Policy Responsiveness?
Evidence for one side of the thermostat.

Kathrin Thomas, University of Exeter

Dahl has noted that "one key characteristic of a representative democracy is [...] responsiveness of the government to the preferences of its citizens" (Dahl 1971:1) Democratic responsiveness is also one paradigm to test the quality of a democracy. The question whether or not governments respond to public wishes leads back to the core principle of representation, which teaches us that governments are the trustee of the people and, thus, are supposed to act in accordance with their preferences. The (mal-) functioning of this link in representation can be tested by examining a government's ability to respond to public wishes.

However, the relationship between public opinion and public policy is not directly linked. G. Bingham Powell has noted that "democratic responsiveness is a [rather] complex process, somewhat like a chain whose links are causally connected" (Powell 2004). Within this chain of representation, opinion translation is conditioned and constrained, especially by the institutional set-up of a country. I argue that public opinion has only got a significant impact on policy outcomes under a certain institutional design. Hence, how effectively governments respond to public wishes depends on the conditioning effect of a combination of electoral institutions such as the type of the executive, the type of the electoral and party system as well as the vertical dispersion of powers within a state.

Whether or not governments respond to public preferences is also a question that needs steady investigation. One aim of democratic representation is, as Dahl notes, continuous responsiveness (Dahl 1971), thus, a frequent examination is necessary to ensure that democratic responsiveness and democracy work.

In addition, previous responsiveness research has strongly focused on the US, where the opinion-policy link is largely explored. However, most other democracies lack sufficient investigation.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam
(20-24 March 2011)

1

Exploring the opinion-policy nexus

Contemporary responsiveness research has two characteristics: 1) It explores the opinion-policy nexus predominantly in terms of agenda setting and ideology and 2) it focuses strongly on the US.

A large body of literature has explored democratic responsiveness by looking at the ideological coherence between the median citizen and her government. The approach is very straight forward. The stance of both, the median citizen and the government, is calculated and then modelled statistically to find out about the impact of other factors, mainly institutional features. (Golder/Stramski 2010. Blais/Bodet 2009, Powell 2009, Budge/McDonald 2007, McDonald/Budge 2005, McDonald/Medes/Budge 2004, Powell 2006, 2000, Powell/Vanberg 2000, Huber/Powell 1994)

Most authors test ideological congruence in a cross-national framework and find that governments respond in a sense that their ideological agenda accords with that of the median citizen. However, institutional differences lead to more (less) responsiveness. So have majoritarian systems for a long time been believed to produce less responsive governments than proportional systems. (for example see, Powell 2006, 2000, Huber/ Powell 1994) Only recently have some studies shown that in fact the institutional variance is neither very different, nor significant. (Golder/Stramski 2010, Blais/Bodet 2009, Powell 2009)

The bottom line of ideological responsiveness is that governments respond in form of agenda setting. However, this does not tell us a lot about the degree of responsiveness that actually leads to real public policies.

Another less popular strand of responsiveness research focuses on issue responsiveness. The main concern of issue correspondence studies is whether or not public wishes for policies are reflected in actual policy outcomes. (Soroka/Wlezien 2011, 2010, 2005, 2004, Wlezien 2004, 1996, 1995, Binzer Hobolt/Klemmesen 2008, 2005, Johnson/Brace/Arceneaux 2005, Canes-Wrone/Shotts 2004, Monroe 1998, 1979, Stimson/MacKuen/Erikson 1995, Stimson 1991, Page/Shapiro 1983) These studies test if governments respond effectively (Binzer Hobolt/Klemmenssen 2008) to public preferences and therefore seem to be a superior method to approach responsiveness.

Although issue responsiveness does not mark the popular stream of responsiveness research, prior research has paved the way for future studies. This is were the second

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

2

characteristic becomes more apparent. Most issue responsiveness studies focus solely on the opinion-policy nexus in the US (Wlezien 2004, 1996, 1995, Johnson/Brace/Arceneaux 2005, Canes-Wrone/Shotts 2004, Monroe 1998, 1979, Stimson/MacKuen/Erikson 1995, Stimson 1991, Page/Shapiro 1983), whereas only a marginal number of studies looks at countries outsides USA (Soroka/Wlezien 2005, 2004) and much less choose a comparative approach (Soroka/Wlezien 2010, Binzer Hobolt/Klemmenssen 2008, 2005).

Just like the scholars of ideological congruence, do most scholars of issue responsiveness believe that institutions matter. They matter in so far as they condition the impact of public opinion on policy making. This conditioning effect of institutions, however, is best tested in a cross-national framework applying the comparative method (Lijphart 1971), which current issue responsiveness research still lacks.

No one has really explored issue congruence employing a comparative design, with the exception of Soroka and Wlezien (2010) and Binzer Hobolt and Klemmesen (2008). Both studies look at a different country sample and also different institutional characteristics. Soroka and Wlezien look exclusively at majoritarian systems (US, UK, Canada), but include also the type of the executive and federalism as well as party affiliations in their analyses. In contrast, Binzer Hobolt and Klemmensen focus rather on different electoral systems (Denmark, the UK and the US), yet also model the impact of the type of the executive.

The main findings concerning the conditioning effect of institutions on responsiveness employing this approach is that governments in presidential systems appear to be more responsive to public preferences than their counterparts. Binzer Hobolt and Klemmensen (2008) find that rhetorical responsiveness[1] is highest in the Danish system, with a predominance of minority governments and in the presidential system of the US, but low in the majoritarian UK system, whereas effective responsiveness is higher in the US than in the parliamentary systems of Denmark and the UK.

Soroka and Wlezien (2010) observe similar effects for the type of the executive. While the US government seems to respond frequently to public wishes, the responsiveness on part of British and Canadian government is lower. In addition, they suggest that the vertical dispersion of powers have an impact on the degree of

---

[1] Binzer Hobolt and Klemmesen (2008) differ between rhetorical and effective responsiveness. Rhetoric responsiveness occurs when policy makers respond in form of rhetorics such as speeches or written manifestos to public wishes, whereas effective responsiveness describes responses in form of actual government action. Here, actual government action is indicated by public expenditure.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

3

responsiveness. Unitary systems seem to be more responsive to preferences than federal one. They also presume that the electoral system may have an impact, however, cannot test such under their research design.

As I have argued earlier, continuous responsiveness research is important and necessary to test the quality of a democracy. In addition, I find a large gap in the literature concerning issue responsiveness research. This strand of research focuses mainly on the the opinion-policy linkage in the USA and only few studies have considered other American or even European countries. Furthermore the effect of institutions on public opinion and responsiveness deserves some more exploration. We need to shed light on how the interplay of the various institutions effects opinion formulation and policy making.

This paper contributes to some of these issues. I employ a larger country sample of 21 countries worldwide. The political systems I look at vary according to several institutional features which allows me to test in a cross-national manner the conditioning effects of the institutional design employing the comparative method. The main research questions I intend to answer in this paper is: Do governments respond to their citizens' wishes? And: What institutional design conditions government responsiveness to public preferences?

Methodology and Data

In order to investigate government responsiveness cross-nationally, a straight forward research design as well as superior data are needed. Here I employ Wlezien's thermostatic model of representation (Wlezien 1995), however, I had to make adjustments because of the availability of opinion data. The study ties in with the research conducted by Binzer Hobolt and Klemmensen (2005, 2008) who have tested responsiveness using an alternative measure of public opinion than originally described by Wlezien. Nevertheless I follow the logic of Wlezien's approach.

The thermostatic model assumes that responsiveness occurs when a shift in actual policies in the direction of the preferred policy level takes place. Wlezien uses spending data as the indicator of policy. In order to indicate the preferred policy level opinion survey data is employed which asks respondents to name if they want the government to spend more, less or about the same amount on policy area x. The net support for policies

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

4

[preferences for more spending subtracted from preferences for less spending] gives the direction of preferred change.

The adjustment made to the thermostatic model in this study following Binzer Hobolt and Klemmensen (2008, 2005) lies in the measure of public opinion. Large scale opinion surveys outside the US do not ask preferential question on policy preferences in the same manner. So I need a different indication of public opinion. Most cross-national surveys ask the so-called most important problem questions (MIP): "What is the most important problem facing your country today?" First and foremost the MIP question is a measure of issue saliency. However, as Binzer Hobolt and Klemmensen have shown it can also be employed for the purpose of this study. Although it the MIP does not indicate a preferred level of policy change, it does give us an indication of what policy area matters most to the survey respondents. This enables me to at least observe if governments regulate where the public thinks a problem occurs. However, I do not have any indication what the preferred direction of change is.

I am aware of the criticism that comes with the use of MIPs. Wlezien (2005) has argued that the MIPs can only tell us about the prominence of a topic, but they do not indicate to what extent the issue is actually a problem. In addition, Larson, Yeager, and Krosnick (forthcoming) have shown in an experimental set-up that the question wording of the MIPs bias the respondents' answers to the question largely. They find that the time frame is important as well. Whether the question asks what is the MIP problem facing your country 'today' or 'within the last few years' matters to answers given. In addition, the (de-)personalisation of the MIP question influences the respondent's answers as well. For instance, additions such as what is the MIP 'to you personally', 'facing your country', 'the society' or 'the world' pre-determine and influence the answers given by respondents.

Against all critiques, the MIP is the best indication of public opinion across various policy areas I can get to apply a cross-national research design. Moreover, it at least gives us an impression of what issues are important to the public. I argue that an issue/a problem that is most important to public indicates that the corresponding policy area requires some kind of political action, although we do not know if more or less regulation is wanted. The alternative measure suggested by Binzer Hobolt and Klemmensen (2005, 2008) is the best I can get to conduct cross-national research. Nevertheless, I acknowledge that it is also is an inferior method in comparison to in the original thermostatic model developed by Wlezien (1995).

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

5

Public opinion

Superior cross-national opinion data is needed in order to adopt the adjusted thermostatic model. The Comparative Study of Electoral Systems (CSES) as an ongoing project that collects data in more than 50 countries over a time period from 1996 up to date delivers such data. Only recently has the latest module been pre-released for research. CSES has collected three modules of data so far (Module 1:1996-2001, Module 2: 2002-2006, Module 3: 2007-2011) which combine micro and macro level data. The main advantage for researchers is that the data allow conducting cross-national studies and incorporating contextual factors into their models such as institutional attributes. The project offers consistent data over a time period of henceforth fifteen years.

The MIP question as such is asked only in the second and third module of the CSES surveys. Whereas module 2 asks the well-known version of the MIP question (*"What do you think has been the most important issue facing [country] over the last [number of years the last government was in office] years?"),* module 3 incorporates two slightly different MIP questions: *"What has been the most important issue to you personally in this election?"* (1) and *"What do you think is the most important political problem facing [country] today?"* (2). Nevertheless the latter version appears to be the one that matches my research design and corresponds with the MIP question from CSES wave 2. The egocentric version of the MIP question rather focuses on individual level problems than political issues.

As no version of the MIP question has been asked in the first wave of the CSES surveys, I had to drop this module from the analyses. Please note, that I have tried to replace the MIPs with another item from CSES wave 1: "In your view, what are the five most salient factors that affected the outcome of the election (e.g. major scandals; economic events; the presence of an independent actor; specific issues)?" However, some preliminary analyses have shown that this item significantly differs from the MIPs. For this reason wave 1 has been dropped from the analyses.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

6

I have re-coded the open ended questions into 10 policy categories[2] and aggregated it for my analyses. Aggregating data is a common practice in political research. In total, CSES provides me with opinion data for 24 countries[3] worldwide. Although the Czech Republic is part of the CSES project, it has been excluded from the analyses as no data about MIPs has been collected. Still CSES delivers opinion data from at least two post-election surveys and contextual data, which allows me to set up dummy variables for my the four institutional features I want to look at: the type of the executive, the type of the electoral and the party system as well as the vertical dispersion of powers.

Policy outputs

Ideally, I would require data on policy outputs that take into account regulative acts as well as finances for a large number of countries. However, such a data set is not available, neither am I able to set up such a data base for a large number of countries because of costs and time. One classic option to measure policy outputs, however, is looking at public expenditure data. I am aware of the fact that budgets are not all to policies, nevertheless policies require financial back-up and, hence, budgets give an insight to policy making.

Wlezien and Soroka (2003) have pointed to the fact that one also has to be cautious about differences between spending appropriations and spending outlays. Whereas appropriations only describe policy intentions and, thus, are in line with what Binzer Hobolt and Klemmenssen (2008) name rhetoric responsiveness, outlays are what one would want to look at to get an indication of effective policy outputs.

The Organisation of Economic Co-operation and Development (OECD) provides spending outlays by function for most of its member states back to 1989. The data is provided in the national currency and split into 10 main categories[4]. In order to make

---

[2] General public services (1), defense and foreign policy (2), public order and safety (3), economic affairs (4), environmental issues (5), housing and community amenities (6), health care (7), culture, recreation, religion and migration (8), education (9), and social problems (10). Please note that these categories are corresponding with the OECD spending data by function, which is the indicator for policy outputs and will be discussed in the next section.

[3] Australia, Belgium,Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States, Russia.

[4] These are corresponding to the re-codes of the CSES opinion data, see footnote 2. In fact, the OECD spending categories have been material to the re-codes. It is rather straight forward to re-code the open ended MIP answers into the 10 spending categories in order to get corresponding data.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

7

spending comparable across countries, I had to transform my spending data into an identical unit. I have used purchasing power parity (PPP) coefficients provided by the OECD to adjust my spending data. As all data is collected by the OECD and publicly available on their homepage, this process has been rather straight forward, so that I could come up with nice and neatly organised spending data for the OECD member states worldwide.

Table 1:
Country matches and availability of CSES and OECD data

	CSES[a]	**OECD**[b]
Australia	2004, 2007	not available
Belgium	2003	1996-2008
Canada	2004	1996-2006
Czech Republic	generally available, no MIP	1996-2006
Denmark	2001	1996-2009
Finland	2003, 2007	1996-2008
France	2002	1996-2008
Germany	2002, 2005	1996-2008
Hungary	2002	1996-2008
Iceland	2003	1997-2007
Ireland	2002	1996-2008
Israel	2003, 2006	1996-2008
Italy	2006	1996-2008
Japan	2004, 2007	1996-2007
South Korea	2004, 2008	2000-2008
Mexico	2000, 2003	not available
the Netherlands	2002	1996-2009
New Zealand	2002	2003-2005
Norway	2001, 2005	1996-2008
Poland	2001	2002-2008
Portugal	2002, 2005	2006-2009
Slovenia	2004	1999-2008
Spain	2000, 2004	1996-2008
Sweden	2002, 2006	1996-2008
Switzerland	2003, 2007	2007
United Kingdom	2005	1996-2008
United States	2004	1996-2008
Russia	2000, 2004	not available

a. CSES Module 1 dropped. CSES Module 2 and 3: Most important issue question: "What do you think has been the most important issue facing your country over the last years?"
b. OECD national accounts Government Expenditure by function and year in US$ (PPP-factor)

To define my country sample for the analyses I have then matched CSES countries with OECD member states. Table 1 shows the results of the matching process. In total, I

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

8

have 28 matches; countries that are members of the OECD and also part of the CSES project. Of these 28 countries opinion data is only available for 24 nations that participate in CSES. Also I had to drop some countries because spending data was not available by function on the OECD homepage. Altogether I come up with a country sample of 24 countries[5] that are included in the analyses.

Model and expectations

I intend to run an the adjusted thermostatic model described in the section above. Where

$$policy = a + b*opinion + b_1*institution1 + b_2*institution_1*opinion + ... + e$$

I will try leading and lagging the policy variable. I expect to find the public responding to policy under certain institutional designs when policy is lagged and also policy in year t+1 to respond to opinion conditioned by institutional features. I expect presidential governments to respond more frequently to opinion than governments dependent on the confidence of the parliament. In addition, I expect proportional systems to be more responsive to the public than majoritarian ones. Unitary states I assume to be more responsive to the citizens' wishes than federally organized ones and governments based on a multiparty system to respond more often than governments in two-and-a-half party systems.

Bivariate relationship

Graph 1 illustrates the bivariate relationship between public policy outputs and public opinion.[6] The scatterplot suggests that there is a very weak negative association between the two variables. The first column of table 2 is well in line with this image. It supports the initial picture and shows that opinion the association between policy and opinion is very flimsy and negative (-.175). Also the p-value (.442) indicates that the

---

[5] Belgium,Canada, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and United States.

[6] To ensure a normal distribution I had to log both variables. Also I have stacked the data set by policy field to increase the number of my observations.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

9

relation is far from significant. However, the results hint at when spending increases the percentage of people considering this area to be most important decreases slightly. In short; opinion may react to policy.

Graph 1:
Bivariate relation between policy and public opinion
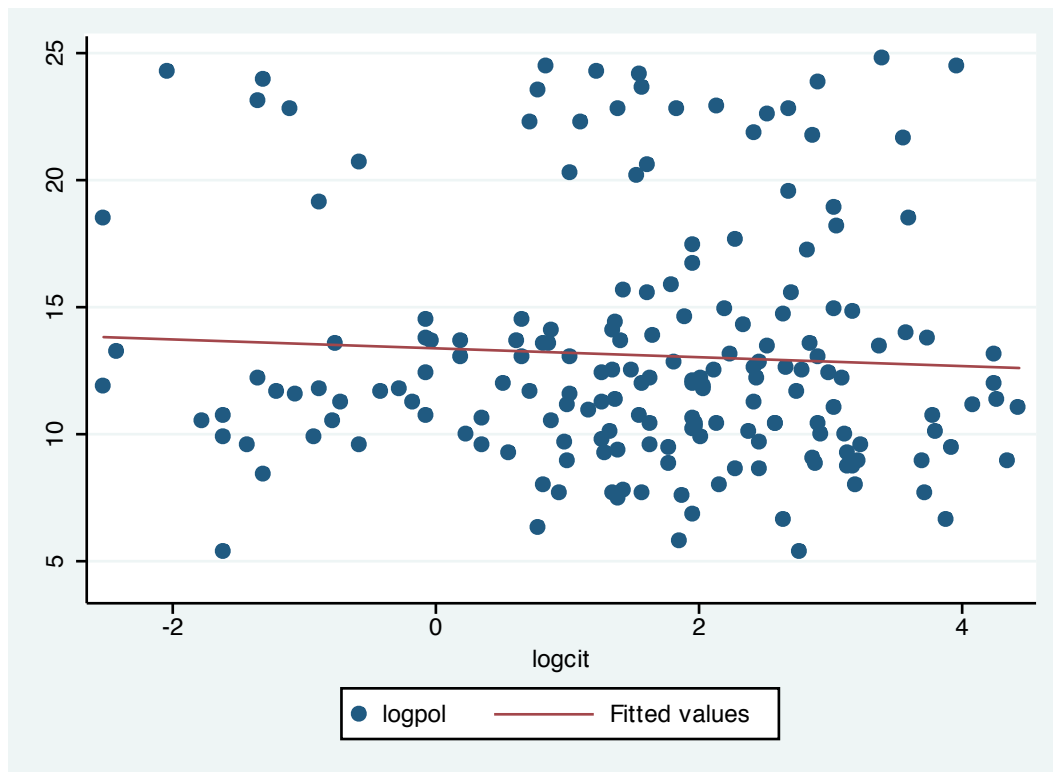
These findings neither come as a surprise, nor do they oppose the initial argument. I believe that a country's institutional design conditions the effect of salient public opinion on policy outputs. Hence, I would not expect policy and opinion to be strongly correlated in the bivariate test statistics.

Testing for cross-sectional variance

In order to exclude that there are obvious differences in the opinion-policy connection across countries, I have run multivariate regressions, which include interactions between opinion and country dummies. The association between policy and opinion appears to stay similar in all countries. The coefficient for opinion is slightly negative and varies between .02 and .29, however, does not come up significant in any

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

10

country. The interaction-coefficient, however, changes from negative to positive in some cases. Altogether the initial test appears to show no obvious significant differences in the opinion-policy relations. The results hint at a negative association of opinion towards policy in all countries. Again, this is in favour of the argument I make here. I suspect opinion to become only a significant marker of policy when institutions condition public preferences.

Testing for variation across policy fields

Many scholars of issue responsiveness have discovered that the type of the issue matters to whether or not a government responds to public preferences. Page and Shapiro (1983) find only small differences between issues, however, they observe that governments respond more frequently to salient issues. I ensure that issues are salient amongst citizens by the research design. MIP indicate the most salient issues anyway. However, if saliency exists also between the public and policy makers is out of the scope of this paper and, thus, not tested for.

Variance has also been observed across distributive versus redistributive issues. Brooks (1985, 1987, 1990) finds that responsiveness is higher on distributive issues than it is on redistributive ones (for instance, wealth, property, and political rights). In contrast Petry (1999) discovered more responsiveness to retributive issues than to distributive ones in Canada.

I have followed the same procedure as for testing for cross-sectional variation in order to check for variance across policy fields. I have run multivariate regressions, which include interaction terms between - in this case - policy fields and public preferences as well as the individual variables. The results suggest that there is only very little and insignificant variation across policy fields. The effect of opinion on policy does not change at all. For all policy fields the association between policy and opinion is weak, slightly negative and insignificant. However, again, the interactions change from negative to positive in some policy fields.

In total, it seems that there are no obvious and significant differences in the opinion-policy nexus across policy fields.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

11

Institutional effects

The main argument underlying this paper is that institutions condition the effect of public opinion on public policy. Some preliminary analyses help to shed light on this. Applying multivariate regression, I have looked at the conditioning effect of each of my four individual institutions. Table 2 summarises the results.

It appears that some institutional features have an effect on public opinion. The following paragraphs look in some more details at the individual institutions and their conditioning effect on public opinion on public policy.

a) Conditional effects of the electoral system

Firstly, I have tested the conditional effect of the type of the electoral system on public opinion on public policy. In order to explore this relation, I have created a dummy variable that equals 0 if the electoral system is majoritarian and 1 if it is proportional. Then I have interacted public opinion with the dummy variable and have included the interaction as well as both constitutive terms in the regression.

The regression results show that an increase in the salience of public opinion is associated with an increase in policy when the electoral system is a majoritarian (0.348). This effect reverses when the electoral system is proportional. The conditioning effect of proportional systems on opinion saliency on policy is negative (-0.398). In other words, the effect of public opinion on public policy declines marginally when the electoral system is proportional.

There appears to be only a small and also insignificant conditioning effect in the multivariate regression with only the electoral system included. The p-values for both coefficients are not significant (0.209 for the presidential systems and 0.282 for the interaction term). Nevertheless, the type of the electoral system seems to condition the impact of salience in public opinion on policy. The coefficients are more distinct and move closer to significance compared to the average effect of opinion saliency on policy from the bivariate regression.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

12

b) *Conditional effects of the party system*

Following the same logic, I have secondly examined the conditional effect of the party system on opinion on policy. The party system is coded in the same manner as the electoral system and equals 0 if it is a two-and-a-half party and 1 if it is multiparty system.

Table 2:
Regression results of the bivariate relation between opinion and policy and multivariate relation between opinion, policy and four individuals institutional features

Independent Variables	Base Model	Model 1	Model 2	Model 3	Model 4
Public Opinion	-0.175	0.348	-0.334	-0.524*	0.216
	(-0.227)	(-0.276)	(-0.719)	(-0.287)	(-0.418)
Electoral System		-5.548***			
		(-0.803)			
Opinion*Electoral System		-0.398			
		(-0.368)			
Party System			1.226		
			(-1.694)		
Opinion*Party System			0.163		
			(-0.758)		
Federalism				-1.560	
				(-1.016)	
Opinion*Federalism				0.916*	
				(-0.468	
Type of the Executive					-6.106***
					(-1.02)
Opinion*Executive					-0.192
					(-0.478)
Constant	13.38***	16.66***	12.25***	14.03***	18.18***
	(-0.501)	(-0.586)	(-1.609)	(-0.644)	(-0.881)
Observations	184	184	184	184	184
R-squared	0.003	0.376	0.010	0.024	0.235

Standard errors in parentheses
*** $p<0.01$
** $p<0.05$
* $p<0.1$

The output shows that a decrease in the salience of public opinion is associated with a increase in public policy when the two or two and a half parties constitute a country's party system (-0.334). Again this effect reverses if multipartyism is present. In this scenario

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

13

the effect of public opinion on public policy increases slightly by another 0.163 units, but stays slightly negative.

However, these coefficients of the multivariate regression with only the party system as a conditional variable included are far away from the significance level. Both coefficients have very high p-values of 0.643 for closed party systems and 0.830 for multipartyism.

c) *Conditional effects of the type of the executive*

Thirdly, I have explored the conditioning effect of the type of the executive on opinion saliency as a predictor for public policy. I followed the same procedure as in a) and b). The type of the executive is coded 0 if it is a presidential democracy and 1 if the executive is dependent on the confidence of the parliament.

I observe a similar pattern as for the type of the electoral system. An increase in public opinion saliency is associated with an increase in public spending in presidential systems (0.216), whereas this effect vanishes when a parliamentary system is concerned. Is the democracy a parliamentary one a slight decrease in opinion is associated with an increase in spending by another -0.192 units. Again, the regression coefficients are far away from the significance level and only reach a p-value of 0.606 and 0.689.

d) *Conditional effects of the federalism*

Finally, I have tested the conditioning effect of the vertical dispersion of powers within a country on opinion on policy. The same procedure applies as for the other variables. Federalism is coded 0 if a country is unitary and 1 if it is federally organized. Please note, that I have not accounted for different levels of federalism such as co-operative form or dual form of federalism.

The vertical dispersion of powers seems to be one important condition for opinion saliency on policy. The results of the multivariate regression show that a decline in opinion saliency is associated with an incline in policy when a country is unitary (-0.524) and the contrary is true for federally organized countries where an incline of salient opinion is associated with an incline in policy (0.916). In addition, both coefficients almost reach the 0.05 significance level with p-values of 0.069 for unitary systems and 0.052.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

14

So far I have explored the conditioning effect of the individual institutional features on public opinion on public policy. The results show that opinion conditioned by the different institutions seems to react to spending rather than spending to opinion. In the following section I have tried to model the impact of a combination of my institutional features on opinion on policy. Also I have tried to lead my policy variable in order to see whether or not the relation turns out to show whether or not spending responds to opinion. In addition, I have also lagged my policy variable so to see whether or not the reaction of opinion towards policy decreases, increases or stays about the same.

Modelling the conditioning effect of institutions on the opinion-policy linkage

The bivariate relation suggest that opinion saliency is no good predictor for policy. Also I have neither found any cross-sectional variation, nor obvious variance across policy fields. This however, supports my argument. I expect public opinion to be only a good predictor for policy when it is conditioned by institutions.

The multivariate analyses, which included only one institution at a time, have shown that only the vertical dispersion of powers seems to condition opinion (almost) significantly. I expect this image to change when I try out different combinations of my institutional features. Of the various combination I have explored only one model turned out to be significant and also to support my expectation. I included the constitutive variables as well as interactions with opinion and the type of the electoral system and party system as well as federalism in the model.

Model 1 (table 3) regresses opinion in year t, the institutional variables (electoral system, federalism, and party system) and interaction between opinion saliency and the institutions on policy in the same year. The model explains 0.521 of variance in the dependent variables, public policy, so it reaches a fairly high level of goodness of fit.

The results show that a -0.129 decrease in the level of opinion saliency is associated with an increase in public spending when the political system is based on a unitary, majoritarian electoral system and a two-and-a-half-party system. The coefficient for the base model is significant at the 0.05 level.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

15

Proportional systems decrease this effect of opinion by another -0.680 units holding every other variable constant. The interaction coefficient for proportional systems also achieves significance at the 0.05 level.

In federally organized states the impact of opinion saliency upon public policy increases by another 0.886 units holding everything else constant, the coefficient gains significance only on the 0.1 level with a p-value of 0.077.

Table 3:
The impact of institutions on the opinion-policy relation

Independent Variables	Model 1[a] (policy t)	Model 2[a] (policy t-1)	Model 3[a] (policy t+1)
Public Opinion	-1.129*	-1.204**	-0.792*
	(-0.576)	(-0.493)	(-0.381)
Electoral System	-6.671***	-6.627***	-6.158***
	(-0.762)	(-0.492)	(-0.596)
Opinion*Electoral System	-0.680*	-0.642**	-0.501**
	(-0.353)	(-0.263)	(-0.217)
Federalism	-2.402***	-2.376**	-0.966
	(-0.763)	(-0.978)	(-0.736)
Opinion*Federalism	0.886**	0.999*	0.576
	(-0.348)	(-0.466)	(-0.384)
Party System	4.261***	4.183***	3.635***
	(-1.333)	(-0.986)	(-0.761)
Opinion*Party System	1.438**	1.487***	1.269***
	(-0.602)	(-0.449)	(-0.338)
Constant	14.36***	14.33***	13.23***
	(-1.312)	(-1.436)	(-1.119)
Observations	184	175	200
R-squared	0.521	0.511	0.448

Panel corrected standard errors in parentheses
*** $p<0.01$
** $p<0.05$
* $p<0.1$
[a] panel corrected standardized errors

A similar pattern can be observed for multiparty systems. Multiparty systems increase the impact of public opinion saliency on policy by 1.438 units holding everything else constant. The coefficient also gains significant on the 0.05 level.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam
(20-24 March 2011)

16

Altogether it appears that public opinion in model 1 responds to public policy rather than policy to public opinion. Where one unit of change on the policy level leads to a decline of people considering policy x the most important problem. This is true for unitary, majoritarian, and two-and-a-half party systems.

When I plot the interaction effects as suggested by Brambor, Clark and Golder (2006) they occur not to be significant. Graphs 2a-c visualize the interaction effects which would be significant if both dashed lines were above or below zero. Whereas federalism and the party system seem to come close to that, the electoral system is far away from significance level.

Graph 2:
Marginal effect of opinion on policy Model 1 (policy t) conditioned by the electoral system (a) federalism (b), and the party system (c)
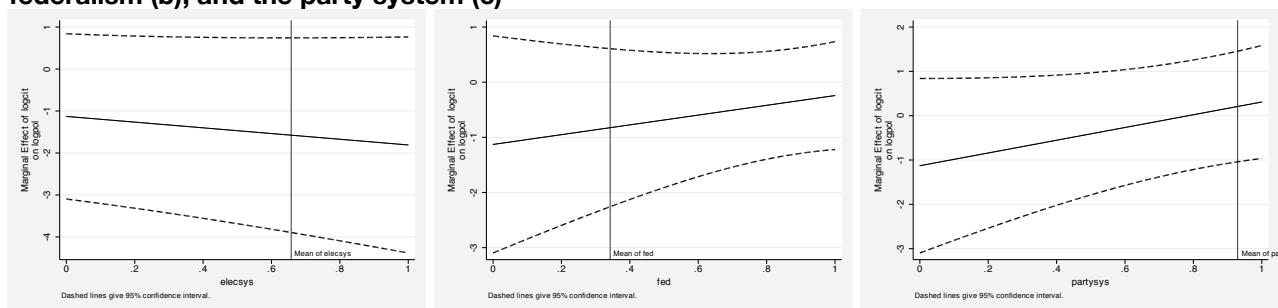
Perhaps the conditioning effect becomes stronger when I lag the policy variable giving opinion one year to adjust to public spending. I have done this in model 2 (table 3) following the same logic as for model 1. However, there appear only to be little differences between model 1 and model 2. The base effect of opinion saliency on policy in unitary, majoritarian and two-and-a-half party systems stays (almost) the same with a coefficient of -1.204. So does the significance level with a p-value of 0.037 (see table 3, column 2).

Similar can be observed for the conditioning effect of proportional systems on opinion saliency on policy. The coefficient for the interaction only changes marginally from model 1 to 2 from -0.680 to -0.642 suggesting that salience in public opinion decreases by another -0.641 units as policy increases when the electoral system is proportional. The effect is significant at the 0.05 level.

The effect of a vertically more dispersed system on opinion saliency on policy is almost the same as in model 1 too. The coefficient for the interaction between opinion and federalism is 0.999 and gains significance at the 0.1 level only with a p-value of 0.61.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

17

This suggests that the public respond less to public policy in the year t-1 when the country is federally organized.

Similar appears to be true for the conditioning effect of the party system. Multiparty systems occur to increase the impact of public opinion saliency on public policy by another 1.487 units holding every thing else constant. With a p-value of 0.09 this effect is significant at the 0.05 level.

To ensure that the interaction effect are really significant, I have plotted the marginal effect of opinion on policy in year t-1 for the three institutional features (see Graphs 3a-c). Again, the graphs suggest that the effects is not significant although indicated in the regression out. We see similar images as for model 1. The impact of federalism and the party system come close to significance, however, the effect of the electoral system as plotted in graphs 3c.

Graph 3:
Marginal effect of opinion on policy Model 3 (policy t-1) conditioned by the electoral system (a)
federalism (b), and the party system (c)
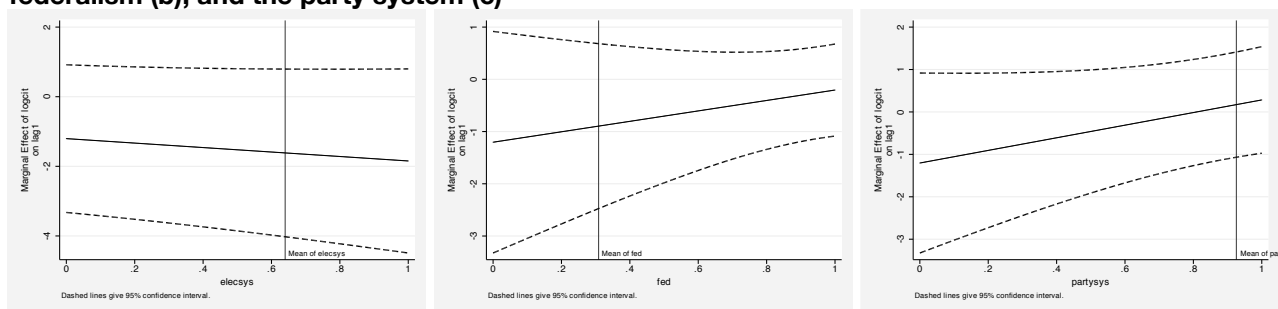
The major research interest is to test government responsiveness to citizens' preferences. What I could observe so far is the other side of the thermostat: Citizens appear to adjust their preferences according to public policy. In order to test for government responsiveness I need to either lag public opinion or lead public policy. As I do not have a proper time series on my opinion data, but a good series of spending data, the next thing I have tried is leading my policy variable. Thus, model 3 (table 3) regresses opinion, institutions and interactions on policy in the year t+1.

The results are presented in column 3 of table 3. The overall conditioning effect of the base model (unitary, majoritarian, two-and-a-half-party systems) on opinion saliency on policy seems to decrease slightly. I observe a coefficient of -0.792 for salient public opinion in the base model. In comparison to model 1 (-1.128) and the lagged model 2 (-1.204) the opinion saliency occurs to decrease less when policy increases. In addition,

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam
(20-24 March 2011)

18

opinion still appears to respond to policy rather than policy to salient opinion. The effect is only significant on the 0.1 level.

Holding everything else constant the effect of proportional systems shows a similar change. Proportional systems decrease the effect of opinion saliency on policy by another -0.501 units, this effect is significant on the 0.05 level.

In contrast the impact of federalism seems to vanish. Federal systems increase the effect of salient opinion on policy by 0.576 units, however, with a p-value of 0.168 this impact is no longer significant.

Multipartyism affects opinion on policy in a similar manner as in the other models. multiparty systems seem to increase the impact of salient opinion on policy by another 1.269 units, which is significant at the 0.01 level (p-value = 0.005).

Graph 4:
Marginal effect of opinion on policy Model 2 (policy t+1) conditioned by the electoral system (a) federalism (b), and the party system (c)
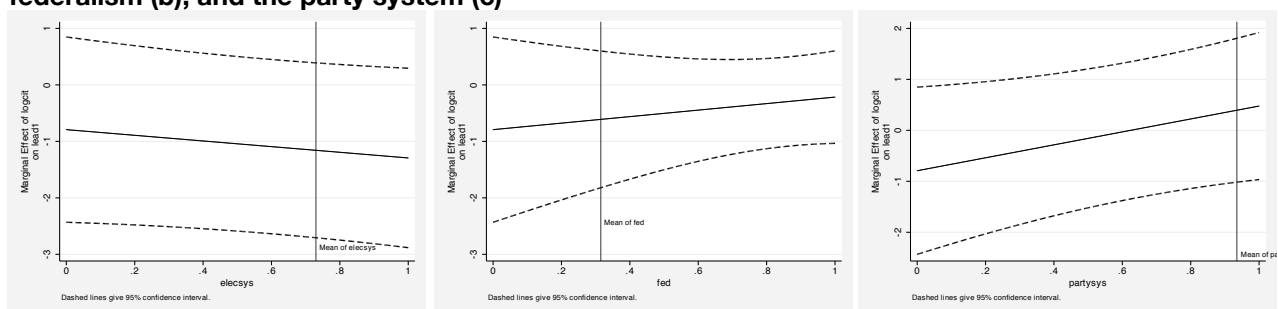
Graphs 4a-c suggest that again all interaction effects are not significant as neither pair of the dashed lines which present the confidence intervals are above or below zero.

Overall I do not find policy responding to salient public opinion in the lead model, but again opinion appears to respond to policy. One reason may be that I am unable to give policy more time to respond to opinion. The data only allows me leading policy by one year. However, OECD spending data has only been available until 2008/2009 when I conducted the analyses. The latest opinion data are from 2007 and 2008 as well which makes it hard to lead spending properly. A nice and neat time series would be helpful to test the other half of the thermostatic model, policy responsiveness to preferences, accurately.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam
(20-24 March 2011)

19

Discussion

The aim of this paper was to explore the policy-opinion nexus in terms of government responsiveness. However, I could not find support for the argument that governments respond to public preferences that are conditioned by a combination of institutional features. Nevertheless, I find support for one half of the thermostat: Under a particular institutional set-up the public appears to respond to policy. In unitary majoritarian and two-and-a-half party systems the public occurs to adjust their preferences slightly more than in federally organized, multiparty systems based on PR rules. Also the data indicates such a conclusion the results appear not to be significant.

At this stage of my research i am unable to give a full answer to my main research question: Under which conditions do governments respond to public preferences? However, the results also suggest that I am on the right track as the impact of opinion seems to be conditioned by institutions.

Perhaps adding some more years of spending outlay data to the policy time series may help. This would enable me to lead policy in t+2 or t+3, which might change the sign of the coefficients and then indicates policy responsiveness to public preferences. However, the data are not available yet. Policy for sure needs some time to react to opinion change.

Also it would be nice to get some more opinion data points from the forthcoming final release of the CSES wave 3. At the moment I deal with very few countries, which may be one reason for the inaccurate results.

Furthermore, trying out policy change may be another option to improve the model. The original thermostat, and also the adjusted model, employ change in opinion conditioned by a particular institutional set-up.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

20

References

Brambor, Thomas, William Robert Clark and Matt Golder (2006) Understanding Interaction Models: Improving Empirical Analyses. Political Analysis (2006, 14). 63-82.

Binzer Hobolt, Sara and Robert Klemmensen (2008) Government Responsiveness and Political Competition in Comparative Perspective. Comparative Political Studies (41, 3). 309-337.

Binzer Hobolt, Sara and Robert Klemmensen (2005) Responsive Government? Public Opinion and Government Policy Preferences in Britain and Denmark. Political Studies (53, 2). 379-402.

Blais, Andre and Marc Andre Bodet (2006) Does Proportional Representation foster closer Congruence between Citizens and Policy Makers? Comparative Political Studies (39, 10). 1243-1262.

Brooks, Joel E. (1990) The Opinion-Policy Nexus in Germany. Public Opinion Quarterly (54,?). 508-529.

Brooks, Joel. E. (1987) The Opinion-Policy Nexus in France. Do Institutions and Ideology make a Difference? Journal of Politics (49, 2). 465-480.

Brooks, Joel E. (1985) Democratic Frustration in the Anglo-American Polities: A Quantification of Inconsistency between Mass Public Opinion and Public Policy. Western Political Quarterly (38, 2). 250-61.

Brooks, Clem and Jeff Manza (2006) Social Policy Responsiveness in Developed Democracies American Sociological Review (71, 3). 474-494.

Budge, Ian and Michael D. McDonald (2007) Election and Party System Effects on Policy representation: Bringing Time into a Comparative Perspective. Electoral Studies (26, 1). 168-179.

Canes-Wrones, Brandice and Kenneth W. Shotts (2004) The Conditional Nature of Presidential responsiveness to Public Opinion. American Journal of Political Science (48, 4). 690-706.

Dahl, Robert A. (1971) Polyarchy. Participation and Opposition. Yale University Press: New Haven and London.

Dalton, Russell J. (1985) Political Parties and Political representation: Party Supporters and Party Elites in Nine Nations. Comparative Political Studies (18, 10). 267-299.

Golder, Matt and Jacek Stramski (2010) Ideological Congruence and Electoral Institutions. American Journal of Political Science (54, 1) 90-106.

Huber, John D. and G. Bingham Powell (1994) Congruence between Citizens and Policymakers in two Visions of Liberal Democracy. World Politics (46, 3). 291-326.

McDonald, Michael D. and Ian Budge (2005) Elections, Parties, Democracy. Conferring the Median Mandate. Oxford University Press.

McDonald, Michael D., Silvia M. Mendes and Ian Budge (2004) What are Elections for? Conferring the Median Mandate. British Journal of Political Science (34, 1). 1-26.

Monroe, Alan D. (1998) Public Opinion and Public Policy. The Public Opinion Quarterly (62, 1). 6-28.

Monroe, Alan D. (1979) Inconsistency between Public Preferences and National Policy decisions. American Politics Quarterly (7, 1). 3-19.

Page, Benjamin I. and Robert Y. Shapiro (1983) Effects of Public Opinion on Policy. The American Political Science Review (77, 1). 175-190.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

21

Petry, Francois (1999) The Opinion-Policy Relationship in Canada. Journal of Politics. (61, 2). 540-550.

Powell, G. Bingham (2009) The Ideological Congruence Controversy: The Impact of Alternative Measures, Data and Time Periods on the Effects of Election Rules. Comparative Political Studies (42, 12). 1475-1497.

Powell, G. Bingham (2006) Election Laws and Representative Governments: Beyond Votes and Seats. British Journal of Political Science (36, 2). 291-315.

Powell G. Bingham (2004) The Chain of Responsiveness. Journal of Democracy (15, 4) 91-105.

Powell, G. Bingham (2000) Elections as Instruments of Democracy. Majoritarian and Proportional Visions. Yale University Press.

Powell, G. Bingham and Georg S. Vanberg (2000) Election Laws, Disproportionality and Median Correspondence: Implications for Two Visions of Democracy. British Journal of Political Science (30, 3). 383-411.

Soroka, N. Stuart and Christopher Wlezien (2010) Degrees of Democracy. Politics, Public Opinion, and Policy. Cambridge: University Press.

Soroka, N. Stuart and Christopher Wlezien (2005) Opinion-Policy Dynamics: Public Preferences and Public Expenditure in the United Kingdom. British Journal of Political Science (35, 4). 665-689.

Soroka, Stuart N. and Christopher Wlezien (2004) Opinion Representation and Policy Feedback: Canada in Comparative Perspective. Canadian Journal of Political Science (37, 3). 531-559.

Stimson, James A. (1991) Public Opinion in America: Moods, Cycles, and Swings. Boulder, CO: Westview Press.

Stimson, James A., Michael B. MacKuen and Robert S Erikson (1995) Dynamic Representation. The American Journal of Political Science Review (89, 3). 543-565.

Wlezien, Christopher and Stuart N. Soroka, (2011) Inequality in Responsiveness? Peter Enns and Wlezien, Chistopher (ed.) Who gets represented? New York:Russell Sage Foundation. 285-310.

Wlezien, Christopher (2005) On the Salience of Political Issues: The Problem with "Most Important Problem". Electoral Studies (24, 4). 555-579.

Wlezien, Christopher (2004) Patterns of Representations: Dynamics of Public Preferences and Policy. The Journal of Politics (66, 1). 1-24.

Wlezien, Christopher (1996) Dynamics of representation: The Case of US Spending on Defence. British Journal of Political Science (26, 1). 81-103.

Wlezien, Christopher (1995) The Public as Thermostat: Dynamics of Preferences for Spending. American Journal of Political Science (39, 4). 981-1000.

"Policy Responsiveness? Evidence for one side of the thermostat."
Paper presented by Kathrin Thomas, University of Exeter, at the ELECDEM workshop on content analyses, Amsterdam (20-24 March 2011)

22