Dynamic Agenda Setting*

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Abstract

A party can address only a limited number of issues when in power. What issues to address - the party's agenda - has dynamic implications because it affects what issues will be addressed in the future. We analyze a model in which the incumbent in each period addresses one issue among several issues and the remaining issues roll over to the next period. We identify strategic manipulations in the forms of *waiting for the moment*, *seizing the moment*, *steering*, and *preemption* depending on how power fluctuates. We discuss efficiency implications of these strategic manipulations.

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Keywords: agenda setting; multi-issue bargaining; waiting for the moment; seizing the moment; steering; preemption

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1 Introduction

Legislation is not only about what policies to implement, but also about what priorities to set. Time is limited: in the U.S., for example, each congressional term covers a two-year period during which only a small number of issues can be addressed. As such, a party in power must prioritize which issues to address while in office. This raises many questions, for example, which issues are to be prioritized? How does the agenda depend on the strength of political power of the incumbent, the political climate, the characteristics of the issues and the institutional rules?

In this paper we take a first step towards answering these questions by considering 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 to legislate among many issues (for example, immigration, healthcare, education, tax reform), 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.

To abstract away from the possibility of strategic manipulations 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 consider 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.

We identify issues with their status quos and distinguish between controversial and non-controversial issues. For a controversial issue, the parties would like to move policy in opposite directions, but for a non-controversial issue, there are policies that both parties prefer to the

status quo. Denoting the two parties by D and R, we call a non-controversial issue a *Democratic* issue when its a status quo is so far away from the ideal of party D that party D regards party R's ideal as an improvement over the status quo. Likewise, we call an issue a *Republican* issue when its a status quo is so far away from the ideal of party R that party R regards party D's ideal as an improvement over the status quo. The issues differ on how pressing they are: an issue whose status quo yields a lower payoff for a party is more pressing for that party. We focus on partisan preferences in the sense that the most pressing issue for party D is a Democratic issue and the most pressing issue for party R is a Republican issue, but we assume that parties agree which issue is most pressing among the Democratic issues, and which issue is most pressing among the Republican issues.

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 optimal static agenda. When the opposition party is anticipated to come in power in the next period or when the incumbent is expected to gain or lose strength, however, the incumbent in period one may strategically manipulate its agenda. We identify two kinds of manipulation in agenda setting due to dynamic concerns. To illustrate these manipulations, suppose party D is the incumbent in the first period.

The first kind of manipulation is when party D gives priority to a less pressing Democratic issue. This can benefit 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 and 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 the *steering* effect.

Even when party D is in power in both periods, giving priority to a less pressing Democratic issue can still be beneficial if party D is in strong power early on but anticipates to lose its political strength over time. Specifically, party D may take advantage of its strong political power to address a somewhat less pressing issue and implement its ideal policy, knowing that it will be unable to do so when its power diminishes in the future and the consent of the opposition

party is needed. We call this the *seize-the-moment* effect. Although addressing a less pressing Democratic issue can be dynamically optimal for the incumbent, it is Pareto inefficient since both parties would be better off if the most pressing Democratic issue is addressed first instead.

Many have found the Obama administration's preoccupation with healthcare 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 a more pressing Democratic issue and healthcare reform as a less pressing Democratic issue. The Obama administration pushed through the healthcare legislation when the Democratic Party controlled both chambers of the Congress. It is plausible that this was partly due to the realization that they would lose the opportunity of reform with weaker power (seize-the-moment effect). Indeed, some of the news coverage 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 among the reasons for why the moment had arisen.[1] Moreover, since the economy is also a pressing issue for the Republicans, the Democrats could still benefit if the Republican party comes in power and addresses the economic issue (the steering effect).

The second kind of manipulation is when party D gives priority to the most pressing Republican issue. This can benefit party D if party R, when it comes in power, addresses the most pressing Republican issue if it is still on the table, but addresses the most pressing Democratic issue when the most pressing Republican issue is no longer on the table. Note that if party R addresses a Democratic issue, it implements its ideal independent of its strength of power and party D benefits since party D views party R's ideal to be an improvement over status quo for a Democratic issue. By contrast, if party R addresses a Republican issue, it either implements its ideal or it implements a policy that party D is just willing to accept. If the most pressing Republican issue has a status quo that is close to party D's ideal, party D does not gain when party R addresses a Republican issue, and therefore it has an incentive to give priority to a Republican issue to prevent party R from addressing it. This is what we call the *preemptive* effect.

We can interpret the "triangulation" strategy used by the Clinton administration to tackle

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

crime, a longstanding Republican issue, as an example of preemptive agenda setting. The term is due to the political consultant Dick Morris who was an advisor to Bill Clinton. 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."[2] Indeed, the crime bill addressed a traditionally Republican issue but introduced certain progressive policies, for example, crime prevention programs and a ban on assault weapons. Arguably these had preemptive effects on the Republicans and prevented them from implementing more drastic policies. In our model, such preemptive agenda setting happens only when the incumbent expects to lose power in the future. When the crime issue was tackled, the Democrats controlled both the Congress and the presidency, but during the midterm elections of 1994, the Democrats lost both chambers of the Congress to the Republicans.

Another possible reason for party D to give priority to a Republican issue is that by postponing the most pressing Democratic issue, party D may be able to implement a better policy on that issue later on. This happens when party D is in weak power early on but anticipates to gain in political strength in the future. We call this the *wait-for-the-moment* effect, a counter-point of seize-the-moment effect.

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 against 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 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 Cŏpič 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,

[2]See Morris [2003].

[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.

there is only one issue in their model. A recent literature analyzes bargaining over multiple issues, but the emphasis has mostly been on comparing the case when players bargain over the issues separately and the case when they bundle them together (see, for example, Fershtman [1990], Inderst [2000], Lang and Rosenthal [2001], Chen [2002], Jackson and Moselle [2002], In and Serrano [2004], Chen and Eraslan [2013, 2014]). Similar to our paper, Anton and Yao [2013] also consider a dynamic setting, but they focus on the effect of delaying an issue on the allocation of influence activity in the future.

Our paper is also related to studies on issue selection in affecting election outcomes. Dellis [2009] shows that politicians may manipulate policies in order to influence the set of issues that is decisive in future elections; and Egorov [2012] and Aragonès, Castanheira, and Giani [2015] study issue selection in political campaigns. Our paper complements 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 to affect future agenda.

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]). 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 examples in section 3 to illustrate the strategic manipulations that can arise due to dynamic concerns. We discuss two benchmarks, Pareto efficient outcomes and dictatorship outcomes, 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. 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. In period 1, any issue can be legislated, and in period 2, any issue other than the one legislated in period 1 can be legislated.[4]

The status quo of an issue is in $\mathbb{R}$. We assume that party D's ideal policy on each issue is $D \in \mathbb{R}$ and party R's ideal policy on each issue is $R \in \mathbb{R}$ with $R > D$. 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 of R. The total number of issues is $N = n_R + n_C + n_D$ and we assume that $N \geq 2$. From now on, we identify an issue in a given period with its status quo for ease of exposition.[5]

The stage utility for party $i \in \{D, R\}$ from the policies implemented at time t is additively separable across issues and each party has the same payoff function on each issue.[6] 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 $u_i(\mathbf{z}_1) + u_i(\mathbf{z}_2)$.[7]

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

[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. Glazer and Lohmann [1999] quote Bill Clinton as saying "After I sign my name to this bill, welfare will no longer be a political issue. ... The two parties cannot attack each other over it" right before signing the welfare bill to "end welfare as we know it." Although in practice it is possible that an issue addressed previously is brought to the negotiation table again, 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.

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

[6]These assumptions allow us to reduce this multi-dimensional problem to a single dimensional problem and highlight the basic ideas in a simple model. Similar manipulations in agenda setting as those identified in our paper would arise in a multi-dimensional setting in which the parties' ideals and their payoff functions are different across different dimensions, but the analysis would be significantly more complicated.

[7]We assume that there is no discounting to avoid more notation. If discounting is introduced, our main results would hold with the discount factor sufficiently high.

is persistent, and the parties continue to care about the issues that they addressed in the past. This is why when an issue is addressed in period 1, the parties gain in both that period and the next period.

We assume v_i is continuous and single-peaked at i. 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 that issues between D and R are controversial, and issues outside the $[D, R]$ 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

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

Note that since v_i is single-peaked, 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. Moreover, we assume the preferences satisfy a single-crossing property. Specifically, for any x and x' such that $x' > x$, if $v_D(x') \geq v_D(x)$ 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 *more pressing for party* i than issue s' if $v_i(s) < v_i(s')$. 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 $v_R(R_1) < v_R(D_1)$. For most of our analysis, we assume that the preferences are partisan.[8]

For a given issue being legislated, how a policy is chosen depends on the political strength of the incumbent party. If the incumbent party is strong, then it unilaterally chooses the policy to implement. If it is weak, then 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. If the out-of-power party accepts, the proposal is implemented; otherwise the status quo prevails. Since there are two parties, there are four possible power states denoted by S_D, S_R, W_D, and W_R. In period t, political power is described by the the realization of a random variable $\pi_t \in \{S_D, S_R, W_D, W_R\}$. If $\pi_t = S_i$, party i is in strong power in

[8]We focus on partisan preferences since they seem plausible. We discuss what happens under nonpartisan preferences in footnote 20.

period t; if $\pi_t = W_i$, party i is in weak power in period t. For expositional simplicity, we assume that π_1 is degenerate, that is $\Pr(\pi_1 = x) = 1$ for some $x \in \{S_D, S_R, W_D, W_R\}$.[9] We assume that the distribution of π_t is exogenously given, but what power states can occur with positive probability depends on the institution.[10] 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 the first period rolls over to the second period, there is a dynamic link between the decisions made in the first period and the feasible actions in the second period. 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 Examples

In this section, we use simple examples to illustrate the potential manipulations in agenda-setting due to dynamic concerns. For all the examples, we assume that $D = -1$ and $R = 1$.

Example 1. *Party D addresses a less pressing Democratic issue under unanimity rule.*

Suppose there are two Democratic issues and two Republican issues with $R_1 = -1.4$, $R_2 = -1.25$, $D_2 = 1.75$, $D_1 = 1.9$, and $v_i(x) = -|x - i|$. These issues together with the parties'

[9] This assumption has no consequence for the analysis since we consider different initial power state. We can think of this as indexing the equilibrium by the realization of the initial state, as in Dixit, Grossman, and Gül [2000].

[10] Many political economy models assume that the transition probability is independent of the incumbent's policy choice. See, for example, Persson and Svensson [1989], Tabellini and Alesina [1990], Acemoğlu, Golosov, and Tysvinski [2011] and Callander and Hummel [2014].

preferences are illustrated in Figure 1.[11] Party D is in weak power in period 1 and party R will come in weak power in period 2.

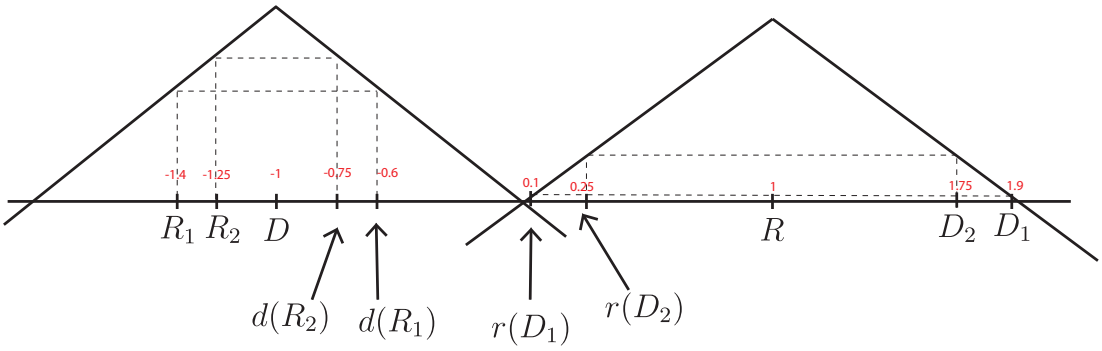

Figure 1: Example 1

Given that party D needs the consent of party R to change policy in period 1, if it addresses issue D_1, then it can move the policy on D_1 to 0.1 by making party R just willing to accept. Likewise, if it addresses issue D_2, then it can move the policy on issue D_2 to 0.25 by making party R just willing to accept. Since party D can obtain a better compromise by addressing issue D_1, it is in the short-term interest for party D to address the most pressing Democratic issue D_1 instead of addressing the less pressing Democratic issue D_2. But as we show below, with dynamic considerations, party D finds it optimal to roll over the most pressing issue to period 2 to induce party R to address D_1 in period 2.

To see this, note that if party D addresses issue D_1 in period 1, then party R addresses issue R_1 in period 2. This is because 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). 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. As a result, party R gains more by addressing R_1 than by addressing D_2.

By contrast, if party D addresses issue D_2 in period 1, then party R addresses 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

[11] 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.

can move policy on R_1 by only 0.8 (from -1.4 to -0.6). Although issue R_1 is the most pressing issue for party R, its ability to move the policy on that issue is limited given its weak power whereas it can still implement its ideal policy on issue D_1. Consequently, when issue D_1 is still on the table, party R finds it optimal to address it even though it is less pressing than issue R_1.

Given that party D does not gain when party R addresses issue R_1 (which happens when party D addresses issue D_1 in the first period) but gains somewhat when party R addresses issue D_1 (which happens when party D addresses issue D_2 in the first period), addressing issue D_1 instead of addressing issue D_2 in period 1 involves long term costs. It is straightforward to verify that these long term costs overweigh the short term benefits,[12] and as a result, party D is better off addressing issue D_2 in period 1 instead of addressing D_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 from addressing D_2 is higher for party D.

As this example illustrates, a party's dynamic concerns can lead to manipulations in agenda setting in the sense that its optimal dynamic agenda is different from its optimal static agenda. Here, dynamic concerns drive party D to give priority to a less pressing Democratic issue. Intuitively, this is dynamically optimal because party D can steer party R's agenda towards addressing the most pressing Democratic issue in period 2 when 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.

Example 2. *Party D addresses a less pressing Democratic issue under supermajority rule.*

The issues and party D's preferences are as in Example 1. Party R's preferences are given by $v_i(x) = \frac{1}{2}|x-1|$ if $x \leq 1$, and $v_i(x) = |x-1|$ if $x \geq 1$. The issues together with the parties'

[12] 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.

preferences are illustrated in Figure 2. Party D is strong power in period 1 and it will be in weak power in period 2.

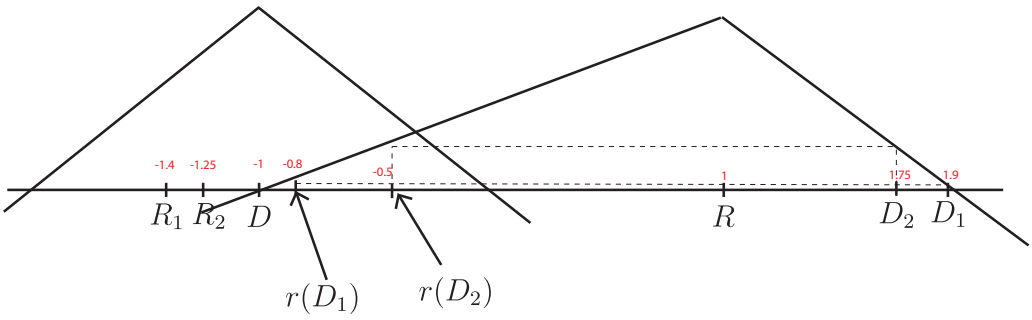

Figure 2: Example 2

As in Example 1, it is in the short-term interest for party D to address issue D_1 in period 1 but its optimal dynamic agenda gives priority to D_2 in period 1. To understand the dynamic incentive in this case, first note that if issue D_1 is rolled over to period 2, then party D addresses issue D_1 in period 2, but it addresses issue D_2 in period 2 if D_1 is already addressed in period 1.[13] Turning to period 1, regardless of which issue party D addresses in period 1, it will move the policy on that issue to its ideal since it is in strong power in period 1. It is 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 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 when its power weakens in the future. Consequently, party D finds it optimal to address D_2 in period 1 to take advantage of its strong power.[14] We

[13]Since party D is in weak power in period 1, it can move the policy on issue D_1 towards its ideal by 2.7 (from 1.9 to -0.8), on issue D_2 by 2.25 (from 1.75 to -0.5), on R_1 by 0.4 (from -1.4 to -1) and on R_2 by 0.25 (from -1.25 to -1).

[14]If party D addresses issue D_1 in period 1, then it can move the policy towards its ideal by 2.9 on that issue (from 1.9 to -1). In this case, it addresses issue D_2 in period 2 by moving the policy on D_2 from 1.75 to -0.5. Hence, the total gain for party D across the two periods is $2 \times 2.9 + 2.25 = 8.05$. If party D addresses issue D_2 in period 1, then it can move the policy on that issue towards its ideal by 2.75 on that issue (from -1.75 to -1). In this case, it addresses issue D_1 in period 2 by moving the policy on that issue by 2.7 (from 1.9 to ideal -0.8). Hence, the total gain in payoff for party D across the two periods is $2.75 \times 2 + 2.7 = 8.2$, which is higher than the total gain for party D if it addresses issue D_1 in period 1.

can think of this as a "seize-the-moment" effect. As in Example 1, the outcome is inefficient.

Example 3. *Party D addresses a Republican issue under unanimity rule.*

Suppose there are two Democratic issues and two Republican issues with $R_1 = -1.975$, $R_2 = -1.2$, $D_2 = 1.4$, $D_1 = 1.5$, and $v_i(x) = -|x - i|$. These issues together with the parties' preferences are illustrated in Figure 3. Party D is in weak power in period 1 and party R will come in weak power in period 2.

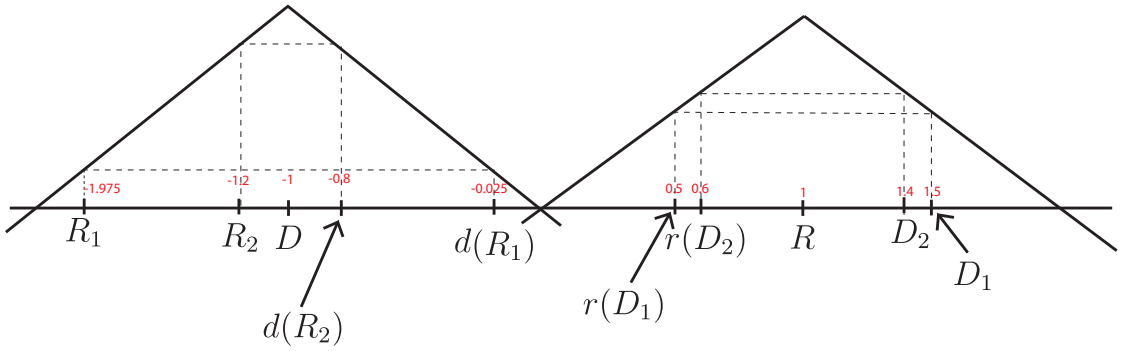

Figure 3: Examples 3 and 4

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 0.975 (from -1.975 to -1), but we show below that the optimal agenda for party D is to give priority to the Republican issue R_1.

To see this, note that if issue R_1 is rolled over to period 1, then party R finds it optimal to address R_1 in period 2, but if issue R_1 is addressed in period 1, then party R finds it optimal to address D_1 in period 2.[15] Since party R addresses issue R_1 regardless of what other issue was addressed in period 1 and party D's period-1 payoff is higher by addressing issue D_1 instead of D_2 or R_2, it follows that addressing issue D_1 is strictly better than addressing issue D_2 or R_2 in period 1 for party D. So we only need to compare the choice between issue D_1 and issue R_1.

[15]Under unanimity, party R can move the policy on R_1 towards its ideal by 1.95 (from -1.975 to -0.025), on R_2 by 0.4 (from -1.2 to -0.8), on D_1 by 0.5 (from 1.5 to 1), and on D_2 by 0.4 (from 1.4 to 1).

Given that party D does not gain when party R addresses issue R_1 (which happens when party D addresses issue D_1 in the first period) but gains somewhat when party R addresses issue D_1 (which happens when party D addresses issue R_1 in the first period), addressing issue D_1 instead of addressing issue R_1 in period 1 involves long term costs. It is straightforward to verify that these long term costs overweigh the short term benefits,[16] and as a result, party D is better off addressing issue R_1 in period 1 instead of addressing D_1.

In this example, party D's dynamic incentive drives it to go against its short-term interest and give priority to a Republican issue. 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. Unlike in the previous example the equilibrium outcome is still efficient since there is no Pareto improvement.

Example 4. *Party D addresses a Republican issue under supermajority rule.*

The issues and the parties' preferences are the same as in Example 3, but now party D is in weak power in period 1 and expects to have strong power in period 2.

As in Example 3, it is in the short-term interest for party D to address issue D_1 in period 1 but its optimal dynamic agenda gives priority to R_1 in period 1. To understand the dynamic incentives in this case, first note that regardless of which issue party D addresses in period 2, it will move the policy on that issue to D since it is in strong power in period 2. As such, if issue D_1 is rolled over the second period, then party D addresses issue D_1, and it addresses issue D_2 in period 2 if D_1 was already addressed in period 1. Turning to period 1, the ability of party D to move the policy on Democratic issues towards its ideal is constrained by the acceptance condition of party R. By contrast, party D can still implement its ideal on a Republican issue even when in weak power. Consequently, party D finds it optimal to address R_1 in period 1

[16] If party D addresses issue D_1 in period 1, then it can move the policy towards its ideal by 1 on that issue (from 1.5 to 0.5). In this case, party R addresses issue R_1 in period 2 by making party D indifferent between the new policy and the status quo. Hence, the total gain for party D across the two periods is $2 \times 1 = 2$. If party D addresses issue R_1 in period 1, then it can move the policy towards its ideal by 0.975 on that issue (from -1.975 to -1). In this case, party R addresses issue D_1 in period 2 by moving the policy on that issue from 1.5 to its own ideal 1. Hence, the total gain in payoff for party D across the two periods is $0.975 \times 2 + 0.5 = 2.45$, which is higher than 2, the total gain for party D if it addresses issue D_1 in period 1.

and postpone addressing D_1 to period 2 to take advantage of its strong power in period 2.[17] We can think of this as "wait-for-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 on only one issue can be changed in each period. We impose this constraint since parties in the game we consider can change policy on only one issue in each 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 set of the issues at the beginning of period 1, 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:

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

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

for some $\bar{U}$.

We use the following result to discuss efficiency properties of equilibria. All the proofs are in the Appendix.

Proposition 1. *In any dynamically Pareto efficient outcome, if s is more pressing than s' for both parties and issue s' is addressed, then issue s is addressed in period* 1.

[17] If party D addresses issue D_1 in period 1, then it can move the policy towards its ideal by 1 on that issue (from 1.5 to 0.5). In this case, it addresses issue D_2 in period 2 by moving the policy on D_2 from 1.4 to its ideal -1. Hence, the total gain for party D across the two periods is $2 \times 1 + 2.4 = 4.4$. If party D addresses issue R_1 in period 1, then it can move the policy towards its ideal by 0.975 on that issue (from -1.975 to -1). In this case, it addresses issue D_1 in period 2 by moving the policy on that issue from 1.5 to its ideal -1. Hence, the total gain in payoff for party D across the two periods is $0.975 \times 2 + 2.5 = 4.45$, which is higher than the total gain for party D if it addresses issue D_1 in period 1.

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 is better off by addressing issue s and implementing its ideal policy on that issue if $v_i(s) < v_i(s')$. This implies that 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.[18]

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.*

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 strategic manipulation 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 still change, so Proposition 2 no longer applies. Indeed, as illustrated in Examples 2 and 4, under supermajority rule, the optimal dynamic agenda may be different from the optimal static agenda even if the incumbent remains the same. In the next section, we analyze what strategic manipulations in agenda setting may arise from dynamic concerns in the presence of power fluctuations in general.

[18] All the remaining results describe equilibrium properties.

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 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 under unanimity. The figures below illustrate these two functions.

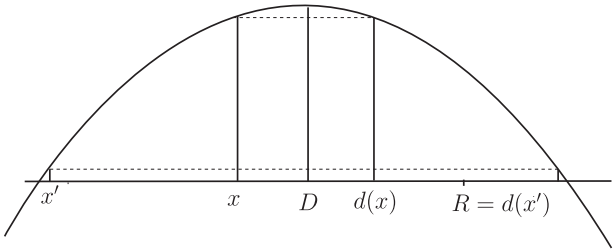

Figure 4: $d(\cdot)$

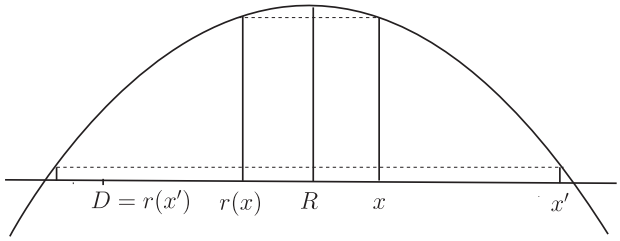

Figure 5: $r(\cdot)$

The next proposition characterizes the optimal agenda in period 2. For expositional simplicity, 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.

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 and not all issues are controversial.

(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) If the non-controversial issues are all Democratic issues or all Republican issues, then the incumbent addresses the most pressing issue 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

We first 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. As such, when we discuss the parties' payoffs in the remainder of this section, we omit the payoffs from controversial

issues.[19]

We next establish 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 argument 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

[19] When the set of issues is sparse, then it is possible that controversial issues are addressed in equilibrium as illustrated by the following example. Suppose the voting rule is supermajority, and party D is in strong power in period 1 and is expected to be in weak power in period 2. Suppose also 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. 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.

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 independent of the voting rule. But does party D ever give priority to a less pressing Democratic issue? As we show in the following subsections, the answer depends on the voting rule and the degree of polarization between the two parties. Before we turn to different voting rules, we provide the following lemma, which gives a useful 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 rule or unanimity rule, if party D addresses issue D_2 in period 1, 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.*

Under majority rule and unanimity rule, power fluctuates only when the opposition party comes in power in period 2. As such, by Proposition 2, for party D to give priority to the less pressing Democratic issue in period 1 under either rule, the probability that party R comes in power in period 2 must be positive. Lemma 2 says that it also must be the case that party D's 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 has been addressed, then party R addresses the most pressing Republican issue, but if the most pressing Democratic issue is still on the table, then party R addresses it.

6.1 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. Party D's period-1 payoff is clearly higher if it addresses issue D_1 than if it addresses issue D_2. If party D continues to be in power in period 2, then, as shown in Proposition 2, party D is better off by addressing D_1 than D_2 in period 1. Furthermore, since R_1 is the most pressing issue for party R, if party R comes in power in period 2, it would address R_1 regardless of whether D_1 or D_2 was addressed

in period 1. It follows that, there is no gain in its period-2 payoff if party D gives priority to issue D_2 and therefore it does not give priority to D_2 in period 1. In the next proposition, we show that party D does not benefit from giving priority to a Republican issue either, implying that it addresses the most pressing Democratic issue D_1 in period 1. So under majority rule, the incumbent's optimal dynamic agenda coincides with its optimal static agenda.

Proposition 5. *Under majority rule, 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 under majority rule. Note that 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, another 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 issue R_2 in period 2. Consider first the case 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, another issue is moved to R's ideal, and issues D_2 and R_2 remain unaddressed, implying that 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. Lastly, consider the case when party R addresses issue R_2 in period 2. Note that 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.[20]

6.2 Unanimity rule

In contrast to majority rule, under unanimity rule, dynamic concerns may drive party D to give priority to a less pressing Democratic issue. To understand the difference, recall that by Lemma 2, if party D addresses D_2 in period 1, it must be the case that if party R comes in

[20]When preferences are nonpartisan, it is possible that party D gives priority to a less pressing Democratic issue. Specifically, 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. 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 manipulation in agenda setting when the parties face a crisis.

power in period 2, party R would address D_1 if it is still on the table but would address R_1 if D_1 is no longer on the table. A necessary condition for this is that between issues D_1 and R_1, party R prefers to address issue D_1. Since the most pressing issue for party R is R_1, this clearly cannot be satisfied under majority rule, but it can still be satisfied under unanimity rule. This is because 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, which makes it more attractive for party R to address a Democratic issue under unanimity. Hence, under unanimity, party D may affect party R's agenda in period 2 by giving priority to issue D_2 and thus leaving D_1 still on the table. This manipulation is beneficial to party D if the gain in its period-2 payoff more than compensates the loss in its period-1 payoff. We call this the *steering* effect since the reason for party D to give priority to the less pressing issue D_2 is that it can then steer party R's agenda towards addressing D_1. By Proposition 1, steering is inefficient since both parties would benefit if issue D_1, which is more pressing for both parties, is addressed in period 1 instead.

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 $v_R(R_1)+v_R(R) < v_R(D_1)+v_R(d(R_1))$,[21] then party R prefers to address issue R_1 between issues R_1 and D_1 even under unanimity rule, and this implies that party D would not give priority to issue D_2 in period 1. One may conjecture that under unanimity rule, if preferences are strongly partisan, then party D always addresses issue D_1 in period 1, an analog of Proposition 5. 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 6. *Under unanimity rule, (i) party D may address D_2 in period 1, that is, party D may give priority to a less pressing Democratic issue, but if the preferences are strongly partisan, party D does not give priority to issue D_2; (ii) even if the preferences are strongly partisan, party D may still give priority to the Republican issue R_1 in period* 1.

We have already discussed the steering effect that drives party D to give priority to a less

[21] 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; as to party D's giving priority to a Republican issue, we can think of it as preemptive agenda setting. If party D does not address the most pressing Republican issue when in power, then the opposition party will surely address it if it comes in power in the next period. Since party D typically does not benefit when party R addresses a Republican issue but benefits to some degree if party R addresses a Democratic issue, party D may have the incentive to preemptively tackle the most pressing Republican issue and induce the opposition party to address the most pressing Democratic issue when it comes in power. For preemption to be successful, party R should prefer to address D_1 between issues D_1 and R_2, which is still possible under strongly partisan preferences, provided that the status quo of issue R_2 is not too far from party R's ideal. Under strongly partisan preferences, party D's optimal static agenda is to address D_1 even under unanimity rule, and therefore giving priority to R_1 goes against its short-term interest. But unlike the steering effect which is necessarily inefficient, preemption can still be efficient since R_1 is the most pressing issue for party R.[22]

6.3 Supermajority rule

Under supermajority, the possibilities of power transition become richer. In particular, power fluctuations may now involve the same party holding on to majority, but the strength of its power changing over time. This gives rise to new dynamic effects in agenda setting, as we show below.

The first result we present under supermajority rule shows that the conditions we established for party D to give priority to a less pressing Democratic issue under unanimity rule and to have it ruled out under majority rule can be extended in the following sense: 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 6, part (i)).

Proposition 7. *Under supermajority rule, (i) if it is sufficiently likely that the party in power*

[22]The preemptive effect we identify here is somewhat analogous to the preemptive experimentation in Callander and Hummel [2014]. In both models, the party in power goes against its short term interest in order to prevent more drastic actions by the opposition party in case it comes in power in the future. However, our paper concerns agenda setting whereas Callander and Hummel [2014] concerns experimentation in policymaking.

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 the incentive to give priority to the less pressing issue D_2 due to two effects. 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. This is similar to the steering effect identified under unanimity rule. 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 extends Romer and Rosenthal [1979] by providing an implication of their insight in a dynamic multiple-issue setting. Note that unlike the steering effect, the second effect arises only under supermajority rule in which the same party is still in power in period 2 but with weakened political strength – this is the "seize-the-moment" effect discussed in Example 2.

Another new effect may arise under supermajority rule when the incumbent is in weak power in period 1 but expects to gain in political strength in the future. As we show in Proposition 8, party D may give priority to a Republican issue against its short-term interest in this case (under strongly partisan preferences, party D's optimal static agenda is to address issue D_1). The reason here for party D to give priority to a Republican issue is different from the preemptive effect under unanimity rule. Party D benefits from giving priority to a Republican issue here because by postponing the most pressing issue D_1 until it gains enough political strength, it will be able to implement its ideal policy on that issue. This is the "wait-for-the-moment" effect discussed in Example 4.

Proposition 8. *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

Understanding agenda setting in a multi-issue setting with limited capacity is an important research question, but it has received limited attention in the literature. Our analysis has shown the different strategic manipulations that may arise under different power transitions when the agenda formed in an earlier period has dynamic implications. Even though our model is stylized, we view a main contribution of our paper as providing a simple but plausible framework that one can build upon to address further questions about agenda setting. Indeed, 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 strategic manipulations in agenda setting, an incumbent may implement a policy that is not statically optimal on the issue of its choice.

Example 5. Suppose $D = -1$, $R = 1$, and $v_i(x) = -|x - i|$.

First consider the case in which there are only two Democratic issues with $D_1 = 2.5$, $D_2 = 2$, 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, party R will address issue D_2 by moving the policy on that issue to its ideal R.[23] In this case, party D's total gain in payoff

[23]We assume that party R addresses issue D_2 with the status quo at 2 even though it is indifferent between

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.[24]

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. But when the set of issues 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. 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,

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.

[24]The moderation effect on policy through endogenous status quo is reminiscent of Bowen, Chen, and Eraslan [2014]. A similar effect also appears in Buisseret and Bernhardt [2015].

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 (for example, 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 1

Suppose (s_1^*, s_2^*, x^*, y^*) is a dynamically efficient outcome, where s_t^* is the issue addressed in period t and x^* is the policy implemented on issue s_1^* and y^* is the policy implemented on issue s_2^*. In what follows, we prove the proposition by contradiction.

First consider the case in which $s_1^* = s'$. If $s_2^* = s$, then the gain in player i's dynamic payoff from outcome (s, s', x^*, y^*) is $2[v_i(x^*) - v_i(s)] + v_i(y^*) - v_i(s')$ and the gain in player i's dynamic payoff from outcome (s', s, x^*, y^*) is $2[v_i(x^*) - v_i(s')] + v_i(y^*) - v_i(s)$. Note that $2[v_i(x^*) - v_i(s)] + v_i(y^*) - v_i(s') - 2[v_i(x^*) - v_i(s')] - v_i(y^*) + v_i(s) = v_i(s') - v_i(s)$, which is

strictly greater than 0 for $i \in \{D, R\}$ since s is more pressing than s' for both parties. It follows that the outcome (s, s', x^*, y^*) Pareto dominates (s', s, x^*, y^*), a contradiction. If $s_2^* \neq s$, then the outcome (s, s_2^*, x^*, y^*) Pareto dominates (s', s_2^*, x^*, y^*) since $v_i(x^*) - v_i(s) > v_i(x^*) - v_i(s')$, a contradiction.

Next consider the case in which $s_1^* \neq s$ and $s_2^* = s'$. Since $v_i(s) < v_i(s')$ for $i \in \{D, R\}$, we have $v_i(y^*) - v_i(s) > v_i(y^*) - v_i(s')$. It follows that the outcome (s_1^*, s, x^*, y^*) Pareto dominates (s_1^*, s', x^*, y^*), a contradiction.

Hence, in any dynamically Pareto efficient outcome, if issue s' is addressed, issue s is addressed in period 1.

8.2 Proof of Proposition 2

We show that if the incumbent's period-1 payoff is higher by addressing issue s_1 instead of addressing issue s_1', then its period-2 payoff is also higher if issue s_1 was addressed than if issue s_1' was addressed in period 1. Proposition 2 follows from this result.

Let i denote the incumbent in both periods and let $a_i^\pi(s)$ be the policy that can be implemented by party i that maximizes its static payoff if it addresses issue s in power state π. Note that $a_i^\pi(s)$ does not depend on the time period.

Since party i's period-1 payoff is higher by addressing issue s_1 than by addressing issue s_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 s_1' was addressed in period 1, then the optimal issue to address in period 2 is issue s_2. Consider the following cases. (i) Suppose $s_2 \neq s_1$. In this case, if issue s_1 was addressed in period 1, then the optimal issue to address in period 2 is either issue s_2 or issue s_1'. If it is issue s_2, it follows immediately that party i's period-2 payoff is higher if issue s_1 instead of s_1' was addressed in period 1. If it is issue s_1', since party i's period-1 payoff is higher by addressing s_1 instead of s_1', its period-2 payoff is also higher when s_1 is addressed in period 1 and s_1' is addressed in period 2 than when s_1' is addressed in period 1 and s_1 is addressed in period 2. (ii) Suppose $s_2 = s_1$. In this case, party i's period-2 payoff if issue s_1 was addressed in period 1 and issue s_1' is addressed in period 2 is the same as its period-2 payoff if issue s_1' was addressed in period 1 and issue $s_2 = s_1$ is addressed in period 2. Since party i achieves the highest period-2 payoff by addressing issue s_2

if issue s_1' was addressed in period 1, it follows that party i's period-2 payoff is higher if issue s_1 was addressed than if issue s_1' was addressed in period 1. ∎

8.3 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, 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 s, it moves the policy on that issue to $r(s)$. Let $\hat{s}$ be 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 cannot change the status quo of a controversial issue when it is in weak power, it follows that it either addresses issue s_R or issue s_D if there is at least one Democratic issue and one Republican issue. In this case, since the difference 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. Since party D does not address a controversial issue when in weak power, if all non-controversial issue are Democratic (Republican) issues, party D addresses the most pressing Democratic (Republican) issue. ∎

8.4 Proof of Lemma 1

Without loss of generality, suppose the incumbent in period 1 is D. Consider R_i with $i \geq 3$. In what follows, we 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 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. ∎

8.5 Proof of Proposition 4

Suppose party D is the incumbent in period 1, i.e., $\pi_1 \in \{S_D, W_D\}$. We prove the result by showing that addressing R_1 in period 1 results in a higher payoff in both periods for party D than addressing R_2. 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 if it addresses issue R_1 instead of R_2 in the first period for any $\pi_2 \in \{S_D, W_D, S_R, W_R\}$.

Since party D's period-1 payoff is higher by addressing R_1 instead of R_2 for any $\pi_1 \in \{S_D, W_D\}$, by the argument in Proposition 2, party D's period-2 payoff is also higher if R_1 instead of R_2 was addressed in the first period if $\pi_2 = S_D$ or if $\pi_2 = W_D$. So it suffices to consider what happens if $\pi_2 = S_R$ or if $\pi_2 = W_R$.

(i) Suppose $\pi_2 = S_R$. (a) 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. Hence, regardless of whether R_1 or R_2 was addressed in period 1, party D's period-2 payoff is $v_D(D) + v_D(R) + v_D(D_1) + v_D(D_2)$. (b) 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 difference in period-2 payoff for party D from addressing R_1 in the first period instead of R_2 is $v_D(R_2) - v_D(R_1) > 0$. (c) 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 addresses R_1 in period 1, and is $v_D(R) + v_D(D) + v_D(D_2) + v_D(D_1)$ if he addresses 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's period-2 payoff is higher if R_1 instead of R_2 was addressed in period 1.

(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 if R_1 instead of R_2 was addressed 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. This happens if

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

and

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

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 it addresses R_1 in period 1, and $v_D(d(R_1)) + v_D(D) + v_D(D_2) + v_D(D_1)$ 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 is higher if R_1 instead of R_2 was addressed in period 1 since $v_D(R_2) > v_D(R_1)$ and $v_D(R) > v_D(D_1)$. If $v_D(d(R_1)) \neq v_D(R_1)$, then it must be the case that $v_D(d(R_1)) = v_D(R) > v_D(R_1)$. In this case, the period-1 gain in payoff for party D from addressing R_1 instead of R_2 is $v_D(R_2) - v_D(R_1) > 0$ and the period-2 gain in payoff for party D from addressing R_1 instead of R_2 is $v_D(R_2) - v_D(D_1)$. If $v_D(R_2) \geq v_D(D_1)$, then D is better off addressing R_1 in the first period, and the conclusion follows. Suppose instead that $v_D(R_2) < v_D(D_1)$. Since $v_D(R) > v_D(D_1)$, we have $v_D(R) > v_D(R_2)$, which implies that $v_D(d(R_2)) > v_D(R_2)$. It follows that $d(R_2) = R$, and since R addresses issue D_1 if issue R_2 is rolled over, inequality (1) implies that $v_R(D_1) \leq v_R(R_2)$. 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 is higher if R_1 instead of R_2 was addressed in period 1.

To summarize, party D's total payoff is higher by addressing R_1 than by addressing R_2 in period 1 for any $\pi_2 \in \{S_D, W_D, S_R, W_R\}$. Hence, independent of the voting rule, party D does not address R_2 in period 1. ∎

8.6 Proof of Lemma 2

Suppose party D addresses issue D_2 in period 1 in equilibrium. Since party D's period-1 payoff is higher by addressing issue D_1 than issue D_2 in period 1, it must be that its expected payoff in period 2 is higher by addressing issue D_2 instead of issue D_1 in period 1. Note that if party D continues to be in power in period 2, then under either majority or unanimity rule, its strength of power remains the same. Then, by the argument in Proposition 2, 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.

Suppose issue D_1 was addressed in period 1. By Proposition 3, party R addresses either issue R_1 or D_2 in period 2. Suppose party R addresses issue D_2. 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 under either majority rule or unanimity rule, party R moves the policy to its ideal if it addresses a Democratic issue. 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. Hence, it must be the case that party R addresses issue R_1 if issue D_1 was addressed in period 1.

Suppose issue D_2 was addressed in period 1. By Proposition 3, party R addresses either issue R_1 or D_1 in period 2. If party R addresses issue R_1, 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, a contradiction Hence, it must be the case that party R addresses issue D_1 if issue D_2 was addressed in period 1. ∎

8.7 Proof of Proposition 5

By Proposition 4, party D does not address issue R_2 in period 1 in equilibrium. 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. Since $v_R(R_1) < v_R(D_1) < v_R(D_2)$, it follows that regardless of whether D_1 or D_2 was addressed in period 1, party R addresses issue R_1 in period 2. By Lemma 2, party D does not address issue D_2 in period 1.

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 instead of issue R_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 the argument in Propostion 2. 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 when 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 if $v_R(D_1) \leq v_R(R_2)$, 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) If 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, party D's period-2 payoff if it addresses D_1 and if it addresses R_1 in period 1 are the same.

(b) If 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 addresses 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 addresses issue D_1 in period 1. ∎

8.8 Proof of Proposition 6

We first prove part (i). We establish the result under the assumption that party R comes in power in period 2 with probability 1 and

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

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

If 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

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

If 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

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

If 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 D_1 and R_1 in the first period if

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

and

$$2v_D(R_1) + 2v_D(r(D_2)) > 2v_D(D) + 2v_D(D_2). \tag{5}$$

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 preferences, party D may address D_2 in period 1 in equilibrium. Under strongly partisan preferences, however, party R addresses issue R_1 regardless of whether D_1 or D_2 was addressed in period 1. Then, by Lemma 2, party D does not address issue D_2 in period 1 in equilibrium under strongly partisan preferences.

We now prove part (ii). We establish the result under the assumption that party R comes

in power in period 2 with probability 1 and $v_R(R_2) + v_R(R) < v_R(D_1) + v_R(d(R_2))$.

When R come in power in period 2, then it addresses R_1 by moving it to $d(R_1)$ if D_1 was addressed in period 1 and it addresses D_1 if R_1 was addressed in period 1.

If party D addresses issue D_1 in period 1, then its period-1 payoff is $v_D(R_1) + v_D(R_2) + v_D(D_2) + v_D(r(D_1))$ and its period-2 payoff is $v_D(d(R_1)) + v_D(R_2) + v_D(D_2) + v_D(r(D_1))$.

If party D addresses issue R_1 in period 1, then its period-1 payoff is $v_D(D) + v_D(R_2) + v_D(D_2) + v_D(D_1)$ and its period-2 payoff is $v_D(D) + v_D(R_2) + v_D(D_2) + v_D(R)$.

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 in equilibrium. ∎

8.9 Proof of Proposition 7

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 instead of addressing issue D_2. If $\pi_2 = S_D$, then, by the argument in Proposition 2, its period-2 payoff is also higher if it addresses D_1 than if it addresses D_2 in period 1. If $\pi_2 = S_R$, then, since preferences are partisan, party R addresses 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 addresses D_1 than if it addresses 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 of the expected payoff in power transition probabilities 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 instead of 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 addresses D_1 than if it addresses 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 6, 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 or R_1 was addressed in period 1. If party D addresses issue D_2 in period 1, then its total gain in payoff is $2[v_D(D) - v_D(D_2)] + v_D(R) - v_D(D_1)$. If party D addresses issue D_1 in period 1, then its total gain in payoff is $2[v_D(D) - v_D(D_1)] + v_D(d(R_1) - v_D(R_1)$. If 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 instead of D_1 or R_1 in period 1 if

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

and $v_D(D_2) < v_D(R_1)$.

We next consider the case when $\pi_2 = W_D$ under the assumption that

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

Then 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 instead of 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 instead of 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. ∎

8.10 Proof of Proposition 8

If party D addresses issue D_1 in period 1, then, since $\pi_1 = W_D$, party D moves the policy on issue D_1 to $r(D_1)$. Suppose $v_D(R_1) > v_D(D_2)$, which implies that party D addresses D_2 in period 2 since $\pi_2 = S_D$. In this case, party D's total gain in payoff is $2[v_D(r(D_1)) - v_D(D_1)] + v_D(D) - v_D(D_2)$.

If party D addresses issue R_1 in period 1, then party D moves the policy on issue R_1 to D. Since preferences are strongly partisan and $\pi_2 = S_D$, party D addresses issue D_1 in period 2. In this case, party D's total gain in payoff is $2[v_D(D) - v_D(R_1)] + v_D(D) - v_D(D_1)$.

If follows that if $v_D(R_1) > v_D(D_2)$ and

$$2[(v_D(D) - v_D(R_1)) - (v_D(r(D_1)) - v_D(D_1))] > v_D(D_1) - v_D(D_2), \tag{9}$$

then party D's payoff is higher by addressing issue R_1 instead of addressing issue D_1 or D_2 in period 1. Under strongly partisan preferences, $(v_D(D) - v_D(R_1)) - (v_D(r(D_1)) - v_D(D_1)) < 0$, but since $v_D(D_1) - v_D(D_2) < 0$, condition 9 can still be satisfied. It is also straightforward to show that party D does not give priority to issue D_2. Hence, party D may address issue R_1 in

period 1 in equilibrium even under strongly partisan preferences. ∎

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