Dynamic Agenda Setting

(*Preliminary and incomplete*)

Ying Chen*

Hülya Eraslan†

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Abstract

A party in power can address only a limited number of issues in an election cycle. What issues to address - the party's agenda - has dynamic implications because it affects what issues will be addressed in the future. What is the optimal agenda in the presence of dynamic concerns? How do bargaining rules affect the agenda? What are the efficiency implications? We address these questions in a stylized model in which the incumbent in any period addresses one issue among several issues and the remaining issues roll over to the next period. We show that distortions can happen in the form of *preemption* or *steering*. In preemption, the incumbent gives priority to the issue that is most pressing for the opposition party to prevent the opposition from addressing it if the opposition comes in power. In steering, the incumbent gives priority to a less pressing issue to direct the opposition party's agenda towards addressing the most pressing issue for the incumbent. Although preemption can still be efficient, steering is necessarily inefficient. We show that steering happens only when the polarization between the parties is not too high. Furthermore, under partisan preferences, steering does not take place under majority rule, but is possible under unanimity and supermajority.

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*Department of Economics, Johns Hopkins University

†Department of Economics, Rice University

1 Introduction

Legislation is not only about what policies to implement, but also about what priorities to set. Time is limited: for example, in the U.S., each congressional term covers a two-year period during which only a small number of issues can be addressed. This raises many questions: For example, which issues are to be prioritized? How does the answer depend on the characteristics of the issues, the strength of political power of the incumbent, its expectation of the change in its political fortunes over time, and the institutional rules? In this paper we take a first step towards answering these questions. Our starting point is the observation that the major problems that are left unaddressed in a legislative cycle are rolled over to the next cycle, and as a result, the decision on which issues to address has dynamic implications.

To understand the role of these dynamics on agenda setting, we consider a two-period model with two parties. In each period one of the parties is in power, which we refer to as the incumbent. The incumbent party in each period has the agenda-setting power – it can choose which issue among many issues (for example, immigration, healthcare, education, tax reform) to legislate, but its ability to implement policies on that issue depends on the strength of its power. When it has strong power, it can unilaterally choose the policy; when it has weak power, it needs the consent of the opposition party to implement a policy. The issues that are not addressed are rolled over to the next period, and the incumbent party in the second period chooses an issue to legislate among these remaining issues. Using this framework, we address the following questions: How do a party's dynamic concerns affect its agenda? When does a party choose to give priority to an issue it would not have chosen to address without dynamic concerns? How does its strength of power affect a party's agenda? Do dynamic agenda-setting concerns result in inefficiency?

To abstract away from the distortions in agenda-setting due to re-election concerns, we deliberately assume that the power transition is exogenous, that is, the identity of the party in power in the second period and the strength of its power do not depend on the decisions made in the first period. Although the power transition is exogenous in our setting, the incumbent's strength of power depends on the political institution under which

it operates, and we compare three common institutions – majority rule under which the incumbent has strong power, unanimity rule under which the incumbent has weak power, and supermajority rule under which the incumbent can have either weak or strong power.

When there is no power fluctuation, that is, the incumbent in period one retains the same strength of power in the second period, not surprisingly, its optimal dynamic agenda is the same as its statically optimal agenda. In other words, there is no distortion in agenda setting. When the opposition party is anticipated to come in power in the next period, however, the incumbent in period one may distort its agenda. To describe these distortions, suppose that the incumbent in period one is party D and it anticipates that the opposition party R will come in power in period two. Both parties have single-peaked preferences with party D's ideal point at D and party R's ideal point at R where D is to the left of R. That is, we identify the parties by their ideal policies and party D is more left-leaning than party R. We also identify an issue with its initial status quo and call an issue a Republican issue if it has a status quo to the left of D (since its status quo is so bad for party R that party R prefers party D's ideal to the status quo) and a Democratic issue if it has a status quo to the right of R (since its status quo is so bad for party D that party D prefers party R's ideal to the status quo). The issues differ in terms of where they are in the political spectrum, which are captured by the status quo policies; they also differ in terms of how pressing they are: an issue whose status quo yields a lower payoff for a party is more pressing for that party. The Democratic issue with the rightmost status quo is the most pressing Democratic issue and the Republican issue with the leftmost status quo is the most pressing Republican issue. Both characteristics – status quo and how pressing an issue is – are important in determining the optimal agenda.

Consider the (plausible) case in which the statically optimal agenda for party D is to address the most pressing Democratic issue. We identify two kinds of distortion in agenda setting due to dynamic concerns. The first kind of distortion is when party D gives priority to the most pressing Republican issue. This benefits party D if party R, when it comes in power, addresses the most pressing Republican issue if it is on the table, but addresses the most pressing Democratic issue when the most pressing Republican issue is no longer on the table. Since party D does not gain when party R addresses a Republican issue but gains to some degree if party R addresses a Democratic issue, it has

an incentive to give priority to a Republican issue to prevent party R from addressing it. This is what we call *preemptive* agenda setting.

We can interpret the "triangulation" strategy used by the Clinton administration to reform welfare and tackle crime, both longstanding Republican issues, as an example of preemptive agenda setting. The term is due to the political consultant Dick Morris who advised Bill Clinton during his reelection campaign in 1996 to address traditionally conservative issues through progressive policies. According to Morris, "the essence of triangulation is to use your party's solutions to solve the other side's problems. Use your tools to fix their car."[1] Indeed, Clinton's welfare reform addressed a traditionally conservative issue by legislating policies that reflect Democratic party's ideals, such as higher funding for child care, and stronger financial support for working families. Similarly the crime bill addressed a traditionally Republican issue but introduced policies that the Democrat party prefers, for example, crime prevention programs and a ban on assault weapons. Arguably these had preemptive effects on the Republicans and prevented them from implementing their own ideal policies. In our model, such preemptive agenda setting happens only when the incumbent is expected to have weaker or no power in the future. During Clinton's first term when the crime issue was tackled, the Democrats controlled both chambers and the presidency, but during the midterm elections of 1994, both houses of the Congress fell to the Republicans. After Clinton's second term, Democrats lost the presidency as well, and the power shifted to Republicans altogether.

The second kind of distortion is when party D gives priority to a less pressing Democratic issue. This benefits party D if party R, when it comes in power, addresses the most pressing Democratic issue if it is on the table, but addresses the most pressing Republican issue if the most pressing Democratic issue is no longer on the table. By giving priority to a less pressing Democratic issue, thus leaving the most pressing Democratic issue still on the table, party D directs party R's agenda towards addressing the most pressing Democratic issue. This is what we call *steering* agenda setting.

Even when the same party is in power in both periods, distortion can still arise if the incumbent anticipates to either gain or lose strength of power over time, which is possible

[1] Cite the book "Power Plays" here.

under supermajority rule. For example, the incumbent may take advantage of its strong political power early on to address a less pressing issue and implement its ideal policy, knowing that it will be unable to do so when its power is weakened in the future and the consent of the opposition party is needed. We call this as a *seize-the-moment* effect.

Many have found the Obama administration's preoccupation with health care reform at a time of economic crisis puzzling. Here we offer an explanation in terms of strategic agenda setting by regarding the economic crisis as the most pressing Democratic issue and health care reform as a less pressing Democratic issue. The Obama administration pushed through the health care legislation when the Democratic Party controlled both chambers of the Congress. It is plausible that this was partly because due to the realization that they would lose the opportunity of reform when their power is weakened (seize-the-moment effect). Indeed, some of the news coverage on health care legislation explicitly quoted Obama urging the Democrats to seize the moment, and identified a number of factors including the Democratic control of the White House and Congress explicitly among the reasons for why the moment arose.[2] Moreover, since the economy is also a pressing issue for the Republicans, the Democrats could still benefit if the Republican party came in power (the steering effect).

Even though preemption can still result in an efficient outcome if the Republican issue that is addressed first is the most pressing issue for party R, steering necessarily results in inefficiency since both parties would be better off if the most pressing Democratic issue is addressed first instead. Somewhat paradoxically, although steering results in inefficiency, it happens in equilibrium only when the polarization between the parties is not too high. Specifically, for steering to arise under majority rule, both parties need to agree that the most pressing issue is a Democratic issue. This is not possible when polarization is high enough; indeed, under what we call *partisan* preferences, the parties' most pressing issues differ, and steering cannot happen under majority rule. Under unanimity rule (or under supermajority rule when the incumbent is in weak power), however, the incumbent party needs the approval of the opposition party to pass new legislation, which implies that party R can implement its ideal policy when addressing a Democratic issue but cannot

[2]See, for example, "On Health Care, Obama Tries to Seize the Moment," New York Times, June 18, 2009.

generally do so when addressing a Republican issue. This makes it more appealing for party R to address the most pressing Democratic issue if it is in weak power. As a result, steering can still take place under unanimity or supermajority even with partisan preferences. But with even higher polarization, specifically, with what we call *strongly partisan* preferences, party R prefers to address the most pressing Republican issue than the most pressing Democratic issue even when in weak power. As a result, steering does not take place in equilibrium even under unanimity or supermajority if preferences are strongly partisan, but distortion in the form of preemptive agenda setting is still possible.

Related Literature The power of agenda control has long being recognized in the context of choosing among multiple alternative on a single issue; specifically, the order in which alternatives are pitted agains each other affects the voting outcome (see, for example, Black [1958], McKelvey [1975], Plott and Levine [1978], Banks [1985], Barberà and Gerber [2014]). In our model, there are multiple issues instead of a single issue on which the players can legislate, and the power of agenda control now comes from ordering the sequence of issues rather than ordering the sequence of alternatives. An important aspect of our model is the scarcity of legislative time,[3] and in that sense, it is related to Copic and Katz [2012]. They consider a model of legislative bargaining over distributive policies in which each legislator can make a proposal, but because of limited capacity, only the one chosen by the agenda-setter can be voted on. Unlike our model, there is still only one issue in their model. A recent literature analyzes bargaining over multiple issues, but the emphasis has been on whether the players should bargain over the issues separately or bundle them together (see, for example, Fershtman [1990], Inderst [2000], Lang and Rosenthal [2001], In and Serrano [2004], Jackson and Moselle [2002], Chen and Eraslan [2013, 2014]).

Agenda setting is also an important area of research in communication theory, but the focus is on the ability of news media to influence the salience of topics on the public agenda (an early study is McCombs and Shaw [1972]). Our paper is also related to the studies on issue selection in political campaigns (Aragonès, Castanheira, and Giani

[3] As in our model, Duggan and Martinelli [2011] look at the selection of an issue among multiple issues under a capacity constraint, but in the context of media reporting.

[forthcoming], Egorov [2012]), but our paper is a complement to these studies since they consider what issues candidates choose to focus on in order to get elected whereas we analyze what issues parties choose to address after being elected. As can been seen, "agenda setting" has different meanings in different contexts. Since we use the phrase to refer to setting priorities in policymaking, our paper shares the same interest with the seminal book by Kingdon [1984], which is a descriptive study drawn from interviews, case studies, government documents, party platforms, press coverage, and public opinion surveys, but does not provide formal analysis.

We describe our model in section 2 and then provide two examples in section 3 to illustrate the distortions that can arise due to dynamic concerns. We discuss two benchmarks – Pareto efficient outcomes and dictatorship – in section 4. We divide our analysis of the dynamic agenda-setting game into the period-2 problem (section 5) and the period-1 problem (section 6) and provide some discussion on extensions of our model in section 7.

2 The model

There are two parties D and R, who are identified by their ideal policies with party D's ideal to the left of party R's ideal, that is, $D, R \in \mathbb{R}$ and $D < R$. In each of two periods $t = 1, 2$, one of the parties is in power, and we refer to this party as the incumbent. The incumbent in a given period has the agenda-setting right to choose a one-dimensional issue among many issues to legislate. In each period, the incumbent can choose to legislate on only one issue. This constraint is motivated by the observation that the legislative time between elections is limited, and the incumbent can address only a limited number of issues while in office. In period 1, any issue can be legislated, and in period 2, any issue other than the one that is legislated in period 1 can be legislated.[4]

At the beginning of period 1, there are n_R issues with status quos to the left of D, n_C issues with status quos between D and R and n_D issues with status quos to the right

[4]We assume that once an issue is addressed, it cannot be addressed again. Without this assumption, we need to consider the implications of endogenous status quo, which complicates the analysis. In practice, it is possible that an issue addressed previously is brought to the negotiation table again. An example of this is the recent health care negotiations in the United States. However, this seems to be an exception rather than the rule. In general it seems costly to revisit an issue that has already been addressed in the recent past. We discuss what happens when the parties are allowed to revisit an issue that has been addressed in section 7.

of R. From now on, we identify an issue in a given period with its status quo for ease of exposition.[5] We refer to an issue to the left of D as a Republican issue and an issue to the right of R as a Democratic issue. We say issues between D and R are controversial, and issues outside (D, R) interval are non-controversial. For the non-controversial issues, we use a lower index to indicate a more extreme status quo. That is, we enumerate the issues in period 1 so that

$$R_1 < R_2 < \ldots < R_{n_R} < D < C_1 < \ldots < C_{n_C} < R < D_{n_D} < \ldots < D_2 < D_1.$$

We assume that there are at least two issues, that is, $N \geq 2$ where $N = n_R + n_C + n_D$.

The stage utility for party $i \in \{D, R\}$ from the policies implemented at time t is additively separable across issues. Let z_{kt} denote the policy implemented for issue k at time t, and let $\mathbf{z}_t = (z_{1t}, \ldots, z_{Nt})$. Stage utility of party i at time t is given by

$$u_i(\mathbf{z}_t) = \sum_{k \in N} v_i(z_{kt}).$$

The dynamic utility for party i is the sum of the stage utilities $u_i(\mathbf{z}_1) + u_i(\mathbf{z}_2)$.

Suppose in period 1, an issue with status quo s_1 is addressed and the policy implemented is x, and in period 2, an issue with status quo s_2 is addressed and the policy implemented is y. Then the gain in payoff in period 1 for party i is $v_i(x) - v_i(s_1)$ and the gain in payoff in period 2 for party i is $v_i(x) - v_i(s_1) + v_i(y) - v_i(s_2)$. Therefore the total gain in payoff for party i is $2[v_i(x) - v_i(s_1)] + v_i(y) - v_i(s_2)$. Notice that once a policy is implemented on an issue, then it is persistent, and the parties continue to care about the issues that they changed in the past. This is why when an issue is addressed in period 1, the parties gain in that period and the subsequent period.

We assume v_i is continuous and single-peaked at i. Moreover, we assume the preferences satisfy a single-crossing property. Specifically, for any x and x' such that $x' > x$, if $v_D(x') > v_D(x)$ then $v_R(x') > v_R(x)$. Many commonly used utility functions, for example, $v_i(x) = -(x - i)^2$ or $v_i(x) = -|x - i|$, satisfies these conditions. We say that issue s is

[5] We avoid identifying an issue with its status quo across periods, because once an issue is addressed, its status quo changes.

more pressing for party i than issue s' if $v_i(s) < v_i(s')$. Note that a Democratic issue has a status quo so bad for party D that it prefers party R's ideal to the status quo, and a Republican issue has a status quo so bad for party R that it prefers party D's ideal to the status quo. Nonetheless, we do not require *a priori* the most pressing issue for party D to be a Democratic issue or the most pressing issue for party R to be a Republican issue.

For a given issue being legislated, how a policy is chosen depends on the strength of the incumbent party. If the incumbent party is strong, then it unilaterally chooses the policy to implement. If it is weak, it needs the approval of the out-of-power party for implementation of the policy it proposes. In this case, we assume that the incumbent party makes a take-it-or-leave-it offer. Thus there are four possible power states $\{W_D, W_R, S_D, S_R\}$, and we use $\pi_t \in \{W_D, W_R, S_D, S_R\}$ to denote the power state in period t. We assume that π_t is random and its distribution is exogenously given, but the evolution of power depends on the institution. Loosely, we can think of the incumbent party as the party with the larger number of seats in the legislature. Under majority rule, the incumbent is strong, and thus $\pi_t \neq W_D, W_R$ for $t \in \{1, 2\}$. Under unanimity rule, the incumbent is weak, and thus $\pi_t \neq S_D, S_R$ for $t \in \{1, 2\}$. Under supermajority rule, the incumbent can be either strong or weak. Specifically, if the fraction of the seats held by the incumbent exceeds the supermajority threshold, then the incumbent is strong. If it is below the supermajority threshold, then it is weak.

If a party is in power, then it decides (i) what issue to address; and (ii) what policy to propose (in a weak power state) or to implement (in a strong power state) on that issue. If a party is out of power, then it decides whether to accept or reject the proposal (in a weak power state). Since the issue not addressed in period one rolls over to period two, there is a dynamic link between the decisions made in period 1 and the feasible actions in period 2. As such, the parties take into account the dynamic implications of their decisions in the first period. The solution concept we use is subgame perfect equilibrium and we solve the game using backward induction.

3 Two examples

In this section, we use two simple examples to illustrate the distortions in agenda-setting incentives due to dynamic concerns. For both examples, we assume that $D = -1$, $R = 1$, and $v_i(x) = -|x - i|$.

Example 1. Suppose that there are two Democratic issues and two Republican issues with $R_1 = -1.8$, $R_2 = -1.2$, $D_2 = 1.4$, $D_1 = 1.5$. These issues together with the parties' preferences are illustrated in Figure 1. Consider unanimity rule: specifically, party D is in (weak) power in period 1 and party R will come in (weak) power in period 2.

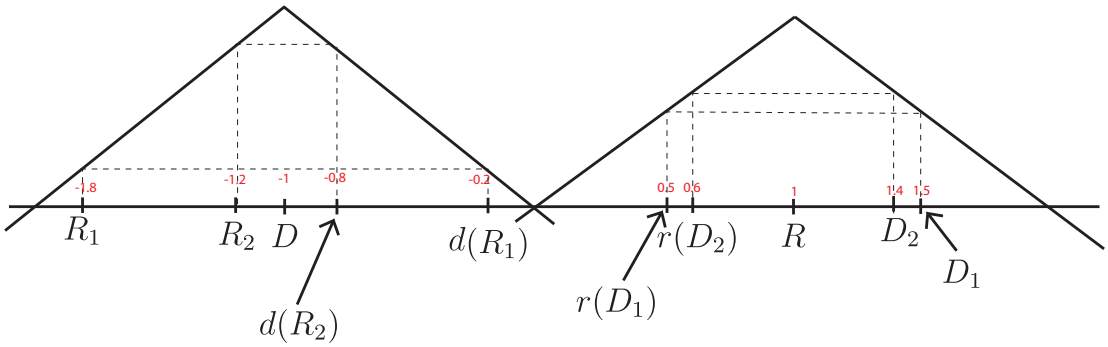

Figure 1: Example 1

It is in the short-term interest for party D to address issue D_1 since it can move the policy on issue D_1 towards its ideal by 1 (from 1.5 to 0.5) whereas it can move the policy on issue R_1 towards its ideal by only 0.8 (from -1.8 to -1), but we show below that the optimal dynamic agenda is for party D to give priority to the Republican issue R_1.

Note that if party D addresses a Democratic issue in period 1, then party R will address issue R_1 in period 2. To see this, note that under unanimity, party R can move the policy on R_1 towards its ideal by 1.6 (from -1.8 to -0.2) and can move the policy on issue D_1 towards its ideal by 0.5 (from 1.5 to 1) and move the policy on issue D_2 towards its ideal by 0.4 (from 1.4 to 1). Given the utility function $v_R(x) = -|x - R|$, party R cares about only the distance by which it can move a policy towards its ideal. So party R gains more by addressing R_1 than addressing D_1 or D_2. Since party R addresses issue R_1 regardless of whether issue D_1 or D_2 was addressed in period 1 and party D's period-1

payoff is higher by addressing issue D_1 instead of D_2, it follows that addressing issue D_1 is strictly better than addressing issue D_2 in period 1 for party D. Note that addressing issue D_1 is also strictly better than addressing issue R_2 in period 1 since party D's period-1 payoff is higher by addressing D_1 and party R will address issue R_1 regardless. So we only need to compare the choice between issues D_1 and R_1.

Suppose party D addresses issue D_1 (by moving the policy from 1.5 to 0.5) in period 1. Then in period 2, party R will address issue R_1 by moving the policy from -1.8 to -0.2, making party D indifferent. Therefore, party D's total gain in payoff is $2 \times 1 = 2$.

Suppose party D addresses issue R_1 in period 1 (by moving the policy from -1.8 to -1). Then, in period 2, party R will address issue D_1 since it gains 0.5 if it addresses issue D_1 (by moving the policy from 1.5 to 1 whereas it gains only 0.4 if addresses issue R_2 (by moving the policy from -1.2 to -0.8). Hence, party D's total gain in payoff is $2 \times 0.8 + 0.5 = 2.1$, which is higher than its total gain in payoff by addressing issue D_1 in period 1. It follows that the optimal dynamic agenda for party D is to give priority to the Republican issue R_1.

As this example illustrates, a party's dynamic concerns can lead to distortions in agenda setting, that is, its optimal dynamic agenda is different from its statically optimal agenda. Intuitively, party D preempts party R by giving priority to issue R_1 since party D does not benefit if party R addresses issue R_1 but benefits to some degree if party R addresses D_1. Note that despite the distortions, the equilibrium outcome is still efficient since there is no Pareto improvement. But distortions can also lead to Pareto inefficiency, as illustrated in the next example.

Example 2. Next suppose that there are still two Democratic issues and two Republican issues but with different status quos. Specifically, let $R_1 = -1.4$, $R_2 = -1.25$, $D_2 = 1.75$, $D_1 = 1.9$. These issues together with the parties' preferences are illustrated in Figure 2.[6]

(a) We start by considering unanimity rule. As in Example 1, suppose that party D is in (weak) power in period 1 and party R will come in (weak) power in period 2. It is in the short-term interest for party D to address issue D_1 since it can move the policy on issue

[6]We define the functions d and r on page 17: $d(x)$ is the optimal proposal that party R makes on an issue with status quo x in a static game under unanimity, and $r(x)$ is the optimal proposal that party D makes on an issue with status quo x in a static game under unanimity.

D_1 towards its ideal by 1.8 (from 1.9 to 0.1) whereas it can move the policy on issue R_1 towards its ideal by only 0.4 (from -1.4 to -1).

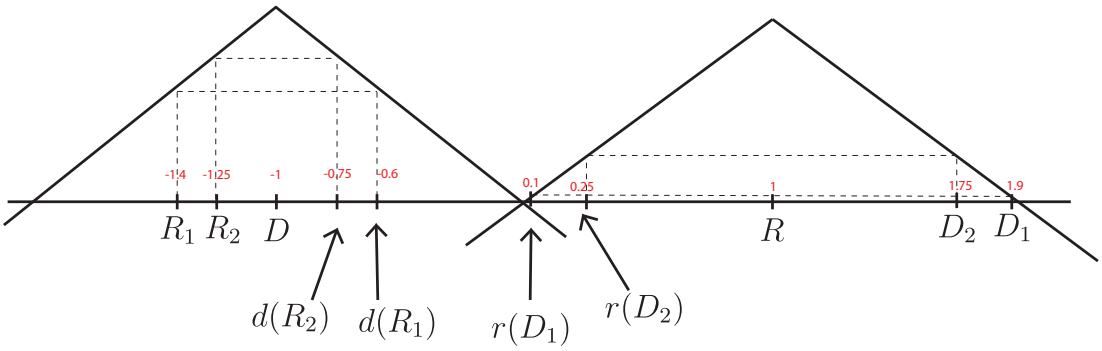

Figure 2: Example 2

If party D addresses issue D_1 in period 1, then party R will address issue R_1 in period 2. To see this, note that under unanimity, party R can move the policy on R_1 towards its ideal by 0.8 (from -1.4 to -0.6) and can move the policy on issue D_2 towards its ideal by 0.75 (from 1.75 to 1). So party R gains more by addressing R_1 than addressing D_2.

If party D addresses issue D_2 in period 1 instead, then party R will address issue D_1 in period 2 since it can move the policy on D_1 towards its ideal by 0.9 (from 1.9 to 1) whereas it can move policy on R_1 by only 0.8 (from -1.4 to -0.6).

Now we can compare party D's dynamic utility if it addresses D_1 versus if it addresses D_2 in period 1. If it addresses D_1 in period 1, it can move the policy towards its ideal by 1.8 on that issue (from 1.9 to 0.1) . But in period 2, party R will address issue R_1 by moving the policy to the other side of D, making D just willing to accept. By addressing D_1 in period 1, the total gain for party D across the two periods is $1.8 \times 2 = 3.6$. If party D addresses issue D_2 in period 1, it can move the policy towards its ideal by 1.5 on that issue (from 1.75 to 0.25). In period 2, party R will address issue D_1 by moving the policy on that issue from 1.9 to its own ideal 1. Hence, the total gain in payoff for party D across the two periods is $1.5 \times 2 + 0.9 = 3.9$, which is higher than 3.6, the total gain for party D if it addresses issue D_1 in period 1.

It is also straightforward to verify that it is not optimal for party D to address a Republican issue in period 1. Specifically, addressing R_1 or R_2 is dominated by addressing D_2 in period 1 since in either case, party R will address D_1 in period 2 and the short-term

gain is higher for party D by addressing D_2.

In this example, dynamic concerns drive party D to give priority to a less pressing Democratic issue. Intuitively, party D steers party R's agenda towards addressing the most pressing Democratic issue in period 2 if party R comes in power. The equilibrium is inefficient since both parties would have been better off if the most pressing Democratic issue is addressed first.

(b) Now considering supermajority rule. Specifically, suppose that party D is in strong power in period 1 and in period 2, party D is in weak power with probability q and party R is in weak power with probability $(1-q)$. Again, it is in the short-term interest for party D to address issue D_1 in period 1 since it can move the policy on issue D_1 towards its ideal by 2.9 (from 1.9 to -1) whereas it can move the policy on issue R_1 towards its ideal by only 0.4 (from -1.4 to -1).

Suppose party D addresses D_1 in period 1. As shown in part (a), if party R comes in weak power in period 2, it addresses issue R_1 by moving it to $d(R_1)$. Moreover, if party D is in weak power in period 2, it addresses issue D_2 since it can move the policy on D_2 by 1.5 (from 1.75 to 0.25) whereas it can move the policy on R_1 by only 0.4 (from -1.4 to -1). Hence, the total gain in payoff for party D is $2.9 \times 2 + 1.5q + 0 \times (1-q) = 5.8 + 1.5q$.

Suppose party D addresses D_2 in period 1. As shown in part (a), if party R comes in weak power in period 2, it addresses issue D_1 by moving it to R. Moreover, if party D is in weak power in period 2, it addresses issue D_1 since it can move the policy on D_1 by 1.8 (from 1.9 to 0.1) whereas it can move the policy on R_1 by only 0.4 (from -1.4 to -1). Hence, the total gain in payoff for party D is $2.75 \times 2 + 1.8q + 0.9 \times (1-q) = 6.4 + 0.9q$. So, independent of the value of q, it is better for party D to give priority to issue D_2 than D_1 in period 1.[7] It is also straightforward to show that addressing a Republican issue is dominated by addressing issue D_2 in period 1.

Under supermajority rule, we again have the inefficient outcome that party D gives priority to a less pressing Democratic issue. In addition to the steering effect that we identified in part (a), it is also advantageous for party D to roll over the more pressing issue D_1 because it can extract a better compromise on issue D_1 than on issue D_2 if it

[7]If $q = 1$, then party D's total payoff is the same regardless of whether it addresses issue D_1 or issue D_2 in period 1. This is because of the functional form we assume in this example.

is in weak power in period 2. By addressing the less pressing issue D_2 when in strong power, party D is able to implement its ideal policy on D_2 as well as getting a better compromise on issue D_1 should its power weaken in the future. We can think of this as a "seize-the-moment" effect.

4 Benchmarks

Dynamically Pareto efficient outcomes

The first benchmark we consider is dynamically Pareto efficient outcomes. These are the outcomes that are Pareto efficient subject to the constraint that the policy of only one issue can be changed at a time. We impose this constraint since parties in the game we consider can change policy on only one issue in one period, so we can think of this as a technological constraint. In the social planner's problem, there are four choice variables: the issue s_1 addressed in period 1; the policy implemented on the issue addressed in period 1, denoted by x; the issue s_2 addressed in period 2; and the policy implemented on the issue addressed in period 2, denoted by y. Let S denote the issues at the beginning of period 1, identified by their initial status quos. That is, $S = \{R_1, R_2, ..., R_{n_R}, C_1, C_2, ..., C_{n_C}, D_1, D_2, ..., D_{n_D}\}$.

Formally, a dynamically Pareto efficient outcome solves the following social planner's problem:

$$\max_{s_1,x,s_2,y} \quad v_D(x) + \sum_{s\in S, s\neq s_1} v_D(s) + \left[v_D(x) + v_D(y) + \sum_{s\in S, s\neq s_1,s_2} v_D(s) \right] \qquad \text{(SP)}$$

$$\text{s.t.} \quad v_R(x) + \sum_{s\in S, s\neq s_1} v_R(s) + \left[v_R(x) + v_R(y) + \sum_{s\in S, s\neq s_1,s_2} v_R(s) \right] \geq \bar{U}$$

for some $\bar{U}$. It is straightforward to see that the following proposition holds.

Proposition 1. *In any dynamically Pareto efficient outcome,*

1. *issue s is addressed in period 1 if it is more pressing than any other issue for both D and R;*
2. *issues s and s' are addressed if they are more pressing than any other issue for both D and R;*

3. *if s is more pressing than s' for both D and R and issue s' is addressed, then issue s is addressed in period* 1*;*

4. *the policies implemented for the issues addressed are in* $[D, R]$.

Dictatorship

We next consider dictatorship. Specifically, suppose party i is the dictator in both periods and it can address one issue in each period. In this case, party i does not face any dynamic trade-off, and therefore its optimal dynamic agenda is the same as its optimal static agenda. Thus, in each period, between issues s and s', party i chooses to address issue s and implement its ideal policy on that issue if $v_i(s) < v_i(s')$. That is, the dictator party chooses to address the most pressing issue for itself in each period.

No power fluctuation

Dictatorship is a special case in which there is no power fluctuation. In the next proposition, we show that more generally, in the absence of power fluctuation, the optimal dynamic agenda coincides with the optimal static agenda.

Proposition 2. *If there is no power fluctuation, that is, if $\pi_2 = \pi_1$ with probability* 1*, then the incumbent addresses issue k in period* 1 *only if its period-*1 *payoff is maximized by addressing issue k.*

As discussed before, the incumbent is in strong power under majority rule and in weak power under unanimity rule. Under either rule, if the incumbent continues to be in power in period 2, then the power state is the same across periods and Proposition 2 implies there is no distortion in the incumbent's agenda. Under supermajority rule, however, the incumbent can be in either strong or weak power, and even if it continues to be in power in period 2, the power state may change from strong to weak or from weak to strong, so Proposition 2 no longer applies. We provide an example below which illustrates that under supermajority rule, the optimal dynamic agenda may be different from the optimal static agenda.

Example 3. Suppose the voting rule is supermajority, and party D holds enough seats to reach the supermajority threshold in period 1, but expects to lose some seats so that although it is still in power in period 2, it fails to reach the supermajority threshold. That is, the power state is S_D and in period 1 and W_D in period 2.

Suppose that there are two issues R_1 and C_1 in period 1 with $R_1 < D < C_1 < R$. If $v_D(R_1) < v_D(C_1)$, then it is in the short-term interest for party D to give priority to issue R_1. However, the optimal dynamic agenda for party D may be to give priority to issue C_1.[8] Intuitively, since issue C_1 is controversial, party D addresses it when it has the political power to change the policy on issue C_1 and postpones tackling issue R_1. Because the parties have common ground on issue R_1, it enables party D to implement its ideal even when in weak power.

With power fluctuations, dynamic concerns may lead to certain distortions under the different voting rules, which we analyze below.

5 Period-2 problem

To facilitate the analysis, we define two functions d and r as follows. For $x \leq D$, let $d(x) = \max\{y \leq R : v_D(y) \geq v_D(x)\}$, and for $x \geq R$, let $r(x) = \min\{y \geq D : v_R(y) \geq v_R(x)\}$. Intuitively, $d(x)$ is the optimal proposal that party R makes on an issue with status quo x to the left of D in a static game under unanimity, and $r(x)$ is the optimal proposal that party D makes on an issue with status quo x to the right of R in a static game under unanimity. The figures below illustrate these two functions.

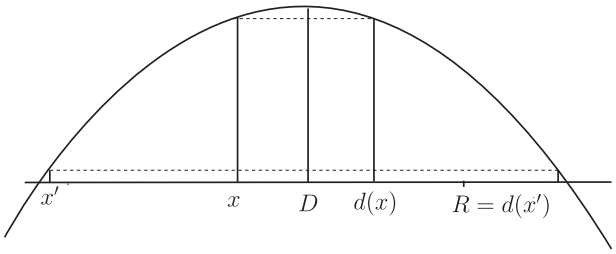

Figure 3: $d(\cdot)$

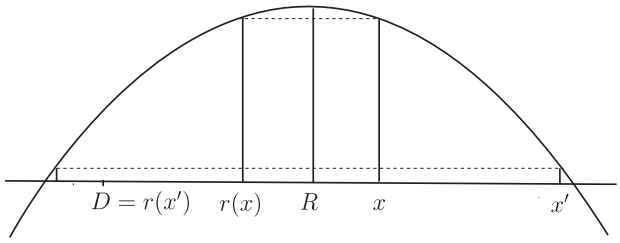

Figure 4: $r(\cdot)$

The next proposition characterizes the optimal agenda in period 2. For expositional simplicity, in the proposition, we assume that when the incumbent is indifferent between addressing a Republican issue and addressing a Democratic issue, it chooses the agenda that makes the other party better off.

[8]By addressing R_1 in period 1, the total gain for party D is $2[v_D(D) - v_D(R_1)]$. By addressing C_1 in period 1 and R_1 in period 2, the total gain for party D is $2[v_D(D) - v_D(C_1)] + v_D(D) - v_D(R_1)$. Hence, if $2[v_D(D) - v_D(C_1)] > v_D(D) - v_D(R_1)$, then it is better to address C_1 in period 1.

Proposition 3. *1. If the incumbent has strong power in period* 2*, then it addresses the most pressing issue for itself.*

2. Suppose the incumbent has weak power in period 2*.*

(a) If there is at least one Republican issue and one Democratic issue in period 2, then the incumbent addresses either issue s_R or issue s_D where $s_R < D$ is the most extreme Republican issue and $s_D > R$ is the most extreme Democratic issue. Specifically, if party D is the incumbent, then it addresses issue s_R if and only if

$$v_D(D) + v_D(s_D) \geq v_D(s_R) + v_D(r(s_D)),$$

and if party R is the incumbent, then it addresses issue s_D if and only if

$$v_R(R) + v_R(s_R) \geq v_R(s_D) + v_R(d(s_R)).$$

(b) Otherwise, the incumbent addresses the most pressing issues for itself.

Proposition 3 implies that the incumbent in period 2 addresses the most pressing issue for one of the parties.

6 Period-1 problem

6.1 Preliminaries

We show that if the set of issues is rich enough, and in particular, if there are at least two Democratic issues and two Republican issues, then the incumbent in period 1 does not address issues whose status quos are not extreme. Formally, we have the following result.

Lemma 1. *Suppose there are at least two Democratic issues and two Republican issues in period* 1*. Then the incumbent in period* 1 *does not address R_i or D_i with $i \geq 3$, or any controversial issue.*

To prove Lemma 1, we show that addressing issue R_2 dominates addressing issue R_i with $i \geq 3$ for the incumbent in period 1. This is because addressing issue R_2 gives the

incumbent a strictly higher payoff in period 1 and by Proposition 3, the choice of the incumbent in period 2 is the same regardless of whether issue R_2 or R_i was addressed in period 1. A similar argument shows that addressing issue D_2 dominates addressing issue D_i with $i \geq 3$ and addressing any controversial issue is dominated by addressing either D_2 or R_2 in period 1.

Lemma 1 implies that if there are at least two Democratic issues and two Republican issues in period 1, then it is without loss of generality to consider the agenda-setting problem when there are two Democratic issues and two Republican issues. For the remainder of this section, this is the case that we analyze. For expositional simplicity, we assume that party D is the incumbent in period 1. Symmetric results hold when party R is the incumbent.

Since controversial issues are not addressed in either period when there are at least two Democratic issues and two Republican issues at the beginning of the game by Lemma 1, the payoffs from the controversial issues do not affect the parties' choice. When we discuss the parties' payoffs in the remainder of this section, we ignore the payoffs from controversial issues.

6.2 Priority not given to a less pressing issue for the rival

The first result we establish is that no matter what the voting rule is, party D does not give priority to a less pressing Republican issue.

Proposition 4. *Regardless of the voting rule, party D does not address R_2 in period 1, that is, party D does not give priority to a less pressing Republican issue.*

We prove Proposition 4 by showing that addressing the more pressing issue R_1 instead of issue R_2 in period 1 gives party D a higher dynamic payoff. First, note that regardless of its strength of power in period 1, if party D addresses a Republican issue, it moves the policy on that issue to its ideal. Hence, party D's period-1 payoff is higher by addressing issue R_1 than by addressing issue R_2. Moreover, similar to the intuition for Proposition 2 (which concerns the case when there is no power fluctuation), if party D continues to be in power in period 2, its period-2 payoff is also higher if issue R_1 instead of issue R_2 was addressed in period 1. The interesting case is when party R comes in power in period 2

and its choice of agenda varies with what issue has been addressed by party D. If party R is in strong power, this arises if issue R_1 is more pressing than issue D_1 and issue D_1 is in turn more pressing than issue R_2 for party R. In this case, by the single-crossing property, party D also finds issue D_1 more pressing than issue R_2. Hence, party D is better off if issue R_2 remains at its status quo (which happens if party R addresses issue D_1 in period 2) than if issue D_1 remains at its status quo (which happens if party R addresses issue R_1 in period 2). It follows that party D is better off in period 2 by addressing issue R_1 first to induce its rival to address issue D_1 subsequently than by addressing R_2 first to induce its rival to address R_1 subsequently. This implies that if party R is expected to come in strong power in period 2, party D receives a higher dynamic payoff by addressing the more pressing issue R_1 than R_2 in period 1. A similar, albeit more involved, argument shows that if party R is expected to come in weak power in period 2, party D also receives a higher dynamic payoff by addressing the more pressing issue R_1 than R_2 in period 1.

Proposition 4 says that even with dynamic concerns, party D does not give priority to a less pressing Republican issue, and the result holds no matter what the voting rule is. Does party D ever give priority to a less pressing Democratic issue? As we show subsequently, this depends on the voting rule and the degree of polarization between the two parties, but before we turn to the different voting rules, the following lemma provides a necessary condition for party D to give priority to a less pressing Democratic issue under either majority or unanimity rule.

Lemma 2. *Under either majority or unanimity rule, if party D addresses issue D_2 in period 1 in equilibrium, then it must be the case that if R come in power in period 2, then it addresses issue D_1 if D_2 was addressed in period 1 and it addresses issue R_1 if D_1 was addressed in period 1.*

Lemma 2 says that if party D gives priority to the less pressing Democratic issue in period 1 under either majority or unanimity rule, then it must be the case that its agenda in period 1 affects the agenda of party R should it come in power in period 2. In particular, if the most pressing Democratic issue was addressed, then party R would address the most pressing Republican issue, but if the less pressing Democratic issue was addressed, then party R would address the most pressing Democratic issue.

6.3 Majority rule

Consider majority rule first. Under majority rule, the incumbent in either period has strong power and can implements its ideal policy on the issue of its choice. The next proposition shows that under certain conditions, party D gives priority to a less pressing Democratic issue.

Proposition 5. *Under majority rule, if* $v_R(D_1) < v_R(R_1) < v_R(D_2)$, $v_D(D_2) - v_D(D_1) < v_D(R_1) - v_D(D_2)$, *and it is sufficiently likely that party* R *comes in power in period* 2, *then party* D *addresses* D_2 *in period 1, that is,* D *gives priority to a less pressing Democratic issue, and the equilibrium outcome is inefficient.*

To understand the conditions in Proposition 5, note that if party D continues to be in power in period 2, then, as in Proposition 2, party D is better off by addressing a more pressing issue in period 1. If party R comes in power in period 2 but party D's agenda in period 1 does not affect its choice, then again party D is better off by addressing a more pressing issue in period 1. Hence, for party D to give priority to D_2 over the more pressing issue D_1, it must be the case that party D's choice of agenda in period 1 affects the issue that its rival chooses to address in period 2. Specifically, we need that if D_2 is rolled over to period 2, then party R addresses R_1 in period 2, and if D_1 is rolled over to period 2 then party R addresses D_1 in period 2. Formally, this requires $v_R(D_1) < v_R(R_1) < v_R(D_2)$, that is, we need the most pressing issue for party R to be the Democratic issue D_1. The other condition $v_D(D_2) - v_D(D_1) < v_D(R_1) - v_D(D_2)$ ensures that the short-term loss to party D from giving priority to the less pressing issue D_2 is more than compensated by its gain in period-2 payoff. When these conditions are satisfied, it benefits party D to give priority to the less pressing issue D_2 since by leaving the most pressing Democratic issue on the table, party D directs party R's agenda towards it. We call this steering agenda setting. Note that steering results in inefficiency since both parties would be better off if the most pressing Democratic issue is addressed first instead.

We say that the preferences are *partisan* if the most pressing issue for party D is a Democratic issue and the most pressing issue for party R is a Republican issue, that is, if $v_D(D_1) < v_D(R_1)$ and $v_R(R_1) < v_R(D_1)$.

Clearly, if the preferences are partisan, then party R would address R_1 in period 2

regardless of whether party D addressed D_1 or D_2 in period 1, and therefore it does not benefit party D to give priority to D_2. The next proposition shows that when the preferences are partisan, party D does not give priority to a Republican issue either, which implies that it addresses the most pressing Democratic issue D_1 in period 1. In this case, its optimal dynamic agenda coincides with its optimal static agenda.

Proposition 6. *Under majority rule, if the preferences are partisan, party D addresses issue D_1 in period 1.*

We give some intuition for why party D does not give priority to a Republican issue. Note that under partisan preferences, if party D addresses D_1 in period 1, then party R would address issue R_1 in period 2. In this case, by the end of period 2, one issue is moved to D's ideal, one issue is moved to R's ideal, and issues D_2 and R_2 remain unaddressed. If party D addresses R_1 in period 1, then party R would address either issue D_1 or R_2 in period 2. Consider first when party R addresses issue D_1 in period 2. In this case too, by the end of period 2, one issue is moved to D's ideal, one issue is moved to R's ideal, and issues D_2 and R_2 remain unaddressed. That is, party D's period-2 payoff is the same regardless of whether it addresses issue D_1 or R_1 in period 1. Since party D's period-1 payoff is higher by addressing D_1 than addressing R_1 in period 1, party D should give priority to issue D_1 in this case. Lastly, consider the case when party R addresses issue R_2 in period 2. Note that when issue R_1 is addressed in period 1, then party D is worse off if party R addresses issue R_2 than if party R addresses issue D_1. Therefore, by transitivity, party D does not give priority to issue R_1 in this case as well.

Another interesting case is when the parties have nonpartisan preferences and the most pressing issue has a sufficiently bad status quo for both parties. We can think of this as crisis. For example, if D_1 is the most pressing issue with a sufficiently bad status quo for both parties, then party D addresses D_1 even under non-partisan preferences. Not surprisingly, there is no distortion in agenda setting when the parties face a crisis.

6.4 Unanimity rule

In contrast to majority, we show that under unanimity, even if the preferences are partisan, dynamic concerns may drive party D to give priority to a less pressing Democratic issue.

Proposition 7. *Under unanimity rule, even if the preferences are partisan, D may address D_2 in period 1, that is, D may give priority to a less pressing Democratic issue.*

To understand what makes steering still possible under unanimity but not under majority with partisan preferences, note that to successfully steer party R's agenda towards D_1, a necessary condition is that between issues D_1 and R_1, party R prefers to address issue D_1. This can be satisfied under unanimity rule even if the parties' preferences are partisan since under unanimity, the policies that party R can implement on a Republican issue is constrained by the approval of party D, but party R can implement its ideal on a Democratic issue under either rule. This makes it more attractive for party R to address a Democratic issue under unanimity. Indeed, Example 1 given in Section 3 is an illustration of steering under unanimity rule and partisan preferences. However, if the preferences are *strongly partisan*, that is, if $v_D(D_1) + v_D(D) < v_D(R_1) + v_D(r(D_1))$ and $v_R(R_1) + v_R(R) < v_R(D_1) + v_R(d(R_1))$,[9] then party R prefers to address issue R_1 between issues R_1 and D_1 even under unanimity rule. This implies that party D would not give priority to issue D_2 in period 1. One may conjecture that under strongly partisan preferences, party D always address issue D_1 in period 1, an analog of Proposition 6. But as the next proposition shows, unlike what happens under majority rule, party D may still go against its short-term interest and address issue R_1 instead of D_1 in period 1 under unanimity rule.

Proposition 8. *Under unanimity rule, if the preferences are strongly partisan, party D does not give priority to the less pressing Democratic issue D_2, but may still give priority to the Republican issue R_1 in period* 1.

We can think of party D's giving priority to a Republican issue as preemptive agenda setting. If party D does not address the most pressing Republican issue when in power, then its rival will surely address it if it comes in power in the next period. Since party D does not benefit when party R addresses a Republican issue but benefits to some degree if party R addresses a Democratic issue, party D has the incentive to preemptively tackle the most pressing Republican issue and induce the opposition party to address the most

[9]Since $v_D(D) \geq v_D(r(D_1)$ and $v_R(R) \geq v_R(d(R_1))$, strongly partisan preferences imply partisan preferences.

pressing Democratic issue subsequently. Example 1 given in Section 3 is an illustration of this point.

6.5 Supermajority rule

We show that under supermajority rule, the conditions we establish for party D to give priority to the less pressing Democratic issue are robust. Specifically, under partisan preferences, if the party in power in period 2 is likely to be strong, then party D does not give priority to issue D_2 (an extension of Proposition 5), but if the party in power in period 2 is likely to be weak, then party D may give priority to issue D_2 (an extension of Proposition 7).

Proposition 9. *Under supermajority rule and partisan preferences, (i) if it is sufficiently likely that the party in power in period* 2 *is strong, then party D does not give priority to the less pressing Democratic issue* D_2 *in period* 1*, (ii) if it is sufficiently likely that the party in power in period* 2 *is weak, then party D may give priority to the less pressing Democratic issue* D_2 *in period* 1*.*

For part (ii), party D may have incentives to give priority to the less pressing issue D_2 for two reasons. First, if party D expects to lose power to party R, then it may want to roll over the more pressing issue D_1 to induce R to tackle it in period 2. Second, if party D expects to be still in power, but only weakly, then it may want to roll over the more pressing issue D_1 to extract a better compromise. This is reminiscent of Romer and Rosenthal [1979], which shows that a monopoly agenda-setter is better off when the status quo is further away from the opponent's ideal. Our result complements Romer and Rosenthal [1979] by providing an implication of their insight in a dynamic multiple-issue setting. Note that the first incentive is the steering effect identified in Proposition 7, but the second incentive arises only under supermajority rule in which the same party can still be in power in period 2 but with weakened political strength – this is the "seize-the-moment" effect discussed in Example 2 part (b).

Lastly, under supermajority rule, when party D is in weak power but expects to become strong in period 2, it may give priority to issue R_1 against its short-term interest. This happens because it is better for party D to postpone addressing the most pressing issue

D_1 until it gains the political strength to allow it to implement its ideal policy on that issue, which is different from the preemptive incentive we identified in Proposition 8.

Proposition 10. *Under supermajority rule, even if the preferences are strongly partisan, party D may give priority to the Republican issue R_1 in period 1 if it is in weak power in period 1 but expects to be in strong power in period 2.*

7 Discussion and concluding remarks

To summarize the results, party D does not give priority to a less pressing Republican issue under any rule. It may however distort its agenda to give priority to a less pressing Democratic issue to steer party R to address the most pressing Democratic issue. This happens under partisan preferences only when there is political turnover and it is unlikely that the incumbent in the second period is strong. When preferences are strongly partisan, steering does not take place under any rule, but party D may still distort its agenda to give priority to a Republican issue to preempt party R.

We have introduced and analyzed a stylized model of agenda setting with multiple issues and limited capacity to highlight the distortions that can arise when the agenda formed in an early period has dynamic implications. There are many interesting directions in which to extend the model, and we discuss some of them here.

Revisiting an issue. One assumption we have made is that once an issue is addressed, it cannot be addressed again in the next period. In the following example, we illustrate that if an issue addressed earlier is allowed to be revisited, then it creates an endogenous status quo. In this case, in addition to distortions in agenda setting, an incumbent may implement a policy that is not statically optimal on the issue of its choice.

Example 4. Suppose $D = -1$, $R = 1$, and $v_i(x) = -|x - i|$.

First, consider the case in which there are only two Democratic issues with $D_1 = 2.5$, $D_2 = 2$ and the voting rule is majority rule. Specifically, party D is in (strong) power in period 1 and party R is in (strong) power in period 2. If an issue that has been addressed in period 1 cannot be revisited in period 2, then in equilibrium, party D addresses issue D_1 by moving the policy on that issue to its ideal D in period 1 and party R addresses the remaining issue D_2 in period 2 by moving the policy on that issue to its ideal R.

If an issue that has been addressed in period 1 is allowed to be revisited in period 2, however, it is no longer optimal for party D to address D_1 in period 1. To see this, suppose party D addresses D_1 in period 1. Note that if it moves the policy on that issue D_1 to its ideal D, then, in period 2, party R will revisit the issue and move the policy to its ideal R. In this case, the total gain in payoff for party D is $3.5 + 1.5 = 5$. If party D addresses issue D_1 by moving the policy on that issue to 0 instead, then, in period 2, the incumbent party will address issue D_2 by moving the policy on that issue to its ideal R.[10] In this case, party D's total gain in payoff is $2.5 \times 2 + 1 = 6$. Hence, if party D addresses issue D_1 in period 1, it is optimal to move the policy on that issue to 0 instead of all the way to its ideal D to prevent party R from revisiting the issue in period 2. Similarly, if party D addresses issue D_2 in period 1, it is optimal to move the policy on that issue to -0.5 instead of all the way to its ideal so that party R does not revisit the issue in period 2. In this case, party R addresses issue D_1 in period 2 by moving the policy to its ideal $R = 1$. Hence, the total gain in payoff to party D is $2.5 \times 2 + 1.5 = 6.5$, which implies that it is better for party D to address issue D_2. This example shows that when an issue can be revisited, not only does party D give priority to the less pressing issue D_2, it also implements a policy on that issue which is not statically optimal. In particular, the policy it implements is more moderate than if the issue cannot be revisited.[11]

In the preceding example, the set of issues is sparse. Indeed, if there are Republican issues as well as Democratic issues, then party R would address a Republican issue in period 2. Anticipating this, party D would address D_1 in period 1 by moving it to its ideal.[12] But when the set of issue is rich enough, does the incumbent always move the policy on the issue of its choice to the static optimum given its strength of power? The next example shows that the answer is no.

Suppose that there are two Republican issues with $R_1 = -1.2$ and $R_2 = -1$ in addition to the two Democratic issues with $D_1 = 2.5$, $D_2 = 2$. Consider unanimity rule. Assume that party D is in (weak) power in period 1 and party R is in (weak) power in period 2.

[10] We assume that party R addresses issue D_2 with the status quo at 2 even though it is indifferent between addressing D_2 and issue D_1 whose status quo is at 0 in period 2. Without this assumption, party D does not have a best response in period 1.

[11] The moderation effect on policy through endogenous status quo is reminiscent of Bowen, Chen, and Eraslan [2014].

[12] We assume that the preferences are partisan here.

Suppose party D addresses issue D_1 in period 1. Note that if D proposes to move the policy to $r(D_1) = -0.5$, party R will reject the proposal even though $v_R(D_1) = v_R(r(D_1)$. This is because if party R accepts the proposal, then, when it comes in power in period 2, it would address issue D_2 by moving the policy to its ideal R, resulting in a total gain in payoff equal to 1 for party R since it gains 0 in payoff in period 1. However, if party R rejects the proposal in period 1, then, when it comes in power in period 2, it would address issue D_1 by moving the policy to its ideal R, resulting in a total gain in payoff equal to 2 for party R. Because of its dynamic concerns, party R accepts a proposal x on issue D_1 only if $x \geq 0$. In equilibrium, party D addresses issue D_1 by moving the policy on that issue to 0 in period 1 and party R addresses issue D_2 by moving the policy on that issue to its ideal R in period 2. In this example, although party D addresses the most pressing issue in period 1, it does not move it to the static optimum to prevent it from being rejected by the opposition party.

Endogenous number of issues addressed. We have considered the stark case in which only one issue can be addressed in a period. Although this approach has provided useful insight into parties' dynamic incentives in setting their agendas, one should think that the number of major issues that are tackled in a political cycle is not fixed. Understanding what determines the scope of a party's agenda, in particular, when a party is able to push an expansive agenda and when it is stuck in gridlock is an interesting and important question.

Non-stationary preferences. In our model, we assume that preferences do not change over time, which rules out the possibility that an issue that is not the most pressing today can become the most pressing issue in the future if no new policy is implemented (e.g., climate change). New questions arise in the presence of non-stationary preferences – for example, does a party give priority to an issue that is not especially pressing today to prevent it from becoming serious in the future or does it delay addressing the issue to make it urgent for the opposition party to tackle? We leave these interesting questions for future research.

8 Appendix

8.1 Proof of Proposition 2

We first establish the following lemma.

Lemma 3. *Suppose $\pi_2 = \pi_1$. If the incumbent's period-1 payoff is higher by addressing issue k_1 than by addressing issue k_1', then its period-2 payoff is also higher if issue k_1 was addressed than if issue k_1' was addressed in period 1.*

Proof: Suppose party i is the incumbent in both periods. Let $a_i^{\pi}(s)$ be the policy that can be implemented by party i and maximizes its static payoff if it addresses an issue with status quo s in power state $\pi \in \{S_i, W_i\}$. Note that this does not depend on the time period.

Let s_1 and s_1' denote the status quo of issue k_1 and issue k_1' respectively. Since the incumbent's period-1 payoff is higher by addressing issue k than by addressing issue k' in power state π_1, we have $v_i(a_i^{\pi_1}(s_1)) + v_i(s_1') \geq v_i(a_i^{\pi_1}(s_1')) + v_i(s_1)$. Suppose if issue k_1' was addressed in period 1 in power state π_1, then the optimal issue to address in period 2 in power state π_2 is issue k_2. Consider the following cases. (i) Suppose $k_2 \neq k_1$. In this case, if issue k_1 was addressed in period 1 in power state π_1, then the optimal issue to address in period 2 in power state π_2 is still issue k_2. It follows immediately that the incumbent's period-2 payoff in power state $\pi_2 = \pi_1$ is higher if issue k_1 was addressed than if issue k_1' was addressed in period 1. (ii) Suppose $k_2 = k_1$. In this case, party i's period-2 payoff in power state π_2 if issue k_1 was addressed in period 1 and k_1' in period 2 is the same as its period-2 payoff in power state π_2 if issue k_1' was addressed in period 1 and issue $k_2 = k_1$ is addressed in period 2. Since the optimal issue to address in period 2 in power state π_2 is issue k_2 if issue k_1' was addressed in period 1 in power state π_1, it follows that party i's period-2 payoff in power state π_2 is higher if issue k_1 was addressed than if issue k_1' was addressed in period 1. ∎

Proposition 2 is an immediate implication of Lemma 3. ∎

8.2 Proof of Proposition 3

To show part 1, note that when the incumbent is in strong power, it can move the policy on any issue to its ideal. Since the most pressing issue for party i gives it the lowest status quo payoff, it follows immediately that in period 2, party i achieves the highest payoff by addressing the most pressing pressing issue for itself and moving the policy on that issue to its ideal.

To show part $2(a)$, suppose party D is in weak power in period 2. Note that if party D addresses a Republican issue, it moves the policy on that issue to its ideal D, and if party D addresses a Democratic issue with status quo s, it moves the policy on that issue to $r(s)$. Let $\hat{s}$ be the the issue that party D addresses. If $\hat{s}$ is a Republican issue, then the difference in party D's period-2 payoff if it addresses issue s_R and if it addresses issue $\hat{s}$ is $v_D(\hat{s}) - v_D(s_R)$. Since $s_R \leq \hat{s} < D$ and $v_D(x)$ is increasing for $x < D$, addressing s_R is better than addressing any other Republican issue. Similarly, if $\hat{s}$ is a Democratic issue, then the difference in party D's period-2 payoff if it addresses issue s_D and if it addresses issue $\hat{s}$ is $v_D(r(s_D)) + v_D(\hat{s}) - v_D(r(\hat{s})) - v_D(s_D)$. Since $D \leq r(s_D) \leq r(\hat{s}) < \hat{s} < s_D$ and $v_D(x)$ is decreasing for $x \geq D$, it follows that addressing s_D is better than addressing any other Democratic issue. Since party D does not benefit from addressing a controversial issue when it is in weak power, it follows that it either addresses issue s_R or issue s_D. Since the difference in in party D's period-2 payoff if it addresses issue s_R and if it addresses issue s_D is $v_D(D) + v_D(s_D) - v_D(s) - v_D(r(s_D))$, it follows that party D addresses issue s_R if and only if $v_D(D) + v_D(s_D) \geq v_D(s) + v_D(r(s_D))$. A similar argument proves the result if party R is in weak power in period 2.

To prove part $2(b)$, note that if there are only Republican issues and controversial issues, then addressing the Republican issue with the most extreme status quo is better than addressing any other issue, regardless of which party is the incumbent in period 2. In this case, the Republican issue with the most extreme status quo is the most pressing issue for both parties. Similarly, if there are only Democratic issues and controversial issues, then addressing the Democratic issue with the most extreme status quo is better than addressing any other issue, regardless of which party is the incumbent in period 2. In this case, the Democratic issue with the most extreme status quo is the most pressing

issue for both parties. ∎

8.3 Proof of Lemma 1

Without loss of generality, suppose the incumbent in period 1 is D. Consider R_i with $i \geq 3$. We first show that addressing R_2 gives party D a higher payoff than addressing R_i in period 1. If party D addresses either R_2 or R_i, it moves the policy on that issue to its ideal D. Hence, the gain in payoff in period 1 to party D from addressing R_2 instead of R_i in period 1 is $v_D(R_i) - v_D(R_2) > 0$. Note also that if either R_2 or R_i is addressed in period 1, then both R_1 and D_1 are rolled over to period 2, and therefore by Proposition 3 either party's choice in period 2 is not affected. Hence, it is strictly better for party D to address R_2 instead of R_i in period 1. A similar argument shows that it is strictly better for party D to address D_2 than any D_i with $i \geq 3$ or any controversial issue. ∎

8.4 Proof of Proposition 4

We show that addressing R_1 in period 1 results in a higher payoff in both periods for party D than addressing R_2.

Let π_t denote the power state in period t. Since party D is the incumbent in period 1, we have $\pi_1 \in \{S_D, W_D\}$. Note that for any $\pi_1 \in \{S_D, W_D\}$, if party D addresses R_1 or R_2, it moves the policy to its ideal D on that issue. Hence, the difference in period-1 payoff to party D between addressing R_1 and addressing R_2 is $v_D(R_2) - v_D(R_1) > 0$. We next show that party D's period-2 payoff is also higher by addressing R_1 in the first period instead of R_2 for any $\pi_2 \in \{S_D, W_D, S_R, W_R\}$.

By Lemma 3, party D's period-2 payoff in power state $\pi_2 = S_D$ is higher if R_1 instead of R_2 was addressed in the first period since its period-1 payoff is higher by addressing R_1 instead of R_2 when $\pi_1 = S_D$. Similarly, party D's period-2 payoff in power state $\pi_2 = W_D$ is higher if R_1 instead of R_2 was addressed in the first period since its period-1 payoff is higher by addressing R_1 instead of R_2 when $\pi_1 = W_D$. So it suffices to consider what happens if R comes into power in period 2. There are two power states to consider.

(i) Suppose $\pi_2 = S_R$. If $v_R(R_2) < v_R(D_1)$, then $v_R(R_1) < v_R(D_1)$. In this case, if either R_1 or R_2 was addressed in period 1, party R addresses the remaining Republican

issue (R_2 or R_1) by moving the policy to R, and therefore, the period-2 payoff of party D is the same from addressing R_1 or R_2 in the first period. If $v_R(R_1) > v_R(D_1)$, then $v_R(R_2) > v_R(D_1)$. In this case, party R addresses issue D_1 in period 2 regardless of whether issue R_1 or R_2 was addressed in period 1, and the gain in period-2 payoff for party D from addressing R_1 in the first period instead of R_2 is $v_D(R_2) - v_D(R_1) > 0$. Finally, if $v_R(R_2) > v_R(D_1) > v_R(R_1)$, then party R addresses the Democratic issue D_1 if issue R_2 is rolled over to period 2 but addresses the Republican issue R_1 if issue R_1 is rolled over to period 2. In this case, party D's period-2 payoff is $v_D(D) + v_D(R_2) + v_D(D_2) + v_D(R)$ if he addressed R_1 in period 1, and is $v_D(R) + v_D(D) + v_D(D_2) + v_D(D_1)$ if he addressed R_2 in period 1. Since $v_R(R_2) > v_R(D_1)$, by the single-crossing property, it is not possible to have $v_D(D_1) > v_D(R_2)$, and so party D is again better off in period 2 by addressing R_1 in period 1 instead of R_2.

(ii) Suppose $\pi_2 = W_R$. Similar to case (i), if party R addresses the remaining Republican issue or issue D_1 regardless of whether R_1 or R_2 was addressed in period 1, then party D's period-2 payoff is higher from addressing R_1 in period 1. The remaining case is when party R addresses issue D_1 if issue R_2 is rolled over to period 2 but addresses R_1 if R_1 is rolled over to period 2. Note that this happens if

$$v_R(d(R_2)) + v_R(D_1) < v_R(R_2) + v_R(R) \tag{1}$$

and

$$v_R(d(R_1)) + v_R(D_1) > v_R(R_1) + v_R(R). \tag{2}$$

In this case, party D's period-2 payoff is $v_D(D) + v_D(R_2) + v_D(D_2) + v_D(R)$ if he addresses R_1 in period 1, and it is $v_D(d(R_1)) + v_D(D) + v_D(D_2) + v_D(D_1)$ if it addresses R_2 in the period 1.

If $v_D(d(R_1)) = v_D(R_1)$, then D's period-2 payoff from addressing R_1 in period 1 is higher since $v_D(R_2) > v_D(R_1)$ and $v_D(R) > v_D(D_1)$. If $v_D(d(R_2)) > v_D(R_2)$, then it must be the case that $d(R_2) = R$, and since R addresses the Democratic issue D_1 if issue R_2 is rolled over, inequality (1) implies that $v_R(D_1) < v_R(R_2)$. In this case, by the single-crossing property, we have $v_D(R_2) > v_D(D_1)$, and therefore D's period-2 payoff

from addressing R_1 in period 1 is higher. If $v_D(d(R_1)) = v_D(R) > v_D(R_1)$, then the gain in the total payoff for D from addressing R_1 instead of R_2 is $2v_D(R_2) - v_D(R_1) - v_D(D_1)$. If this is positive, then D is better off addressing R_1 in the first period.

As shown in the previous paragraph, if either $v_D(d(R_1)) = v_D(R_1)$, or $v_D(d(R_2)) > v_D(R_2)$, or $2v_D(R_2) - v_D(R_1) - v_D(D_1) > 0$, then D does not address R_2 in period 1. Hence, for D to prefer to address R_2 than R_1 in period 1, the following conditions are necessary: $v_R(d(R_2)) + v_R(D_1) < v_R(R_2) + v_R(R)$ (inequality (2)), $v_D(d(R_1)) > v_D(R_1)$, $v_D(d(R_2)) = v_D(R_2)$, and $2v_D(R_2) - v_D(R_1) - v_D(D_1) < 0$. We next show that these conditions cannot be satisfied simultaneously.

Note that $2v_D(R_2) - v_D(R_1) - v_D(D_1) < 0$ is equivalent to $v_D(R_2) - v_D(R_1) < v_D(D_1) - v_D(R_2)$. Since $v_D(R_2) - v_D(R_1) > 0$, this implies that $v_D(D_1) - v_D(R_2) > 0$. Since $v_D(R) > v_D(D_1)$, we have $v_D(R) - v_D(R_2) > 0$. If $v_D(d(R_2)) = v_D(R_2)$, then we have $v_D(R) - v_D(d(R_2)) > 0$. Since $d(R_2) \in (D, R]$, this cannot be satisfied.

To summarize, party D's total payoff is higher by addressing R_1 than by addressing R_2 in period 1, no matter what power state in period 2 is. Hence, independent of the voting rule, party D does not address R_2 in period 1. ∎

8.5 Proof of Lemma 2

Suppose party D addresses issue D_2 in period 1. Since party D's period-1 payoff is higher if it addresses issue D_1 than if it addresses issue D_2 in period 1, it must be the case that its expected payoff in period 2 is higher by addressing issue D_2 instead of issue D_1 in period 1. By Lemma 3, if party D continues to be in power in period 2, its period-2 payoff is higher if it addresses issue D_1 instead of D_2 in period 1. Hence, if party R comes in power in period 2, party D's period-2 payoff must be higher if it addresses issue D_2 instead of issue D_1 in period 1.

If issue D_1 was addressed in period 1, then Proposition 5 implies that party R addresses either issue R_1 or D_2 in period 2. Suppose, to the contrary of the statement of the lemma, party R addresses issue D_2 in this case. Then it would address issue D_1 if issue D_2 was addressed in period 1. That is, regardless of whether D_1 or D_2 was addressed in period 1, party R would address the remaining Democratic issue in period 2. Note that regardless of the voting rule, party R moves the policy to its ideal if it addresses a Democratic issue.

Under majority rule, party D moves the policy to its ideal if it addresses a Democratic issue and under unanimity rule, party D moves the policy to $r(x)$ if it addresses a Democratic issue with status quo at x. It follows that party D's period-2 payoff is higher if it addresses issue D_1 instead of issue D_2 in period 1, a contradiction.

If issue D_2 was addressed in period 1, then Proposition 5 implies that party R addresses either issue R_1 or D_1 in period 2. If party R addresses issue R_1 in this case, then it would also address issue R_1 if issue D_1 was addressed in period 1, which implies that party D's period-2 payoff is higher if it addresses issue D_1 instead of issue D_2 in period 1. Hence, it must be the case that party R addresses issue D_1 if issue D_2 was addressed in period 1. ∎

8.6 Proof of Proposition 5

We establish the result under the assumption that party R comes in power in period 2 with probability 1. Continuity implies that the result holds if it is sufficiently likely that R comes in power in period 2. Suppose $v_R(D_2) > v_R(R_1) > v_R(D_1)$ and $v_D(R_1) - v_D(D_2) > v_D(D_2) - v_D(D_1)$. We first show that party D prefers to address issue D_2 in period 1 between D_1 and D_2 and then show that party D prefers to address issue D_2 between R_1 and D_2 in period 1.

Suppose party D addresses issue D_2 in period 1. Then, its payoff in period 1 is

$$v_D(R_1) + v_D(R_2) + v_D(D) + v_D(D_1).$$

Since $v_R(R_1) > v_R(D_1)$, party R addresses issue D_1 in period 2, and party D's period-2 payoff is

$$v_D(R_1) + v_D(R_2) + v_D(D) + v_D(R).$$

Suppose party D addresses issue D_1 in period 1. Then, its payoff in period 1 is

$$v_D(R_1) + v_D(R_2) + v_D(D_2) + v_D(D).$$

Since $v_R(R_1) < v_R(D_2)$, party R addresses issue R_1 in period 2, and party D's period-2

payoff is

$$v_D(R) + v_D(R_2) + v_D(D_2) + v_D(D).$$

So the difference in party D's dynamic payoff by addressing issue D_2 in period 1 and by addressing issue D_1 in period 1 is

$$v_D(R_1) + v_D(D_1) - 2v_D(D_2).$$

Since $v_R(D_2) > v_R(R_1) > v_R(D_1)$ and $v_D(R_1) - v_D(D_2) > v_D(D_2) - v_D(D_1)$, it is better for party D to address issue D_2 than issue D_1 in period 1.

Suppose party D addresses issue R_1 in period 1. Then, its payoff in period 1 is

$$v_D(D) + v_D(R_2) + v_D(D_2) + v_D(D_1).$$

In period 2, party R comes in power. Since $v_R(R_2) > v_R(R_1)$ and $v_R(R_1) > v_R(D_1)$, party R addresses issue D_1 in period 2, and party D's period 2 payoff is

$$v_D(D) + v_D(R_2) + v_D(D_2) + v_D(R).$$

Since $v_D(R_1) - v_D(D_2) > v_D(D_2) - v_D(D_1) > 0$, party D prefers to address issue D_2 between R_1 and D_2. ∎

8.7 Proof of Proposition 6

We know from Proposition 4 that party D does not address issue R_2 in period 1. Next consider the choice between issues D_1 and D_2 for party D in period 1. Suppose party R comes in power in period 2. Under partisan preferences, regardless of whether D_1 or D_2 was addressed in period 1, party R addresses issue R_1 in period 2 and therefore it is better for party D to address D_1 than D_2 in period 1. Together with Lemma 3, this implies that when preferences are partisan, addressing D_1 is strictly better than addressing D_2 for party D. So we only need to show that when preferences are partisan, addressing D_1 is strictly better than addressing R_1 for party D.

Under partisan preferences, $v_D(D_1) < v_D(R_1)$, implying that party D's period-1 payoff

is strictly higher by addressing issue D_1 than issue R_1. We next show that party D's period-2 payoff is weakly higher if it addresses issue D_1 instead of R_1 in period 1.

If party D is in power in period 2, then its period-2 payoff is higher if it addresses issue D_1 instead of issue R_1 in period 1 by Lemma 3. Now consider the case in which party R is in power in period 2. If party D addresses D_1 in period 1, then, since $v_R(R_1) < v_R(D_1) < v_R(D_2)$, party R addresses issue R_1 in period 2 and party D's period-2 payoff is

$$v_D(R) + v_D(R_2) + v_D(D_2) + v_D(D).$$

If party D addresses issue R_1 in period 1, then we have either (a) party R addresses issue D_1 in period 2, which happens $v_R(D_1) < v_R(R_2)$, or (b) party R addresses issue R_2 in period 2, which happens if $v_R(R_2) < v_R(D_1)$. We consider the two cases below.

(a) Suppose party R addresses D_1 in period 2. Then party D's period-2 payoff is

$$v_D(D) + v_D(R_2) + v_D(D_2) + v_D(R).$$

In this case, the difference between party D's period-2 payoff if it addresses D_1 and if it addressed R_1 in period 1 is 0.

(b) Suppose party R addresses R_2 in period 2. Then party D's period-2 payoff is

$$v_D(D) + v_D(R) + v_D(D_2) + v_D(D_1).$$

In this case, the difference between party D's period-2 payoff if it addresses D_1 and if it addressed R_1 in period 1 is $v_D(R_2) - v_D(D_1) > 0$.

In both cases, party D's period-2 payoff is weakly higher if it addresses issue D_1 instead of R_1 in period 1. Hence, party D should address issue D_1 in period 1. ∎

8.8 Proof of Proposition 7

We establish the result under the assumption that party R comes in power in period 2 with probability 1. Suppose

$$v_R(d(R_1)) + v_R(D_1) < v_R(R_1) + v_R(R) < v_R(d(R_1)) + v_R(D_2). \tag{3}$$

Then, if R come in power in period 2, it addresses R_1 if D_1 was addressed in period 1 and it addresses D_1 if D_2 was addressed in period 1.

Suppose party D addresses issue D_2 in period 1. Then, its payoff in period 1 is

$$v_D(R_1) + v_D(R_2) + v_D(r(D_2)) + v_D(D_1),$$

and its period 2 payoff is

$$v_D(R_1) + v_D(R_2) + v_D(r(D_2)) + v_D(R).$$

Suppose party D addresses issue D_1 in period 1. Then, its payoff in period 1 is

$$v_D(R_1) + v_D(R_2) + v_D(D_2) + v_D(r(D_1)),$$

and its period 2 payoff is

$$v_D(d(R_1)) + v_D(R_2) + v_D(D_2) + v_D(r(D_1)).$$

It follows that party D prefers addressing D_2 to addressing D_1 in the first period if

$$2v_D(r(D_2)) + v_D(D_1) + v_D(R) + v_D(R_1) > 2v_D(D_2) + 2v_D(r(D_1)) + v_D(d(R_1)). \quad (4)$$

Suppose now party D addresses issue R_1 in period 1. Then, its payoff in period 1 is

$$v_D(D) + v_D(R_2) + v_D(D_2) + v_D(D_1),$$

and its second period payoff is

$$v_D(D) + v_D(R_2) + v_D(D_2) + v_D(R).$$

It follows that party D prefers addressing D_2 to addressing R_1 in the first period if

$$2v_D(R_1) + 2v_D(r(D_2)) > 2v_D(D) + 2v_D(D_2). \quad (5)$$

To sum up, if conditions (3), (4), and (5) are satisfied, then party D addresses D_2 in period 1. Since these conditions can be satisfied under partisan preference, party D may address D_2 even when the preferences are partisan. ∎

8.9 Proof of Proposition 8

Under strongly partisan preferences, if D_2 was addressed in period 1, then party R addresses issue R_1 in period 2. Hence, by Lemma 2, party D does not give priority to the less pressing Democratic issue D_2 in period 1.

To show that party D may still give priority to issue R_1 in period 1, we consider the case in which party R comes in power in period 2 with probability 1.

Suppose party D addresses issue D_1 in period 1. Then, its period-1 payoff is $v_D(R_1) + v_D(R_2) + v_D(D_2) + v_D(r(D_1))$. When party R comes in power in period 2, it addresses issue R_1 by moving it to $d(R_1)$. So party D's period-2 payoff is $v_D(d(R_1)) + v_D(R_2) + v_D(D_2) + v_D(r(D_1))$.

Suppose party D addresses issue R_1 in period 1. Then, its period-1 payoff is $v_D(D) + v_D(R_2) + v_D(D_2) + v_D(D_1)$. Assume that $v_R(R_2) + v_R(R) < v_R(D_1) + v_R(d(R_2))$, so that when party R comes in power in period 2, it addresses issue D_1, resulting in party D's period-2 payoff equal to $v_D(D) + v_D(R_2) + v_D(D_2) + v_D(R)$.

Hence, the difference between party D's dynamic payoff if it addresses issue D_1 and if it addresses issue R_1 in period 1 is

$$v_D(R_1) + v_D(d(R_1)) + 2[v_D(r(D_1)) - v_D(D) - v_D(D_1)] + v_D(D_1) - v_D(R).$$

It follows that if $v_D(R) - v_D(D_1) > v_D(R_1) + v_D(d(R_1)) + 2[v_D(r(D_1)) - v_D(D) - v_D(D_1)]$, which is still possible under strongly partisan preferences, party D addresses issue R_1 in period 1. ∎

9 Proof of Proposition 9

We prove part (i) by considering the cases when $\pi_1 = S_D$ and when $\pi_1 = W_D$. (a) Suppose $\pi_1 = S_D$. Then party D's period-1 payoff is higher by addressing issue D_1 than

by addressing issue D_2. If$\pi_2 = S_D$, then, by Lemma 3, its period-2 payoff is also higher if it addressed D_1 than if it addressed D_2 in period 1. If $\pi_2 = S_R$, then, since preferences are partisan, party R will address issue R_1 regardless of whether D_1 or D_2 was addressed in period 1. In this case, party D's period-2 payoff is again higher if it addressed D_1 than if it addressed D_2 in period 1. Since party D's dynamic payoff is higher by addressing issue D_1 than issue D_2 in period 1 when the incumbent in period 2 will be in strong power, continuity implies that if it is sufficiently likely that the incumbent will be in strong power in period 2, then party D does not give priority to the less pressing Democratic issue D_2 in period 1. (b) Suppose $\pi_1 = W_D$. Then party D's period-1 payoff is again higher by addressing issue D_1 than by addressing issue D_2. As shown in part (a), if $\pi_2 = S_R$, then party D's period-2 payoff is higher if it addressed D_1 than if it addressed D_2 in period 1. So we only need to consider the case when $\pi_2 = S_D$. If party D addresses issue D_2 in period 1, then it will address issue D_1 in period 2 when it comes in strong power. Hence, the total gain in its payoff is $2[v_D(r(D_2)) - v_D(D_2)] + v_D(D) - v_D(D_1)$. If party D addresses issue D_1 in period 1, then it will address either issue D_2 or issue R_1 in period 2 when it comes in strong power. Hence, the total gain in its payoff is

$$\begin{aligned} &2[v_D(r(D_1)) - v_D(D_1)] + \max\{v_D(D) - v_D(D_2), v_D(D) - v_D(R_1)\} \\ \geq &2[v_D(r(D_1)) - v_D(D_1)] + v_D(D) - v_D(D_2). \end{aligned}$$

Since

$$\begin{aligned} &2[v_D(r(D_1)) - v_D(D_1)] + v_D(D) - v_D(D_2) - [2[v_D(r(D_2)) - v_D(D_2)] + v_D(D) - v_D(D_1)] \\ =&2[v_D(r(D_1)) - v_D(r(D_2))] + v_D(D_2) - v_D(D_1) > 0, \end{aligned}$$

it follows that party D's dynamic payoff is higher by addressing issue D_1 than issue D_2 in period 1 in this case too. Continuity implies that if it is sufficiently likely that the incumbent will be in strong power in period 2, then party D does not give priority to the less pressing Democratic issue D_2 in period 1.

We prove part (ii) also by considering the cases when $\pi_1 = W_D$ and when $\pi_1 = S_D$. (a) Suppose $\pi_1 = W_D$. As shown in Proposition 7, party D may give priority to issue D_2 when

the incumbent in period 2 will be in weak power. By continuity, party D may give priority to issue D_2 when it is sufficiently likely that the incumbent in period 2 will be in weak power. (b) Suppose $\pi_1 = S_D$. First, consider the case when $\pi_2 = W_R$. Suppose (3) holds, which implies that party R addresses R_1 if D_1 was addressed in period 1 and addresses D_1 if D_2 was addressed in period 1. Hence, if party D addresses issue D_2 in period 1, then its total gain in payoff is $2[v_D(D) - v_D(D_2)] + v_D(R) - v_D(D_1)$ and if party D addresses issue D_1 in period 1, then its total gain in payoff is $2[v_D(D) - v_D(D_1)] + v_D(d(R_1) - v_D(R_1)$. It follows that party D prefers to address D_2 than D_1 in period 1 if

$$v_D(R) - v_D(D_1) + v_D(R_1) - v_D(d(R_1)) + 2[v_D(D_1) - v_D(D_2)] > 0. \tag{6}$$

Suppose party D addresses issue R_1 in period 1. Then party R will address issue D_1 in period 2 and party D's total gain in payoff is $2[v_D(D) - v_D(R_1)] + v_D(R) - v_D(D_1)$. It follows that party D prefers to address D_2 than R_1 in period 1 if $v_D(D_2) < v_D(R_1)$.

Next, consider the case when $\pi_2 = W_D$. Suppose that

$$v_D(r(D_2)) - v_D(D_2) > v_D(D) - v_D(R_1), \tag{7}$$

which implies that party D addresses a Democratic issue in period 2. If party D addresses issue D_1 in period 1, then it will address issue D_2 in period 2 and its total gain in payoff is $2[v_D(D) - v_D(D_1)] + v_D(r(D_2)) - v_D(D_2)$. If party D addresses issue D_2 in period 1, then it will address issue D_1 in period 2 and its total gain in payoff is $2[v_D(D) - v_D(D_2)] + v_D(r(D_1)) - v_D(D_1)$. If party D addresses issue R_1 in period 1, then it will address issue D_1 in period 2 and its total gain in payoff is $2[v_D(D) - v_D(R_1)] + v_D(r(D_1)) - v_D(D_1)$. Given (7), party D prefers to address issue D_2 than issue R_1 in period 1. Also, if

$$v_D(r(D_1)) - v_D(r(D_2)) + v_D(D_1) - v_D(D_2) > 0, \tag{8}$$

then party D prefers to address issue D_2 than issue D_1 in period 1. To summarize, if (3), (6), (7), (8), and $v_D(D_2) < v_D(R_1)$ hold, then party D gives priority to issue D_2 if the incumbent is in weak power in period 2. By continuity, the result holds if it is sufficiently likely that the incumbent is in weak power in period 2. ∎

References

E. Aragonès, M. Castanheira, and M. Giani. Electoral competition through issue selection. *American Journal of Political Science*, forthcoming.

J. S. Banks. Sophisticated voting outcomes and agenda control. *Social Choice and Welfare*, pages 295–306, 1985.

S. Barberà and A. Gerber. Sequential voting and agenda manipulation. *Working paper*, 2014.

D. Black. *The Theory of Committees and Elections*. Cambridge University Press, Cambridge, MA, 1958.

R. Bowen, Y. Chen, and H. Eraslan. Mandatory versus discretionary spending: The status quo effect. *American Economic Review*, 104(10):2941–2974, 2014.

Y. Chen and H. Eraslan. Informational loss in bundled bargaining. *Journal of Theoretical Politics*, 25(3):338–362, 2013.

Y. Chen and H. Eraslan. Rhetoric in legislative bargaining with asymmetric information. *Theoretical Economics*, 9(2):483–513, 2014.

J. Copic and J. Katz. Auctioning off the agenda: Bargaining in legislatures with endogeneous scheduling. *Working paper*, 2012.

J. Duggan and C. Martinelli. A spatial theory of media slant and voter choice. *Review of Economic Studies*, 78(2):640–66., 2011.

G. Egorov. Single-issue campaigns and multidimensional politics. *working paper*, 2012.

C. Fershtman. The importance of the agenda in bargaining. *Games and Economic Behavior*, 2:224–238, 1990.

Y. In and R. Serrano. Agenda restrictions in multi-issue bargaining. *Journal of Economic Behavior & Organization*, 53(385-399), 2004.

R. Inderst. Multi-issue bargaining with endogenous agenda. *Games and Economic Behavior*, 30:64–82, 2000.

M. Jackson and B. Moselle. Coalition and party formation in a legislative voting game. *Journal of Economic Theory*, 103:49–87, 2002.

J. Kingdon. *Agendas, Alternatives and Public Policies*. Harpers Collins, 1984.

K. Lang and R. W. Rosenthal. Bargaining piecemeal or all at once? *The Economic*

Journal, 111(473):526–540, 2001.

M. McCombs and D. Shaw. The agenda-setting function of mass media. *Public Opinion Quarterly*, 36(2):176–187, 1972.

R. D. McKelvey. Intransitivities in multidimensional voting models and some implications for agenda control. *Journal of Economic Theory*, 12:472–482, 1975.

C. R. Plott and M. E. Levine. A model of agenda influence on committee decisions. *The American Economic Review*, 68(1):146–160, March 1978.

T. Romer and H. Rosenthal. Bureaucrats versus voters: On the political economy of resource allocation by direct democracy. *Quarterly Journal of Economics*, 93(4):563–587, 1979.