

Representation, agendas and institutions

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Abstract. Dynamic agenda representation can be understood through the transmission of the priorities of the public onto the policy priorities of government. The pattern of representation in policy agendas is mediated through institutions due to friction (i.e., organisational and cognitive costs imposed on change) in decision making and variation in the scarcity of policy makers' attention. This article builds on extant studies of the correspondence between public priorities and the policy activities of government, undertaking time-series analyses using data for the United States and the United Kingdom, from 1951 to 2003, relating to executive speeches, laws and budgets in combination with data on public opinion about the 'most important problem'. The results show that the responsiveness of policy agendas to public priorities is greater when institutions are subject to less friction (i.e., executive speeches subject to few formal rules and involving a limited number of actors) and declines as friction against policy change increases (i.e., laws and budgets subject to a greater number of veto points and political interests/coalitions).

Keywords: agendas; representation; institutions; public opinion

Introduction

If public opinion changes, and then the policy priorities of government respond, this is 'dynamic agenda representation'.¹ 'Problem solving,' Jones and Baumgartner (2004: 1) argue, '... is a critical component of competent government, and problems cannot be solved without attending to them.' Citizens hold opinions about the desirability of a wide range of outcomes, such as in relation to crime, economic growth, defence and public health (Arnold 1990: 17–18), and those outcomes (and problems) underpin the issue priorities of the public, offering incentives for government to earmark topics for policy action. Because of this, the allocation of attention is an important dimension of representation (Jones & Baumgartner 2004; Jones et al. 2009). In some instances, agenda representation is a necessary condition for *policy* (i.e., positional) representation to occur (Jones & Baumgartner 2004: 2) – that is, there is less likelihood of policy change on those issues that do not make it onto the agenda. It is well-established, however, that policy makers have finite capacity to attend to issues and act upon them (*inter alia*, Jones 1994; Jones & Baumgartner 2005a, 2005b; Baumgartner et al. 2009; Adler and Wilkerson 2012). The relative abundance of information and the costs of information retrieval and processing require decision makers to select issues for attention, creating inherent trade-offs in policy making and necessitating prioritisation between competing concerns. As has been shown, this has consequences for agenda representation (Jones & Baumgartner 2004; Jones et al. 2009; Chaqués Bonafont & Palau 2011). When the attention of institutions is most scarce (and the carrying capacity of the policy agenda is lowest), the prioritisation of issues is most important for patterns of representation. In

institutions where fewer direct trade-offs between issues need to be made, such as in appropriations and outlays of expenditure, prioritisation is less important and policy makers can focus on responding to public preferences across a wider portfolio of issues in parallel.

This article draws upon the previous literature on dynamic representation (Stimson et al. 1995; Erikson et al. 2002; also see Wlezien 1996; Soroka & Wlezien 2010) through a comparative design that examines how attention scarcity and institutional friction affect the responsiveness of policy agendas to public priorities expressed through the ‘most important problem’ (MIP) question across three different institutional venues (i.e., executive, legislative and budgetary agendas) in the United States and the United Kingdom. Further, it extends research on correspondence between public priorities and policy agendas across institutional venues (Jones & Baumgartner 2004; Jones et al. 2009; Chaqués Bonafont & Palau 2011) through analysis of policy agenda representation *over time*, what we call ‘*dynamic agenda representation*’, and adds the case of the United Kingdom to existing studies of the United States and Spain. Furthermore, rather than using static correspondence analysis, it uses time-series analysis to consider how the representation of public priorities is structured in time to account for the dynamics inherent to each of the institutional agendas investigated. Its concern with whether government and the public are attending to the same issues distinguishes it from studies of *dynamic representation* that examine the link between public preferences and public policy across governing institutions (Stimson et al. 1995; Erikson et al. 2002; Soroka & Wlezien 2010), and which instead consider the positional dimension of representation. Our approach therefore examines the attention-dimension of representation.

The article is organised as follows. We first re-tread some theoretical ground covered by Jones et al. (2009) highlighting the positional- and attention-dimensions of representation, and the role of friction in shaping representation across governing processes. We clarify some of our own insights on the dynamic aspects of agenda representation which to date have not been explored. We then introduce data on institutional agendas in the United States and the United Kingdom, noting key features of our comparative design. Through the estimation of time-series error-correction models we find that the responsiveness of policy agendas to public priorities decreases as the level of institutional friction increases and as attention scarcity decreases. While there is variation between countries in the individual issue categories that policy agendas are responsive to public priorities for, there is nevertheless a general pattern of dynamic agenda representation across institutional venues which suggests that the influence of public priorities is greatest where attention is scarcest and institutional friction is lowest.

Dynamic representation and agenda setting

There is a substantial literature that demonstrates dynamic representation of public preferences in policy making at the aggregate level (e.g., Page & Shapiro 1983; Stimson et al. 1995; Wlezien 1996; Erikson et al. 2002; Hakhverdian 2010; Bartle et al. 2011). Similar patterns are observed in cross-national comparisons (e.g., Soroka & Wlezien 2010; Hobolt & Klemmensen 2008). Such studies tend to emphasise the continuous, equilibrating character of shifts in the attitudes of citizens and public policy. Stimson et al.’s (1995) analysis of

dynamic representation finds that policy adjusts over time to changes in public preferences both through the mechanism of elections and through the 'rational anticipation' of policy makers. According to this perspective, dynamic representation is positional: when the public want more (liberal) or less (conservative) policy, policy makers oblige with a change in policy position.

Alongside approaches that consider the dynamic representation of preferences, there is growing interest in correspondence between the issue *priorities* of the public and the policy priorities of government (Jones & Baumgartner 2004; Jones et al. 2009; Chaqués Bonafont & Palau 2011; Lindeboom 2012). While the public hold opinions across a diverse and sometimes competing array of issues and concerns, there is insufficient space on the public agenda to attend to all of them. Some issues tend to be prioritised above others. For example, during a recession health care may remain a concern for the public but the state of the economy will likely matter more. Agenda setting describes the process through which issues and policy solutions are selected for attention, and make it onto the decision-making agenda (or alternatively are excluded) (e.g., Kingdon 1984; Jones 1994). As Jones and Baumgartner (2004) and Jones et al. (2009) note, this is an important mechanism through which positional (policy) representation is mediated as policy change is often possible only after issues have accessed the agenda.

The transmission of the priorities of the public into the policy agenda of governing institutions itself is a form of representation. One way in which policy makers can represent citizens is through reflecting their concerns, selectively assigning their attention across issues and dealing with policy problems on their behalf. There are prospective risks and rewards at the ballot box for policy makers who fail or succeed to recognise and respond to the concerns of the public. Dynamic agenda representation combines elements of what Mansbridge (2003) calls 'promissory' and 'anticipatory' representation. Along the lines of the promissory model, voters tend to elect governments who reflect their priorities (McDonald et al. 2004; Pennings 2005), awarding them a mandate to govern. The idea of electoral mandates tends to be linked to a normative expectation that policy makers stick to their longstanding issue commitments and policy priorities. At the same time, policy makers formulate their priorities knowing that failure to represent public concerns may result in electoral punishment at future time points, through the phenomenon of retrospective voting (Fiorina 1981). An ability to deal with policy problems is one of the key dimensions on which voters evaluate candidates and governing parties at the ballot box (Petrocik 1996). This motivates 'rational anticipation' of the sort described by Stimson et al. (1995), where policy makers adjust their priorities in response to changes in the priorities of the public, aware of potential for electoral repercussions. When public concern about an issue increases it sends a signal to policy makers that there may be a future cost for any failure to attend to that issue. Because of the scarcity of attention (e.g., Jones 1994; Jones & Baumgartner 2005a, 2005b), policy makers must prioritise their attention in order to reflect the relative importance of issues to the public. Our general expectation concerning dynamic agenda representation in governing institutions is, therefore, that changes in the public's issue priorities are associated with changes in the policy agenda of governing institutions:

H1: The issue priorities of the public are represented in the policy priorities of government.

Information processing, friction and representation in governing institutions

As Jones et al. (2009: 281–282) have explained, there are a number of reasons to expect differences in agenda representation within political systems. Although government incorporates information about public preferences in its activities, it faces an abundance of information about the state of the world and possesses limited time and resources to process it (see Jones 1994; Jones & Baumgartner 2005a, 2005b). Executives and legislatures have to juggle a range of concerns and policies, selecting a portfolio of issues for attention in light of their problem status or their political platforms and pressure from the mass public. Because attention is scarce, policy making is biased towards incrementalism, meaning that a change in the salience of an issue *can* be the crucial factor in policy change (Jones 1994: 5–10). If policy makers in the higher echelons of government were able to attend to all issues in isolation, their decisions could be based on the processing of information about preferences alone. However, search and cognitive costs are associated with the retrieval and processing of information, meaning decision makers are able to consider a small number of alternatives. Faced with a multitude of competing issues and demands, policy makers must decide which issues are most urgent and important to them, prioritising some of them for their attention.

In conjunction with this, institutional features of decision making exert resistance – that is, friction – to change (Jones & Baumgartner 2005a, 2005b). Such institutional friction is inbuilt into the design of electoral systems, the separation or fusion of powers, majority voting rules, formal processes of budgeting and other features of institutional mechanisms. Friction creates a threshold that must be exceeded before information signals (i.e., pressure for change) are responded to. Attention-shifting and institutional friction, rather than the representation of preferences, explain why ‘[s]ome aspects of the world are unmonitored, unattended to; [while] other aspects are incorporated into the decision process beyond their intrinsic merit’ (Jones & Baumgartner 2005b: 334). In view of this, it is important to explain how attention scarcity and friction in governing institutions structure the dynamic representation of public priorities.

Attention scarcity

The finite nature of attention, the abundance of information and the importance of prioritisation in decision making structure the responsiveness of governing institutions to public opinion. Governing institutions can communicate their policy priorities through multiple policy agendas and outputs. Congress, for example, can debate issues, pass bills, set appropriations, approve appointments, conduct formal oversight and hearings, and impeach and remove executive and judicial officers. The issue priorities of the public provide a basis on which governments can structure their attention. Within some institutional settings such as legislatures there are practical limits on the number of issues that policy makers can attend to at a given time. In a speech, such as the State of the Union Address, the speaker must get to the point and emphasise their main message, communicating priorities in clear terms. In other settings such as budgetary expenditure, decision makers are under less pressure to prioritise their commitments between issues with most re-appropriation decisions being a question of policy direction rather than whether or not to spend money on a particular

issue, making it less important for them to respond to the *priorities* of the public. Jennings and Wlezien (2012) argue that public priorities tend to indicate when the public want more policy, but not less, and show that this distorts the representational relationship where policy outputs are clearly positional. While priorities tap the public's assessment of problems they do not necessarily indicate the desired direction of policy change, such as expressed in either increases or decreases of budgetary spending on an issue. We might expect dynamic agenda representation in budgets for those issues where an increase in public concern about an issue is associated with a preference for 'more' spending. An issue like defence might be the sort of domain where correspondence is observed as defence is generally viewed as a problem when there are perceived threats to national security (e.g., Wlezien 2005). There are some policy domains where public concern about an issue – the economy for example – may not simply translate into a preference for more spending; indeed, it might prefer less. Overall, though, we expect lower levels of dynamic agenda representation in institutional venues where adjustments in policy tend to be positional and do not tend to entail direct trade-offs in attention between issues. It makes sense then, that government exhibits differing rates of responsiveness depending upon the institutional setting (Jones et al. 2009) since this reflects variation in the degree of attention scarcity.

Institutional friction

Political institutions impose decision and transaction costs on collective action and bargaining – that is, potential blocks or veto points in the legislative and executive branches exert friction against change (Jones et al. 2003; Jones & Baumgartner 2005a, 2005b). When change does occur, it must overcome the resistance that has built up. Such institutional costs determine the extent to which decision makers can make adjustments to policy in response to new information – for example, gaining a place for their proposals on the legislative timetable or securing majorities in support of bills.

There is strong evidence that friction produces distributions of change in the policy agendas and outputs of political institutions that are 'leptokurtic', characterised by extended periods of stability and stickiness, a relatively low frequency of moderate adjustments and a disproportionate number of extreme shifts (see Jones et al. 2003; Jones & Baumgartner 2005a, 2005b; Baumgartner et al. 2009). For example, budgeting is associated with higher levels of friction due to a combination of cognitive and institutional costs that increase resistance to change. This determines the capacity of decision makers to respond to information signals from the wider political environment. The idea of institutional friction is that low frequencies of the information signal induce a minimal response, whereas strong signals produce a disproportionate reaction. For dynamic agenda representation, this suggests that the level of institutional friction must be relatively low for there to be a smooth and continuous adjustment of the equilibrium relationship between the issue priorities of the public and the policy priorities of government.

There should therefore be institutional variation in the responsiveness of policy makers to the priorities of the public due to differences in the pressure for prioritisation in governing institutions. When attention is most scarce, government must prioritise between multiple competing issues on the agenda. In government activities where resources and time are less scarce, and multitasking is possible with less direct competition between issues,

such as budgetary expenditures, the relative prioritisation of attention is of less consequence. At the same time, institutional rules and procedures can exert friction against shifts in attention. It follows that there will be institutional variation in the responsiveness of government to the issue priorities of the public, as shown by Jones and Baumgartner (2004), Jones et al. (2009) and Chaqués Bonafont and Palau (2011). This should be observable through the comparison of cross-institutional and cross-national patterns of representation:

H2: The degree of representation of public priorities in the policy agendas of governing institutions is higher when decision making is subject to lower institutional friction and a greater scarcity of attention.

Data

This article considers the effects of issue priorities of the public on policy agendas across institutional venues in the United States and the United Kingdom. These countries provide a classic comparative design in the contrast between governing institutions – between federal-presidentialism in the former and unitary-parliamentarism in the latter. The design of governing institutions produces cross-national variation in degrees of democratic responsiveness through its effects on the clarity of responsibility for policy decisions (Soroka & Wlezién 2010). At the same time, the internal structure of institutional variation should be consistent across countries, as responsiveness to the issue priorities of the public might be expected to differ across institutional settings as a function of institutional friction and the scarcity of attention. Similarities are therefore expected between countries in the relative degree of responsiveness in governing agendas that is observed for different types of institutional venue.

This analysis is based on data on public opinion, executive speeches, lawmaking and budgetary expenditure in both countries from 1951 to 2003, coded according to the policy content coding system of the Policy Agendas Project (www.policyagendas.org). The 16 categories investigated are reported in Table 1, with those topics analysed for budgetary expenditure marked with an asterisk.² The advantages of this coding framework are twofold: first, it is an established method for coding government and public attention, and second, it renders the content of governing agendas comparable across venues and across countries.³

Public priorities

The issue priorities of the public are often measured with survey instruments that ask about the ‘most important problem’ (MIP) facing the nation (Wlezién 2005). Following previous studies (e.g., Jones 1994), we use aggregate MIP responses to represent the broader public prioritisation of issues at particular points in time.⁴ These are recoded to correspond to the Policy Agendas Project major topic codes.⁵

Table 1. Policy agendas project major topic codes

Topic	Abbreviation	Name
1	Economy	Macroeconomics*
2	Civil	Civil Rights, Minority Issues and Civil Liberties
3	Health	Health*
4	Agriculture	Agriculture
5	Labour	Labour, Employment and Immigration
6	Education	Education*
7	Environment	Environment
8	Energy	Energy
10	Transport	Transportation
12	Law	Law, Crime and Family Issues*
13	Social	Social Welfare*
14	Housing	Community Development, Planning and Housing Issues*
18	Trade	Foreign Trade
20	Government	Government Operations
21	Lands	Public Lands and Water Management
16/19	Foreign	Defence, International Affairs and Foreign Aid*

Note: * Indicates a major topic that is tested for budgetary expenditure in this article.

Source: Policy Agendas Topic Codebook, see www.policyagendas.org

Table 2. Government agendas by country and venue

	United States	United Kingdom
Executive	State of the Union	Speech from the Throne
Legislative	Statutes of the US Congress	Acts of the UK Parliament
Budgetary	US Federal Budget	UK Government Expenditure

Policy agendas in governing institutions

The governing agendas considered in this analysis are drawn from three institutional venues in the United Kingdom and the United States, summarised in Table 2. These provide measures of executive agendas, legislative outputs and budgetary expenditure for each of the countries at the national level.

Executive speeches

In many political systems the head of state or the head of government delivers an annual formal statement setting out its policy priorities for the year ahead. These speeches are forward-looking, communicating general priorities and specific measures that the executive intends to address in the next year. This substantive function of executive speeches is reflected in their transmission into policy outcomes (e.g., Bevan et al. 2011).

The State of the Union Address in the United States⁶ and the Speech from the Throne in the United Kingdom are prominent annual speeches that communicate the governing agenda of the executive. The policy content of these speeches were divided into quasi-sentences, with each quasi-sentence assigned a single unique topic code. Because of the timing of each speech (which occurs in January in the United States and at the start of the parliamentary session in the United Kingdom which can occur throughout the year), the executive agenda is organised by calendar year in the former and by parliamentary session in the latter. This temporal aggregation is also used for legislative outputs as well as for public opinion corresponding to the executive and legislative agendas.

Legislative outputs

Lawmaking provides opportunities both for agenda setting and for signalling of the priorities of policy makers (e.g., Mayhew 1974; Schiller 1995) as well as for the enactment of substantive policy outputs. Statutes of the American Congress and Acts of the British Parliament are the major legislative outputs that are considered here. Each law is coded with a single topic which indicates the primary focus of the legislation. The observed time point is the date upon which the bill was signed into law. Commemorative bills are excluded from the American data so it is directly comparable to the British data.

Budgets

Whereas the executive and legislative agendas are process measures, public budgeting is a substantive government *output* affecting the allocation of financial resources and, in turn, public welfare. The American data on expenditure, adjusted for inflation, is from the United States Budget Authority, revised using Office of Management and Budget functions and sub-functions to be consistent across time. For the United Kingdom, data on expenditure is taken from the *Blue Book*, recoded to match the policy agendas coding system.

Institutional variation in issue representation

These three institutional venues exhibit different patterns of issue competency in each country. As Hood (1983) notes, government possesses various policy 'tools' with which to address particular issues. For example, in both countries responsibility for education is largely a local issue, with the implementation of policy delegated to school boards and local authorities (with the development of the national curriculum handled by a non-departmental public body in the United Kingdom). While there are significant exceptions, such as the landmark Education Reform Act 1988 in the United Kingdom and the No Child Left Behind Act 2001 in the United States, education policy does not tend to fall within the routine attention of the legislature in either country. Executives do, however, attend more to the issue of education policy and its delivery. As such, we would expect the executives in both countries to be more responsive to public priorities concerning education than the legislature.⁷ It is not the purpose of this article to theorise about how these competencies play out for every issue, but these differences in how issues are addressed within each

institutional venue lead us to expect that institutions in each country will exhibit their own distinctive pattern of responsiveness across issues.

Analysis

Friction in governing institutions

To test *H2* concerning the effect of institutions on the dynamic representation of public priorities it is necessary to first assess the degree of friction present in each of the policy agendas and to compare processes along the policy cycle within each country. It is expected that those government processes subject to higher decision costs also tend to be associated with higher levels of friction (e.g., Baumgartner et al. 2009). To ascertain the degree to which decision making within each of these governing institutions is subject to friction against change we use stochastic process methods (following Breunig & Jones 2011; Jones & Baumgartner 2005a, 2005b; Jones et al. 2003). This tests the normality of the distribution of values of the dependent variables for this analysis (i.e., the policy content of executive speeches, legislation and budgetary expenditure). With the exception of budgets, the 'percentage-percentage' calculation method is used to analyse the overall distribution of (percentage) change of the difference between (percentage) agenda share in one year and the next (see Baumgartner et al. 2009: 610). Budgetary spending is not treated as bounded in the same way (i.e., as a percentage) because the numbers involved are much larger and because the values are reported in real prices, which removes variation due to inflation. Note that for the executive and legislative agendas, cases in which attention to a particular topic remains stable at zero are treated as missing to avoid over-inflation of the kurtosis scores.

The distribution of year-on-year percentage changes is presented in Figure 1, with the kurtosis scores super-imposed on each histogram. If the value of the kurtosis statistic is greater than three, the distribution exhibits positive kurtosis and can be said to be leptokurtic, consistent with the presence of a high degree of cognitive and/or institutional friction. In addition, the Shapiro-Wilk test is presented, which considers whether the sample is drawn from a normal distribution.

Overall, the results are consistent with theoretical expectations regarding the level of friction in each of the governing institutions: the highest level of kurtosis in both countries is observed for budgetary expenditure, consistent with a large number of studies that show that public budgeting exhibits incrementalism, interspersed with occasional extreme disturbances (e.g., Jones & Baumgartner 2005a, 2005b; Jones et al. 2003; Baumgartner et al. 2009). This is evidenced in the tall slender peak and the fat tails of the distributions plotted in Figure 1. Indeed, all of the institutions exhibit some evidence of disproportionate information-processing in the leptokurtic distributions of attention change. For the United Kingdom, the pattern of institutional differences is clear, with the lowest kurtosis observed for the executive agenda, the next lowest for the legislative agenda and the highest for budgets. This is unsurprising in light of the incrementalist tendencies of decision makers and the numerous veto points in budgeting processes. In the United States, however, the level of kurtosis is in fact higher for the executive agenda than for legislative outputs. This reflects

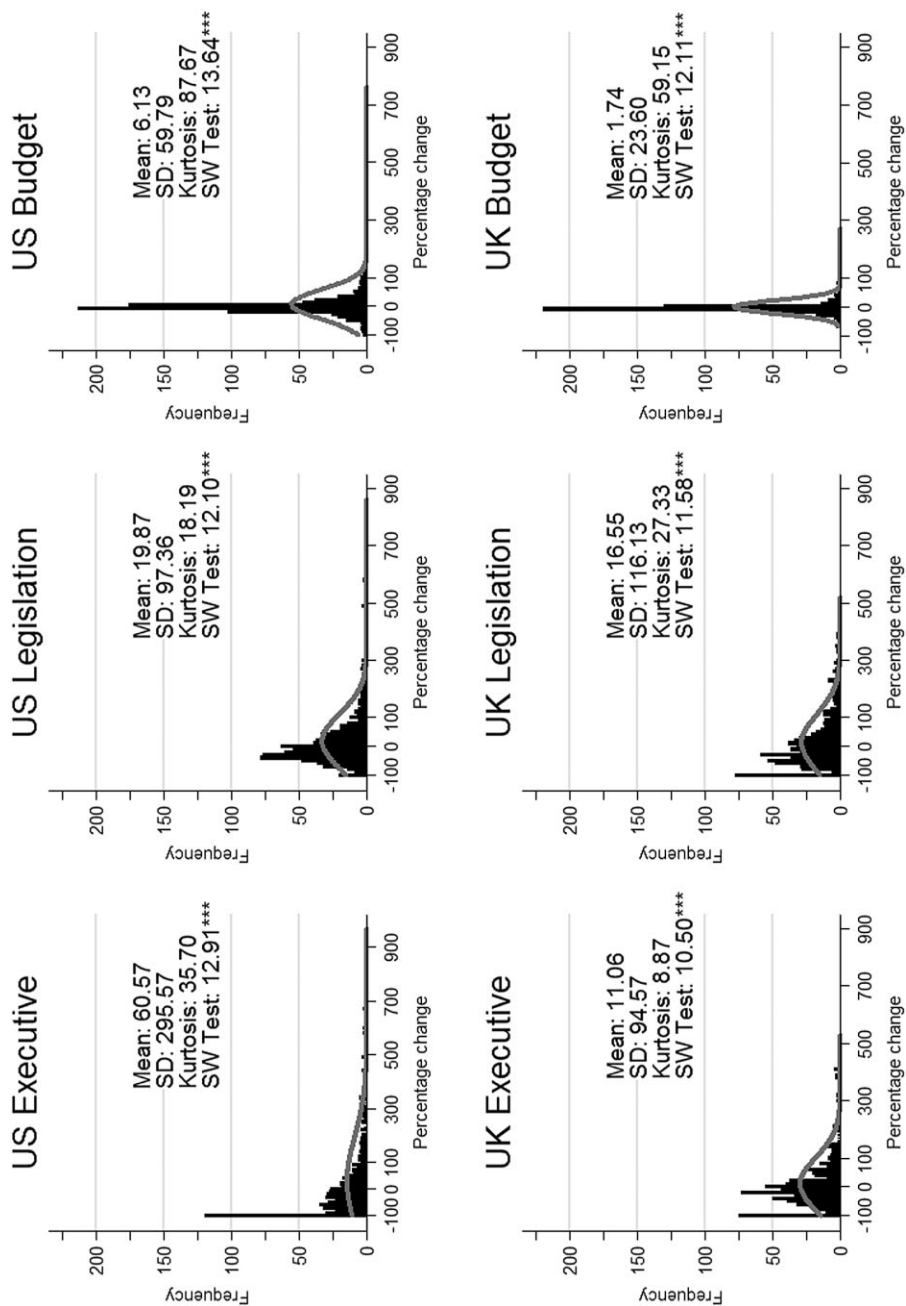


Figure 1. Change distributions in executive, legislative and budgeting agendas in the United States and the United Kingdom, 1951–2003.

a greater degree of variation in how different presidents use the State of the Union Address. For example, the shortest State of the Union message, delivered by President Nixon in 1973, contained just 36 policy-related statements, while the longest, presented by President Carter in 1981, contained 1,336. Part of this variation is no doubt due to the unique nature of these particular messages, which were written instead of being delivered orally and due to the uniqueness of individual presidential character (Neustadt 1960). While the unique nature of the State of the Union Address puts the findings in Figure 1 somewhat at odds with expectations concerning the ordering of levels of institutional friction, the results nevertheless confirm the presence of punctuations. It is further expected that these patterns of institutional friction structure the interaction of the priorities of the public and the policy content of governing agendas.

Error-correction models of dynamic agenda representation

To test the dynamic representation of the issue priorities of the public in governing agendas, comparing both across institutional levels and across countries, time-series error-correction models are now estimated according to policy topic. The use of an error-correction model (ECM) enables diagnosis of both the short- and long-run effects of the issue priorities of the public on public policy.⁸ The error-correction framework is selected in light of past studies which demonstrate that, in both theory and practice, agenda-opinion dynamics ‘coexist in a long-run equilibrium state that is subject to short-run corrections’ (Jennings & John 2009: 838). In other words, dynamic agenda representation can arise from long-term trends in public priorities and from short-run variation and shocks – that is, events such as the global financial crisis. An ECM framework is appropriate when testing for both contemporaneous and lagged effects. The model can be represented in the form:

$$\begin{aligned} \Delta \text{AGENDA}_t = & \alpha_0^* + \alpha_1^* \text{AGENDA}_{t-1} + \beta_0^* \Delta \text{OPINION}_t \\ & + \beta_1^* \text{OPINION}_{t-1} + \beta_2^* \text{PARTY}_t + \varepsilon_t \end{aligned} \quad (1)$$

where short-run changes in the policy agenda relating to a particular issue (ΔAGENDA_t) are a function of short-run changes in the public’s prioritisation of that same topic ($\Delta \text{OPINION}_t$), the long-run changes (OPINION_{t-1}) and where the lagged value of the dependent variable (AGENDA_{t-1}) measures the speed of re-equilibration (α_1^*) in response to shocks to the long-run agenda-opinion equilibrium. Consistent both with our theoretical expectations and other models of dynamic representation (e.g., Wlezien 2004; Jennings & John 2009), this model includes a variable (PARTY_t) to capture the contemporaneous effects of indirect representation through partisan control of government. This controls for difference in the governing agendas of political parties, and is coded 1 for the Conservative Party in the British case and the Republican Party in the American case and is coded 0 for the Labour Party in the United Kingdom and for the Democratic Party in the United States.⁹

Within the ECM framework, changes in the policy content of governing agendas are estimated as a function of contemporaneous changes in the issue priorities of the public and the degree to which these are outside the long-run agenda/opinion equilibrium. This suggests that if the governing agenda deviates from its long-run equilibrium, as the institution

commits either ‘too much’ or ‘too little’ attention to a particular issue, responsiveness is equal to the degree of equilibration that restores correspondence between the agenda and public opinion to its previous status quo.

Pooled analyses

To first assess the general pattern of dynamic agenda representation, a time-series cross-sectional ECM is estimated for the seven policy topics that are common to each institution. This pooled model specification has the advantage of measuring the degree to which the policy agenda of each governing institution is representative, overall, of public priorities. The results that are reported in Table 3 show rather limited evidence of dynamic representation: the long-run (lagged) effect of the issue priorities of the public is positive and significant, at the 95 per cent confidence level, for the executive agenda in the United States and for the legislative outputs in the both the United States and the United Kingdom, while the short-run effect of public priorities is significant for legislative outputs in the United Kingdom. Furthermore, there is no evidence of representation in the link between public priorities and changes in budgetary expenditures in either country. In addition, the negative and significant error-correction parameter ($AGENDA_{t-1}$) for the executive and legislative agendas indicates that shocks to the long-run equilibrium of the policy agenda are corrected over time. The absence of a similar effect for budgetary expenditure (indeed, the parameter is positive and significant for the United Kingdom) suggests that errors tend to accumulate. This is consistent with the high level of institutional friction in budgeting compared to the other venues, with the build-up of errors contributing to punctuations in policy change. The absence of a significant link between public priorities and the executive agenda in the United Kingdom, in contrast, might be attributable to the lack of a general pattern of representation, rather than suggesting that the policy agenda is unresponsive on all topics.

While the use of a time-series cross-sectional framework enables comparison of the structure of representation across institutions and across countries, it is possible that unresponsiveness on some issues might cancel out responsiveness on others, obscuring important features of the underlying categories – that is, the policy agenda might be responsive for a number of the most salient topics (such as the economy and defence) but this would not necessarily be reflected in the pooled analysis. Indeed, variation in rates of responsiveness for individual issues is to be expected due to differences in the intrinsic importance of certain issues to citizens (Page & Shapiro 1983; Jones 1994; see Burstein 2003 for a review) and because government agendas possess policy ‘tools’ or instruments that are optimised to solve certain types of problem (Hood 1983). Therefore, an issue-level analysis is needed to fully test the dynamic inter-relationship between public priorities and policy agendas.

Individual topic analyses

To assess issue-specific patterns of dynamic agenda representation in each of the institutional venues, 78¹⁰ individual ECMs are next estimated. Table 4 summarises the findings on the short-run and long-run effects of the issue priorities of the public on the policy content for each of the institutional agendas, in each of the countries, by presenting the coefficient

Table 3. Time-series cross-sectional model of public priorities and government agendas

	Δ Agenda _t					
	Executive		Legislation		Budget	
	US	UK	US	UK	US	UK
Δ Opinion _t	0.233 (0.321)	-0.053 (0.033)	0.077 (0.087)	0.072** (0.027)	258.254 (202.967)	39.629 (31.735)
Opinion _{t-1}	0.890*** (0.171)	0.020 (0.015)	0.228*** (0.049)	0.048*** (0.013)	96.024 (105.212)	-14.862 (14.928)
Agenda _{t-1}	-0.864*** (0.053)	-0.518*** (0.047)	-0.622*** (0.050)	-0.994*** (0.053)	0.013 (0.010)	0.020** (0.007)
Party _t	-2.186 (3.472)	-0.468 (0.331)	-6.013*** (1.287)	0.275 (0.276)	6064.818† (3140.560)	-336.452 (324.371)
Constant	14.375*** (3.307)	3.414** (0.446)	7.390*** (0.887)	3.556*** (0.333)	803.301 (1971.571)	739.139† (389.697)
R ²	0.438	0.267	0.306	0.498	0.031	0.034

Notes: * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$; † $p \leq 0.10$. N = 364 (7 Topics*52 Years). Start = 1951, End = 2003.

Table 4. Summary of the effects of public priorities on government agendas

		Executive		Legislation		Budget	
		US	UK	US	UK	US	UK
1 – Economy	Short	-0.064	0.056	0.129*	0.080†	0.441	76.661
	Long	0.269	0.083***	-0.032	0.055*	-0.272	-20.561
2 – Civil	Short	-0.156	-0.333*	-0.119†	0.088		
	Long	-0.140	-0.399*	-0.101†	0.038		
3 – Health	Short	0.515	-0.030	-0.558*	0.072	72.673	-12.042
	Long	0.972*	0.111***	-0.042	0.031	-72.474	62.198
4 – Agriculture	Short	4.435*	-0.090	1.929†	-0.206		
	Long	2.274	-0.169	0.740	-0.322		
5 – Labour	Short	-1.001	0.040	0.253	0.007		
	Long	1.826	0.059†	-0.247	0.055†		
6 – Education	Short	6.476**	-0.031	0.487	0.110	-1675.423*	49.732
	Long	4.014***	0.283*	0.191	0.035	-421.279	146.878
7 – Environment	Short	3.407**	0.376*	1.846†	-0.396†		
	Long	0.249	0.527***	2.293**	0.490*		
8 – Energy	Short	0.628	0.020	0.215	0.058		
	Long	2.759***	0.236	0.446*	-0.006		
10 – Transport	Short	14.760	0.500†	14.725	0.259		
	Long	47.080	0.121	36.067	0.517		
12 – Law	Short	1.312**	0.032	0.085	-0.178	-5.905	-82.274
	Long	1.235***	0.462***	-0.047	0.113	-7.519	-155.718**
13 – Social	Short	1.860†	0.064	0.160	-0.113	1151.909	-106.974
	Long	1.321*	0.100	0.411*	-0.196**	855.517	-246.707
14 – Housing	Short	3.028	-0.174	1.321	-0.132	-6772.070	-216.407
	Long	1.808	0.161*	1.257	0.138	-2370.936	62.027
18 – Trade	Short	-1.080	0.070	-3.594*	0.030		
	Long	0.600	0.123	-5.615**	0.097		
20 – Government	Short	-0.617	0.359	1.370	-0.502		
	Long	0.247	0.134	-2.049†	-0.695		
21 – Lands	Short	-34.261	0.123	-383.446	0.073		
	Long	15.206	0.019	-269.913	0.445**		
16/19 – Foreign	Short	-1.191	-0.367**	0.446*	0.122*	403.245	12.608
	Long	0.904	-0.181**	0.348*	0.045†	555.181	-25.406
Total	Short	4	1	2	1	0	0
Responsive	Long	5	6	4	3	0	0
Topics	Either	7	6	5	4	0	0

Note: * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$; † $p \leq 0.10$.

estimates for each topic (full results are reported in the Online Appendix, Tables A1 to A6, see the Supporting Information section at the end of the article). The topics are reported in the first column and the responsiveness coefficients for each of the governing agendas are presented in turn across the columns of Table 4, enabling comparison across the two countries and across institutions. For each topic, the direction, size and significance of the responsiveness of governing agendas is measured with the short- and long-run effects of public issue priorities. The final three rows of Table 4 further indicate the general pattern of

dynamic agenda representation, summarising the total number of topics for which the issue priorities of the public have a positive short-run, long-run or either effect on the policy content of each institutional agenda.

These results show that the policy agendas of governing institutions in both countries exhibit a substantial degree of responsiveness to the issue priorities of the public (*H1*). Specifically, statistically significant short- or long-run effects of public priorities are observed in four or more of the 16 topics for the executive agenda and legislative outputs. In the United States, the executive agenda is responsive to public priorities for seven out of the 16 topics (health, agriculture, education, environment, energy, law and order, and social welfare), while in the United Kingdom it is responsive for six (macroeconomic issues, health, education, environment, law and order, and housing). In the United States, legislative outputs are responsive for five of the 16 (macroeconomic issues, environment, energy, social welfare, and defence and foreign affairs) and in the United Kingdom for four (macroeconomic issues, environment, public lands and territorial issues, and defence and foreign affairs). It is interesting to note that there is little overlap in responsiveness within each country from institution to institution. This suggests these institutional agendas have different competencies as we discussed earlier. Furthermore, our example concerning education holds, with executive agendas in both countries demonstrating significant responsiveness to public priorities, with no responsiveness in either legislative agenda.

In contrast to these findings, there are no significant effects for budgetary expenditure in any of the seven topics tested here. This is consistent with the theoretical expectation that a decision-making venue like budgeting which lacks the same pressure for serial-processing and the prioritisation of issues is less likely to be responsive to public priorities. Further, in a few cases across the executive, legislative and budgetary agendas the coefficient estimates are negative and significant suggesting that change in the policy agenda leads public concern about that issue. For example, a short-run increase in American spending on education precedes a decrease in the public's prioritisation of the same issue. It is therefore possible for agendas to shape public priorities.

Overall, these results provide strong evidence of a link between the issue priorities of the public and the policy agenda of governing institutions in both countries (*H1*). Of all institutional venues, public priorities have the strongest effect, on average, on the executive agenda in terms of the frequency of statistical significance of short- and long-run effects. The results do not enable direct comparison of the level of responsiveness either between countries or institutions because the measure of the policy agenda in each institution uses a different unit of analysis (i.e., speeches, legislation and expenditure) and the mean level varies between countries. Further, the volume of statutes passed in the United States far exceeds the volume of acts passed in the United Kingdom.¹¹

The higher levels of agenda representation observed for executive speeches followed by legislation, in comparison to budgetary spending, indicate variation between institutional settings, consistent with theoretical expectations (*H2*) and the pattern of friction reported earlier. The responsiveness of policy agendas to the issue priorities of the public is highest in institutional settings where attention is most scarce (executive speeches), which requires that decision makers prioritise issues, and is lowest in the institutional venue subject to the highest degree of friction (budgetary expenditure).

While there is variation at the topic level, there are many similarities between the United States and the United Kingdom in the responsiveness of governing institutions to the issue priorities of the public. For example, there is no opinion-responsiveness in the executive agenda or budgetary spending for defence and foreign affairs in either country while there is evidence of responsiveness in legislative outputs in both countries in the short- and the long-run (with the long-run effects in the United Kingdom being significant at the 90 per cent confidence level). For law and order, on the other hand, the executive agenda is responsive to public priorities in the long-run in both countries (as well as being responsive in the short-run in the United States), while public priorities do not have a significant effect on legislative outputs for the same topic in either country. There is, nevertheless, variation in responsiveness across institutions between the countries that is likely driven by differences in the level of importance of issues to citizens (Page & Shapiro 1983; Jones 1994; also see Burstein 2003) and due to the ability of particular institutional agendas to better address certain issues (Hood 1983). Institutional variation therefore structures the overall pattern of representation (*H2*), where governing agendas in which the attention of decision makers is most scarce or subject to lower levels of friction tend to be more responsive, but also leads to variation in dynamic representation across issues.

The non-responsiveness of budgetary expenditure is an interesting finding that further confirms previous evidence that spending is not responsive to public concern about the 'most important problem' in contrast to relative preferences (Wlezien 2005). This is perhaps because whereas budgets have directional implications and the public can prefer either more or less spending in a particular policy domain, changes in the issue priorities of the public do not signal the desired direction of change (Jennings & Wlezien 2012). For example, the issue of health care might be highly salient to the public either because the government is spending too much or too little on it. The issue priorities of the public are, however, a useful information signal for valence issues – that is, those issues on which there is broad consensus over ends, such as lower crime or economic growth (Stokes 1963).

Conclusion

The sorting of issues for attention by political institutions is an important mechanism through which representation occurs. If public priorities change, and the policy priorities of government change in response, this is dynamic agenda representation. The transmission of the priorities of the public into the priorities of government is mediated through institutions, due to institutional friction in decision making or the scarcity of attention. This comparative analysis provides extensive evidence of the effect of the issue priorities of the public on the policy agenda of governing institutions in the United States and the United Kingdom over more than half a century. It reveals cross-national similarities, with a systematic pattern of responsiveness to public priorities across institutional venues. There is responsiveness of the executive and legislative agenda to public priorities in both countries across a range of issues. There is no similar responsiveness with respect to budgetary expenditures. The pattern of dynamic agenda representation across institutions is consistent within countries – supporting the theoretical expectation of variation across institutional settings due to attention scarcity and institutional friction. The degree of responsiveness is

greater in policy agendas when attention is most scarce (i.e., speeches) and declines as decision makers' attention becomes less scarce, and less concerned with agenda setting and the signalling of policy priorities, and is subject to higher levels of cognitive and institutional friction (i.e., expenditure). Such variation occurs because the ability and willingness of policy makers to respond to public priorities varies according to the issue at hand as well as the institutional venue, with each agenda having a unique set of competencies based on their policy instruments and national context, such as for the case of education in the United States and the United Kingdom.

Our results suggest that budgetary expenditure is not responsive to the issue priorities of the public in the same way. This finding differs from studies that demonstrate the effect of public preferences on budgetary spending (e.g., Ostrom & Marra 1986; Wlezien 1996; Soroka & Wlezien 2010). Budgets entail clear distributive and positional implications, and changes in public priorities do not signal the desired direction of change – unlike preferences. Nevertheless, it might be expected that an increase in the public's prioritisation of a particular issue might be associated with a corresponding preference for increased spending, and an expectation that government 'take action'. The results here suggest that this is not the case (or at least this effect is not detected). To start to get to the bottom of this puzzle, it would be necessary to compare the responsiveness of public policy to public priorities and preferences side-by-side.

This analysis also points towards possible normative criteria for the assessment of the relationship between agenda setting and representative government – in particular in relation to promissory and anticipatory forms of representation. These concern whether policy makers are expected to look backwards (to their electoral mandate) or look forwards (towards future elections). Further, the possibility for rational anticipation, Mansbridge (2003: 518) argues, requires normative interpretations to 'become systemic', assessing the responsiveness of the political system in the aggregate. Through its analysis of agenda representation over time this article has sought to understand the adaptive, equilibrating nature of political attention.

Processes of dynamic agenda representation can be understood via the transmission of the priorities of the public onto the policy priorities of government. The attention-dimension of representation is significant in assessing the degree to which government attends to issues of concern to the public. Variation in the observed pattern of dynamic agenda representation between governing processes, repeated across counties, suggests that the institutional scarcity of attention and friction in decision making structures the degree of responsiveness to public priorities. Further investigation is required, however, to determine whether these findings are replicated elsewhere.

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Table A1. State of the Union ECMs by Major Topic, 1951–2003

Table A2. Speech from the Throne ECMs by Major Topic, 1951–2003

Table A3. Statutes of the US Congress ECMs by Major Topic, 1951–2003

Table A4. Acts of the UK Parliament ECMs by Major Topic, 1951–2003

Table A5. US Federal Budget ECMs by Major Topic, 1951–2003

Table A6. UK Government Expenditure ECMs by Major Topic, 1951–2003

Notes

1. Note that this formulation is adapted from Stimson et al.'s (1995: 543) definition of 'dynamic representation'.
2. The official categories of budgetary expenditure do not cover all policy topics in the historical record.
3. See www.comparativeagendas.org
4. MIP data is not available in the United Kingdom after 2001. Since 1977, however, Ipsos-MORI has asked a similar question about the 'most important issue' (MII) which has been shown to exhibit a high degree of common variance and provide a comparable indication of the issues that are on people's minds (Jennings & Wlezien 2011). This enables a continuous measure to be constructed: the series are combined and averaged for the period 1982–2000 when there is regular overlapping data.
5. Because the MII data combines responses about defence and foreign affairs, our analysis aggregates the Defense (16) and International Affairs (19) topics to ensure the data is comparable over time and across countries. This combination generally produced better models and greater responsiveness than testing these two topics alone. Further, the analysis excludes two topics on which MIP and MII responses were extremely low in both countries: Banking (15) and Science (17).
6. The State of the Union Address is of course one of many public messages made by the President throughout the year. As Rudalevige (2002) demonstrates, much of the President's programme and influence occurs through other presidential messages. Nevertheless, the State of the Union Address is the most visible and comprehensive of the President's messages and represents a unique opportunity to publicly communicate the President's agenda in its entirety (Light 1999). It is therefore directly comparable to the similarly highly visible and important Speech from the Throne.
7. Something we later find (see Table 4 below).
8. Note that ordinary least squares (OLS) estimates are sensitive to departures from normality. Our analysis of friction in governing institutions suggests that each of the policy agendas exhibit positive kurtosis and while this does not produce bias in the coefficient estimates it can mean that the standard errors are no longer efficient (so the p-values are biased downwards – i.e., this imposes a stricter test upon our test of representation).
9. For Statutes in the United States and for American budgets the variable was coded according to which party was the majority party in the House of Congress. Other measures of partisan control in the United States, such as Senate majority party and a variable measuring House, Senate and presidential control, were also tested and produce the same general inferences.
10. This figure includes 16 models for the executive and the legislative agenda and seven models for the budgetary agenda in each of the two countries $(16 + 16 + 7) * 2 = 78$.
11. Although a proportionalised modeling strategy might seem a solution to this problem, because these agendas are substantively different across institutions in the unit of analysis, this would only mask the underlying issue.

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