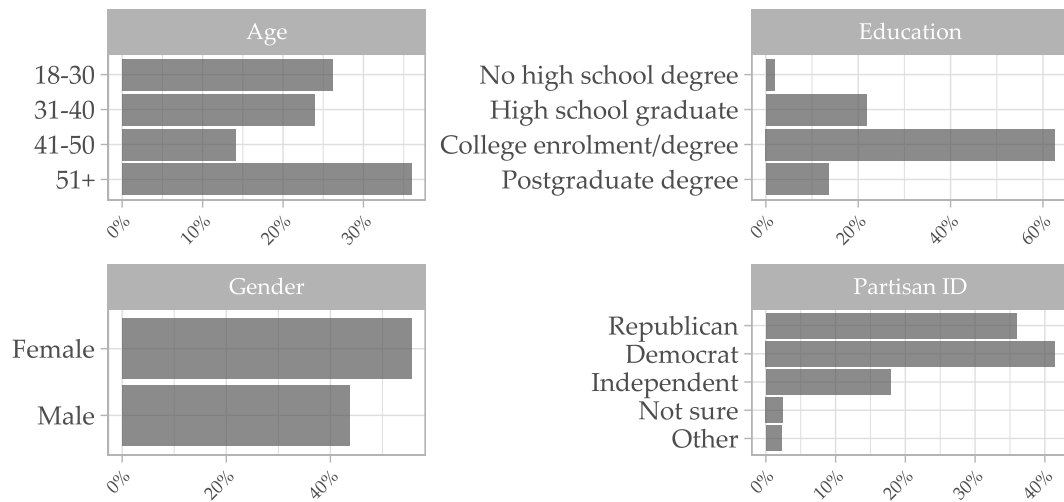


Figure C.2: Demographic and partisan summary statistics.

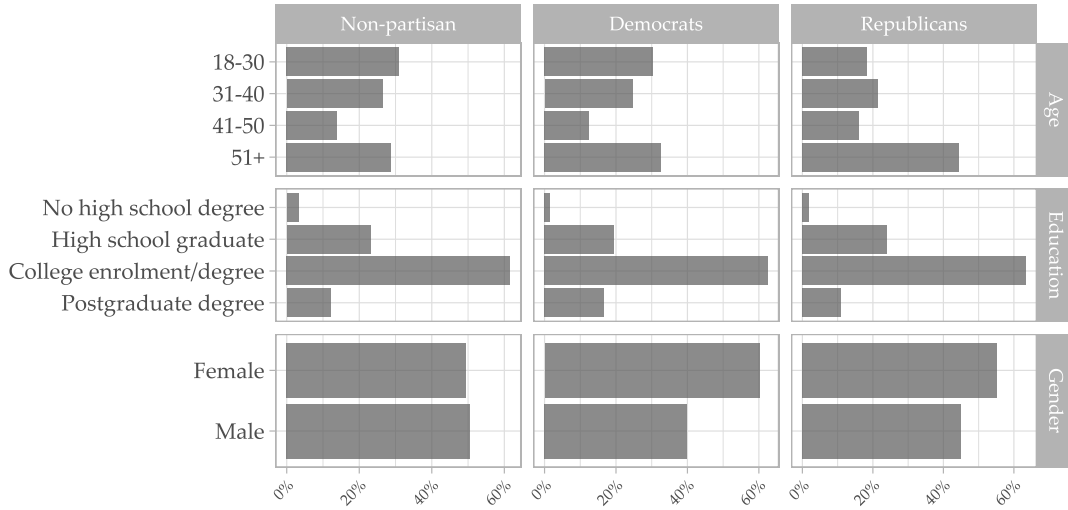


Figure C.3: Summary statistics by partisan affiliation.

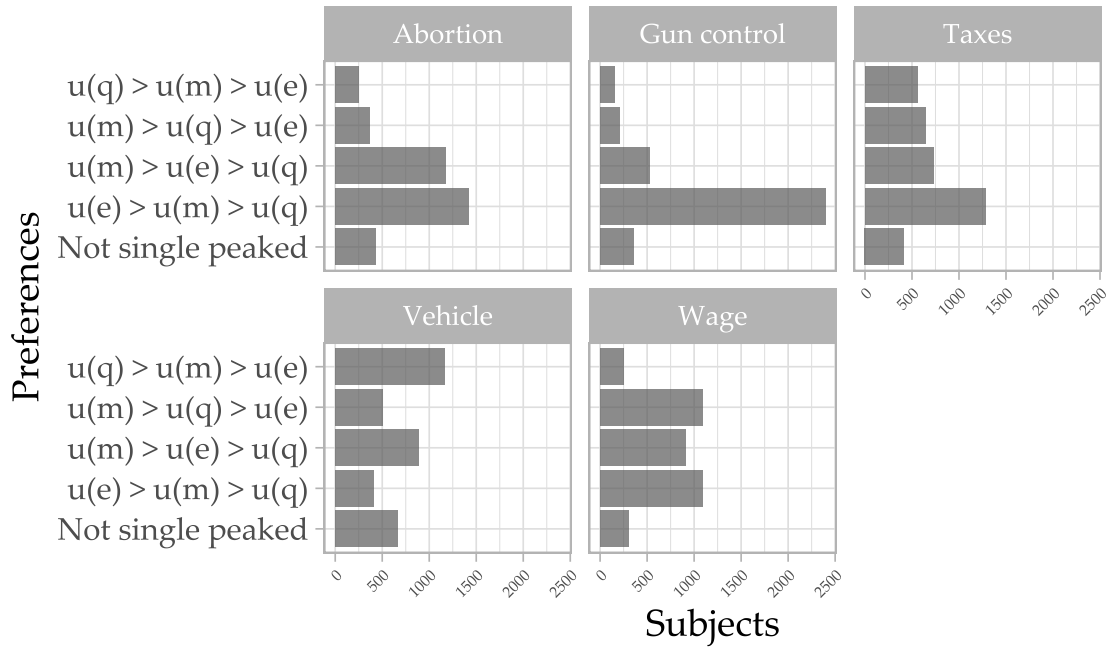


Figure C.4: Distribution of policy preferences among Democratic subjects. For each policy issue, we report the number of subjects with each of the four single-peaked possible preferences with respect to the three policy positions: extreme,  $e$ ; moderate,  $m$ ; status quo,  $q$ ; and the proportion of subjects with non-single-peaked preferences.

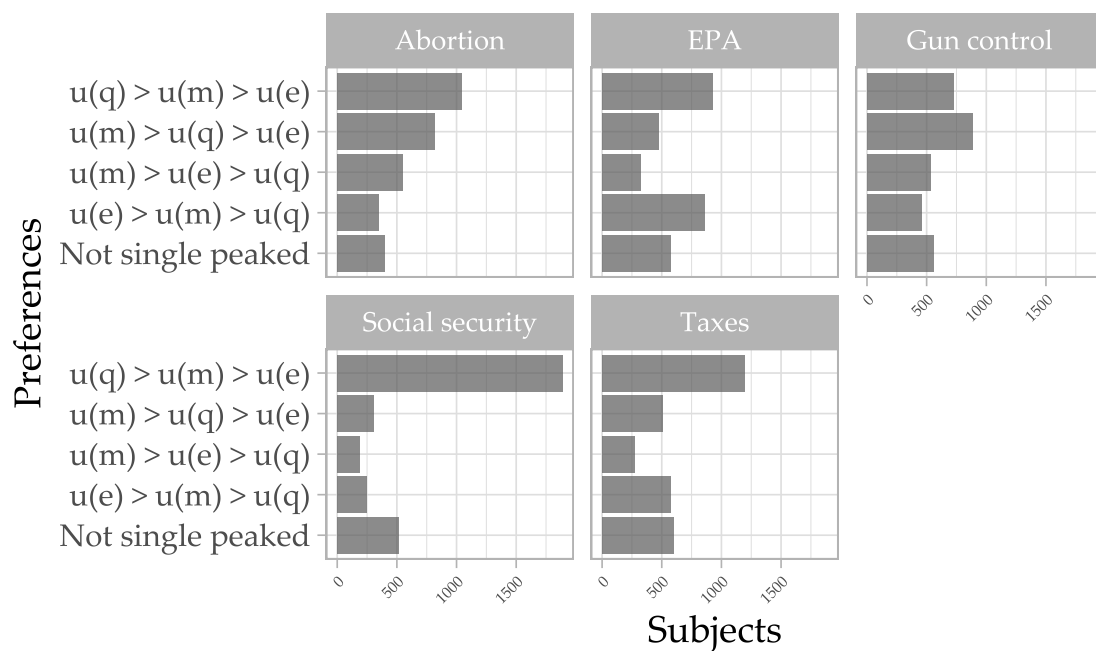


Figure C.5: Distribution of policy preferences among Republican subjects. For each policy issue, we report the number of subjects with each of the four single-peaked possible preferences with respect to the three policy positions: extreme,  $e$ ; moderate,  $m$ ; status quo,  $q$ ; and the proportion of subjects with non-single-peaked preferences.

## D Main text results in tabular form

### D.1 From gridlock to polarization

	Democrats: Moderate		Republicans: Moderate	
	<i>Dependent variable:</i>		<i>Dependent variable:</i>	
	Propensity	Likelihood	Propensity	Likelihood
Extreme co-partisan				
Intercept	0.643*** (0.024)	0.609*** (0.015)	0.574*** (0.032)	0.560*** (0.021)
Gridlock	0.118*** (0.032)	0.079*** (0.021)	0.053 (0.048)	0.061* (0.031)
R <sup>2</sup>	0.017	0.017	0.003	0.009
Adj. R <sup>2</sup>	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*** (0.015)	0.812*** (0.012)	0.676*** (0.032)	0.614*** (0.021)
Gridlock	0.021 (0.019)	0.016 (0.017)	0.027 (0.046)	0.036 (0.031)
R <sup>2</sup>	0.001	0.001	0.001	0.003
Adj. R <sup>2</sup>	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.1: Treatment effect estimates of (4) 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, self-identified partisan subjects). Robust standard errors clustered at the subject level in parenthesis. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

<i>Dependent variable: Propensity to turn out and vote</i>				
	Democrats: Moderate		Republicans: Moderate	
	Extr. co-partisan	Mod. co-partisan	Extr. co-partisan	Mod. co-partisan
Intercept	0.545*** (0.026)	0.835*** (0.017)	0.504*** (0.034)	0.585*** (0.033)
Gridlock	0.124*** (0.035)	0.019 (0.024)	0.052 (0.051)	0.052 (0.049)
R <sup>2</sup>	0.016	0.001	0.003	0.003
Adj. R <sup>2</sup>	0.015	−0.000	0.001	0.001
<i>N</i> Choices	1303	1300	561	512
<i>N</i> Subjects	773	796	344	322

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table D.2: Treatment effect estimates of (4) 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, self-identified partisan subjects). Robust standard errors clustered at the subject level in parenthesis. The dependent variable is the propensity (binary choice) to vote in the election given candidate positions (see Section 3 for details).

## D.2 Exploring the mechanism

	Democrats: Extreme		Republicans: Extreme	
	<i>Dependent variable:</i>		<i>Dependent variable:</i>	
	Propensity	Likelihood	Propensity	Likelihood
Intercept	0.922*** (0.009)	0.843*** (0.008)	0.752*** (0.020)	0.697*** (0.014)
Gridlock	−0.007 (0.014)	−0.004 (0.013)	0.022 (0.027)	0.021 (0.019)
R <sup>2</sup>	0.000	0.000	0.001	0.001
Adj. R <sup>2</sup>	−0.000	−0.000	−0.000	0.001
<i>N</i> Choices	2280	2280	1425	1425
<i>N</i> Subjects	1406	1406	866	866

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table D.3: Treatment effect estimates of (4) on propensity and likelihood to vote for a co-partisan candidate who holds an extreme policy position on the treated policy issue (sample: extreme, self-identified partisan subjects). Robust standard errors clustered at the subject level in parenthesis. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).



	Democrats: Extreme		Republicans: Extreme	
	<i>Dependent variable:</i>		<i>Dependent variable:</i>	
	Propensity	Likelihood	Propensity	Likelihood
Intercept	0.940*** (0.008)	0.863*** (0.008)	0.780*** (0.018)	0.725*** (0.013)
Gridlock	-0.011 (0.012)	-0.018 (0.012)	0.018 (0.025)	-0.009 (0.019)
R <sup>2</sup>	0.001	0.001	0.000	0.000
Adj. R <sup>2</sup>	0.000	0.001	-0.000	-0.000
<i>N</i> Choices	2304	2304	1343	1343
<i>N</i> Subjects	1433	1433	834	834

\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$

Table D.4: Treatment effect of (4) on propensity and likelihood to vote for a co-partisan candidate who holds a moderate policy position on the treated policy issue (sample: extreme, self-identified partisan subjects). Robust standard errors clustered at the subject level in parenthesis. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

	Democrats	Republicans
Intercept	2.463*** (0.127)	1.110*** (0.109)
Gridlock	-0.095 (0.183)	0.121 (0.150)
Moderate (vs. extreme) preference	-1.877*** (0.165)	-0.810*** (0.170)
Gridlock $\times$ Moderate preference	0.666*** (0.241)	0.099 (0.250)
AIC	2864.505	2319.180
BIC	2889.241	2341.555
Log Likelihood	-1428.253	-1155.590
$N$ choices	3583	1986
$N$ respondents	2179	1210

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table D.5: Logit estimate of (4) with interaction term of treatment and subjects' preferences (moderate or extreme) on propensity to vote for a co-partisan candidate who holds an extreme policy position on the treated policy issue (sample: extreme and moderate self-identified partisan subjects). Robust standard errors clustered at the subject level in parenthesis.

	Democrats	Republicans
Intercept	2.745*** (0.141)	1.267*** (0.108)
Gridlock	-0.186 (0.189)	0.106 (0.152)
Moderate (vs. extreme) preference	-0.676*** (0.203)	-0.532*** (0.181)
Gridlock $\times$ Moderate preference	0.416 (0.283)	0.019 (0.261)
AIC	1979.357	2024.402
BIC	2004.116	2046.505
Log Likelihood	-985.678	-1008.201
$N$ choices	3604	1855
$N$ respondents	2229	1156

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table D.6: Logit estimate of (4) with interaction term of treatment and subjects' preferences (moderate or extreme) on propensity to vote for a co-partisan candidate who holds a moderate policy position on the treated policy issue (sample: extreme and moderate self-identified partisan subjects). Robust standard errors clustered at the subject level in parenthesis.

	Democrats		Republicans	
	Wage	Gun control	EPA	Gun control
Intercept	0.128*** (0.014)	0.354*** (0.045)	0.169*** (0.024)	0.123*** (0.016)
Gridlock	0.028 (0.021)	0.046 (0.069)	0.030 (0.036)	0.023 (0.023)
$R^2$	0.002	0.002	0.001	0.001
Adj. $R^2$	0.001	-0.003	-0.001	-0.000
$N$ Subjects	1085	203	474	884

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table D.7: Treatment effect of (3) on post-treatment extreme policy preferences (sample: self-identified partisan subjects with moderate pre-treatment policy preferences). Robust standard errors clustered at the subject level in parenthesis.

### D.3 Moderating effect of gridlock

	Democrats: Extreme		Republicans: Extreme	
	<i>Dependent variable:</i>		<i>Dependent variable:</i>	
	Propensity	Likelihood	Propensity	Likelihood
Intercept	0.828*** (0.034)	0.731*** (0.025)	0.700*** (0.036)	0.650*** (0.024)
Gridlock	−0.055 (0.055)	−0.014 (0.039)	−0.017 (0.049)	0.013 (0.032)
R <sup>2</sup>	0.005	0.001	0.000	0.000
Adj. R <sup>2</sup>	0.001	−0.003	−0.002	−0.002
<i>N</i> Choices	285	285	506	506
<i>N</i> Subjects	233	233	383	383

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table D.8: Treatment effect estimates of (4) on propensity and likelihood to vote for a co-partisan candidate who holds an extreme policy position on the treated policy issue (sample: extreme, self-identified partisan subjects who prefer the status quo on the untreated issue). Robust standard errors clustered at the subject level in parenthesis. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

	Democrats: Extreme		Republicans: Extreme	
	<i>Dependent variable:</i>		<i>Dependent variable:</i>	
	Propensity	Likelihood	Propensity	Likelihood
Intercept	0.808*** (0.036)	0.740*** (0.024)	0.725*** (0.033)	0.655*** (0.022)
Gridlock	0.036 (0.049)	-0.030 (0.035)	-0.039 (0.045)	-0.009 (0.030)
R <sup>2</sup>	0.002	0.003	0.002	0.000
Adj. R <sup>2</sup>	-0.002	-0.001	-0.000	-0.002
N Choices	264	264	485	485
N Subjects	233	233	367	367

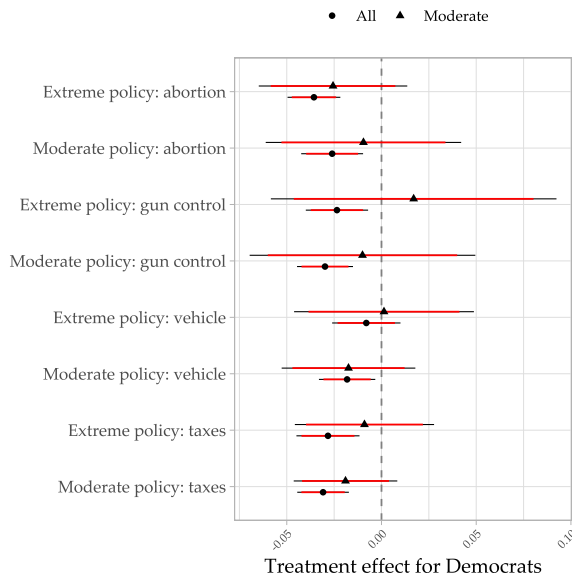
\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$

Table D.9: Treatment effect of (4) on propensity and likelihood to vote for a co-partisan candidate who holds a moderate policy position on the treated policy issue (sample: extreme, self-identified partisan subjects who prefer the status quo on the untreated issue). Robust standard errors clustered at the subject level in parenthesis. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

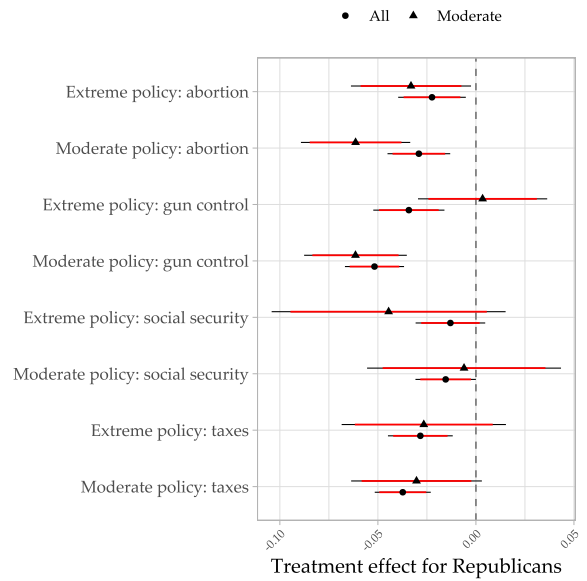
## E Spillover effects

We first explore whether our treatment induces self-identified partisan subjects to believe that policy change is less likely for the untreated issues. Figure E.1 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 E.1 and E.2). Alternatively, Republican subjects may believe 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 untreated policy issues. Figure E.2 reports moderate self-identified partisan subjects' support for co-partisan candidates who hold extreme policy positions on the untreated 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 untreated subjects. Specifically, for each issue, we estimate (4), restricting the sample to self-identified partisan subjects who hold moderate policy preferences on the corresponding untreated 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 untreated) issue, the self-identified partisan subject has a moderate policy preference and the co-partisan holds an extreme position (the *All* category in Figure E.2).



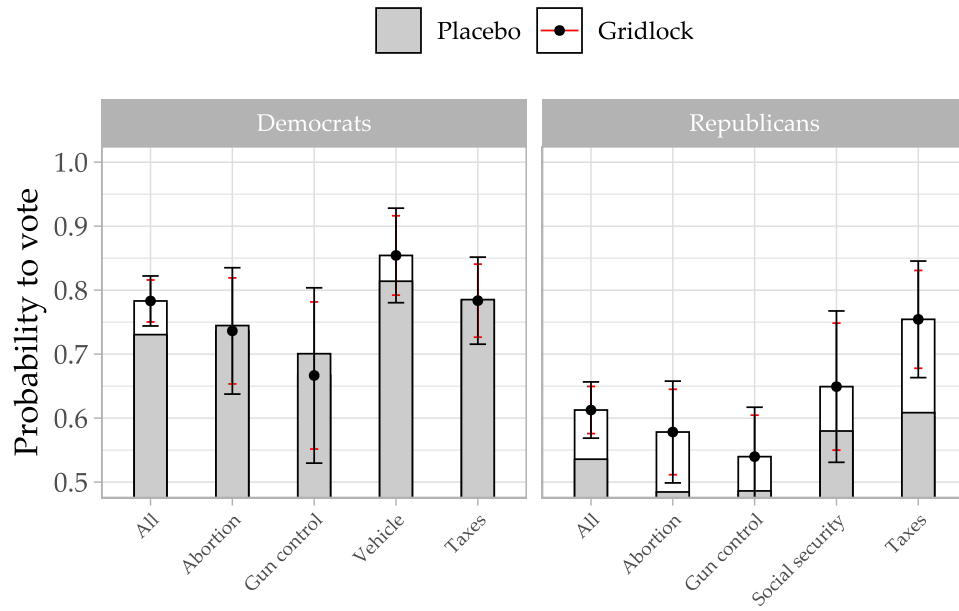
(a) Democratic subjects



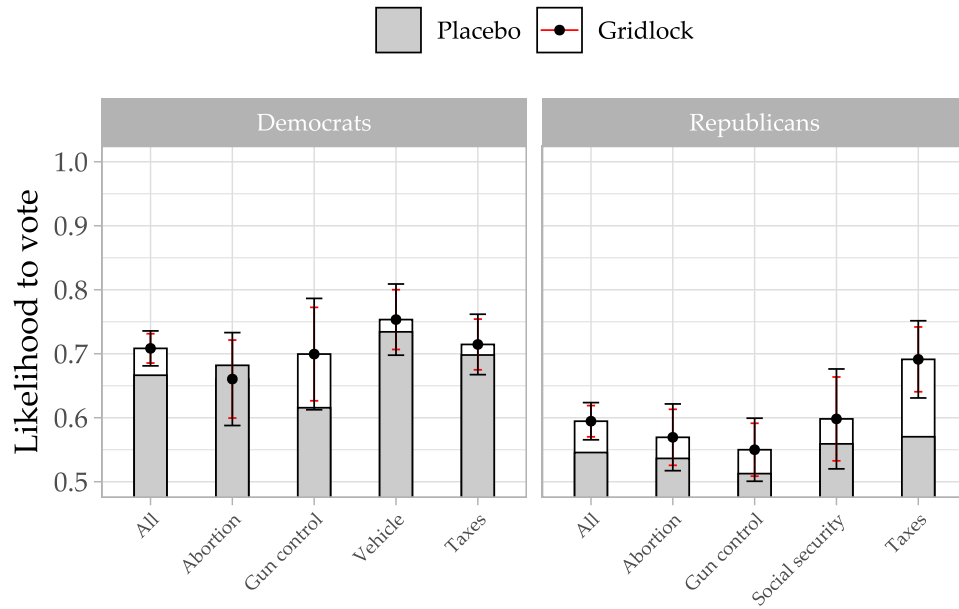
(b) Republican subjects

Figure E.1: Treatment effect on enactment likelihood for untreated policy issues. For each sample and subsample of moderate, self-identified partisan voters, and each extreme and moderate policy in the respective untreated policy issues, we plot the estimated treatment effect in (3), with 90% and 95% confidence intervals. The dependent variable is responses to how likely the policy position is to pass if their district's representative promises it (see Section 3 for details).





(a) Propensity to vote for co-partisan



(b) Likelihood to vote for co-partisan

Figure E.2: Moderate, self-identified partisan subjects' propensity and likelihood to vote for a co-partisan candidate who holds an extreme policy position by treatment group and policy issue, with 90 and 95% confidence intervals of the treatment effect (as estimated by (4) in Tables E.3) centered at the mean response of treated subjects. Untreated policy issues and *All* policies. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

## E.1 Results in tabular form

<i>Dependent variable: Enactment likelihood</i>								
	Taxes		Vehicle		Gun control		Abortion	
	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme
Moderate								
Intercept	0.512*** (0.009)	0.327*** (0.012)	0.506*** (0.013)	0.291*** (0.018)	0.637*** (0.020)	0.554*** (0.027)	0.468*** (0.017)	0.585*** (0.014)
Gridlock	-0.019 (0.014)	-0.009 (0.019)	-0.017 (0.018)	0.001 (0.024)	-0.010 (0.030)	0.017 (0.038)	-0.010 (0.026)	-0.026 (0.020)
R <sup>2</sup>	0.003	0.000	0.002	0.000	0.001	0.001	0.000	0.005
Adj. R <sup>2</sup>	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	0.521*** (0.005)	0.394*** (0.006)	0.483*** (0.005)	0.346*** (0.007)	0.563*** (0.005)	0.500*** (0.006)	0.503*** (0.006)	0.596*** (0.005)
Gridlock	-0.031*** (0.007)	-0.028*** (0.008)	-0.018** (0.008)	-0.008 (0.009)	-0.030*** (0.008)	-0.024*** (0.008)	-0.026*** (0.008)	-0.036*** (0.007)
R <sup>2</sup>	0.006	0.003	0.002	0.000	0.004	0.002	0.003	0.007
Adj. R <sup>2</sup>	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 E.1: Treatment effect estimates of (3) on enactment likelihood for untreated policy issues for moderate and all Democratic subjects. Robust standard errors in parenthesis. The dependent variable is responses to how likely the policy position is to pass if their district's representative promises it (see Section 3 for details).

<i>Dependent variable: Enactment likelihood</i>								
	Taxes		Social security		Gun control		Abortion	
	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme	Moderate	Extreme
Moderate								
Intercept	0.550*** (0.012)	0.442*** (0.015)	0.504*** (0.020)	0.432*** (0.023)	0.559*** (0.010)	0.361*** (0.012)	0.577*** (0.010)	0.397*** (0.011)
Gridlock	-0.030* (0.017)	-0.027 (0.021)	-0.006 (0.025)	-0.045 (0.030)	-0.061*** (0.013)	0.003 (0.017)	-0.061*** (0.014)	-0.033** (0.016)
R <sup>2</sup>	0.006	0.003	0.000	0.007	0.024	0.000	0.023	0.006
Adj. R <sup>2</sup>	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	0.531*** (0.005)	0.461*** (0.006)	0.458*** (0.006)	0.366*** (0.006)	0.549*** (0.005)	0.441*** (0.007)	0.542*** (0.006)	0.422*** (0.006)
Gridlock	-0.037*** (0.007)	-0.028*** (0.008)	-0.015** (0.008)	-0.013 (0.009)	-0.052*** (0.008)	-0.034*** (0.009)	-0.029*** (0.008)	-0.022** (0.009)
R <sup>2</sup>	0.009	0.004	0.001	0.001	0.015	0.005	0.004	0.002
Adj. R <sup>2</sup>	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 E.2: Treatment effect estimates of (3) on enactment likelihood for untreated policy issues for moderate and all Republican subjects. Robust standard errors in parenthesis. The dependent variable is responses to how likely the policy position is to pass if their district's representative promises it (see Section 3 for details).

<b>Democrats</b>					
	All	Taxes	Vehicle	Gun control	Abortion
<i>Dependent variable: Propensity</i>					
Intercept	0.730*** (0.015)	0.785*** (0.025)	0.814*** (0.028)	0.701*** (0.046)	0.745*** (0.033)
Gridlock	0.053*** (0.020)	-0.002 (0.035)	0.040 (0.038)	-0.034 (0.070)	-0.008 (0.050)
R <sup>2</sup>	0.004	0.000	0.003	0.001	0.000
Adj. R <sup>2</sup>	0.003	-0.001	0.001	-0.003	-0.002
N Tasks	3252	835	596	246	436
N Subjects	1555	498	365	148	264
<i>Dependent variable: Likelihood</i>					
Intercept	0.666*** (0.010)	0.698*** (0.018)	0.734*** (0.020)	0.616*** (0.032)	0.682*** (0.024)
Gridlock	0.042*** (0.014)	0.017 (0.024)	0.019 (0.028)	0.084* (0.044)	-0.021 (0.037)
R <sup>2</sup>	0.005	0.001	0.001	0.017	0.001
Adj. R <sup>2</sup>	0.005	-0.000	-0.001	0.013	-0.001
N Tasks	3252	835	596	246	436
N Subjects	1555	498	365	148	264
<b>Republicans</b>					
	All	Taxes	Social security	Gun control	Abortion
<i>Dependent variable: Propensity</i>					
Intercept	0.536*** (0.016)	0.609*** (0.037)	0.580*** (0.046)	0.486*** (0.028)	0.485*** (0.029)
Gridlock	0.077*** (0.022)	0.146*** (0.046)	0.069 (0.060)	0.054 (0.039)	0.094** (0.041)
R <sup>2</sup>	0.006	0.025	0.005	0.003	0.009
Adj. R <sup>2</sup>	0.006	0.023	0.002	0.002	0.008
N Tasks	3278	566	360	988	966
N Subjects	1591	354	218	619	579
<i>Dependent variable: Likelihood</i>					
Intercept	0.546*** (0.010)	0.570*** (0.023)	0.559*** (0.029)	0.513*** (0.018)	0.536*** (0.018)
Gridlock	0.049*** (0.015)	0.121*** (0.031)	0.039 (0.040)	0.037 (0.025)	0.033 (0.027)
R <sup>2</sup>	0.006	0.039	0.004	0.003	0.003
Adj. R <sup>2</sup>	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 E.3: Treatment effect estimates of (4) 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. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

## F Results from first wave

In this appendix, we reproduce our Figure 6 and Table D.1 using only the experimental data collected in our pilot and first survey wave. These are presented in Figure F.1 and Table F.1, respectively.

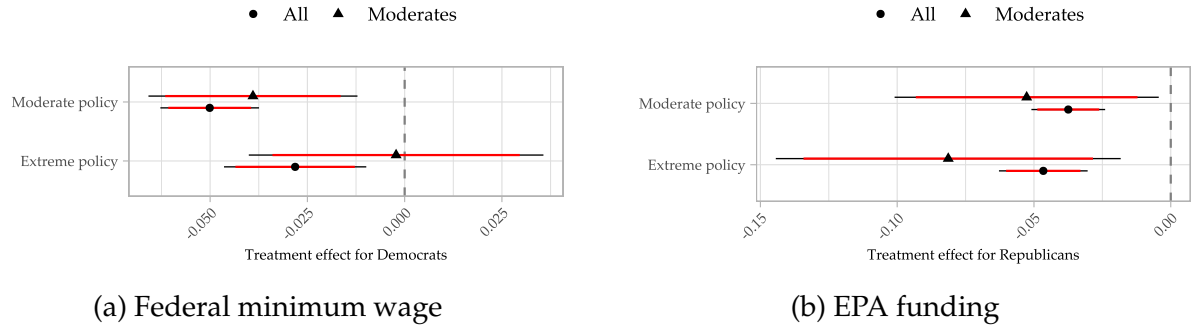


Figure F.1: Treatment effect on enactment likelihood for treated policy among subjects who participated in the pilot study or 1st survey wave. For each sample and subsample of moderate, self-identified partisan subjects, and each extreme and moderate policy in the respective treated policy issue, we plot the estimated treatment effect in (3), with 90% and 95% confidence intervals. The dependent variable is responses to how likely the policy position is to pass if their district's representative promises it (see Section 3 for details).

	Democrats: Moderate		Republicans: Moderate	
	<i>Dependent variable:</i>		<i>Dependent variable:</i>	
	Propensity	Likelihood	Propensity	Likelihood
Extreme co-partisan				
Intercept	0.658*** (0.034)	0.604*** (0.021)	0.605*** (0.045)	0.546*** (0.027)
Gridlock	0.102** (0.044)	0.079*** (0.027)	−0.005 (0.068)	0.044 (0.042)
R <sup>2</sup>	0.013	0.018	0.000	0.005
Adj. R <sup>2</sup>	0.011	0.017	−0.004	0.001
<i>N</i> Choices	715	715	259	259
<i>N</i> Subjects	429	429	152	152
Moderate co-partisan				
Intercept	0.891*** (0.017)	0.802*** (0.016)	0.641*** (0.051)	0.580*** (0.033)
Gridlock	0.010 (0.024)	0.018 (0.023)	0.131* (0.070)	0.108** (0.046)
R <sup>2</sup>	0.000	0.001	0.021	0.030
Adj. R <sup>2</sup>	−0.001	−0.000	0.016	0.026
<i>N</i> Choices	754	754	217	217
<i>N</i> Subjects	454	454	135	135

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table F.1: Treatment effect estimates of (4) 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, self-identified partisan subjects who participated in the pilot study or 1st survey wave). Robust standard errors clustered at the subject level in parenthesis. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).

## G Non-partisan (status quo) aligned voters

For the sake of completeness, we repeat our theoretical analysis for voters who declare to be partisans but—on the gridlocked issue—are “non-partisan” as per Assumption 1. Formally (and combined with the requirement of single-peaked preferences), this means that  $u_2(o) > u_2(m) > u_2(e)$ . To simplify terminology, we call such voters “status quo voters” instead of non-partisan voters because our experimental design is such that the opponent policy on the gridlocked issue is equal to the status quo policy:  $o = q$ .

We begin with our analysis of status quo voters who are aligned.

**Proposition G.1 (Status-quo aligned voters.)** *There exist  $\bar{\sigma}_q$  and  $\bar{\sigma}_q(g) > \bar{\sigma}_q$  such that, for  $\sigma < \bar{\sigma}_q$ , a status-quo aligned 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 aligned 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.*

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

$$\sigma < \bar{\sigma}_q := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + u_2(q) - u_2(m)}; \quad (\text{G.1})$$

(A.2) is satisfied if and only if

$$\sigma < \bar{\sigma}_q(g) := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + (1 - g)[u_2(q) - u_2(m)]}. \quad (\text{G.2})$$

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

$$\sigma < \underline{\sigma}_q := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + u_2(q) - u_2(e)}; \quad (\text{G.3})$$

(A.2) is satisfied if and only if

$$\sigma < \underline{\sigma}_q(g) := \frac{u_1(p^c) - u_1(p^o)}{u_1(p^c) - u_1(p^o) + (1 - g)[u_2(q) - u_2(e)]}. \quad (\text{G.4})$$

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  $\underline{\sigma}_q(g) < \bar{\sigma}_q(g)$ . ■

This results in the following hypothesis, which we test in Appendix G.1.

**Hypothesis G.1 (Status-quo aligned voters.)** *Gridlock increases status-quo aligned voters' propensity to vote for an extreme or a moderate co-partisan candidate.*

We now analyze status quo voters who are misaligned.

**Proposition G.2 (Status-quo misaligned voters.)** *Given a co-partisan candidate with platform  $p_2 \in \{m, e\}$  and any  $\sigma$ , a status-quo misaligned voter always chooses the opponent.*

**Proof of Proposition G.2.** Recall (A.1) and (A.2) within the proof of Proposition 1. For a status-quo misaligned voter, (A.1) and (A.2) never hold. ■

## G.1 Experimental evidence

**Status-quo aligned voters (Hypothesis G.1).** Our model predicts that, in addition to moderate aligned voters, voters whose preferences are single-peaked on the treated issue and prefer the status quo over all other policies (we call these voters “status quo voters”) should also discount extremism when treated. Therefore, we 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 self-identified partisan 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 G.1). The sample of these self-identified partisan and status-quo voters is small for Democrats (only 245 subject-choice pairs), so our test is under-powered. For both Democratic and Republican 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  $\beta$  to equal .045 ( $p$ -value .563) for Democratic subjects and .063 ( $p$ -value .101) for Republican subjects. For moderate co-partisan candidates, we estimate  $\beta$  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  $-.020$  ( $p$ -value .691) and .021 ( $p$ -value .639) for Democratic subjects and .045 ( $p$ -value .071) and .015 ( $p$ -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 self-identified partisan and status-quo subjects for whom the treated issue is moderately salient ( $\sigma$  is predominately outside of the interval  $[\bar{\sigma}_q, \bar{\sigma}_q(g)]$ ).



	Democrats: Status-quo		Republicans: Status-quo	
	<i>Dependent variable:</i>		<i>Dependent variable:</i>	
	Propensity	Likelihood	Propensity	Likelihood
Extreme co-partisan				
Intercept	0.476*** (0.055)	0.512*** (0.037)	0.447*** (0.027)	0.495*** (0.017)
Gridlock	0.045 (0.077)	−0.020 (0.051)	0.063 (0.038)	0.045* (0.025)
R <sup>2</sup>	0.002	0.001	0.004	0.005
Adj. R <sup>2</sup>	−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*** (0.042)	0.594*** (0.032)	0.563*** (0.026)	0.553*** (0.017)
Gridlock	−0.016 (0.061)	0.021 (0.045)	0.006 (0.036)	0.015 (0.024)
R <sup>2</sup>	0.000	0.001	0.000	0.001
Adj. R <sup>2</sup>	−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 G.1: Treatment effect estimates of (4) 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: status-quo, self-identified partisan subjects). Robust standard errors clustered at the subject level in parenthesis. The dependent variables are, respectively, the propensity (binary choice) and likelihood (how likely on a 5-point scale) to vote for co-partisan candidate responses (see Section 3 for details).