

# Political Institutions and Policy Representation in Europe<sup>1</sup>

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## ABSTRACT

The importance of political institutions for policy representation is widely theorized but the hypothesized effects have rarely been subjected to systematic empirical evaluation across a wide sample of specific policy issues. We test for the impact of political institutions using a new dataset covering 20 issues and 31 European democracies. Our findings underline that policy representation occurs in political systems with different institutional set-ups. While we uncover high degrees of opinion-policy congruence in Europe, evidence that fundamental features of the national political system moderate the relationship between policy and public opinion is more limited. Whereas policy is less likely to be in line with majority opinion in bicameral than unicameral systems, policy representation is not affected by other important institutional features such as the proportionality of electoral systems. We argue that the reason might be that many institutions have opposing effects that may cancel each other out.

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## **INTRODUCTION**

It is a defining feature of any liberal and democratic government that policy reflects the will of the people (see e.g. Dahl 1956; Pitkin 1967 and, more recently, Przeworski 2010). The match between public preferences and public policy cannot be expected to be perfect and instantaneous. In some cases – for example, when it comes to possible infringements of fundamental human rights or the repression of minorities – it might not even be normatively desirable. However, no political system that allows for gross, sustained, and systematic differences between what the public wants and what policies the government delivers can be considered liberal and democratic (e.g. Rehfeld 2009: 214).

It is widely believed that political institutions can fundamentally affect the quality of policy representation. A number of studies have investigated the effects of a range of institutions with respect to a variety of indicators of representation (see e.g. Powell 2006; Golder and Stramski 2010; Blais and Bodet 2006; Hobolt and Klemmensen 2008; Lax and Phillips 2012; Wlezien and Soroka 2012). Yet, in many cases the existing literature presents contradictory expectations about the effects of the same types of institutions on political representation. For instance, proportional representation (PR) electoral systems have long been thought to produce better representation than plurality systems (Lijphart 1984; Powell 2000), while there is also evidence pointing in the opposite direction (Wlezien and Soroka 2012). Yet another set of studies finds no difference, arguing that PR and plurality rules both increase left-right congruence at different stages of the government formation process (Blais and Bodet 2006; Golder and Lloyd 2014).

Similarly, the separation of powers through institutions like federalism, bicameralism or rules allocating considerable discretion to executives vis-à-vis parliaments may influence representation in contingent ways, which do not make them generally better or worse at producing policy representation. On the one hand, veto players can act as safeguards to protect the public from policies that only serve a minority (Wlezien and Soroka 2012). On the other hand, they can also

prevent governments from making policies that are congruent with public opinion (Tsebelis 1995; Hobolt and Klemmensen 2008). Hence, the provisional conclusion that emerges from the theoretical predictions of the existing literature as well as its empirical findings is that institutions can simultaneously steer policy both towards and away from public opinion. Rather than arguing that specific institutions affect representation in one direction, we therefore argue that countries with different institutional set-ups may exhibit little to no net systematic differences in the quality of policy representation.

We test our argument in the context of a high number of policy issues across a large number of countries with substantial institutional variation. A set of previous studies has investigated the effects of institutions on representation across a large number of countries yet along very general policy dimensions, like left-right (Powell 2006; Golder and Stramski 2010; Blais and Bodet 2006; Golder and Lloyd 2014; Ferland 2016) or general government spending (Wlezien and Soroka 2012). Other studies have examined institutional impact on the opinion-policy linkage across policy areas in a limited set of countries (Brooks 1985; Hobolt and Klemmensen 2008; Soroka and Wlezien 2010) or across many countries but in the context of single policies (see e.g. Brooks and Manza 2006). Yet, there is a lack of studies that test the effects of particular institutions in a high number of geographical units while controlling for issue-level factors across a high number of specific policy issues. Lax and Phillips' (2012) study of representation across a large range of specific policy issues in the US states represents an exception; yet, it provides limited insights into potential cross-national differences in institutions. In contrast, we analyze the link between public opinion and policy on 20 specific policy issues in 31 European countries.

The sample of countries allows us to investigate the potential effects of institutions, as it features significant variation along several theoretically relevant dimensions, including electoral systems, forms of government, and the vertical and horizontal distribution of power. Moreover, our

sample of policy issues includes issues of differing salience and covers various policy types and areas. Studying specific policy issues rather than broad dimensions, like policy liberalism, has the advantage of not requiring the assumption that citizens' policy preferences neatly map onto a single dimension (Converse 1964). Moreover, instead of relying on aggregate measures of policy for broader policy areas, we determine the actual state of policy for specific policy issues in each country in a precise and replicable way.

Our study provides an evaluation of the quality of policy representation across the European continent. We find a strong and statistically significant positive relationship between public support for a policy and the likelihood that the policy is in place. Moreover, in two-thirds of the cases, we observe that policy is congruent with the opinion of the majority of citizens. The opinion-policy link and level of congruence observed in the European countries are thus not perfect, yet they are relatively high when compared to the US states (cf. Lax and Phillips 2012). Surprisingly, however, we find weak cross-country differences in the opinion-policy relationship and only limited evidence that political institutions influence the link. Apart from the number of chambers of the national parliament, the opinion-policy linkage is not affected by institutions, no matter whether we consider variation in electoral systems or other important national institutions which have been hypothesized to affect policy representation. We are led to conclude that several of the institutions considered in existing research on the opinion-policy linkage do not have a one-directional effect but might affect policy representation in countervailing ways.

## **THE OPINION-POLICY LINK**

Due to the centrality of the link between public opinion and policy to the core concept of representative democracy, a range of studies have used multiple approaches and data sources to

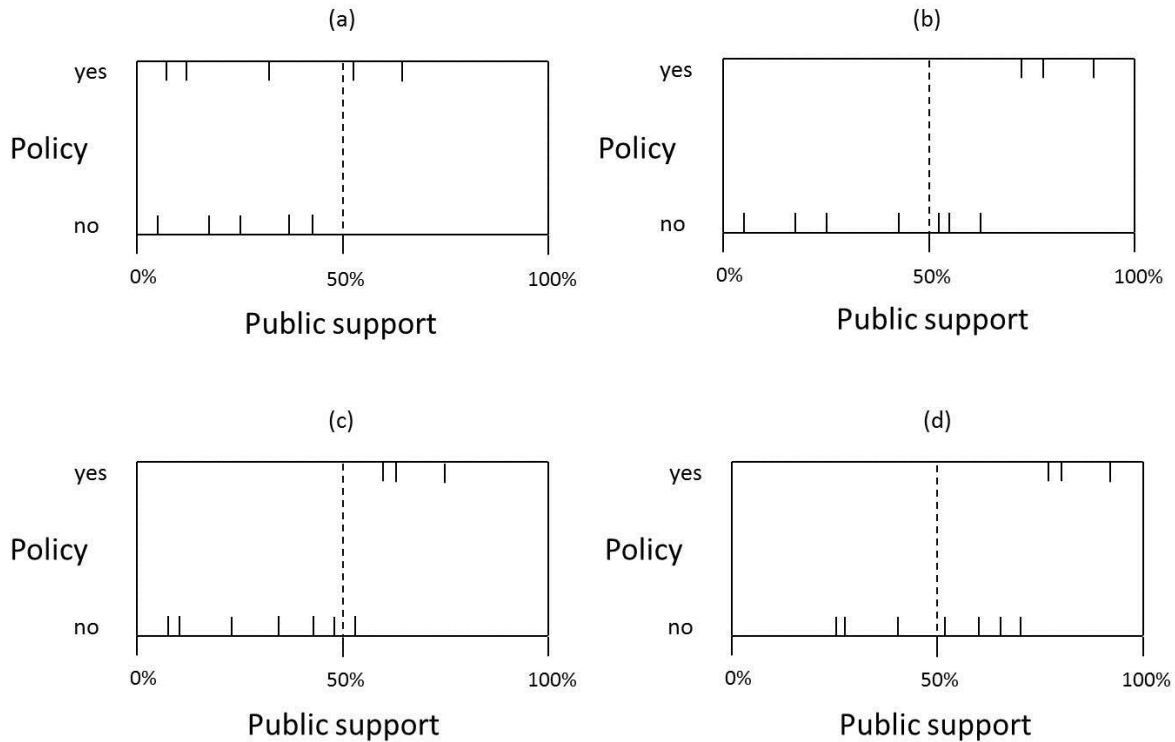
examine it. They have investigated how closely public opinion matches different indicators of policy such as the degree of policy liberalism, government agendas, budgetary spending, or specific policies (e.g. Page and Shapiro 1983; Erikson, Wright, and McIver 1993; Wlezien 1995; Monroe 1998; Jones, Larsen-Price, and Wilkerson 2009; Lax and Phillips 2009; 2012). The vast majority of research on policy representation focuses on single or small numbers of countries (e.g. Burstein 2014; Lax and Phillips 2012; Monogan, Gray, and Lowery 2009; Stimson, Mackuen, and Erikson 1995; Wlezien 1995; Soroka and Wlezien 2004) and often measures representation on aggregate indicators of policy (Stimson, Mackuen, and Erikson 1995; Erikson, Mackuen, and Stimson 2002) or encompassing policy areas (e.g. Jennings and John 2009; Wlezien 1995). Yet, recent years have witnessed an increase in studies which take a comparative approach, often investigating the role of political institutions. However, they tend to use fairly broad indicators of policy (e.g. Wlezien and Soroka 2012; Hobolt and Klemmensen 2008) or focus on only one policy area, such as immigration or social welfare (e.g. Eichenberg and Stoll 2003; Brooks and Manza 2006; Peters and Ensink 2014; Morales, Pilet, and Ruedin 2015).

The problem with looking at one policy area only is that we cannot readily generalize findings about the quality of representation and the impact of political institutions and other cross-country differences to other policy areas. Meanwhile, the use of broad policy categories or issue dimensions does not take account of the possibility that citizens', and even political elites', preferences over specific policies within broader policy areas are not necessarily consistent. As a result, when matching broad measures of preferences with broad measures of policy, we do not know with certainty whether the public really gets what it wants on specific policy issues (cf. Burstein 2014; Lax and Phillips 2012). A number of studies overcome this problem by comparing public opinion with policy change or existing legislation on a range of specific policy issues. This approach also allows examining how the quality of policy representation varies with issue

characteristics. Yet, since these studies have generally been restricted to one country (cf. Page and Shapiro 1983; Brettschneider 1996; Monroe 1998; Lax and Phillips 2012; Burstein 2014), it is difficult to assess the applicability of their findings in other contexts. In order to simultaneously achieve the aims of making observations that are – to a certain extent – generalizable across both countries and issues and of avoiding a potential mismatch between public opinion and policy on broad policy dimensions, we examine variation in policy representation across a *large* number of *specific* policy issues and a *high* number of national contexts.

We focus on two aspects of the concept of policy representation: the *relationship* between public opinion and policy and *congruence* between them. The former refers to the idea that changes in public opinion should be reflected in corresponding changes in policy. This relationship is often understood in a dynamic way, with policy being responsive to changes in public opinion (Achen 1978). Yet, substantive policy representation may legitimately happen ‘from above’ as well as ‘from below’ (Esaiasson and Holmberg 1996). Rather than being autonomous, public opinion is shaped by a multitude of actors and factors (Holmberg 2011). Political elites play an important role in this process, as they have the resources – and indeed the task – to provide the public with information and to develop convincing arguments in support of their desired policies. If citizens accept these arguments and subsequently adjust their views, the resulting opinion-policy link can indeed be considered an indication of a functioning representation process. This conceptual understanding of representation is reflected in our methodological design: By examining the relationship between public opinion and policy measured at the same point in time across countries, we allow the causality between public opinion and policy to flow in both directions. In addition to the opinion-policy relationship, we study congruence, which indicates whether the policy in place has the support of a majority of the population. Both aspects of policy representation capture important normative intuitions about the concept, and because a strong relationship between

opinion and policy can exist for various level of (in-)congruence (Achen 1978), the two aspects of policy representation are distinct and need to be analyzed separately (Lax and Phillips 2012).



**Figure 1.** Hypothetical example of the link between public opinion and policy

Consider the hypothetical situations displayed in Figure 1. In both figures (a) and (b), seven out of ten cases display congruence between public opinion and policy (i.e., no policy with public support below 50% or policy with public support above 50%). However, in figure (a), the relationship between the degree of public support and the presence of policy seems weak at best, as some cases with very low public support have the policy. In contrast, in figure (b), the relationship between public opinion and policy is strong. It is important that such a relationship is present in a democracy because it indicates that opinion-policy congruence is the result of a functioning representation process rather than chance. At the same time, it is important not to ignore congruence, as figures (c)

and (d) make clear: opinion and policy are equally strongly associated, but situation (c) has much higher congruence (90 per cent) than situation (d) (60%).

### **The impact of political institutions**

In addition to assessing the link between opinion and policy in Europe, we are particularly interested in the extent to which, and why, it varies across countries. Political institutions are amongst the most prominent factors hypothesized to affect the quality of policy representation. The main institutional characteristics assumed to play a role in existing studies of the opinion-policy linkage are electoral systems and the horizontal and vertical separation of powers in the country (Wlezien and Soroka 2012). Yet, for several institutions the literature presents contradictory expectations regarding the direction in which they might affect representation. Moreover, the majority of studies focus on left-right congruence between citizens and governments in assessing the role of institutions, with a few exceptions that have examined responsiveness for a set of broader policy areas in a limited number of countries (Hobolt and Klemmensen 2008; Soroka and Wlezien 2010; see also Wlezien and Soroka 2012 which covers 17 countries but only one dimension of public spending).

#### *Electoral systems*

In the past, it was widely thought that proportional representation (PR) systems generate a better match between public opinion and policy than majoritarian or plurality systems. After all, the system was designed with the aim of achieving a high level of vote-seat proportionality and, hence, guarantee the representation of as many views in society as possible (Lijphart 1984; Powell 2000,



2004). And indeed, evidence seemed to confirm that the median voter is more likely to be represented by the government in terms of left-right positions under PR than under plurality rules due to the ways in which votes translate into parliamentary seats and governments are formed (Powell 2006). Moreover, in majoritarian systems, parties looking for re-election often have an incentive to please voters in a few pivotal districts rather than the nation-wide median voter (Persson and Tabellini 2004; Hobolt and Klemmensen 2008).

At the same time, there are also good reasons why majoritarian systems may display better policy representation. PR systems generally allow a higher number of parties to enter parliament and are thus conducive to multi-party governments, which require compromise (Powell 2000: 124; Wlezien and Soroka 2012). Coalition partners can be understood as veto players who can block decisions which would increase the fit between policy and the opinion of the majority of the public (Tsebelis 1995). This is particularly the case for non-centrist parties, which are often part of coalitions and may seek to steer policy away from the median voter. Multi-party governments might also be less likely to respond to public opinion because the clarity of responsibility tends to be lower than in single-party governments. If citizens can easily determine which party is to praise or blame for a policy, governments have a stronger incentive to bring policy in line with public opinion, either by adjusting legislation or by working hard to convince the public of their policies (Powell and Whitten 1993). The advantages that parliaments formed under PR rules enjoy when it comes to representing the median voter are therefore likely to be cancelled out by the disadvantages they face at the government formation stage (Golder and Lloyd 2014). Blais and Bodet (2006) also arrive at the conclusion that the electoral systems have counteracting effects but, contrary to Golder and Lloyd (2014), they argue that PR systems perform worse at the first stage of forming the legislature. The reason is that while many non-centrist parties enter parliament after elections in PR

systems, these parties are likely to be excluded from governments, which therefore tend to be more centrist.<sup>1</sup>

In addition, the different stages of the governing cycle might give rise to opposing tendencies of PR and majoritarian systems to generate policy representation. Wlezien and Soroka (2015) argue that the higher propensity of PR systems to produce governments that represent the median voter will lead to better representation shortly after the election, when the governing parties are devoted to fulfilling their pledges. Later on in the electoral cycle, public opinion might shift and new policy issues arise. In these instances, the lesser need for compromise and stronger electoral pressures may make majoritarian systems better at representing public opinion. Ferland (2016), drawing on Powell's (2000) majoritarian and proportional visions of democracy, expects dynamics in the opposite direction. Since majoritarian governments are more strongly focused on mandate-fulfilment, their policies should be closer to the median voter right after the election. Governments in PR systems, on the other hand, should be more likely to react to changes in public preferences because parties act more as 'delegates' and the opposition is more influential. Ferland's (2016) findings support neither his own nor Wlezien and Soroka's (2015) argument: majoritarian governments move away from the median voter on the left-right dimension over the course of the electoral cycle, whereas PR governments maintain their position. At the end of the mandate, majoritarian and PR governments are equally close to the public. Despite the contradictory nature of these arguments and empirical findings regarding electoral cycle dynamics, they all suggest that the type of electoral system might not have a *net* influence on the quality of representation.

***Hypothesis 1:*** *The degree of proportionality of the electoral system does not affect a) the relationship between opinion and policy and b) congruence.*

### *Horizontal division of powers*

Similar counteracting pressures are likely to exist with regard to the horizontal division of powers between executive and legislative. It may be easier to adopt policy in line with public opinion in systems where the legislature is more powerful. Governments in parliamentary systems face fewer constraints when implementing policies desired by the public than those in (semi)presidential systems, in which checks and balances are generally stronger (Tsebelis 1995). Particularly in cases where the presidency and the parliament are controlled by different parties, both presidential and semi-presidential systems can experience gridlock (Monroe 1998). Moreover, even when the presidency and the legislature are not controlled by different parties in presidential or semi-presidential systems there may be scope for conflict between them. In fact, even parliamentary systems display variation in the division of powers between legislative and executive (as a result of differences in e.g. the government's ability to influence the legislative agenda and the extent to which it is subject to parliamentary scrutiny), which may lead to differences in the opinion-policy link. However, a strong horizontal division of powers may not only affect policy representation in a negative manner. Similarly to veto players within government coalitions, requirements to obtain executive-legislative agreement can also prevent policy changes that are not desired by the public and thereby positively affect representation (cf. Hobolt and Klemmensen 2008, Wlezien and Soroka 2012). With such counteracting pressures, our expectation is therefore that there is no net effect of different degrees of horizontal distribution of power.

***Hypothesis 2:*** *There is no difference in a) the relationship between opinion and policy and b) congruence between systems with varying levels of legislative influence over the executive.*

A similar argument applies to bicameral and unicameral systems: an upper chamber with (strong) veto powers can thwart policy change that is in the interest of the public, but it can also prevent unpopular decisions – especially if the two chambers are controlled by different parties (Tsebelis 1995). Whether a more extensive horizontal division of powers is beneficial for policy representation is thus contingent on situational factors, and we expect to find no net differences in the strength of the opinion-policy link between the different systems.

***Hypothesis 3:*** *There is no difference in a) the relationship between opinion and policy and b) congruence between bicameral and unicameral systems.*

#### *Vertical division of powers*

Lastly, we do have directional hypotheses for the vertical division of powers: in complex systems of multilevel governance, it should be more difficult for voters to assign responsibility for policy as it is often unclear which government level deals with a particular issue. This lowers the pressure on governments to respond to the public's wishes as they are less likely to be punished for it (Soroka and Wlezien 2004; Wlezien and Soroka 2012). Policy representation at the national level might thus function less well in countries with federal systems. Similarly, policy representation on the national level is likely to work less smoothly in countries that are members of the EU. The division of competences between the EU and the national level is not always clear-cut. Such a complex multi-level setting may make it harder for voters to determine who is responsible for a given type of policy. The blurring of responsibilities may thus act as a strain on responsiveness not only in EU policy-making itself (Alexandrova et al. 2015) but also in the spheres of national policy-making analyzed here.

*Hypothesis 4: a) A relationship between opinion and policy and b) congruence are less likely in countries which have a federal as opposed to a unitary system.*

*Hypothesis 5: a) A relationship between opinion and policy and b) congruence are less likely in countries which are EU members.*

## **DATA AND METHOD**

In order to investigate the link between public opinion and policy, we collected public opinion data and mapped policy for twenty policy issues in 31 European countries.<sup>ii</sup> Our unit of analysis is a policy in a country. Since we aimed at analyzing the same policy issues across countries, we systematically screened a set of cross-national surveys conducted among representative samples in at least fifteen European countries, such as the Eurobarometer surveys, European Social Survey, and the European Election Study, to single out questions about respondents' preferences concerning specific policy issues. We selected twenty items for the period between 1998 and 2013 that cover a broad range of different policy areas, including, among others, economic, health, defense, and retirement policy, and meet our selection criteria. These criteria include, among others, that an item refers to a specific policy issue rather than a broad policy area (e.g. smoking bans in bars and pubs rather than health policy; military involvement in Afghanistan rather than defense policy) with national competence, that the response scale indicates respondents' agreement or disagreement with it, and that it is possible to determine whether the policy was in place when the survey was conducted (i.e., questions asking about preferences for future changes in policy are excluded).<sup>iii</sup> The twenty policy issues together with the year, the survey, and the number of countries in which the item was asked are listed in the Appendix.

Although the set of policies covers a diverse range of policy areas, it does not constitute a random sample from the universe of policy issues. This universe is extremely difficult to define, and so far Burstein's (2014) study is the only study of public opinion and policy that attempts it. Yet, while Burstein's interpretation of the set of all bills introduced in Congress as the universe of potential policies may be valid in the US, it is not easily transferrable to the European context. In many European countries, governments have traditionally initiated the majority of laws and these proposals have often had a high chance of being adopted (Andeweg and Nijzink 1995). Thus, information about potential policies with low chances of adoption is difficult to acquire. Furthermore, it would be virtually impossible to obtain public opinion data on a randomly selected sample of policy issues for a large number of European countries. Selecting policy issues based on their availability in surveys is thus the most viable method.

While there is certainly a risk that the results obtained on the basis of our sample cannot be generalized to other policy issues, this risk should be relatively low for several reasons. First, the issues cover a range of policy areas. Second, they vary strongly in salience, which has been shown to be one of the most important predictors of the opinion-policy relationship and congruence, as explained above. Third, it is unlikely that the sample is biased due to an underlying logic that guides the inclusion of survey items in the surveys, as we rely on a number of different surveys. Moreover, this point is more relevant with respect to national surveys, where the selection of questions may be driven by current policy debates. While this may be the case for some of the policies in our sample, for instance military involvement in Afghanistan, it is unlikely to be the case for many of them.

## **Measuring policy and public opinion**

After selecting the policy issues, we mapped policy in the countries included at the time when the survey was conducted. Information was obtained from relevant documents issued by government agencies, international organizations, non-governmental organizations, news outlets, and academics. We first coded the policy status for each issue into a unique ordinal scale with the number of levels reflecting the potential variation in policy. These scales were then transformed into a harmonized scale with three levels, where 0 indicates that the policy was not in place, 1 that it was partly in place, and 2 that it was in place. As an example, the scale for the smoking ban in restaurants, pubs, and bars reflects the differences in smoking regulation across Europe: 0=no ban, 1=partial ban with many or some exceptions (e.g. for small premises or smoking rooms), and 2=complete ban.

This ordinal measure of policy is used as the dependent variable in the analysis of the relationship between degrees of policy and public support. In order to analyze whether an increase in public support for a policy is related to a higher probability of the policy being in place, the policy measure is regressed on a variable that indicates the proportion of respondents in a country who were in favor of the policy amongst those who indicated a preference in favor or against it.<sup>iv</sup> In order to test the hypothesized effects on the relationship between public opinion and policy, we interact public opinion with the respective variables.

In a second step, we investigate opinion-policy congruence. It is a dummy variable indicating whether policy was in line with the preferences of the majority of the citizens who expressed an opinion. In order to construct this variable, the original ordinal policy scales are now collapsed into two categories: 'policy in place' or 'no policy in place'. To which of these categories we assigned a scale level that was in the category 'partly in place' in the three-level version depends

on which category it is closer to for the particular issue. Information on the original scales and their transformation into the three-level and binary measures is provided in Online Appendix A. The resulting congruence variable is dichotomous and has the value 1 if (a) the policy is in place and the majority of the public is in favor or (b) the policy is not in place and the majority of the public is against it. Descriptive information about policy, public opinion, and congruence can be found in Online Appendix B.

### **Independent variables**

The independent variables in our study are a range of indicators of the political institutions whose effects we seek to measure. In line with Wlezien and Soroka (2012), we measure the proportionality of the electoral system by using the effective number of parliamentary parties (ENPP), developed by Golder (2010) and later extended by Bormann and Golder (2013).<sup>v</sup> Next, we use two alternative measures of the executive-legislative balance. The first is a set of three regime type dummies indicating whether a country has a presidential, semi-presidential or parliamentary system (Cheibub et al. 2010). We also use a more nuanced index of the legislature's influence over the executive, drawn from the Parliamentary Powers Index (Fish and Kroenig 2009). Its components are seven dimensions of the national legislature's power, for instance whether it can by itself impeach the president or replace the prime minister. It ranges from 0 to 9, with higher values indicating stronger influence. Our third measure of the horizontal division of powers is a dummy indicating whether a legislature is unicameral or has two chambers. Finally, we measure the vertical division of power through two variables: the first indicates whether a country was a member of the European Union when public opinion and policy were measured and the second whether the country has a unitary,



federal or hybrid structure between the two, in which some central government powers are delegated to the regional level.<sup>vi</sup>

Moreover, we control for the media salience of an issue. The existing literature provides evidence that the media salience of an issue strengthens the link between opinion and policy (e.g. Lax and Phillips 2012). If a policy issue is salient in the public debate, and particularly in the news media, the public will have access to more information in order to form policy preferences. In turn, political decision-makers will receive more information about public opinion on salient issues on which they can base their decisions. The heightened visibility of and public attentiveness to policy-makers' (in-)actions on these issues may also increase the pressure on them to be responsive or to convince the public of their policies (cf. e.g. Page and Shapiro 1983). We measure media salience through the relative number of articles in the *Financial Times*'s coverage of Europe devoted to the policy issue over a three-year period, with the year in which the survey was conducted as the final year. Since most policy issues have very few articles devoted to them, while few issues were extremely salient (especially nuclear energy), we use the natural logarithm of the salience measure. The *Financial Times* certainly does not pay equal attention to the public and political debates in all European countries. However, in light of the difficulty of collecting data on the salience of the specific policy issues within each country, we believe that it constitutes a sufficiently valid proxy of the relative salience of the policy issues across countries. In addition, it can be argued that even if it were possible to conduct a measure of media coverage of all 20 issues in the 31 European countries, such a measure would be endogenous to policy adoption, as issues would likely be more salient where it was on the government agenda (Lax and Phillips 2012).

We also constructed two alternative indicators of policy salience. The first one is also based on the *Financial Times* data but uses the ranking of the issues based on their salience. It is strongly correlated with the measure used in the analysis (Pearson's  $r=.98$ ,  $p<.0005$ ) and yields almost

identical estimates. The second measure is an indicator of public rather than media salience and is based on survey respondents' answers to the 'most important problem' (MIP) question in each country. This measure is problematic because it links the specific policy issues in our sample to the very broad policy areas into which the responses are categorized. It is thus not a good indicator of the salience of the specific policy issue (e.g. respondents might consider the environment to be an important issue but not the specific question of whether plastic waste should be banned from landfill sites). Moreover, it does not indicate the degree of information transmission between the public and policy-makers through the media, which is a crucial aspect of the causal mechanisms we hypothesized. We therefore use the media salience indicator instead. Details about the MIP measure and estimates of the models using this measure in place of the media salience measure can be found in the Online Appendix D.

In the congruence models, we furthermore include a measure of the size of the opinion majority, whether in favor or against the policy (Lax and Phillips 2012). It accounts for the expectation that policy is the more likely to be in line with the majority of the public the larger the majority is. Lastly, we include an indicator of the year in which public opinion and policy are measured in order to control for a potential time trend in the opinion-policy link as well as the fact that the more recent surveys tend to include more Central and Eastern European countries. All interval independent variables are grand-mean centered in both types of models.

## **RESULTS**

### **The relationship between opinion and policy in Europe**

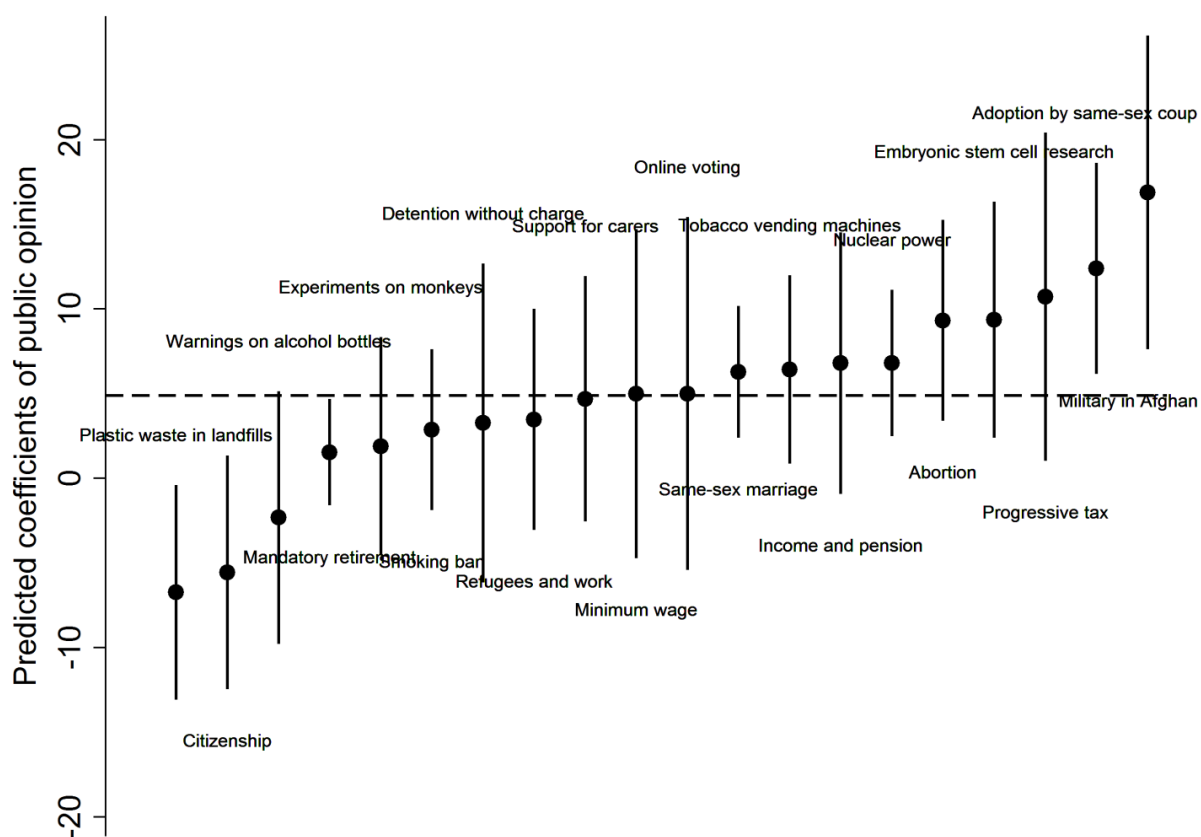
Our cases are clustered within both policy issues and countries. In order to determine whether there are dependencies between the cases within a cluster for which we should account in our models, we

first estimate multilevel ordered logit regression models with policy as the dependent variable and public opinion as the only independent variable.<sup>vii</sup> In Model 1 (Table 1), we estimate the random variances of the intercept and the slope of public opinion at the level of policy issues. We find, first of all, that public support for a policy is statistically significantly associated with the probability of the policy being in place. Secondly, this relationship varies systematically across policy issues, as the random slope variance suggests. Figure 2 illustrates this variation by showing the predicted coefficients of public opinion on policy for each issue when we allow the slope for public opinion to vary between issues. On some issues, including ‘military in Afghanistan’ and ‘adoption by same-sex couples’, policy is clearly more strongly related to public opinion than on other issues, such as ‘plastic waste in landfills’, where the relationship is in fact negative. We obtain a significant likelihood-ratio test comparing the model to an ordered logit regression without the random intercept and slope, which shows that the multilevel model with issues at the higher level has a significantly better fit.

**Table 1.** Effects on the relationship between public opinion and policy

	<b>Model</b>			
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Public opinion (PO)	4.91 (1.81)**	2.62 (.42)***	5.51 (2.67)*	4.18 (2.64)
ENPP			-.11 (.08)	-.08 (.09)
PO * ENPP			.26 (.46)	.32 (.47)
Regime type (reference=parliamentary)				
Semi-presidential			.23 (.24)	
Presidential			-.04 (.55)	
PO * semi-presidential			-1.03 (1.20)	
PO * presidential			-2.48 (2.36)	
Legislature's influence				-.12 (.07)
PO * legislature's influence				-.00 (.34)
Bicameralism			-.05 (.26)	.18 (.26)
PO * bicameralism			-.41 (1.35)	-.26 (1.38)
Federalism (reference=unitary)				
Hybrid			.36 (.33)	.40 (.33)
Federal			.02 (.37)	-.02 (.35)
PO * hybrid			1.78 (1.62)	1.73 (1.61)
PO * federal			2.67 (1.81)	2.34 (1.78)
EU member			.10 (.43)	.15 (.44)
PO * EU member			.58 (2.11)	1.85 (2.18)
Salience			.43 (.22)	.47 (.22)*
PO * salience			1.65 (.93)	1.35 (.89)
Year			.11 (.10)	.11 (.10)
PO * year			-1.14 (.49)*	-1.20 (.47)*
Cut point 1	-1.10 (.46)	-.45 (.20)	-.83 (.58)	-.69 (.58)
Cut point 2	.45 (.45)	.46 (.20)	.77 (.58)	.83 (.58)
Issue intercept variance	3.30 (1.37)		2.46 (1.05)	2.37 (1.01)
Issue PO slope variance	43.98 (24.84)		32.59 (18.88)	27.19 (17.59)
Country intercept variance		.93 (.00)		
Country PO slope variance		.01 (.00)		
Intercept-slope covariance	4.25 (4.29)	.08 (.00)	3.29 (3.47)	4.01 (3.27)
Deviance	770	1035	745	688
N level 1 (level 2)	491 (20)	491 (31)	491 (20)	457 (20)

\* p&lt;.05, \*\* p&lt;.01, \*\*\* p&lt;.0005.

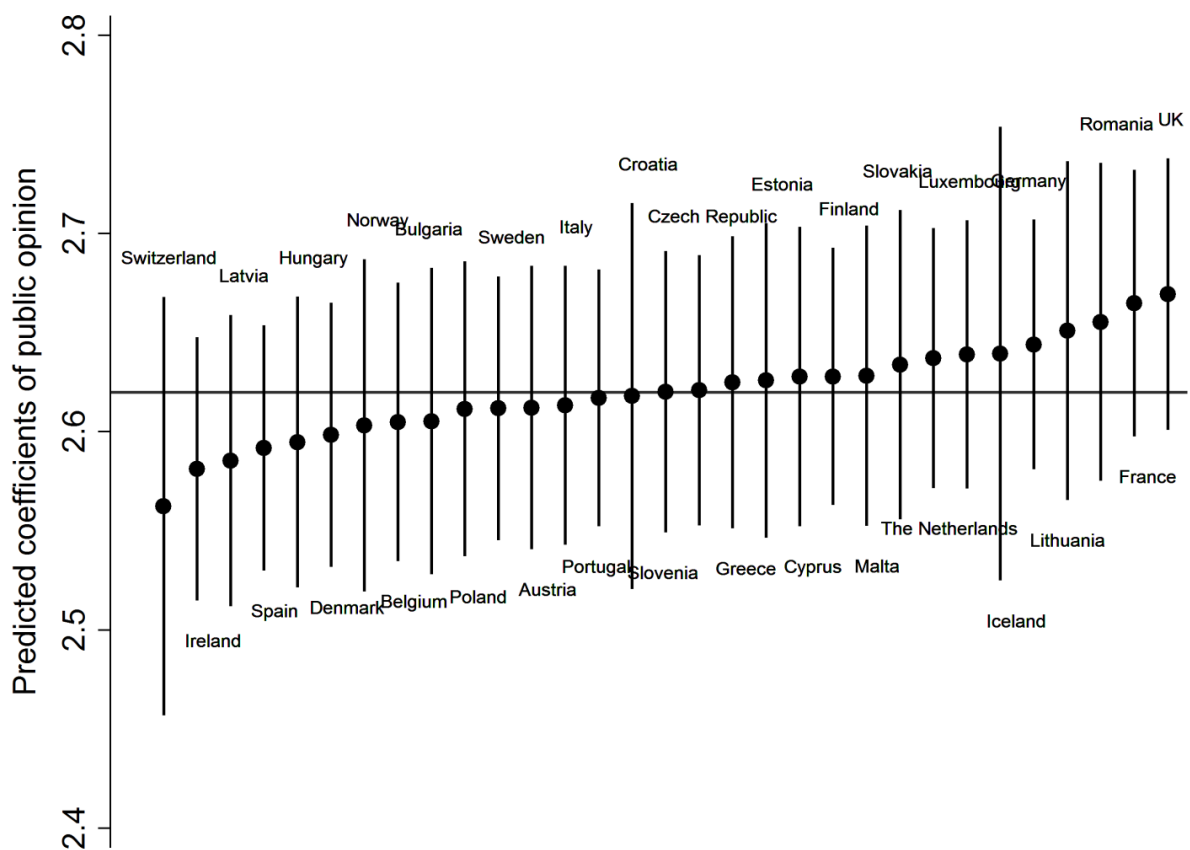


**Figure 2.** Predicted issue coefficients (log-odds) of public opinion with 95% confidence intervals

*Notes:* The dashed line indicates the mean coefficient. Based on Model 1 (Table 2).

In Model 2, we estimate the equivalent model with countries at the higher level and find that the slope variance is close to zero when we allow the relationship between public opinion and policy to vary between countries. This means that, as Figure 3 shows, the predicted coefficients of public opinion on policy are very similar across countries. The likelihood-ratio test comparing Model 2 to the equivalent model without the random variance components is insignificant, suggesting that we do not need to statistically account for the country clustering in the data.<sup>viii</sup> In substantial terms, this means that there seems to be very little variation in the quality of policy representation across countries. Since our sample has more countries than issues, we checked whether this might account for the fact that we find greater variation across issues than across countries. We sampled 20

countries randomly from the full set of observations, re-estimated the models, and repeated the process 50 times. In only a negligible fraction of these models, cross-country variation was found significant, while cross-issue variation remained so. This implies that our results are not driven by the different numbers of issues and countries in our data. Instead, it remains a possibility that we do not observe strong net differences between countries in Model 2 because they feature different combinations of institutions.



**Figure 3.** Predicted country coefficients (log-odds) of public opinion with 95% confidence intervals

*Notes:* The dashed line indicates the mean coefficient. Based on Model 2 (Table 2).

In Model 3, we therefore test whether the individual institutions influence the opinion-policy relationship while controlling for the other institutions. We do so by including interaction terms of

each institutional indicator with the public opinion variable. We find that none of the institutions influences the relationship between public opinion and policy. This holds even when only including one indicator at a time (not shown here). Only the control measure for the year significantly interacts with public opinion, suggesting that the opinion-policy link has become weaker over time. This might, however, be due to the expansion of the country sample. Model 4 is equivalent to Model 3 but includes the measure of the legislature's influence instead of the regime type dummies. This variable does not influence the relationship between opinion and policy either. As a robustness check we estimated a set of models equivalent to those in Table 1 but with a binary measure of policy (the one used to construct the congruence measure) and a multi-level logit specification. The results do not substantially differ except that the interaction term between public opinion and media salience is positive and significant at  $p < .05$ .

### **Explaining public opinion-policy congruence in Europe**

While it is reassuring that the likelihood of having a particular policy rises with public support for it, this is not a sufficient standard of democratic representation to be met. We therefore examine to what extent existing policy is in line with the preferences of the majority and whether political institutions influence it. We find that in the majority (63%) of cases, the legislation in a country is in line with the opinion of the majority of citizens (Table 2). This result supports the conclusion that policy representation is generally functioning well in Europe. A comparable study by Lax and Philips (2012) on the US states only found congruence about half of the time. While congruence varies across countries (from 41% in Norway to 100% in Iceland, which is however a clear outlier and for which we have information on only a small number of issues), the differences across issues are again more striking, as they range from just 7% for warnings on alcohol bottles directed at

drivers and pregnant women to 100% for military involvement in Afghanistan. Figure 4 underlines that there are no clear patterns in congruence with regard to the different regions in Europe.

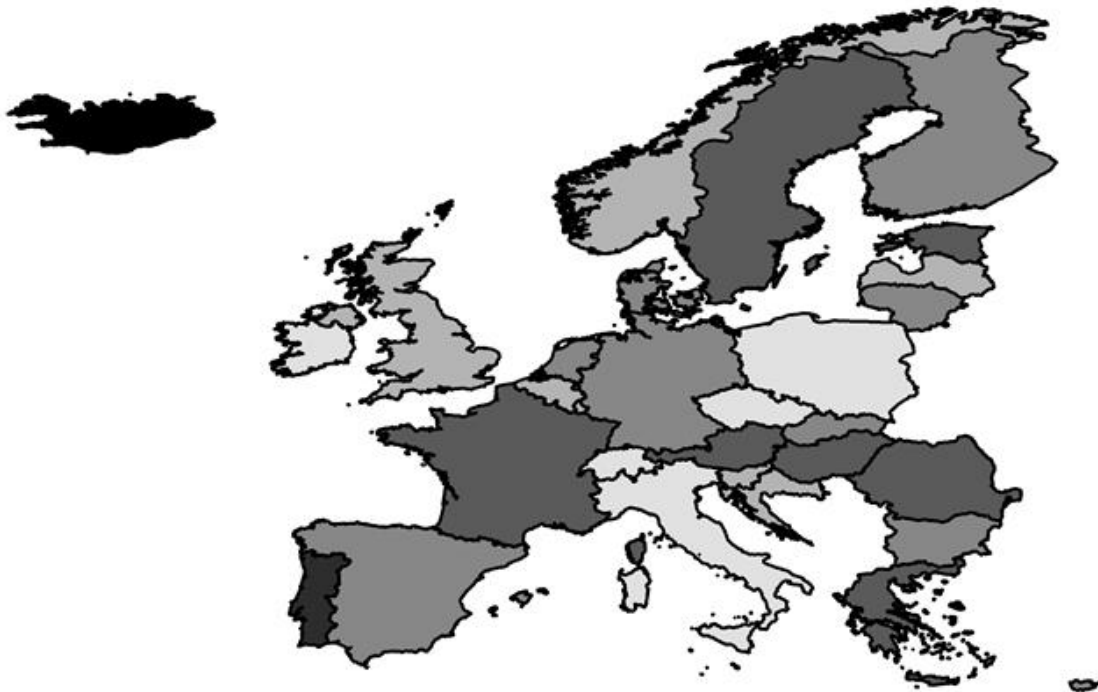
**Table 2.** Congruence by country and policy issue

Country	Congruence in % (no. of issues)	Issue	Congruence in % (no. of countries)
Iceland	100 (4)	Military involvement in Afghanistan	100 (15)
Portugal	85 (20)	Progressive income tax	94 (16)
Estonia	77 (13)	Nation-wide minimum wage	89 (27)
Romania	77 (13)	State support for those who care for dependent persons	86 (28)
France	75 (20)	Embryonic stem cell research	81 (31)
Sweden	75 (20)	Nuclear power	81 (27)
Austria	74 (19)	Adoption of children by same-sex couples	77 (31)
Greece	71 (17)	Banning of tobacco sale through vending machines	74 (27)
Hungary	71 (17)	Abortion	74 (27)
Malta	69 (13)	Smoking bans in bars and pubs	68 (28)
Netherlands	68 (19)	Same-sex marriage	63 (27)
Slovakia	67 (15)	Detaining terrorist suspects indefinitely	56 (18)
Cyprus	64 (14)	Right to earn while receiving a pension	56 (16)
Denmark	63 (19)	Mandatory retirement age	53 (30)
Finland	63 (19)	Experiments on animals like monkeys and dogs	52 (31)
Lithuania	62 (13)	On-line voting	44 (16)
Bulgaria	60 (15)	<i>Ius soli</i> (citizenship on the basis of birth in a territory)	40 (20)
Germany	60 (20)	Asylum seekers' right to work	38 (21)
Spain	60 (20)	Banning the disposal of plastic waste in landfills	21 (28)
Luxembourg	59 (17)	Warnings on alcoholic drink bottles	7 (27)
Croatia	57 (7)		
Latvia	56 (16)		
Norway	55 (11)		
UK	55 (20)		
Belgium	53 (17)		
Slovenia	53 (17)		
Switzerland	50 (6)		
Czech Republic	47 (17)		
Ireland	47 (19)		
Italy	41 (17)		
Poland	41 (17)		
Total	63		

This observation is confirmed by the results of mixed-effects logistic regression analyses with random intercepts at the levels of issues and countries, respectively (Table 3). While a substantial



degree of variation in congruence can be accounted for by policy issues (Model 5), none of it is related to countries (Model 6), mirroring our findings in the analysis of the relationship between opinion and level of policy. Thus, even though there is clearly some degree of variation in congruence across countries, as Table 2 shows, it does not appear to be systematic. Thus, it would appear that political institutions have no net impact on whether policy corresponds with the majority opinion in a country, which is in line with our expectations.



**Figure 4.** Congruence levels across Europe

*Notes:* Darker shades indicate higher opinion-policy congruence (cf. Table 2). The mean level is 63% (Denmark and Finland), the minimum is 41% (Italy and Poland), and the maximum is 100% (Iceland).

Again, we test whether any of the institutional variables influence congruence when we control for the others. As Models 7 and 8 show, none of them does except one: countries with a bicameral system have lower levels of opinion-policy congruence than countries with only one legislative chamber. This finding suggests that the checks and balances present in bicameral systems might make it more difficult for governments to provide the policies that the public wants. The average predicted probability of congruence (based on Model 8), with the covariates at their observed levels, is 69 per cent in unicameral systems, whereas it is only 57 per cent in bicameral systems. We also find that policy is more likely to reflect the opinion of the majority of the public the larger the majority; this corresponds with the finding that the likelihood of policy being implemented (not implemented) is correlated with the degree of support in favor of (against) it. Lastly, congruence is more likely the more salient a policy issue is in the news media<sup>ix</sup>.

**Table 3.** Effects on public opinion-policy congruence

	<b>Model</b>			
	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Opinion majority			3.48 (1.08)**	3.90 (1.14)**
ENPP			-.10 (.08)	-.11 (.08)
Regime type (reference=parliamentary)				
Semi-presidential			.34 (.24)	
Presidential			-.11 (.56)	
Legislature's influence				-.14 (.08)
Bicameralism			-.74 (.26)**	-.66 (.27)*
Federalism (reference=unitary)				
Hybrid			.36 (.34)	.32 (.33)
Federal			.62 (.36)	.58 (.35)
EU member			.53 (.41)	.81 (.43)
Salience			.49 (.14)**	.48 (.15)**
Year			-.09 (.07)	-.09 (.07)
Intercept	.63 (.28)	.51 (.09)	.33 (.46)	.18 (.47)
Issue intercept variance	1.31 (.55)		.95 (.42)	1.06 (.47)
Country intercept variance		.00 (.00)		
Deviance	582	650	547	505
N level 1 (level 2)	491 (20)	491 (31)	491 (20)	457 (20)

\* p<.05, \*\* p<.01, \*\*\* p<.0005.

## CONCLUSION

Whereas the quality of representation in Europe and elsewhere has been subject to much criticism, our study finds a positive and statistically significant association between public opinion and policy on a range of issues across the European continent. Moreover, in close to two-thirds of all cases policy is congruent with the majority opinion. Even though democratic politics is about more than the extent to which policies on specific issues reflect the wishes of the public, these results offer reassurance regarding the state of democratic representation in Europe. They indicate that the political institutions and practices in place are able to ensure, one way or another, that public opinion and policy do not deviate too much and too often from one another.

Importantly, we do not find systematic variation across the 31 countries we study in the extent to which policy is correlated with public preferences and in the level of congruence between opinion and policy. This is intriguing because our sample of countries features both established and relatively young democracies from all corners of the European continent – from Norway to Portugal and from Ireland to Bulgaria. These countries display a lot of variation in terms of political institutions, which are often assumed to have important effects on the opinion-policy link. Yet, apart from a relationship between the number of legislative chambers and congruence between policy and the majority opinion, we did not find any evidence that institutions condition the opinion-policy linkage. National-level political institutions either play a weak role in moderating the relationship between public opinion and policy or their effects are extremely complex and heterogeneous.

Based on the existing literature, we argue that different electoral systems as well as the degree of the horizontal division of powers are likely to exert opposing influences on the opinion-policy link at different stages in the government formation process (Golder and Lloyd 2014; Blais and Bodet 2006) and the electoral cycle (Ferland 2016; Wlezien and Soroka 2015). Moreover, the

presence of veto players, which varies between the different institutional set-ups, may influence representation positively or negatively, depending on whether the public favors policy change or the status quo (Tsebelis 1995). The effects of many of the institutions examined here are thus likely to cancel out at the aggregate and in the long term, making it difficult to detect them when examining how the state of a large number of policies relates to public opinion at various points in time.

We thus conclude that policy representation can function in a variety of different institutional contexts. Yet, this certainly does not mean that the quality of democracy does not vary across Europe. Even though correspondence between public opinion and policy is an important aspect of representative democracy, it is not *sufficient* for democratic governance if the procedural aspects of the democratic political process are not respected. Hence, the normative implications of functioning policy representation processes are not as straightforward as they may at first appear.

In contrast to the limited variation in representation across countries, we find significant differences in the relationship between opinion and policy across the 20 policy issues that we study, which are only partly accounted for by the differences in overall media salience between the issues. Future research should investigate the causes of the differences in representation between issues as well as the patterns and relationships we observed more generally in more detail, for instance by analyzing whether and how institutions and issue characteristics influence the different causal links between opinion and policy. Longitudinal research designs and in-depth case studies searching for direct evidence of policy-makers listening to the public and the public adjusting its preferences to policy have great potential to address such questions.

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<sup>i</sup> The reason for the opposing findings is that Golder and Lloyd (2014) look at the distance between the median voter and the median party, while Blais and Bodet (2006) measure the distance between the median voter and the (weighted) mean position of all parties in parliament and government.

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<sup>ii</sup> Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, the Netherlands, and the United Kingdom. For some policy issues, we only have data for a subset of these countries.

<sup>iii</sup> Further details about the selection and coding of policy items can be obtained from XX and upon request from the authors.

<sup>iv</sup> Respondents who said “don’t know” and those indicating neither a preference for nor a preference against the policy were excluded from the analysis, since including them when calculating the proportion is equivalent to inappropriately including them in the proportion that is against the policy. The proportion of respondents in these categories is below 10 per cent on average.

<sup>v</sup> We use the value from the last national election that took place prior to the year in which the public opinion data was collected. The effective number of parties gives us a more fine-grained measure of the proportionality of the electoral system than a more crude distinction between different electoral systems. However, we also estimated the models with a dummy variable indicating whether the main system used for lower house elections in a country is based on plurality or PR rules. The results are not substantially different.

<sup>vi</sup> The sources of all variables as well as each country’s values on them are listed in the Online Appendix C.

<sup>vii</sup> Ordered logit models rest on the assumption that the regression lines for the different outcomes are parallel. While we cannot test this assumption within the multi-level framework, we estimated a single-level ordered logit model equivalent to Models 1 and 2 and conducted a Brant Test to test the parallel lines assumption. The test was insignificant, meaning that the assumption is not violated.

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<sup>viii</sup> Due to lack of variation between countries we do not present a cross-classified model with random intercepts for both policy issues and countries. A robustness check with such a model yields findings in line with those obtained in the models presented.

<sup>ix</sup> This effect is in line with the effect of salience we found in our robustness check using a dichotomous rather than an ordinal measure of policy as the dependent variable to analyze the relationship between opinion and policy. That we find a different effect of salience in Table 1 and 3 should not surprise us since even though 'congruence with majority opinion' and 'the relationship between opinion and policy' are related concepts, they measure different elements of the opinion-policy linkage as we pointed out in Figure 1.

## APPENDIX: Policy issues, year, survey, and number of countries covered

Policy issue	Year	Survey	No. of countries
Warnings on alcoholic drink bottles directed at pregnant women and drivers	2009	EB 72.3	27
Experiments on animals like monkeys and dogs	2010	EB 73.1	31
Smoking bans in bars and pubs	2008	Flash EB 253	28
Banning of tobacco sale through vending machines	2012	EB 77.1	27
Embryonic stem cell research	2010	EB 73.1	31
Nuclear power	2008	EB 69.1	27
Nation-wide minimum wage	2010	EB 74.1	27
State support for those who leave work to care for dependent persons	2007	EB 67.3	28
Detaining terrorist suspects indefinitely without charging them	2005-2008	ISSP 2006	18
Same-sex marriage	2009	EES 2009	27
Adoption of children by same-sex couples	2008-2009	EVS 4	31
Abortion	2009	EES 2009	27
<i>Ius soli</i> (citizenship on the basis of birth in a territory)	2003-2005	ISSP 2003	20
Progressive income tax	1998-2001	ISSP 1999	16
The right to earn an unlimited income while receiving a pension	2001	EB 56.1	16
Asylum seekers' right to work while waiting for the decision	2002-2003	ESS 1	21
On-line voting	2001	EB 54.2	16
Military involvement in Afghanistan	2001	Flash EB 114	15
Mandatory retirement age	2011	EB 76.2	30
Banning the disposal of plastic waste in landfills	2013	Flash EB 388	28

Notes: EB = Eurobarometer, ISSP = International Social Survey Programme, EES = European Election Study, EVS = European Values Study, ESS = European Social Survey

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## ONLINE APPENDICES

### ONLINE APPENDIX A: Policy scales

Issue	Original scale	Three-point scale	Binary scale
Warnings on alcoholic drink bottles	0=no warnings 1=warnings	0=no warnings 1= - 2=warnings	0=no warnings 1=warnings
Experiments on animals like monkeys and dogs	0=ban on experiments on monkeys and dogs 1=ban on experiments on great apes and gibbons 2=ban on experiments with great apes 3=no ban	0= ban on experiments on any monkeys and dogs or great apes and gibbons 1= ban on experiments with great apes 2=no ban	0=ban on experiments on any monkeys and dogs 1=no ban
Smoking bans in bars and pubs	0=no ban 1=partial ban with many exceptions or not enforced 2=partial ban with some exceptions 3=ban, but separate smoking rooms (no exceptions for small premises) 4=complete ban	0=no ban 1=partial ban with many exceptions or not enforced, or with some exceptions, or no exceptions but separate smoking rooms 2=complete ban	0=no ban or partial ban with many exceptions or not enforced 1=partial ban with some exceptions or no exceptions but separate smoking rooms or complete ban
Banning of tobacco sale through vending machines	0=no ban 1=restrictions 2=ban	0=no ban 1=restrictions 2=ban	0=no ban or restrictions 1=ban
Embryonic stem cell research	0=no ban 1=no ban but restrictive 2=ban but allowed with imported cells 3=absolute ban	0=no ban 1=no ban but restrictive 2=ban but allowed with imported cells or absolute ban	0=no ban or no ban but restrictive 1=ban but allowed with imported cells or absolute ban
Nuclear power	0=no nuclear energy with no plans to build or phase-out plan 1=no nuclear energy with no explicit policy 2=nuclear energy and plan to continue or none but explicit plans to build	0=no nuclear energy with no plans to build or phase-out plan 1=no nuclear energy with no explicit policy 2=nuclear energy and plan to continue or none but explicit plans to build	0=no nuclear energy with no plans to build or phase-out plan or no nuclear energy with no explicit policy 1=nuclear energy and plan to continue or none but explicit plans to build
Nation-wide minimum wage	0=no minimum wage 1=industry-wide 2=national or industry-wide with coverage >90%	0=no minimum wage 1=industry-wide 2=national or industry-wide with coverage >90%	0=no minimum wage or industry-wide 1=national or industry-wide with coverage >90%
State support to care for dependent persons	0=no support 1=support	0=no support 1= - 2=support	0=no support 1=support
Detaining terrorist suspects indefinitely	0=very short detention limit (<=3 days) 1=short detention limit (4-10 days) 2=long detention limit (>10 days) 3=no detention limit	0=very short or short detention limit (<= 10 days) 1=long detention limit (>10 days) 2=no detention limit	0=detention limit 2=no detention limit

Same-sex marriage	0=marriage legalized 1=registered partnership 2=not legalized 3=prohibited	0=marriage legalized 1=registered partnership 2=not legalized or prohibited	0=marriage legalized 1=registered partnership or not legalized or prohibited
Adoption of children by same-sex couples	0=not allowed 1=only internal adoption 2=internal and external	0=not allowed 1=only internal adoption 2=internal and external	0=not allowed or only internal adoption 1=internal and external
Abortion	0=banned 1=only if threat to life of mother 2=only if threat to health of mother 3=for social and economic reasons 4=on request	0=banned 1=only if threat to health of mother or for social and economic reasons 2=on request	0=banned or only if threat to life or health of mother or for social and economic reasons 1=on request
<i>Ius soli</i> (citizenship on the basis of birth in a territory)	0=only foundlings 1=only stateless children 2=only facilitated naturalization 3=double <i>ius soli</i> 4=weak <i>ius soli</i> 5=strong <i>ius soli</i> 6=unconditional <i>ius soli</i> at birth	0=only foundlings or stateless children or facilitated naturalization 1=double or weak <i>ius soli</i> 2=strong or unconditional <i>ius soli</i> at birth	0=only foundlings or stateless children or facilitated naturalization 1=double, weak or strong or unconditional <i>ius soli</i> at birth
Progressive income tax	0=regressive tax 1=flat tax 2=progressive tax	0=regressive tax 1=flat tax 2=progressive tax	0=regressive or flat tax 1=progressive tax
The right to earn while receiving a pension	0=not allowed to earn 1=limit on earnings/penalty 2=unlimited earnings	0=not allowed to earn 1=limit on earnings/penalty 2=unlimited earnings	0=not allowed to earn or limit on earnings/penalty 21=unlimited earnings
Asylum seekers' right to work	0=not allowed 1=allowed under certain conditions 2=allowed	0=not allowed 1=allowed under certain conditions 2=allowed	0=not allowed or only under strong conditions 1=allowed under (weak) conditions or allowed
On-line voting	0=no 1=yes	0=no 1=- 2=yes	0=no 1=yes
Military involvement in Afghanistan	0=no 1=yes	0=no 1=- 2=yes	0=no 1=yes
Mandatory retirement age	0=none 1=none, with few exceptions (e.g. military) 2=for public servants and/or a considerable no. of professions based on collective agreements and/or employers may set one 3=yes	0=none or none with few exceptions (e.g. military) 1=for public servants and/or a considerable no. of professions based on collective agreements and/or employers may set one 3=yes	0=none or none with few exceptions (e.g. military) 1=for public servants and/or a considerable no. of professions based on collective agreements and/or employers may set one or yes
Banning the disposal of plastic waste in landfills	0=no 1=yes	0=no 1=- 2=yes	0=no 1=yes

## ONLINE APPENDIX B: Descriptive information on public opinion, policy, and congruence

**Table B1.** Descriptive information on public opinion, policy, and congruence

Country	Values	Empirical range	Mean (std. dev.)
Public opinion	0-1	.05-.98	.63 (.22)
Policy	0, 1, 2	0-2	1.00 (.89)
Congruence	0, 1	0-1	.63 (.48)

**Table B2.** Descriptive information on public opinion, policy, and congruence by country

Country	No. of issues	Mean (standard error)		
		Public opinion	Policy	Congruence
Austria	19	.59 (.06)	.89 (.23)	.74 (.10)
Belgium	17	.62 (.04)	.88 (.22)	.53 (.12)
Bulgaria	15	.73 (.05)	1.00 (.26)	.60 (.13)
Croatia	7	.56 (.11)	.86 (.34)	.57 (.20)
Cyprus	14	.63 (.08)	1.00 (.23)	.64 (.13)
Czech Republic	17	.66 (.04)	1.00 (.21)	.47 (.12)
Denmark	19	.59 (.05)	.79 (.20)	.63 (.11)
Estonia	13	.68 (.06)	1.08 (.26)	.77 (.12)
Finland	19	.60 (.05)	1.05 (.19)	.63 (.11)
France	20	.60 (.04)	1.25 (.20)	.75 (.10)
Germany	20	.63 (.05)	1.15 (.18)	.60 (.11)
Greece	17	.57 (.07)	.94 (.23)	.71 (.11)
Hungary	17	.67 (.05)	.88 (.24)	.71 (.11)
Iceland	4	.63 (.15)	1.25 (.48)	1.00 (.00)
Ireland	19	.65 (.05)	.79 (.20)	.47 (.12)
Italy	17	.61 (.05)	.94 (.22)	.41 (.12)
Latvia	16	.67 (.06)	.81 (.23)	.56 (.13)
Lithuania	13	.69 (.07)	1.23 (.28)	.62 (.14)
Luxembourg	17	.59 (.05)	1.06 (.20)	.59 (.12)
Malta	13	.60 (.08)	1.00 (.23)	.69 (.13)
Norway	11	.63 (.06)	.91 (.28)	.54 (.16)
Poland	17	.68 (.05)	1.00 (.24)	.41 (.12)
Portugal	20	.62 (.05)	.95 (.20)	.85 (.08)
Romania	13	.65 (.06)	1.23 (.26)	.77 (.12)
Slovakia	15	.69 (.05)	1.13 (.26)	.67 (.13)
Slovenia	17	.63 (.05)	1.00 (.23)	.53 (.12)
Spain	20	.62 (.05)	.80 (.17)	.60 (.11)
Sweden	20	.64 (.05)	.95 (.21)	.75 (.10)
Switzerland	6	.58 (.09)	.50 (.34)	.50 (.22)
Netherlands	19	.64 (.05)	1.11 (.20)	.68 (.11)
UK	20	.68 (.05)	1.35 (.20)	.55 (.11)
Total	16 (mean)	.63 (.01)	1.00 (.04)	.63 (.02)



**Table B3.** Descriptive information on public opinion, policy, and congruence by issue

Issue	No. of countries	Mean (standard error)		
		Public opinion	Policy	Congruence
Warnings on alcoholic drink bottles	27	.80 (.02)	.15 (.10)	.07 (.05)
Experiments on animals like monkeys and dogs	31	.56 (.02)	1.68 (.12)	.52 (.09)
Smoking bans in bars and pubs	28	.68 (.02)	.96 (.10)	.68 (.09)
Banning of tobacco sale through vending machines	27	.61 (.02)	1.48 (.10)	.74 (.09)
Embryonic stem cell research	31	.44 (.02)	.58 (.14)	.81 (.07)
Nuclear power	27	.46 (.04)	1.33 (.16)	.81 (.08)
Nation-wide minimum wage	27	.69 (.01)	1.85 (.09)	.89 (.06)
State support to care for dependent persons	28	.92 (.01)	1.71 (.13)	.86 (.07)
Detaining terrorist suspects indefinitely	18	.49 (.02)	.11 (.08)	.56 (.12)
Same-sex marriage	27	.48 (.05)	1.44 (.14)	.63 (.09)
Adoption of children by same-sex couples	31	.33 (.04)	.52 (.15)	.77 (.08)
Abortion	27	.86 (.02)	1.67 (.11)	.74 (.09)
<i>Ius soli</i> (citizenship on the basis of birth in a territory)	20	.82 (.02)	.60 (.18)	.40 (.11)
Progressive income tax	16	.81 (.02)	1.88 (.13)	.94 (.06)
The right to earn while receiving a pension	16	.65 (.03)	1.00 (.26)	.56 (.13)
Asylum seekers' right to work	21	.76 (.02)	.76 (.15)	.38 (.11)
On-line voting	16	.48 (.03)	.00 (.00)	.44 (.13)
Military involvement in Afghanistan	15	.38 (.05)	.67 (.25)	1.00 (.00)
Mandatory retirement age	30	.65 (.04)	.50 (.10)	.53 (.09)
Banning the disposal of plastic waste in landfills	28	.83 (.02)	.50 (.17)	.21 (.08)
Total	16 (mean)	.63 (.01)	1.00 (.04)	.63 (.02)

## ONLINE APPENDIX C: Values on institutional variables by country

**Table C1.** Country values on institutional variables

	Effective number of parliamentary parties (ENPP) <sup>a</sup>	Regime type <sup>b</sup>	Legislature's influence over the executive	Bicameralism <sup>b</sup>	Federalism <sup>b</sup>
Values	1.99 – 9.05 (observed values)	0=parliamentary, 1=semi-presidential, 2=presidential	0 (least powerful) – 9 (most powerful)	0=no bicameralism, 1=bicameralism	0=unitary, 1=hybrid, 2=federal
Source	Bormann and Golder (2013)	Cheibub, Ghandi and Vreeland (2010)	Fish and Kroenig (2009)	Johnson and Wallack (2006)	Norris (2009)
Austria	3.74	1	5	1	2
Belgium	8.22	0	8	1	2
Bulgaria	3.94	1	7	0	0
Croatia	3.14	1	7	1	0
Cyprus	3.83	2	1	0	0
Czech Republic	3.49	0	8	1	0
Denmark	5.15	0	8	0	0
Estonia	4.31	0	8	0	0
Finland	5.19	1	6	0	0
France	2.66	1	3	1	0
Germany	4.07	0	8	1	2
Greece	2.49	0	8	0	0
Hungary	2.44	0	8	0	0
Iceland	3.96	1	-	0	0
Ireland	3.17	1	8	1	0
Italy	4.08	0	8	1	1
Latvia	5.59	0	7	0	0
Lithuania	5.70	1	6	0	0
Luxembourg	3.87	0	-	0	0
Malta	2.00	0	-	0	0
Norway	4.52	0	7	0	0
Poland	3.03	1	7	1	0
Portugal	2.72	1	6	0	1
Romania	3.55	1	6	1	0
Slovakia	4.73	1	6	0	0
Slovenia	4.58	0	7	1	0
Spain	2.45	0	8	1	2
Sweden	4.29	0	7	0	0
Switzerland	5.03	2	6	1	2
Netherlands	5.49	0	7	1	1
UK	2.38	0	8	1	1

<sup>a</sup> The values indicate the average ENPP value across all observations for a country. The measure used is 'enpp1' in Bormann and Golder's dataset, which 'corrects' for the influence of independents and 'other parties' (cf. the codebook at <http://mattgolder.com/elections>).

<sup>b</sup> The data is taken from the Quality of Government project (<http://qog.pol.gu.se/data>).

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## **ONLINE APPENDIX D: Salience measure based on the ‘most important problem’ item**

It is common in political science to use responses to the ‘most important problem’ (MIP) survey question as an indicator of the salience of an issue. We chose to use an indicator of the media salience of the policy issues in our sample instead, since we hypothesize that representation should function better if the public has more information about the issue at stake and about political elites’ positions and if policy-makers are, in turn, better informed about the preferences of the public. The media plays an important role in the transmission of this information. We nevertheless construct an alternative indicator using the MIP item.

Obtaining data on the ‘most important problems’ of the publics from all countries included in our study over the time period covered (1998-2013) is problematic. The first option is to use data from the Eurobarometer, which started to regularly include the MIP item in 2002. In this case, we would need to use data on salience in 2002 for the issues where policy and public opinion were measured between 1998 and 2001 (4 issues). But the more serious problem is that the item in the Eurobarometer (EB) is closed-ended and includes a very limited range of broad policy categories. EB 57.2, conducted in 2002, contains the following issue categories: (1) crime, (2) public transport, (3) economic situation, (4) rising prices/inflation, (5) taxation, (6) unemployment, (7) terrorism, (8) defense/foreign affairs, (9) housing, (10) immigration, (11) health care system, (12) educational system, (13) pensions, and (14) protecting the environment. These categories change slightly over time. It is apparent that issues such as ‘online voting’ or ‘adoption of children by single-sex couples’ do not easily fit into any of these categories.

The other option is to use surveys that include open-ended items, where the response categories that were matched to the responses and are included in the dataset are generally more detailed. We chose this option and used the data from the European Election Studies (EES) from

1999, 2004, and 2009. We matched each policy issue in our sample with a response category in the last survey that was conducted before the respective policy and public support for it were measured. We then calculated the percentage of survey respondents in each country who mentioned the issue category among all respondents who gave a valid answer to the MIP question, which becomes the MIP salience measure. The policy issues and the response categories matched to them are listed in Table D1.

**Table D1.** List of policy issues and the issue categories matched to them that summarize responses to the ‘most important issue’ question in the European Election Studies (EES)

<b>Policy issue</b>	<b>Year of public opinion and policy</b>	<b>Year of EES</b>	<b>MIP issue category</b>
Warnings on alcoholic drink bottles directed at pregnant women and drivers	2009	2009	Health care
Experiments on animals like monkeys and dogs	2010	2009	Animals
Smoking bans in bars and pubs	2008	2004	Health care
Banning of tobacco sale through vending machines	2012	2009	Health care
Embryonic stem cell research	2010	2009	Health care
Nuclear power	2008	2004	Energy
Nation-wide minimum wage	2010	2009	Wages and earnings
State support for those who leave work to care for dependent persons	2007	2004	Welfare policy
Detaining terrorist suspects indefinitely without charging them	2005-2008	2004	Terrorism
Same-sex marriage	2009	2009	Civil rights, civil liberties, rights in general; homosexuals
Adoption of children by same-sex couples	2008-2009	2004	Politics of minorities
Abortion	2009	2009	Abortion
<i>Ius soli</i> (citizenship on the basis of birth in a territory)	2003-2005	1999	Politics of minorities/integration
Progressive income tax	1998-2001	1999	Taxes
The right to earn an unlimited income while receiving a pension	2001	1999	Pensions, retirement policy, retirement options
Asylum seekers’ right to work while waiting for the decision	2002-2003	1999	Immigration
On-line voting	1999	1999	Other election-related issues
Military involvement in Afghanistan	2001	1999	Defense and national security; foreign affairs
Mandatory retirement age	2011	2009	Pensions; national employment policies
Banning the disposal of plastic waste in landfills	2013	2009	Environment

It is clear that the categories are still much broader than the policy issues in most cases, whereas in some they fit very well (in particular for the issue of abortion). It is therefore not surprising that the MIP salience variable is uncorrelated with the media salience variable (Pearson's  $r=.02$ ,  $p=.65$ ), which measures the salience of the specific policy issues rather than the broader policy areas. The media salience measure is arguably not equally valid for all countries, since the Financial Times covers, and is read in, some countries more than in others. On these grounds, it should have a particularly high degree of validity for the UK. Yet, even here, it is entirely uncorrelated with the MIP salience measure. This suggests that the MIP salience measure is not a good indicator of the salience of the policy issues in the public debate – and especially in the media.

**Table D2.** The effects of media and MIP salience on the relationship between opinion and policy

	Model			
	1	2	3	4
Public opinion (PO)	6.29 (1.71)***	5.99 (1.83)**	5.43 (3.39)	4.15 (3.55)
ENPP	-.05 (.09)	-.04 (.09)	-.02 (.09)	-.02 (.09)
PO * ENPP	.60 (.48)	.63 (.49)	.75 (.49)	.80 (.50)
Regime type (reference=parliamentary)				
Semi-presidential	.35 (.26)	.36 (.26)		
Presidential	-.37 (.82)	-.25 (.84)		
PO * semi-presidential	-1.38 (1.32)	-1.69 (1.34)		
PO * presidential	-2.32 (4.98)	-3.69 (5.24)		
Legislature's influence			-.14 (.08)	-.15 (.09)
PO * legislature's influence			.13 (.44)	.22 (.45)
Bicameralism	.02 (.28)	.04 (.28)	.17 (.29)	.18 (.29)
PO * bicameralism	-.12 (1.46)	-.06 (1.49)	-.27 (1.50)	-.26 (1.53)
Federalism (reference=unitary)				
Hybrid	.01 (.35)	-.06 (.36)	.07 (.35)	.02 (.36)
Federal	-.00 (.38)	.2 (.39)	-.04 (.38)	-.01 (.38)
PO * hybrid	1.34 (1.67)	1.79 (1.72)	1.29 (1.67)	1.73 (1.71)
PO * federal	.68 (1.99)	.70 (2.01)	.66 (1.98)	.81 (2.00)
Media salience	.39 (.22)		.42 (.22)	
PO * media salience	1.17 (.83)		.82 (.80)	
MIP salience		.06 (.03)*		.05 (.03)
PO * MIP salience		-.17 (.15)		-.10 (.15)
Year	.04 (.10)	.04 (.11)	.04 (.10)	.04 (.11)
PO * year	-1.09 (.44)*	-1.10 (.48)*	-1.15 (.44)**	-1.12 (.48)*
Cut point 1	-.86 (.45)	-.81 (.50)	-1.75 (.73)	-1.81 (.76)
Cut point 2	.68 (.44)	.76 (.50)	-.24 (.71)	-.27 (.75)
Issue intercept variance	2.45 (1.10)	3.45 (1.53)	2.46 (1.10)	3.37 (1.48)
Issue PO slope variance	19.53 (15.07)	27.60 (20.32)	16.35 (15.04)	24.12 (19.50)
Intercept-slope covariance	4.28 (3.18)	6.46 (4.42)	4.80 (3.08)	6.62 (4.19)
Deviance	620	618	577	578
N level 1 (level 2)	397 (20)	397 (20)	375 (20)	375 (20)

\*  $p<.05$ , \*\*  $p<.01$ , \*\*\*  $p<.0005$ .

In Tables D2 and D3, we re-estimate the models from Tables 1 and 3 that estimate the effects of salience on the opinion-policy relationship and congruence, respectively, substituting the MIP salience measure for the media salience measure. We also report the results of the models using the media salience measure on the same sample, since the sample decreases from 491 to 397 cases when using the MIP salience measure because the EES do not include all countries (most importantly, it only includes EU member states, which is why the EU dummy is excluded from the models). We find that neither the media salience nor the MIP measure moderate the relationship between opinion and policy in the reduced sample, no matter whether the model includes the regime type dummies (Models 1 and 2, Table D2) or the indicator of the legislature's influence (Models 3 and 4).

**Table D3.** The effects of media and MIP salience on public opinion-policy congruence

	<b>Model</b>			
	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Opinion majority	3.24 (1.17)**	3.08 (1.21)*	3.63 (1.23)**	3.43 (1.26)**
ENPP	-.03 (.08)	-.03 (.08)	-.05 (.09)	-.05 (.09)
Regime type (reference=parliamentary)				
Semi-presidential	.25 (.26)	.24 (.26)		
Presidential	-.86 (.78)	-.81 (.78)		
Legislature's influence			-.05 (.08)	-.05 (.08)
Bicameralism	-.79 (.29)**	-.78 (.29)**	-.81 (.30)**	-.80 (.30)**
Federalism (reference=unitary)				
Hybrid	.35 (.37)	.32 (.37)	.30 (.36)	.27 (.36)
Federal	.41 (.38)	.41 (.39)	.39 (.38)	.39 (.38)
Media salience	.43 (.14)**		.43 (.15)**	
MIP salience		.04 (.04)		.04 (.04)
Year	-.12 (.07)	-.13 (.08)	-.12 (.07)	-.12 (.08)
Intercept	1.01 (.31)**	1.00 (.35)**	1.15 (.31)**	1.14 (.35)**
Issue intercept variance	.84 (.40)	1.40 (.63)	.95 (.45)	1.48 (.66)
Deviance	449	455	419	425
N level 1 (level 2)	397 (20)	397 (20)	375 (20)	375 (20)

\* p<.05, \*\* p<.01, \*\*\* p<.0005.

In Table D3, we find that media salience maintains its significant positive effect on congruence in the reduced sample (Models 5 and 7). MIP salience, on the other hand, does not influence the relationship. Since the positive effect of issue salience on the strength of the opinion-policy link has been shown in a range of studies using different data and focusing on different periods and countries (e.g. Lax and Phillips 2012; Page and Shapiro 1983), this finding can be considered support for the claim that the media salience indicator is a more valid measure of our concept than the MIP salience variable.

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