Vrije Universiteit Brussel

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Abstract

Politicians' party membership allows voters to overcome incomplete information issues. In this article, we maintain that such 'party cues' in multilevel governance structures also induce voters to incorporate their assessment of incumbents at one level of government into their assessment of incumbents at other levels of government. Moreover, we argue that these assessment 'spillovers' increase in magnitude with voters' level of political information. They become particularly prominent for voters with higher levels of political knowledge and interest as well as during election periods (when information is less costly and more readily available). Empirical analyses using survey data from Germany covering the period 1990 to 2018 corroborate our theoretical propositions.

Keywords: Party Cues, Government evaluation, Information, Federalism, Germany.

1. Introduction

Political parties' name and/or symbols often act as a brand name. They provide a simple, low-cost heuristic about the kind of policy positions and behaviour voters can expect from a party and its politicians (Aldrich, 1995; Butler & Powell, 2014; Snyder & Ting, 2002). Significant research illustrates that such 'party cues' affect political decision-making – including individuals' vote choice and their position on policy issues (Bergan, 2012; Conroy-Krutz, Moehler, & Aguilar, 2016; Kam, 2005; Rahn, 1993). Yet, the micro-level foundations of such voter behavior have not been fully explored, suggesting a "need for further research into the magnitude of partisan cue effects on attitudinal formation" (Conroy-Krutz et al., 2016: p. 25).

Our first contribution is to bridge this research gap in the context of multilevel governance settings. We argue that when voters rely on party cues, their perception and assessment of incumbents at one level of government becomes incorporated into the way they perceive and assess incumbents at other levels of government. Crucially, the exact nature and form of this cross-level spillover depends on the partisan (mis)alignment between politicians at distinct levels of government. A positive (negative) assessment of the incumbent at one level of government spills over via partisan cues into more positive (negative) assessments of the incumbent at other levels of government when both incumbents are from the same party (i.e. "aligned"). When both incumbents are from different parties (i.e. "unaligned"), we instead expect a negative correlation in incumbent assessments across levels of government. The reason is that partisan spillovers then affect party members of the incumbent at one level of government, who in an unaligned setting are in the opposition at another level of government (more details below). Such cross-level connections in voter evaluations of political leaders have to the best of our knowledge not been subject to theoretical nor empirical analysis.

Our second contribution takes the analysis one step further and investigates whether voters' level of political information affects cross-level incumbent assessment spillovers. Political information is fundamental to individuals' ability to rely on partisan cues. Dancey and Sheagley (2013, p. 313) argue that "the most politically engaged citizens are best equipped to draw on partisan heuristics given their pre-existing knowledge". This line of argument not only predicts stronger implications of party cues with voters' level of political interest and knowledge (Conroy-Krutz et al., 2016). It also suggests a moderating role for elections. Elections generate a high-information environment due to campaign activities and media attention (Lodge, Steenbergen, & Brau, 1995; Nadeau, Nevitte, Gidengil, & Blais, 2008; Redlawsk, 2004), which

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makes political information less costly and allows voters to become at least minimally informed about politicians and parties (Lodge et al., 1995; Nadeau et al., 2008; Pattie & Johnston, 2004). We therefore hypothesize that the extent to which party cues induce voters to incorporate incumbent assessments at one level of government into their assessment of incumbents at other levels of government increases *a)* for more politically interested and knowledgeable voters, and *b)* during election periods.

We evaluate these theoretical predictions using a novel individual-level dataset from Germany. Combining data from just over 100 surveys covering all 16 German regions across the period 1990 to 2018 (N≈120,000 individuals), we can exploit substantial variation across time and space in the partisan (mis)alignment of German federal and regional governments. Our main findings corroborate that voters' assessment of incumbents at one level of government steers their assessment of incumbents at different levels of government *depending on incumbents' partisan (mis)alignment*. Furthermore, we show that this relation is stronger for more politically interested and knowledgeable individuals as well as during federal election years. These results persist under several robustness and validity checks, but do *not* arise under placebo tests – which bolsters the inferences drawn from our analysis.

Our study offers new insights into the literature on voters' attitude formation. We show that parties not merely affect voter attitudes via a cognitive efficiency-oriented process (Conroy-Krutz et al., 2016). Party cues also induce voters to incorporate their assessment of incumbents at one level of government into their assessment of incumbents at other levels of government. These observed incumbent assessment spillovers can have positive or negative implications for electoral accountability under multilevel governance (Anderson, 2006; Gélineau & Bélanger, 2005; Rodden & Wibbels, 2011). As such, it is not immediately clear that voters integrating their assessment of one level of government into their evaluation on a different level of government is good or bad from a normative perspective. More specifically, when partisan heuristics are accurate and incumbents tow the party line, intra-party assessment spillovers benefit electoral accountability by making voters effectively better informed. However, when partisan heuristics are inaccurate because incumbents deviate from the party line, the same spillovers are detrimental to accountability as voters become misinformed. This is arguably particularly injurious since such adverse effects would be most prevalent during election years and among politically interested/knowledgeable individuals (who are more likely to turn out to vote; Smets & Van Ham, 2013).

2. Theoretical framework and hypotheses

Electoral accountability is generally thought to lie at the heart of a well-functioning democracy (Diermeier & Li, 2017; Murdoch, Connolly, & Kassim, 2018), and requires voters to punish or reward incumbents for policy outcomes on Election Day (Besley, 2006; Lewis-Beck & Stegmaier, 2009). In reality, voters' ability to hold incumbents accountable depends on whether they have sufficient information to assign blame or praise. This constitutes a fundamental problem due to the practical and cognitive costs involved in collecting and processing relevant information (Dahl, 1989; Downs, 1957). These costs have been argued to increase under multilevel governance structures (Anderson, 2006; Rodden & Wibbels, 2010) and with coalition or divided governments (Fortunato, Lin, Stevenson, & Tromborg, 2020; Garry, 2014; Powell & Whitten, 1993). When the clarity of incumbents' responsibility over policy outcomes is undermined and voters lack sufficient information, electoral accountability becomes eroded (Anderson, 2006; Sances, 2017). This is confirmed in, for instance, research on economic voting in multilevel systems including Canada, Spain and Belgium. Such studies often observe that the relation between (perceived) economic outcomes and electoral results becomes strained by an unclear division of power between levels of government (Anderson, 2009; Gélineau & Bélanger, 2005; León, 2011).

Political parties can alleviate voters' information deficiencies. One reason is that party 'brand names' provide cues about its policies and members (Aldrich, 1995; Butler & Powell, 2014; Snyder & Ting, 2002). The resulting positive intra-party correlation between politicians' perceived characteristics allows voters to make *indirect* inferences when evaluating incumbents, election candidates or policy outcomes (for a formal derivation, see Geys & Vermeir, 2014).[1] If members of party A do well or implement a certain policy, this tells voters something about the likelihood other members of party A (active in other jurisdictions or at other levels of government) will likewise do well or implement that policy – all else equal. Clearly, this line of argument pre-supposes considerable programmatic stability and low party replacement, since party labels retain value as heuristic cues only when the same parties compete with consistent programmatic appeals (Borbáth, 2020). Under these conditions, voters' use of party cues might

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[1] Intra-party cohesion is maintained via party discipline as well as politicians' self-selection into parties closest to their values and ideals (Snyder & Ting, 2002). The result is that the perceived characteristics of politicians from the same party are likely to be more closely correlated than those of politicians across parties, which buttresses the legitimacy of party cues as a heuristic tool for voters.

not only induce correlated voting patterns across politicians from the same party (Broockman, 2009; Campbell & Sumners, 1990; Magar, 2012; Mondak & McCurley, 1994; Zudenkova, 2011). It also has potentially important, though largely under-researched, implications in terms of voters' attitude formation (Conroy-Krutz et al., 2016; Hogan, 2005). In the remainder of this section, we theorize these in the context of a multilevel governance setting.

Imagine a country with a federal structure that consists of two levels of government: i.e. level 1 and level 2. Without loss of generality, one can think of these as 'federal' and 'regional'. The country has two parties (A and B). Policy outcomes at level 1 (level 2) are mainly determined by policies implemented at level 1 (level 2), but may be influenced by policies implemented at level 2 (level 1). In such a setting, voters' assessment of policy outcomes at level 1 directly affects their evaluation of the incumbent at level 1. It influences their evaluation of the incumbent at level 2 to the extent that the latter influences policy outcomes at level 1. Crucially, when voters rely on party cues, policy outcomes at level 1 have an additional *indirect* effect on the incumbent at level 2. The nature and form of this effect depends on incumbents' partisan (mis)alignment. When incumbents at levels 1 and 2 are aligned, any credit/blame the incumbent at level 1 receives rubs off on the incumbent at level 2 via their partisan connection. The reason is that voters infer positive (negative) things about the incumbent at level 2 due to her partisan ties to the (un)successful incumbent at level 1 (Geys & Vermeir, 2014). When incumbents at both levels of government are *not* aligned, a voter's positive assessment of the incumbent at level 1 may *harm* her assessment of the incumbent at level 2 (of, say, party A) since it would benefit this incumbent's political opponents aligned with the incumbent at level 1 (of, say, party B).[2]

This line of argument directly implies that voters' assessment of any given incumbent influences how they assess other incumbents *from that same party*. The use of party cues induces voters to let the information they receive about one incumbent spill over onto that party's other members. Applied to our multilevel governance context, this entails that a positive (negative) assessment of an incumbent from party A at one level of government would lead voters to assess other incumbents of that party at other levels of government more positively (negatively) – all else equal. This attitudinal correspondence happens for no reason other than politicians' partisan

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[2] For ease of presentation, we have focused on level 1 outcomes impacting upon incumbents at levels 1 and 2. It should be noted that the same argument can be made for level 2 outcomes affecting incumbents at levels 2 and 1. As such, the information spillovers in our theoretical framework reflect a two-way relationship. We return to this two-sidedness below.

relation. Clearly, when incumbents across levels of government are *not* from the same party, there will be no intra-party spillovers. Yet, a negative correlation in voters' assessments of these two incumbents might nonetheless arise. A positive (negative) assessment of an incumbent from party A may negatively (positively) affect the assessment of members of party B since they might now be perceived *relatively* worse (better) than members of party A. This line of argument leads to our first hypothesis.

Hypothesis 1: *Party cues cause voters to incorporate their assessment of incumbents at one level of government into their assessment of incumbents at other levels of government, with the nature of such spillover effects depending on both incumbents' partisan (mis)alignment.*

It is important, however, further to refine the institutional and individual conditions determining voters' reliance on party cues. Our research design and sample (discussed in detail below) thereby enable us to focus on voters' level of political information, which can be expected to moderate the effects described in hypothesis 1.

Voters' interest in and knowledge about politics is likely to condition their reliance – and ability to rely – on party cues. This relation can go in two directions. On the one hand, less interested individuals are generally less informed about politics and may be more in need of heuristics to fill their knowledge gap (Pétry & Duval, 2017). Hence, political interest and knowledge would be negatively related to voters' reliance on party cues. On the other hand, politically interested individuals learn more about politics and parties. This is important since party cues are of minimal use to uninformed voters, who either do not know or do not care about political parties (Conroy-Krutz et al., 2016; Dancey & Sheagley, 2013). In line with this argument, research has shown that the "better informed use heuristics to greater effect than the less informed when political leaders conform to expected stereotypes" (Pétry & Duval, 2017, p. 122). However, they are also more likely to be wrong when political leaders deviate from expectations (Dancey & Sheagley, 2013; Pétry & Duval, 2017) and (mis)remember more information that is consistent with political leaders' partisanship (Lodge & Hamill, 1986). In other words, politically interested individuals know more about parties, which makes them prone to using that information both correctly and incorrectly. Whether or not politically interested and informed voters are led astray by partisan heuristics, this line of argument suggests that they are more likely to make at least some use of them. This leads to our second hypothesis.

Hypothesis 2: *Party cue induced spillovers in incumbent assessments across levels of government are stronger for more politically interested and informed voters.*

How politically informed voters are varies across the electoral term. Election campaigns provide abundant information via the media as well as campaign messages and events (Lodge et al., 1995; Nadeau et al., 2008; Redlawsk, 2004). Furthermore, the majority of campaign material in most democratic countries includes prominent references to the party name and/or label. Both elements provide opportunities for voters to become at least somewhat informed about parties and their members, such that "the months before an election have the potential to increase voter knowledge" (Henderson, 2014, p. 631). Although not everyone absorbs all information, research suggests that voters are responsive to election campaigns. Hence, campaigns generate "improved voter knowledge of who is standing for each party" (Pattie & Johnston, 2004, p. 795; Lodge et al., 1995; Nadeau et al., 2008).

Similar information is less available during non-election years. Moreover, memory fades over time. Partisan information thus will be less present in individuals' cognition when no elections are taking place. Furthermore, when individuals are not required to choose a particular candidate and/or party (i.e. in non-election periods), they face a less immediate need to rely on heuristics such as party names to make decisions. Hence, incumbents' partisan affiliation is *both* more prominent *and* salient to voters when elections are imminent. Consequently, we expect that voters' political knowledge, and thereby their reliance – and ability to rely – on party cues, declines as time passes following an election episode. This, in turn, mitigates the relationships described in hypothesis 1 and leads to our third and final hypothesis.

Hypothesis 3: *Party cue induced spillovers in incumbent assessments across levels of government are stronger during election years.*

As higher-level governments are more salient, our empirical analysis of these hypotheses follows the majority of previous scholarship in focusing predominantly on spillover effects running from the federal-level *down to* the regional incumbent (i.e. top-down). Yet, it is important to reiterate that the information spillovers in our theoretical framework are a two-way street (see footnote 2). Hence, we also engage in an extension evaluating spillover effects from the regional level *up to* the federal incumbent (i.e. bottom-up). Since the cross-sectional nature of our data

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unfortunately does not allow us conclusively to establish the direction of the observed effects, we return to this two-sidedness below.

3. Institutional setting and data

3.1. Institutional framework

Germany is a federal, parliamentary republic comprising of 16 regions (*Länder*) below the federal government level. At the federal level, the German parliament (*Bundestag*) is elected every four years using a mixed electoral system whereby voters cast two ballots: one for individual candidates and one for party lists. The former votes are used to allocate one seat per electoral district using a plurality rule, which covers about half the seats in the German parliament. The remaining seats are allocated using a proportional electoral system on the party list votes (Gaines & Crombez, 2004). At the regional level, the 16 regions hold elections under their own electoral systems in a four- or five-year cycle depending on the region. These elections are staggered between the federal elections (Lohmann, Brady, & Rivers, 1997). Regional elections not only determine the composition of regional parliaments (*Landtag*), but also allocate each region's three to six seats – depending largely on population size – in the parliamentary body representing the regions at the federal level (*Bundesrat*). While the Bundestag is the main legislative instance in Germany, the Bundesrat provides the regions a direct say in any federal legislation affecting them and thereby ties both levels of government closely together (Hooghe et al., 2016; Rodden & Wibbels, 2011).

At the federal level, the party system is dominated by two parties: the center-left Social Democratic Party (SPD) and the center-right Christian Union Democratic Party (CDU/CSU) (Gaines & Crombez, 2004; Lohmann et al., 1997).[3] The center-right Liberal Democratic Party (FDP) and environmental Green Party are sometimes called upon as minor coalition partners. Since German reunification, the federal government has consisted of coalitions between CDU/CSU and FDP (1990-1998; 2009-2013), SPD and the Green Party (1998-2005), and a 'grand coalition' between CDU/CSU and SPD (2005-2009; 2013-2018). At the regional level, coalitions are equally common, though these may include other parties such as the left-wing Die Linke. Importantly, coalitions formed at distinct levels of government regularly have partially or completely overlapping partisan compositions. There is also variation in whether or not the same

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[3] CDU and CSU have distinct and formally independent party organizations. CSU is specific to Bavaria, whereas CDU operates in all other German regions. Yet, they maintain a long-standing informal alliance that is reflected in a joint Parliamentary Group in the German Bundestag since 1949.

party controls the prime-minister position at the federal and regional levels. This provides variation over time and space in partisan alignment across levels of government for our analysis (see section 4.1 and figure 1 below).

Four aspects of the German institutional and political framework are important for analyzing the role of party cues in multilevel governance structures. First, academic and political parlance often refers to Germany as a *Parteienstaat* ('party state'). Political parties "are considered to be one of the defining elements of German political life" (Saalfeld, 2002, p. 99). All main German parties are active at both the federal and regional level, and "German sub-national parties (…) seek not to distance themselves too far from the national party line" (Müller, 2013, p. 177). This allows exploiting partisan connections between incumbents across levels of government. Second, differing lengths of the electoral cycle across German regions as well as the staggered nature of regional and federal elections implies that not all regions hold elections at the same time. This provides the opportunity to separate common time trends from the electoral effects under investigation (Dahlberg & Mörk, 2011). Third, while Germany presents a complex decision-making environment for voters, previous research argues that most German voters are aware of the composition of their government(s) (Angelova, König, & Proksch, 2016). We also show below that the majority of our sample can name *both* main-party candidates running in regional elections. This is important for potential cross-level partisan spillovers in incumbent assessments. Fourth, the German case is characterized by programmatic stability and low party replacement (Borbáth, 2020). This stable setting is beneficial to the value of party labels, and provides the opportunity to analyze voters' reliance on party cues.

3.2. Data

We bring together information from a number of sources. First, we require information about voters' assessment of incumbents at different levels of government. This is obtained from surveys fielded before every regional election between 1990 and 2018 by Forschungsgruppe Wahlen (https://www.gesis.org/wahlen/landtagswahlen). These surveys are conducted via telephone using a standardized set of questions across all regions (as well as region-specific extensions), and cover a representative sample of the regional population eligible to vote.[4]

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[4] The telephone surveys were conducted via landline to certify the geographic location of respondents. A potential concern with this approach is that coverage, access and ownership of telephone lines within German households changed considerably over the period of our analysis (1990-2018). The resulting differences in sampling frames (as well as response rates) may affect analyses with an inter-temporal focus. Nonetheless, this will only cause inferential problems in our setting if these differences across surveys are correlated with shifts in partisan

Sample sizes range from 804 to 8165 individuals per survey, with a mean just under 1500 respondents. We collected, cleaned and merged information from 102 surveys to obtain a unique new dataset covering approximately 120,000 respondents with complete data on our central questions of interest. These relate to voters' assessment of federal and regional incumbents, and are phrased as: "How satisfied or dissatisfied are you with the performance of the [federal/regional] government composed of [parties]?". This is measured on an 11-point scale where 1 is very negative and 11 is very positive.[5]

Information about voters' background characteristics is likewise extracted from these surveys. It includes individuals' age, gender, marital and employment status, education level, religion, party preference,[6] interest in politics (measured on a five-point scale: none, hardly, some, strong, very strong), and assessment of economic conditions (measured on a three-point scale: bad, 50/50, good). Unfortunately, we lack information on voters' knowledge about parties' ideological placement or who controls the various levels of government. Still, we are able to operationalize voter knowledge using a question asking respondents to name the candidate at the top of the regional election list (so-called 'Spitzenkandidat') for the two main parties (CDU/CSU and SPD). It is coded 0 when the respondent cannot correctly name the leading candidate of either party, 1 when she correctly names the leading candidate of one party, and 2 when she correctly identifies both leading candidates. In line with Angelova et al. (2016), we observe a high level of political knowledge in our sample as roughly 52% of respondents can name *both* main-party candidates (Figure A.1 in the Online Appendix).

Second, we require information about the composition of federal and regional governments, as well as the identity of the federal/regional prime ministers, from 1990 onwards. This was brought together from the official websites of the German federal and regional governments and cross-referenced (as well as complemented whenever necessary) using several media sources. Finally, we collected data on regional population size and composition (in terms of age and gender), GDP, unemployment, public sector employment, voter turnout, tax revenues and debt levels from

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alignment. This appears highly unlikely. For transparency, we add the list of all surveys included in our analysis at the end of the Online Appendix.

[5] As an alternative, we also repeat the analysis with voters' evaluation of the leaders of the federal (*Kanzler*) and regional (*Ministerpräsident*) levels of government (see section 4.3). This question is phrased as "How do you feel about [name politician]", and coded using a similar 11-point scale.

[6] Party preference derives from a survey question asking respondents: "Many people in Germany are favorable towards a specific political party over a longer period of time even though they occasionally vote for another party. How about you? Do you – generally speaking – favor a specific party? If so, which one?"

the German statistical office (www.destatis.de). Information about net fiscal equalization contributions (*Länderfinanzausgleich*) was obtained from the German Ministry of Finance. Summary statistics and detailed definitions are provided in Table A.1 in the Online Appendix, while Figure A.1 documents the distributions of our key dependent and independent variables.

4. Empirical analysis

4.1. Specification

Hypotheses 1 to 3 express the expectation that, due to voters' reliance on party cues, perceptions of *federal* incumbents are correlated with evaluations of the *regional* incumbent depending on both incumbents' partisan (mis)alignment (remember that we initially focus on 'top-down' effects). With subscripts *i*, *r* and *t* referring to individuals, regions and time, respectively, our main empirical specification can be presented as:

$$Satisfaction\ LR_{i,r,t} = \alpha_r + \theta_t + \gamma Controls_{(i,)r,t} + \beta_1 Satisfaction\ BR_{i,r,t} + \tag{1}$$
$$\beta_2 Alignment_{r,t} + \beta_3 \left(Satisfaction\ BR_{i.r.t} * Alignment_{r,t} \right) + \varepsilon_{i,r,t}$$

The dependent variable ($Satisfaction\ LR_{i,r,t}$) measures how individual *i* in region *r* in year *t* assesses the incumbent regional government (coded on an 11-point scale). Our main independent variable is individual *i*'s assessment of the federal incumbent ($Satisfaction\ BR_{i,r,t}$). This is interacted with $Alignment_{r,t}$, which is a dummy variable equal to 1 if the prime-minister's party at the federal and regional government levels are aligned for region *r* in year *t*, 0 otherwise. Such partisan alignment occurs in 53% of the region-year observations, covering roughly 46% of our individual-level observations (see Figure 1 below).[7] The interaction term allows us to evaluate the extent to which respondents' federal incumbent assessment becomes incorporated into that of the regional incumbent depending on whether incumbents at both levels of government are (mis)aligned. Support for hypothesis 1 would require $\beta_3 > 0$, while support for hypotheses 2 and 3 would require a larger β_3 among individuals with higher political interest/knowledge as well as during election years.

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[7] We focus on the party of the prime minister as our main specification since previous research illustrates that this party is held primarily responsible for policy outcomes in our German setting (Angelova et al., 2016). Even so, we assess the robustness of our results to this choice in section 4.3.

Our vector of control variables includes both individual-level and region-level variables. The regional controls cover population size and composition (in terms of age and gender), GDP growth, unemployment rate, voter turnout, net fiscal equalization contributions per capita and tax revenues per capita. The individual-level controls include respondents' gender, age, marital status, education, employment status, religion and party preference. To control for individuals' party preference, we use two approaches. First, we include a full set of dummies covering all main parties (reference group are respondents without party preference). This implicitly assumes that having a preference is more important than the strength of that preference. Auxiliary regressions confirm this assumption since adding self-reported party preference strength – which is available for those respondents indicating a party preference – as an additional control leaves our results unaffected and adds no explanatory power to the model. Second, since respondents may have a better opinion about national and regional incumbents when they favor the party in power, we control for individuals' *Personal alignment* with the party in power (i.e. *Personal alignment* equals 1 when a respondent's preferred party heads the regional government; 0 otherwise). We interact this variable with $Alignment_{r,t}$ to capture the situation where a respondent's preferred party heads the federal *and* regional governments. Our estimates of coefficient β_3 then can be interpreted *net of* any impact arising from respondents favoring the party in power at one or both levels of government.

We additionally created a control variable approximating individuals' propensity to use a given response scale in a specific way (e.g., due to the distinct meaning they attribute to each position along an 11-point scale). Failing to account for this limits the comparability of responses across individuals, which might bias our inferences. Specifically, we calculate the mean value of individual *i*'s responses across a set of questions using the same scale as our dependent variable (i.e. voter's satisfaction with the main German parties CDU/CSU, SPD, FDP, and Green at the regional and the federal level) and add this as an additional control. Finally, we add a full set of region (α_r) and time (θ_t) fixed effects – which capture, respectively, location-specific heterogeneity and variation that is constant across all regions in a given year – and cluster standard errors at the regional level.

Before we turn to the results, it is important to discuss the distributional characteristics of our alignment variable. Figure 1 displays the share of German regions for which the prime-minister's party at the federal and regional government levels were aligned in a given year over the period

1990-2018. This indicates that between six and eleven regions are aligned in any given year, with considerable variation over time due to both regional and federal election outcomes. Each region is aligned *and* unaligned at least once during our period of observation. This variation in partisan alignment within and between regions is central to the identification of our partisan effects. Nonetheless, a key assumption thereby is that the allocation of German regions in the aligned and unaligned subsamples is not due to (self-)selection. From this perspective, it is reassuring to observe in Table A.14 in the Online Appendix that the aligned and unaligned regions are *not* statistically significantly different along a series of observable dimensions (p>0.10 in all cases). Even so, we discuss possible threats to our identification strategy – e.g., due to specific vote patterns in regional elections – in section 4.3.

<center>*** Figure 1 about here ***</center>

As all individual-level data in our analysis derive from one survey for any given individual, one might worry about common source bias. Such bias arises due to related measurement errors in two or more perceptual variables from a common source (Favero & Bullock, 2015; Meier & O'Toole, 2013). There are, however, a number of elements mitigating this concern in our setting. First, our coefficient of interest (β_3) is associated with an interaction term including a non-perceptual measure from an independent source. This implies that the distributional properties of the dependent and main independent variable are different, which diminishes the relation of their measurement errors and the potential for common source bias (Favero & Bullock, 2015; Podsakoff, MacKenzie, & Podsakoff, 2012). Second, as mentioned, we control throughout our analysis for respondents' propensity to answer in a specific way across questions with a given response scale. Assuming that any perceptual bias is constant across questions included in this summary measure (which seems likely in our setting), maintaining significance on the relationship of interest after controlling for this variable increases confidence that "the relationship is not solely due to these forms of method bias" (Podsakoff et al., 2012: p. 559).[8]

4.2. Main results

Table 1 presents the results from estimating equation (1). We first estimate a baseline model controlling only for time and region fixed effects (column (1)), and then gradually introduce individual background characteristics (column (2)), respondents' perception of regional

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[8] While adding this variable generally lowers the point estimates of the individual 'satisfaction' variables (i.e. β_1), it always leaves the coefficient estimates on the key interaction term (i.e. β_3) unaffected.

economic conditions (column (3)) and time-varying regional controls (column (4)). To ease interpretation, Figure A.2 in the Online Appendix depicts estimated marginal effects as well as predicted values of the dependent variable across the observed range of *Satisfaction BR* (separated by regions' alignment status). Coefficient estimates for the full set of control variables are included in the Online Appendix (Table A.13).

*** Table 1 about here ***

Three important observations arise from Table 1. First, when incumbents at the federal and regional level are *not* aligned, increased satisfaction with the federal incumbent shows no relation to satisfaction with the regional incumbent ($\beta_1 = 0$).[9] Second, when incumbents at the federal and regional level *are* aligned, respondents' assessment of the regional incumbent is positively related to their assessment of the federal incumbent ($\beta_1 + \beta_3 > 0$). That is, in line with Hypothesis 1, voters display a more negative (positive) opinion of the regional incumbent when they have a negative (positive) opinion of the federal incumbent *if both incumbents are from the same party*. Third, the negative coefficient of the alignment variable ($\beta_2 < 0$) reflects the situation when *Satisfaction BR* equals zero and respondents' preferred party does *not* head the federal *and* regional governments. Although this cannot occur as the scale for *Satisfaction BR* starts at 1, it suggests that being very dissatisfied with the federal incumbent is associated with a more negative evaluation of the regional incumbent when both are politically aligned and not one's favored party (as would be expected within our theoretical framework).

These results arise even when we explicitly control for respondents' preferred party heading the federal and/or regional government in columns (2)-(4), as well as (perceived) economic conditions in columns (3) and (4) (which might influence voters' perception of both incumbents; see Online Appendix Table A.8). In terms of effect size, a one standard deviation improvement in the assessment of the federal incumbent on average is linked to respondents' assessment of the regional incumbent being 1.03 points higher on our 11-point scale when both incumbents are aligned (which reflects roughly 38% of the standard deviation of the dependent variable). In line

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[9] Our theoretical argument predicts $\beta_1 < 0$. Yet, this coefficient is very hard credibly to identify in our sample. For instance, respondents may provide high/low scores on both *Satisfaction LR* and *Satisfaction BR* because they use their first evaluation as a point of reference for subsequent ones. While our control variable for individuals' typical usage of given response scales corrects for this to some extent, any such answer persistence would mechanically bias β_1 upwards. Crucially, however, this does *not* affect our ability to estimate β_3 since any response persistence is unlikely to be a function of alignment status.

with hypothesis 1, partisan alignment across levels of government thus induces substantively meaningful and statistically significant spillovers in how voters assess both incumbents. [10]

While Table 1 focuses on spillovers from the federal-level *down to* the regional incumbent, Table A.9 in the Online Appendix studies effects from the regional level *up to* the federal incumbent (Broockman, 2009; Gélineau & Bélanger, 2005). The size of our central interaction effect (β_3) in Table A.9 is very close to that in Table 1. Still, this follows largely mechanically from the cross-sectional nature of our data. Although top-down effects are intuitively more appealing given the higher salience of federal versus regional levels of government, our data unfortunately cannot ascertain the direction of the observed effects. In addition, the cross-sectional nature of our dataset does not allow us to establish causality of the observed relationships. Despite our inclusion of several control variables (see Table A.13 in the Online Appendix), there always remains the risk of unobserved factors causing omitted variable bias. To strengthen confidence in our findings and address several potential concerns regarding the validity of our inferences, the next section provides the results from a series of robustness and validity checks.

4.3. Robustness and validity checks

A first issue potentially undermining the analysis in Table 1 is that partisan alignment across levels of government may be endogenous when regions self-select into aligned/unaligned status during regional elections. This can follow from, for instance, voting against the party of the federal incumbent to achieve electoral balancing (Alesina & Rosenthal, 1995; Bafumi, Erikson, & Wlezien, 2010; Erikson & Filippov, 2001; Kern & Hainmueller, 2006). Since such a voting pattern could also reflect better/worse assessments of the federal and regional incumbents, it may generate downward bias in β_1 and upward bias in β_3. When instead regions' (un)aligned status arises due to a federal election, this is much more likely to be exogenous since voters across *all* regions jointly determine this outcome (leaving little scope for any individual region to exert influence). Hence, we can account for potential regional self-selection concerns by replicating our analysis for two subsets of observations: one where alignment arises due to changes at the regional level, and one where alignment arises due to changes at the federal level.

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[10] Ideally, we would have liked to check whether our results persist when using respondents' vote intentions at the federal level as the dependent variable. This would allow assessing whether our results carry over from evaluations to the probability of electoral support (which carries a stronger indication of intent). While satisfaction with the government has been found to have a positive correlation with voting for the government (Greene & Haber, 2015), this data is unfortunately not available in our dataset.

*** Table 2 about here ***

The results are provided in columns (1) to (4) of Table 2. Columns (1) and (2) define regional changes at the level of the prime minister, while columns (3) and (4) look at changes in the largest governing party at the regional level. The results in columns (2) and (4) – which focus on potentially endogenous changes at the regional level – show substantively stronger estimates for β_3, suggesting that regional self-selection into (mis)alignment induces some upward bias. Still, columns (1) and (3) highlight that our findings persist in the subsample focusing on exogenous changes at the federal level. The point estimates are somewhat lower, but the interaction term as well as $\beta_1 + \beta_3$ remain positive and statistically significant well beyond the 99% confidence level. This provides strong support for the validity of our main inferences.

Another potential concern is that individuals with a strong party preference are more likely to have positive opinions about all this party's members, and less positive opinions about politicians in other parties. Although we control for respondents' party preference in all specifications beyond the baseline model, we replicate our analysis restricting the sample to respondents professing no party preference (i.e. roughly one third of the sample). Their responses should be governed least by cognitive consistency deriving from partisanship. This robustness check also further mitigates concerns about common source bias. Although individual perceptions always come with some degree of bias, this may be stronger for 'personal' questions. As individuals with strong party preferences might view political questions as more 'personal', focusing on individuals without a partisan preference helps mitigate such bias. Columns (5) and (6) of Table 2 show that the central interaction term maintains statistical significance beyond the 99% confidence level using this restricted sample (though the point estimates are somewhat reduced; see also Online Appendix Table A.2).

To preserve space, the Online Appendix summarizes the results of a number of additional tests. These indicate that our results are robust to excluding each region or each year (Figure A.3), as well as to including region-specific time trends (which allow regions' characteristics – including economic developments – to be on distinct temporal trends; Table A.3). We show that our findings are qualitatively similar for both former East- and former West-German regions (Table A.4), such that any historical/political particularities of both regions are not affecting our results. Our results are statistically and substantively strongest when modeling alignment based on partisan overlap across levels of government rather than a broader coalition-based

operationalization (Table A.5). This is reasonable given that our theoretical argument relies on *party* – rather than *coalition* – cues. As party cues from a theoretical perspective induce connections between political parties and individual legislators, we confirm that our results likewise arise at the level of individual politicians (Table A.6 and Figure A.4).[11] Finally, we illustrate that placebo checks using historical or future partisan alignment provides statistically insignificant results (Table A.7).

4.4. Heterogeneity over political interest and knowledge as well as election cycle

Hypotheses 2 and 3 propose that party cue induced spillovers in incumbent assessments across levels of government are stronger for more politically interested and knowledgeable voters as well as during election years. Figure 2 analyses the former prediction by focusing on the moderating effect of political interest and knowledge. The figure shows predicted satisfaction with the regional government (on the y axis) as a function of satisfaction with the federal government (on the x axis), depending on partisan alignment across government levels (unaligned in the left-hand plot and aligned in the right-hand plot) and respondents' level of political interest (top panel) or political knowledge (bottom panel). Each line in Figure 2 shows how satisfaction with the regional government changes along the range observed for satisfaction with the federal government, while comparing the various lines within each plot indicates how this relationship is affected by respondents' self-proclaimed levels of political interest or knowledge. Table A.10 in the Online Appendix shows three-way interaction regression results from a baseline model controlling only for time and region fixed effects (as depicted in Figure 2) as well as from a model including a full set of individual background characteristics and time-varying regional controls.

*** Figure 2 about here ***

The results in Figure 2 show that satisfaction with the federal and regional government are strongly positively correlated under partisan alignment for any level of respondents' political interest or knowledge. Yet, this positive correlation strengthens somewhat with increasing interest and knowledge. In sharp contrast, substantial differences arise between respondent groups when the federal and regional incumbents are unaligned. In this case, a positive

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[11] Sample size is reduced here as only few regional election surveys include a question probing respondents' opinion about the federal Chancellor. Even so, effect size and significance are qualitatively similar to those reported in Table 1.

correlation between satisfaction with incumbents at different levels of government only materializes for respondents with low political interest/knowledge. This suggests that lack of knowledge about the parties in power makes respondents attribute a similar evaluation to all incumbents independent of the level of government. Increasing political interest and knowledge gradually weakens and then reverses the correlation between satisfaction with the federal and regional governments. Among the most politically interested and knowledgeable respondents, increasing satisfaction with the federal incumbent is associated with decreasing satisfaction with the regional incumbent (who has a *different* political leaning). These findings are supportive of hypothesis 2. They not only suggest that some level of political interest and knowledge is required to know incumbents' party affiliation at both levels of government, but also that the use of – and reliance on – partisan heuristics is most prominent among the most informed segments of the voting public (for a similar observation, see Dancey & Sheagley, 2013). Indeed, partisan heuristics should induce a negative (positive) correlation in evaluations across levels of governments in the unaligned (aligned) setting, which we observe most prominently among the high-interest and high-knowledge respondents. Hence, party cue induced spillovers appear strongest for the more politically interested and knowledgeable.

Further to ease interpretation of the estimated effect sizes, Table A.11 in the Online Appendix shows results from regression models using subsamples of individuals with different levels of political interest and knowledge. We thereby employ standardized variables to allow comparison across the subsamples. Focusing first on the setting where incumbents are *not* aligned across levels of government (β_1 in equation (1)), Table A.11 shows that a one standard deviation increase in the evaluation of the federal incumbent is associated with a *reduction* in respondents' assessment of the regional incumbent by 0.03 to 0.10 standard deviations for the high interest/knowledge group. In other words, if the more politically interested and knowledgeable assess their federal incumbent positively (negatively), they assess their regional incumbent somewhat more negatively (positively). In comparison, a one standard deviation increase in the evaluation of the federal incumbent is associated with an *increase* in respondents' evaluation of the regional incumbent with 0.07 to 0.14 standard deviations among the low interest/knowledge groups.[12] Moreover, comparing the most left-hand columns in Table A.11 (high political interest and knowledge) with the most right-hand columns (low political interest and knowledge), we

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[12] Remember that persistence in respondents' answers across both incumbent satisfaction questions biases our estimate of β_1 upwards. Nonetheless, as long as such response persistence is independent of individuals' political interest/knowledge, we can still draw valid inferences regarding *the difference in β_1* across these subsamples.

observe a larger value of β_3 in the high political interest/knowledge subsamples. The observed interaction term coefficients for the high and low interest/knowledge groups are always statistically significantly different at the 95% confidence level or better. This highlights a stronger difference between the aligned and unaligned settings for high interest/knowledge respondents, consistent with stronger party cue induced spillover effects (see above).

Figure 3 evaluates party cue induced spillovers in incumbent assessments across the election cycle (hypothesis 3). It replicates the set-up of Figure 2, except that the various lines within each plot now indicate the relationship between incumbent assessments across levels of government at different points of the national election cycle: i.e. during a national election year (*yeardiff* = 0) or 1, 2 or 3 years after the national election (*yeardiff* = 1, 2 or 3). Table A.10 in Online Appendix shows the three-way interaction regression results for a baseline model controlling only for time and region fixed effects (as depicted in Figure 3) as well as an extended model including a full set of individual background characteristics and time-varying regional controls.

*** Figure 3 about here ***

Figure 3 shows that under partisan alignment there is a strong positive correlation between satisfaction with the federal and regional incumbents at all points of the election cycle. This correlation is strongest in the national election year. When the federal and regional incumbents are from different parties, however, satisfaction with incumbents at different levels of government is *negatively* correlated during the national election year (and the year immediately following the national election), but *positively* correlated when the national election lies further in the past. These findings are in line with hypothesis 3, and suggest that improved knowledge of political incumbents during election periods strengthens party cue induced spillovers (which, as mentioned, should be positive in the aligned setting and negative in the unaligned setting).

As before, we replicated the analysis by splitting the sample and using standardized variables to accommodate that different individuals answer the survey across years in the election cycle (Table A.12 in the Online Appendix). This shows that the coefficient estimate for our central interaction term is largest during the federal election year, and weakens after the election. These differences for β_3 are statistically significant at the 95% confidence level or better in all cases. Under alignment (i.e. $\beta_1 + \beta_3$), a one standard deviation increase in the assessment of the federal

incumbent on average is linked to an increase in respondents' assessment of the regional incumbent by 0.47 standard deviations in the election year, as compared to 0.31 standard deviations when the respondent is furthest from the election year (in the extended model). Moreover, the federal election year is the only year where in the top panel of Table A.12 increased satisfaction with the federal incumbent has a significant negative relation to satisfaction with an *un*aligned regional incumbent ($\beta_1 < 0$). Both results provide strong support for hypothesis 3 stating that election years amplify incumbent assessment spillovers across levels of government.

5. Conclusion and discussion

In this article, we studied one micro-level implication of voters using politicians' party affiliation as a heuristic shortcut. More specifically, we argued that in the context of multilevel governance settings, reliance on party cues induces voters' assessment of incumbents at one level of government to be incorporated into their assessment of incumbents at other levels of government. Empirical evidence from German survey data confirms this proposition. Consistent with theoretical predictions, cross-level incumbent assessment effects increase in magnitude among politically more interested and knowledgeable voters as well as during election periods (when information is more readily available).

These results have several implications. First, they can help us understand voters' (in)ability to hold incumbents accountable under multilevel governance structures (Anderson, 2006; Gélineau & Bélanger, 2005; Rodden & Wibbels, 2011). Yet, from a normative perspective, it is not immediately clear whether our results provide good or bad news. Specifically, incumbent assessment spillovers due to the use of party cues may lead to a better informed electorate when incumbents behave in accordance with party-political expectations. Nonetheless, when incumbents stray from the party line, these same spillovers may work to undermine electoral accountability since voters' decisions are then determined at least in part by inaccurate inferences. Hence, reliance on party cues – or other heuristic devices – to overcome information deficiencies may be a double-edged sword when it comes to electoral accountability. Second, the literature on electoral balancing highlights that voters often distribute their votes at different levels of government across different parties "in order to achieve policy moderation" (Bafumi et al., 2010: 705; see also Alesina & Rosenthal, 1995; Erikson & Filippov, 2001; Kern & Hainmueller, 2006). From this perspective, our work suggests that a tension may arise between

voters' apparent desire for electoral balancing and the expression of their partisan attachment (or their use of simple partisan heuristics). Finally, our analysis bears relevance to the academic literature on coattail voting (Broockman, 2009; Campbell & Sumners, 1990; Mondak & McCurley, 1994; Zudenkova, 2011), which has also been observed in multilevel governance settings (Ade & Freier, 2013; Borges & Lloyd, 2016; Rudolph & Leininger, 2019). Extant work suggests that such coattails occur because voters rely on party or availability heuristics (Broockman, 2009; Hogan, 2005; Mondak, 1993; Mondak & McCurley, 1994). Our results are consistent with this interpretation. Yet, they also clarify that party cues may invoke incumbent assessment spillovers across levels of government alongside the simple cognitive efficiency-oriented process assumed in previous work (Conroy-Krutz et al., 2016; Mondak, 1993; Mondak & McCurley, 1994; Zudenkova, 2011).

The limitations imposed by our data suggest a number of avenues for further research. First, it would be of interest to extend our analysis to different countries as well as the supranational setting of the European Union. One could imagine that the characteristics of the electoral system and federal arrangement (in terms of the level of subnational autonomy) contribute to shaping the nature of our argument. Second, the directionality of the observed effects could not credibly be established with the data at hand. We hope that our analysis can nonetheless stimulate further research to do exactly that. Third, our German setting is characterized by a stable and programmatic system in which sub-national elections can have a strong national influence. Additionally, vote choice in Germany is party-centered and less focused on the personal appeal of individual candidates (Rodden & Wibbels, 2011). While we expect our theoretical framework to travel to other similarly stable programmatic countries – such as the northern European countries (Borbáth, 2020), Canada (Johns, 2011) and the US (Geys & Vermeir, 2008) – it might fare less well in countries with unstable party systems or with extensive personalized voting – such as Italy, Spain, and France. Closely related, the rise of populist parties across Europe and the partial collapse of established party systems raises questions about the relevance of parties and partisan heuristics in such settings. Voters may then still exploit alternative heuristics based on, for instance, gender, race, occupation or other social identities (Atkeson, 2003; Lerman & Sadin, 2016; McDermott, 1997). Our theoretical framework would predict such heuristics likewise to trigger assessment spillovers. Finally, our dataset provided a natural setting to study the role of elections as well as voter interest and knowledge. It is very likely, however, that other individual characteristics or context-specific constraints condition when and how much voters rely on party cues as heuristic devices.

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Figure 1: Share of aligned regions over the period 1990-2018.
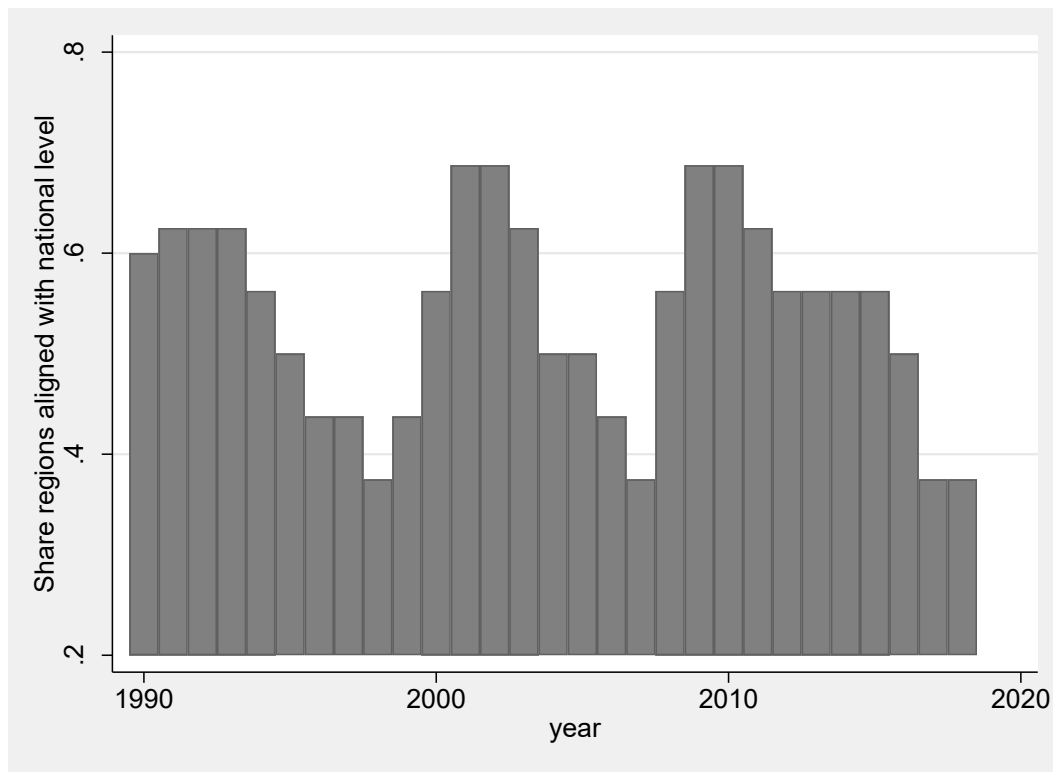
Note: Each bar indicates the share of regions for which the prime-minister's party at the federal and regional level of government were aligned in a given year. Own calculations.

Figure 2: Effect of national government satisfaction and partisan alignment by political interest and political knowledge
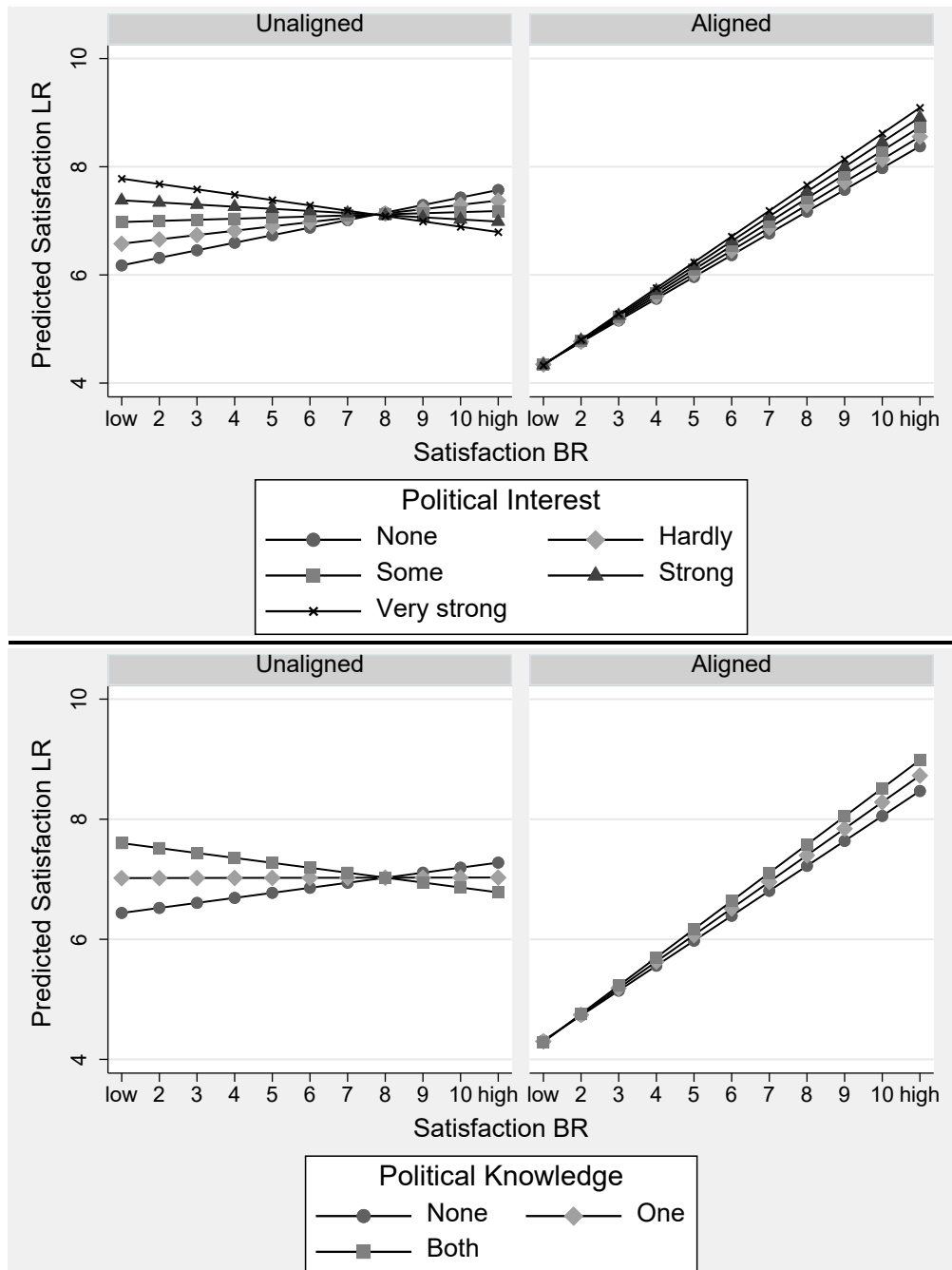
Note: The figure shows the predicted satisfaction with the regional government (on the y axis) as a function of satisfaction with the federal government (on the x axis), depending on partisan alignment across government levels (unaligned in the left-hand plot and aligned in the right-hand plot) and respondents' level of political interest (top panel) or political knowledge (bottom panel). Dependent variable *Satisfaction LR* measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. *Political interest* measures respondents' self-proclaimed levels of political interest, on a scale from (1) 'low interest' to (5) 'high interest'. *Political knowledge* measures respondents' ability to correctly identify the leading candidates of main regional parties, on a scale from (low - 0) not knowing the leading candidate of both main regional parties, to (high - 2), knowing the leading candidate of both main regional parties. In all cases, we include a full set of time and region fixed effects.

Figure 3: Effect of national government satisfaction and partisan alignment by election timing
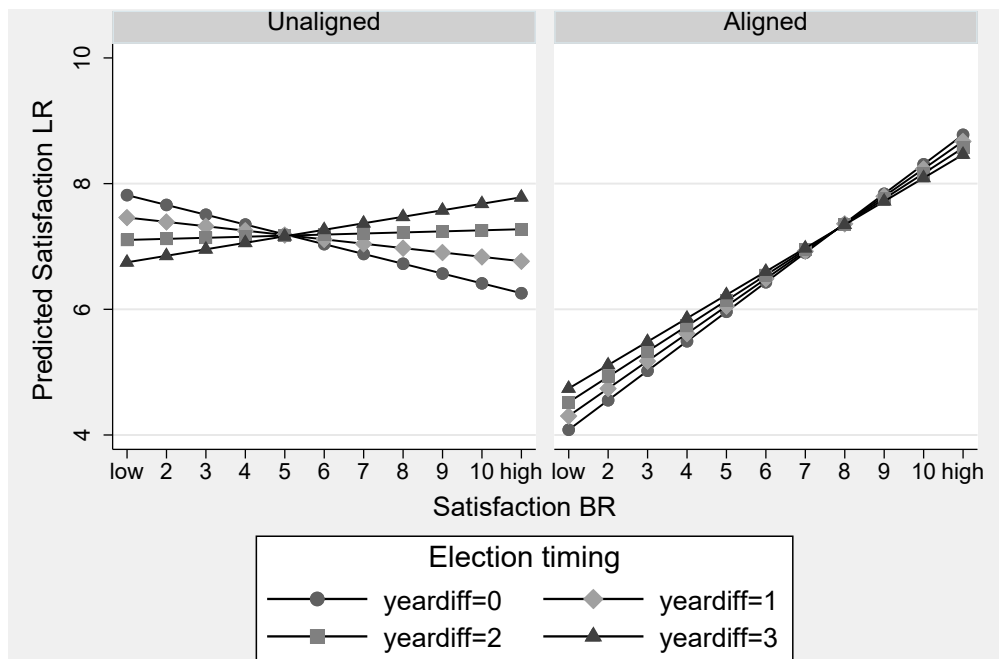
Note: The figure shows the predicted satisfaction with the regional government (on the y axis) as a function of satisfaction with the federal government (on the x axis), depending on partisan alignment across government levels (unaligned in the left-hand plot and aligned in the right-hand plot) and the timing of regional elections relative to the national election cycle. Dependent variable *Satisfaction LR* measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. *Election timing* indicates whether it is a national election year (yeardiff = 0), or 1, 2 or 3 years after the national election (yeardiff = 1, 2 or 3). The regression model includes a full set of region fixed effects.

Table 1: Partisan alignment and government satisfaction across levels of government

	(1) Baseline	(2) Ind. controls	(3) Econ perception	(4) Region controls
Satisfaction BR	-0.030	0.028	0.017	0.017
	(0.029)	(0.023)	(0.022)	(0.022)
Alignment	-3.361***	-2.379***	-2.360***	-2.497***
	(0.336)	(0.315)	(0.309)	(0.295)
Satisfaction BR *	0.483***	0.354***	0.349***	0.347***
Alignment	(0.041)	(0.0633	(0.034)	(0.033)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	117,361	112,239	110,141	102,267
R-squared	0.315	0.394	0.409	0.412

Note: Dependent variable measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the German national government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Column (1) presents a baseline model including only full set of time and region fixed effects, while columns (2) to (4) gradually add additional time-varying individual- and region-level control variables. Standard errors clustered by region in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 2: Endogenous alignment and absence of party preference

	(1) Governor unchanged	(2) Governor changed	(3) Governor party unchanged	(4) Governor party changed	(5) No party preference	(6) No party preference
Satisfaction BR	0.026	0.005	0.030	-0.073	0.097***	0.074***
	(0.033)	(0.042)	(0.026)	(0.070)	(0.023)	(0.021)
Alignment	-5.909	-3.181***	-2.316***	-2.981***	-2.262***	-2.402***
	(0.223)	(0.300)	(0.299)	(0.349)	(0.258)	(0.251)
Satisfaction BR * Alignment	0.273***	0.395***	0.333***	0.440***	0.311***	0.312***
	(0.050)	(0.0548)	(0.035)	(0.069)	(0.025)	(0.026)
Year FE	YES	YES	YES	YES	YES	YES
Region FE	YES	YES	YES	YES	YES	YES
Ind. controls	YES	YES	YES	YES	NO	YES
Region controls	YES	YES	YES	YES	NO	YES
Observations	57,116	45,151	88,530	13,737	37,706	34,062
R-squared	0.404	0.443	0.413	0.444	0.339	0.366

Note: Dependent/independent variable definitions as in Table 1. Columns (1) and (3) exclude observations from respondents in regions where the governor (or its partisan affiliation) changed, while columns (2) and (4) focus only on the subsample of respondents in regions where the governor (or its partisan affiliation) changed. All models – except column (5) – include a full set of individual and regional controls as well as region and year fixed effects. Sample in columns (5) and (6) restricted to respondents without self-professed party preference. Standard errors clustered by (16) regions in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

ONLINE APPENDIX

to

Party Cues and Incumbent Assessments under Multilevel Governance

Figure A.1: Distributional plots of key variables
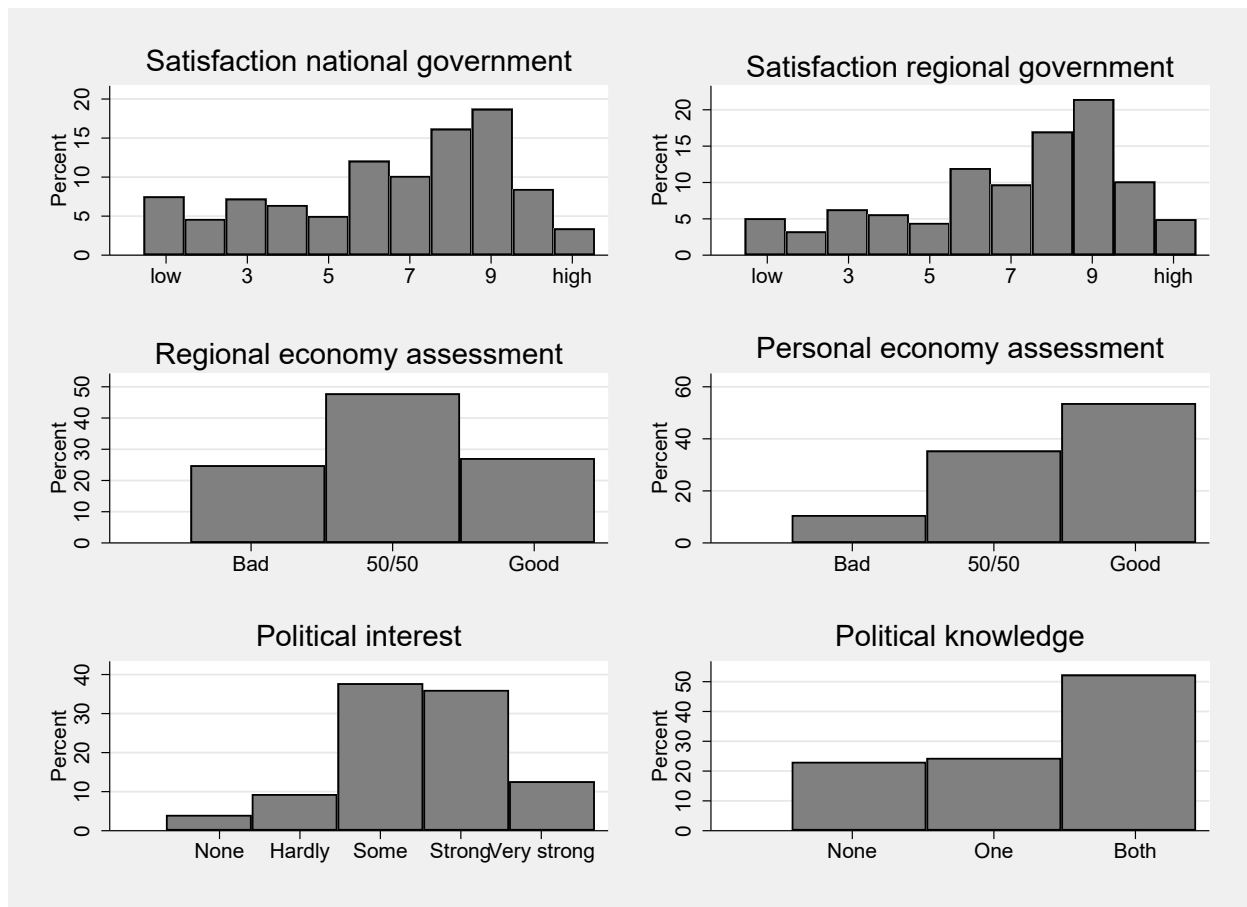
Note: The top panels display respondents' satisfaction with the national (*Satisfaction BR*) and regional (*Satisfaction LR*) governments, respectively, measured on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The middle panels display respondents' economic assessments of the regional (*Reg. econ. assessment*) and personal (*Pers. econ. assessment*) economy, respectively, on a 3-point scale from (1) 'bad' to (3) 'good'. Political interest is coded on a five-point scale (None, Hardly, Some, Strong, Very strong). Political knowledge is coded 0 when the respondent cannot correctly name the leading candidate of either main party (SPD or CDU/CSU) in the regional election, 1 if she correctly names the leading candidate of one party, and 2 if she correctly identifies both leading candidates.

Figure A.2: Marginal effects and predicted values from Table 1
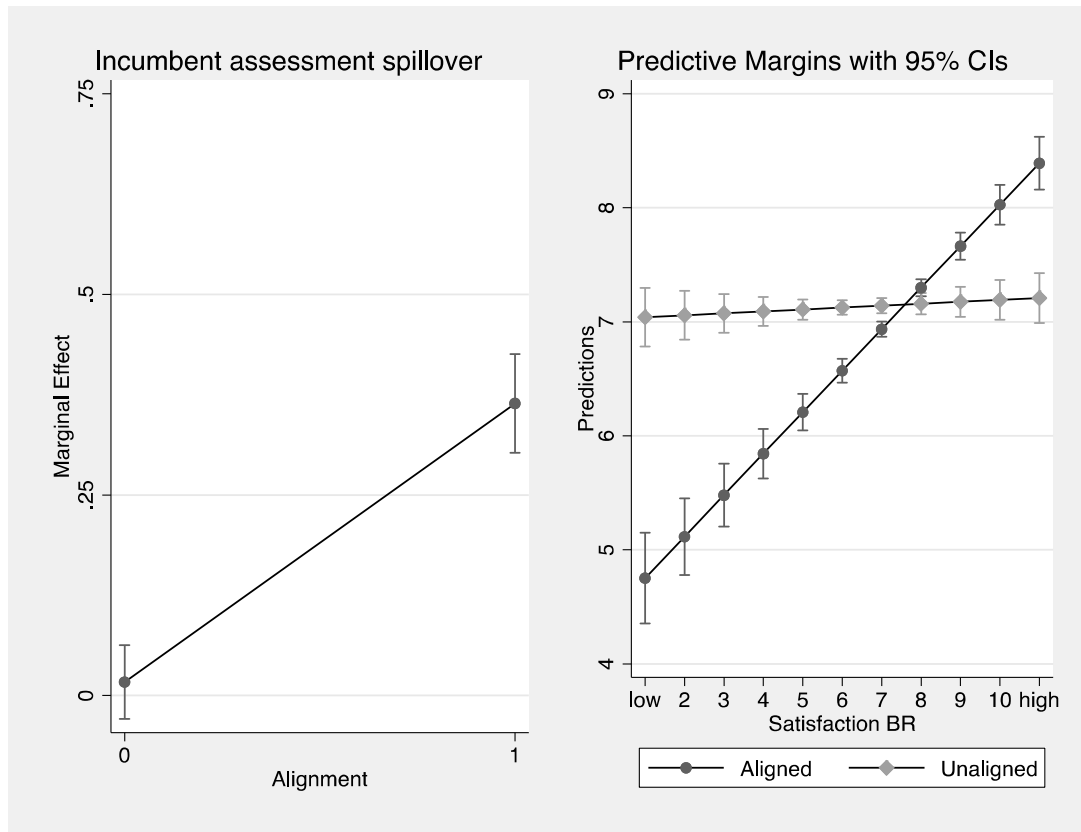
Note: The dependent variable *Satisfaction LR* measures respondents' satisfaction with the German regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The key independent variable *Satisfaction BR* is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. The left-hand panel shows the marginal effect of *Satisfaction BR* on *Satisfaction LR* depending on *Alignment* being 0 or 1. The right-hand panel shows predicted values across the observed range of *Satisfaction BR* depending on *Alignment* being 0 or 1 (with associated 95% confidence intervals based on standard errors clustered by (16) regions).

Figure A.3: Robustness to excluding regions and years (cf. Table 1)
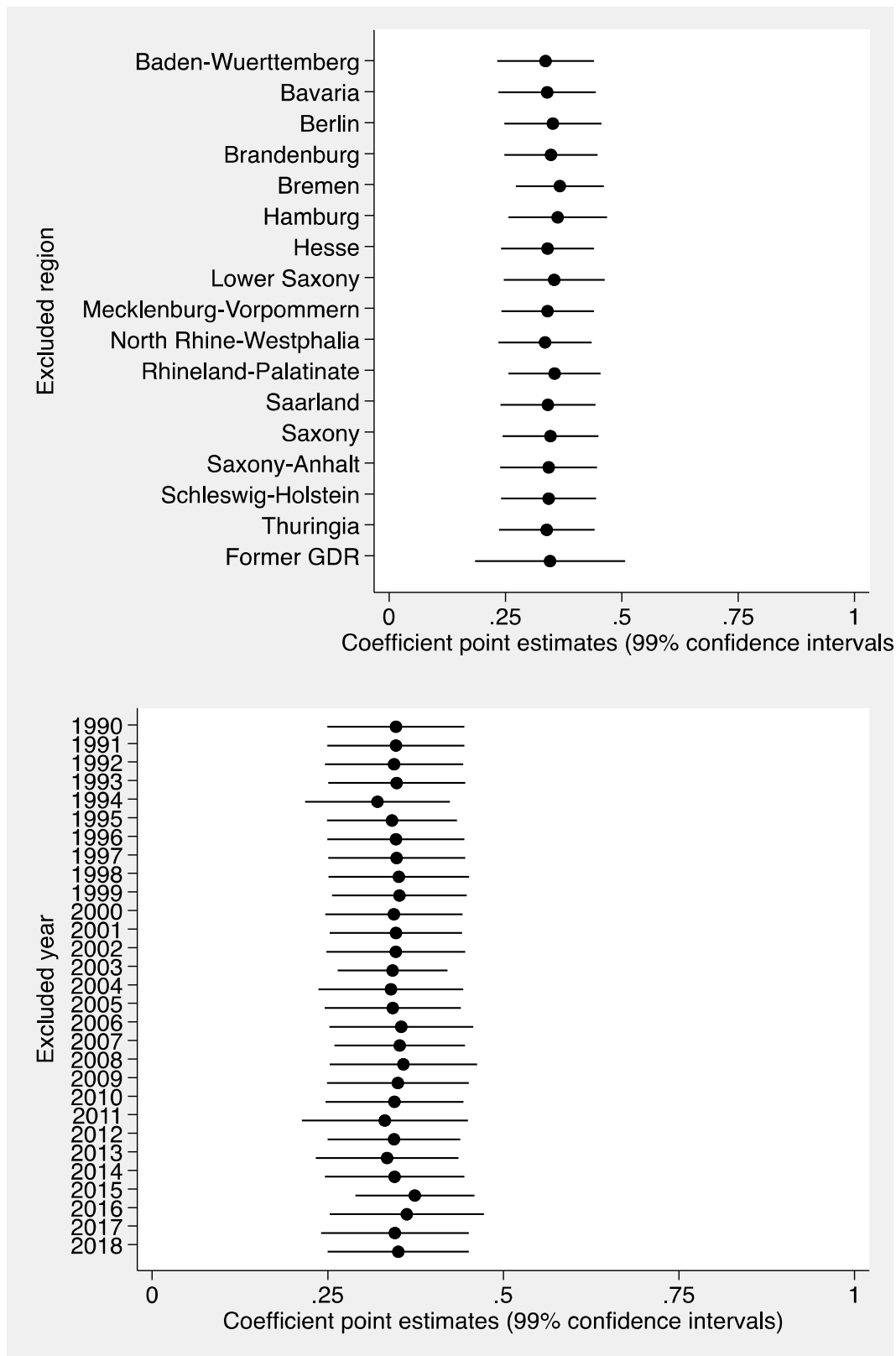
Figure A.4: Marginal effects and predicted values when using individual politicians
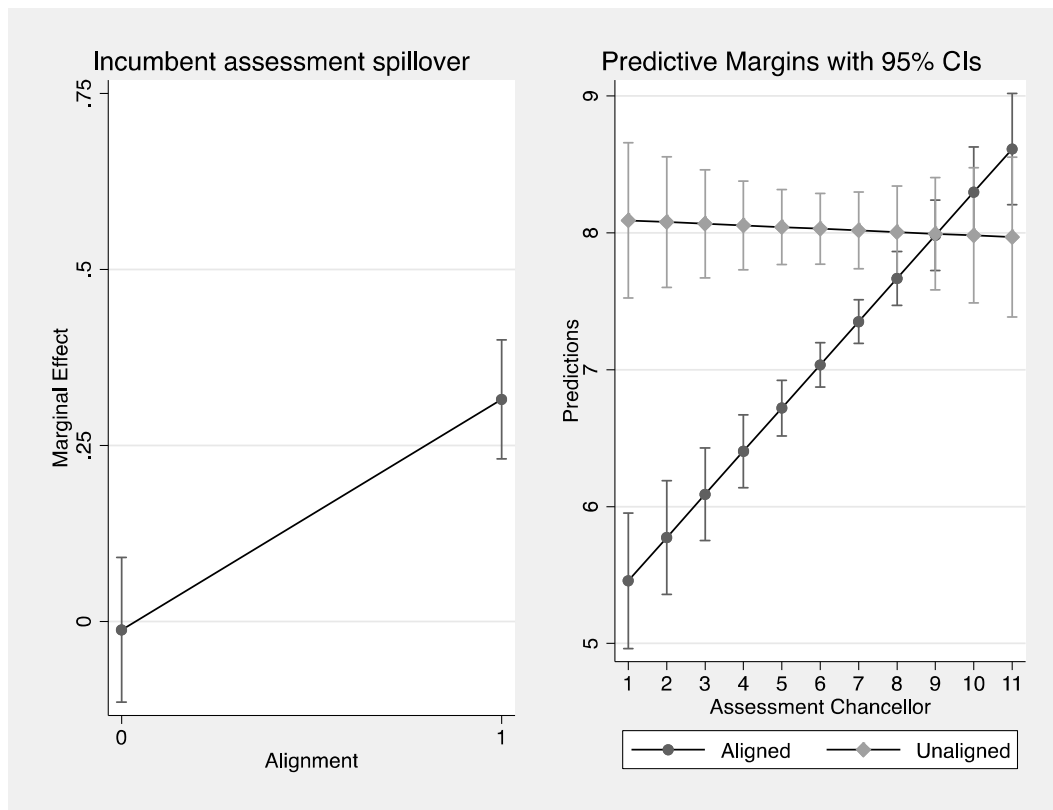
Note: Dependent variable measures respondents' evaluation of the regional prime minister on an 11-point scale. The key independent variable – *Satisfaction Chancellor* – is respondents' evaluation of the Chancellor on the same scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the Chancellor/prime minister in the federal and regional government, 0 otherwise. The left-hand panel shows the marginal effect of *Satisfaction Chancellor* on respondents' evaluation of the regional prime minister depending on *Alignment* being 0 or 1. The right-hand panel shows predicted values across the observed range of *Satisfaction Chancellor* depending on *Alignment* being 0 or 1 (with associated 95% confidence intervals based on standard errors clustered by (16) regions).

Table A.1: Summary statistics

	N	Mean	Standard Deviation	Min	Max
Satisfaction LR	120,742	7.004	2.682	1	11
Satisfaction BR	123,657	6.540	2.819	1	11
Alignment	151,925	0.465	0.499	0	1
Alignment *(largest party)*	151,925	0.397	0.489	0	1
Alignment *(any partner)*	151,925	0.122	0.328	0	1
Alignment *(Exact coalition)*	151,925	0.093	0.290	0	1
Reg. econ. assessment	145,411	2.023	0.721	1	3
Pers. econ. assessment	134,463	2.430	0.678	1	3
Political interest	133,326	3.439	0.965	1	5
Political knowledge	123,088	1.293	0.818	0	2
Individual controls					
Gender	151,917	0.491	0.500	0	1
Age	151,896	3.585	1.622	1	6
Married	149,986	0.538	0.499	0	1
Education	151,399	2.113	0.822	1	4
Fulltime worker	148,975	0.441	0.496	0	1
Pension	148,975	0.299	0.458	0	1
Party preference	144,520	3.481	2.124	1	7
Personal alignment	151,925	0.291	0.454	0	1
Religion	149,053	1.068	0.920	0	3
Regional controls					
Population	151,925	4,826,804	4,681,149	652,182	18,058,110
Share male	151,925	0.489	0.004	0.476	0.496
Share elderly	151,925	0.191	0.028	0.120	0.256
GDP growth rate	143,210	3.206	3.442	-9.581	16.845
Unemployment rate	147,894	0.049	0.020	0.019	0.102
Voter turnout	151,925	74.787	5.437	60.500	85.100
Fiscal equalization	150,882	-341.111	1,468.815	-16,844.940	1,537.598
Tax income	151,925	239.456	96.474	69.837	521.980

Note: The variables *Satisfaction LR* and *Satisfaction BR* are, respectively, respondents' satisfaction with the regional and national governments, measured on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Alternative operationalizations are coded 1 when the largest coalition party is the same across the federal and regional government (*Largest party*), when the national coalition parties align with the regional coalition parties (*Any partner)*, or when the exact same parties are in the regional and national coalitions in the same order of size (*Exact coalition*). The variables *Reg. econ. assessment* and *Pers. econ. assessment* measure respondents' economic assessments of the regional and personal economy, respectively, on a 3-point scale from (1) 'bad' to (3) 'good'. *Political interest* is coded on a five-point scale (None, Hardly, Some, Strong, Very strong). Individual controls cover respondents' *Gender* (1 if male), *Age* (in age groups from (1) '16-29 years', to (6) '70-plus'), *Married* (1 if married), *Education* (in four levels from (1) 'Basic' to (3) 'Higher' and (4) 'in school'), *Party preference* (covering the five main parties, No preference and 'other'), *Religion* (covering the two main Catholic and Protestant groups as well as No religion and 'other'), and work status (*Fulltime worker* is 1 for full-time employed individuals and *Pension* is 1 if receiving old-age pension). The regional controls include *Population* (number of inhabitants), *Unemployment rate* (number of unemployed as a share of the regional population), *Voter turnout* (number of valid ballots as a share of the regional population), *Fiscal equalization* (payments or revenues per capita), and *Tax income* (Regional tax revenues per capita). *Share male*, *Share elderly* (over 65years) and *GDP per capita* are self-explanatory and measured relative to the regional population.

Table A.2: Robustness assessment spillovers among individuals *without* party preference

	(1) Baseline	(2) Ind. controls	(3) Economic perceptions	(4) Ind. & Region controls
Satisfaction BR	0.097***	0.089***	0.074***	0.074***
	(0.023)	(0.023)	(0.022)	(0.021)
Alignment	-2.262***	-2.275***	-2.279***	-2.402***
	(0.258)	(0.260)	(0.252)	(0.251)
Satisfaction BR * Alignment	0.311***	0.313***	0.313***	0.312***
	(0.025)	(0.026)	(0.026)	(0.026)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	37,706	36,897	36,158	34,062
R-squared	0.339	0.343	0.359	0.366

Note: Dependent variable measures respondents' satisfaction with the German regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Column (1) presents a baseline model including a full set of time and region fixed effects, while columns (2) to (4) gradually add additional time-varying individual- and region-level control variables. Sample restricted to respondents without self-professed party preference. Standard errors clustered by region in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A.3: Robustness assessment spillovers to inclusion region-specific time trends

	(1) Baseline	(2) Ind. controls	(3) Economic perceptions	(4) Ind. & Region controls
Satisfaction BR	-0.028	0.030	0.018	0.002
	(0.027)	(0.022)	(0.020)	(0.021)
Alignment	-3.440***	-2.478***	-2.445***	-2.645***
	(0.310)	(0.280)	(0.283)	(0.269)
Satisfaction BR * Alignment	0.480***	0.348***	0.345***	0.340***
	(0.039)	(0.032)	(0.033)	(0.033)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Region-specific time trends	YES	YES	YES	YES
Ind. Controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	117,361	112,239	110,141	102,267
R-squared	0.321	0.401	0.415	0.419

Note: Dependent variable measures respondents' satisfaction with the German regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Column (1) presents a baseline model including a full set of time and region fixed effects, while columns (2) to (4) gradually add additional time-varying individual- and region-level control variables. All models include linear region-specific time trends. Standard errors clustered by region in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A.4: Main results for (former) East and West German regions

	(1) Baseline	(2) Ind. controls	(3) Economic perceptions	(4) Ind. & Region controls
	Panel I: West Germany			
Satisfaction BR	-0.057	0.011	-0.001	-0.003
	(0.034)	(0.026)	(0.025)	(0.026)
Alignment	-3.514***	-2.323***	-2.342***	-2.205***
	(0.489)	(0.460)	(0.451)	(0.525)
Satisfaction BR * Alignment	0.507***	0.358***	0.353***	0.346***
	(0.058)	(0.0472)	(0.048)	(0.049)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. Controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	83,921	80,066	78,145	70,271
R-squared	0.303	0.394	0.410	0.417
	Panel II: East Germany			
Satisfaction BR	0.032	0.063	0.051	0.052
	(0.043)	(0.037)	(0.036)	(0.033)
Alignment	-3.314***	-2.682***	-2.623***	-2.4-5***
	(0.268)	(0.227)	(0.223)	(0.152)
Satisfaction BR * Alignment	0.430***	0.347***	0.339***	0.331***
	(0.042)	(0.037)	(0.037)	(0.035)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. Controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	33,440	32,173	31,996	31,996
R-squared	0.353	0.403	0.416	0.422

Note: Dependent variable measures respondents' satisfaction with the German regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Column (1) presents a baseline model including only full set of time and region fixed effects, while columns (2) to (4) gradually add additional time-varying individual- and region-level control variables. Panel I restricts the analysis to observations from respondents living in the area of the (former) West Germany, while Panel II focuses on respondents in the (former) East Germany. Standard errors clustered by region in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A.5: Robustness assessment to alternative alignment operationalizations

VARIABLES	(1) Largest party	(2) Largest party	(3) Any partner	(4) Any partner	(5) Exact coalition	(6) Exact coalition
Satisfaction BR	0.075*	0.081***	0.163**	0.148***	0.163***	0.148***
	(0.035)	(0.024)	(0.050)	(0.036)	(0.049)	(0.036)
Alignment *(largest party)*	-2.065***	-1.402***	-	-	-	-
	(0.385)	(0.299)				
Satisfaction BR * Alignment	0.302***	0.219***	-	-	-	-
	(0.040)	(0.027)				
Alignment *(any partner)*	-	-	-1.256**	-0.835**	-	-
			(0.500)	(0.276)		
Satisfaction BR * Alignment	-	-	0.196**	0.140**	-	-
			(0.076)	(0.053)		
Alignment *(exact coalition)*	-	-	-	-	-1.760**	-0.891
					(0.299)	(0.252)
Satisfaction BR * Alignment	-	-	-	-	0.260***	0.185**
					(0.048)	(0.033)
Year FE	YES	YES	YES	YES	YES	YES
Region FE	YES	YES	YES	YES	YES	YES
Ind. controls	NO	YES	NO	YES	NO	YES
Region controls	NO	YES	NO	YES	NO	YES
Observations	117,361	102,267	117,361	102,267	117,361	102,267
R-squared	0.277	0.395	0.258	0.386	0.259	0.387

Note: Dependent variable measures respondents' satisfaction with the German regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The key independent variable – *Satisfaction BR* – is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is measured in three different ways: i) Same leading party in the federal and regional government ('Largest party'; 26% of observations); ii) the federal coalition parties form part of the regional coalition – possibly with extra coalition partners ('any partner'; 12% of observations); iii) exact same parties (in the same order of size) constitute the federal and regional governments ('exact coalition'; 6% of observations). All models include a full set of time and region fixed effects, while models in even columns are extended with additional time-varying individual- and region-level control variables. Standard errors clustered by region in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A.6: Robustness assessment using individual politicians

	(1) Baseline	(2) Ind. controls	(3) Econ perception	(4) Region controls
Satisfaction Chancellor	-0.855	-0.012	-0.017	-0.014
	(0.055)	(0.038)	(0.037)	(0.046)
Alignment	-3.783***	-2.527***	-2.524***	-2.422***
	(0.418)	(0.312)	(0.293)	(0.273)
Satisfaction Chancellor	0.504***	0.341***	0.337***	0.327***
* Alignment	(0.073)	(0.049)	(0.048)	(0.052)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	40,270	38,837	37,963	30,231
R-squared	0.335	0.411	0.413	0.414

Note: Dependent variable measures respondents' evaluation of the regional prime minister on an 11-point scale. The key independent variable – *Satisfaction Chancellor* – is respondents' evaluation of German Chancellor on the same scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the holds the Chancellor/prime minister position in the federal and regional government, 0 otherwise. Column (1) presents a baseline model including only full set of time and region fixed effects, while columns (2) to (4) gradually add additional time-varying individual- and region-level control variables. Standard errors clustered by (16) regions in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A.7: Placebo checks using leads and lags of partisan alignment

	(5) One lag	(6) Two lags	(7) One lead	(8) Two leads
Alignment	0.019	0.889*	-0.037	0.133
	(0.365)	(0.437)	(0.302)	(0.443)
Satisfaction BR	0.148 ***	0.235***	0.155***	0.213***
	(0.050)	(0.066)	(0.048)	(0.046)
Satisfaction BR *	0.036	-0.072	0.034	-0.052
Alignment	(0.051)	(0.060)	(0.046)	(0.057)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	YES	YES	YES	YES
Region controls	YES	YES	YES	YES
Observations	97,142	85,950	75,800	55,313
R-squared	0.367	0.382	0.366	0.365

Note: Dependent variable measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The key independent variable – *Satisfaction BR* – is respondents' satisfaction with the German federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. This variable is lagged by one election period in column (1), and by two election periods in column (2). It is leading by one election period in column (3), and by two election periods in column (4). All models include a full set of time and region fixed effects as well as individual and region-level control variables. Standard errors clustered by region in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A.8: Economic assessments by individuals' preferred party holding power.

	(1) Reg. econ. assessment	(2) Reg. econ. assessment	(3) Pers. econ. assessment	(4) Pers. econ. assessment
Preferred party in power	0.115***	0.076***	0.038***	0.011
	(0.014)	(0.018)	(0.008)	(0.010)
Alignment	-	-0.047	-	-0.016*
		(0.031)		(0.009)
Preferred party in power * Alignment	-	0.076***	-	0.052***
		(0.017)		(0.018)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	YES	YES	YES	YES
Region controls	YES	YES	YES	YES
Observations	129,485	129,485	127,250	127,250
R-squared	0.283	0.283	0.131	0.131

Note: Dependent variable measures respondents' satisfaction with the regional (columns 1 and 2) or personal (columns 3 and 4) economy on a 3-point scale from (1) 'bad' to (3) 'good'. The variable *Preferred party in power* is an indicator variable equal to 1 when respondents' preferred party holds the prime minister position at the regional level (0 otherwise). Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. The interaction terms thus implies that respondents' preferred party holds the prime minister position at the regional *and* national level. All models a full set of time and region fixed effects, as well as time-varying individual- and region-level control variables. Standard errors clustered by (16) regions in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Extension: Top down versus bottom up effects

Our analysis thus far concentrated on top-down effects from the federal-level down to the regional incumbent. From a theoretical perspective, however, similar effects might arise from the regional level up to the federal incumbent (Gélineau & Bélanger, 2005; Geys & Vermeir, 2014; Zudenkova, 2011). Table A.9 therefore shows the results when estimating such bottom-up effects. This again indicates that voters' assessment of an incumbent at the one level of government (in this case the regional level) rubs off on the incumbent at the other government level (in this case the national level) – *particularly when both are politically aligned*. Given the cross-sectional nature of our data, it is unsurprising that the size of our central interaction effect (β_3) is very close to those reported in Table 1 in the main text. Indeed, given the positive correlation of national and regional government assessments, this similarity arises mechanically independent of which variable is chosen as the dependent variable.

Table A.9: Main results for top-down analysis

	(1) Baseline	(2) Ind. controls	(3) Economic perceptions	(4) Ind. & Region controls
Satisfaction LR	-0.033	0.031	0.019	0.021
	(0.030)	(0.026)	(0.025)	(0.026)
Alignment	-2.518***	-2.235***	-2.257***	-2.176***
	(0.305)	(0.291)	(0.296)	(0.305)
Satisfaction LR * Alignment	0.448***	0.330***	0.333***	0.323***
	(0.042)	(0.037)	(0.038)	(0.039)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. Controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	117,361	112,239	110,141	102,267
R-squared	0.389	0.425	0.425	0.432

Note: Dependent variable *Satisfaction BR* measures respondents' satisfaction with the German federal government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction LR* is respondents' satisfaction with the regional government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Column (1) presents a baseline model including only full set of time and region fixed effects, while columns (2) to (4) gradually add additional time-varying individual- and region-level control variables. Standard errors clustered by (16) regions in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A.10: Triple interaction model: Political interest, political knowledge, and election years

	Political interest		Political knowledge		Election timing	
	(1)	(2)	(3)	(4)	(5)	(6)
	Baseline	Ind. & Region controls	Baseline	Ind. & Region controls	Baseline	Ind. & Region controls
Satisfaction BR	0.199***	0.214***	0.0838***	0.102***	-0.139***	-0.0682*
	(0.0358)	(0.0322)	(0.0199)	(0.0175)	(0.0405)	(0.0340)
Alignment	-1.601***	-1.142**	-2.457***	-1.947***	-4.104***	-3.014***
	(0.420)	(0.419)	(0.310)	(0.310)	(0.345)	(0.319)
Satisfaction BR * Alignment	0.185**	0.137**	0.332***	0.262***	0.626***	0.458***
	(0.0630)	(0.0614)	(0.0377)	(0.0353)	(0.0411)	(0.0325)
Political interest	0.460***	0.387***				
	(0.0846)	(0.0715)				
Satisfaction BR * Political interest	-0.0595***	-0.0543***				
	(0.0155)	(0.0129)				
Political interest * Alignment	-0.485***	-0.383***				
	(0.0958)	(0.0907)				
Satisfaction BR * Alignment * Political interest	0.0780***	0.0589***				
	(0.0173)	(0.0162)				
Political knowledge			0.664***	0.494***		
			(0.0878)	(0.0562)		
Satisfaction BR * Political knowledge			-0.0829***	-0.0663***		
			(0.0125)	(0.00855)		
Political knowledge * Alignment			-0.704***	-0.459***		
			(0.166)	(0.118)		
Satisfaction BR * Alignment * Political knowledge			0.110***	0.0694***		
			(0.0204)	(0.0161)		
Year difference					0.623**	1.243**
					(0.263)	(0.524)
Satisfaction BR * Year difference					0.0701**	0.0518**
					(0.0248)	(0.0207)
Alignment * Year difference					0.535**	0.356
					(0.234)	(0.210)

	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction BR * Alignment * Year difference					-0.104***	-0.0770***
					(0.0261)	(0.0219)
Year FE	YES	YES	YES	YES	YES	YES
Region FE	YES	YES	YES	YES	YES	YES
Ind. controls	NO	YES	NO	YES	NO	YES
Region controls	NO	YES	NO	YES	NO	YES
Observations	101,856	95,245	96,776	91,239	117,361	102,267
R-squared	0.326	0.419	0.321	0.417	0.318	0.414

Note: Dependent variable *Satisfaction LR* measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the federal government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. *Political interest* measures respondents' self-proclaimed levels of political interest, on a scale from (1) 'low interest' to (5) 'high interest'. *Political knowledge* measures respondents' ability to correctly identify the leading candidates of main regional parties, on a scale from (0) not knowing the leading candidate of both main regional parties, to (2), knowing the leading candidate of both main regional parties. *Year difference* measures whether it is a national election year (0), or 1, 2 or 3 years after the national election. Columns (1), (3) and (5) present a baseline model including only full set of time and region fixed effects, while columns (2), (4) and (6) include time-varying individual- and region-level control variables. Standard errors clustered by (16) regions in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A.11: Standardized results by level of political interest or political knowledge

| | Panel I: Political interest | | | |
| | High political interest | | Low political interest | |
	Baseline model	Extended model	Baseline model	Extended model
Satisfaction BR	-0.096**	-0.031	0.065**	0.084***
	(0.035)	(0.027)	(0.025)	(0.021)
Alignment	-0.033	-0.0897	-0.133***	-0.085*
	(0.078)	(0.065)	(0.044)	(0.040)
Satisfaction BR	0.572***	0.388***	0.413***	0.324***
* Alignment	(0.049)	(0.040)	(0.038)	(0.032)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	NO	YES	NO	YES
Region controls	NO	YES	NO	YES
Observations	66,741	55,081	50,620	47,186
R-squared	0.313	0.433	0.330	0.399

| | Panel II: Political knowledge | | | | | |
| | High political knowledge | | Medium political knowledge | | Low political knowledge | |
	Baseline model	Extended model	Baseline model	Extended model	Baseline model	Extended model
Satisfaction BR	-0.096***	-0.030	-0.002	0.025	0.127***	0.135***
	(0.030)	(0.025)	(0.035)	(0.028)	(0.021)	(0.020)
Alignment	-0.070	-0.112	-0.167**	-0.144**	-0.076***	-0.005
	(0.082)	(0.064)	(0.059)	(0.057)	(0.025)	(0.041)
Satisfaction BR	0.582***	0.398***	0.472***	0.375***	0.324***	0.275***
* Alignment	(0.055)	(0.044)	(0.053)	(0.045)	(0.041)	(0.038)
Year FE	YES	YES	YES	YES	YES	YES
Region FE	YES	YES	YES	YES	YES	YES
Ind. controls	NO	YES	NO	YES	NO	YES
Region controls	NO	YES	NO	YES	NO	YES
Observations	52,269	49,818	24,161	22,716	20,346	18,705
R-squared	0.322	0.442	0.326	0.414	0.323	0.375

Note: This table replicates Table 3 with standardized regression coefficients. Dependent variable measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the German national government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Panel I separates between respondents high self-proclaimed levels of political interest (i.e. 4 or 5 on a five-point scale) or low political interest (i.e. 1, 2 or 3 on a five-point scale). Panel II separates between respondents with high political knowledge (i.e. knowing the leading candidate of both main regional parties), medium political knowledge (i.e. knowing the leading candidate of one of the two main regional parties), or low political knowledge (i.e. not knowing the leading candidate of both main regional parties). In all cases, we present results for a baseline model including only full set of time and region fixed effects, as well as an extended model including a full set of individual and regional controls as well as region and year fixed effects. Standard errors clustered by (16) regions in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A.12: Standardized results across the electoral cycle

	(1) Election year	(2) Election year +1	(3) Election year +2	(4) Election year +3
	Panel I: Baseline model			
Satisfaction BR	-0.113*	-0.077	-0.033	0.065
	(0.059)	(0.050)	(0.046)	(0.103)
Alignment	0.030	0.015	0.453***	0.328***
	(0.065)	(0.092)	(0.011)	(0.015)
Satisfaction BR * Alignment	0.684***	0.484***	0.535***	0.332***
	(0.044)	(0.069)	(0.072)	(0.093)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	NO	NO	NO	NO
Region controls	NO	NO	NO	NO
Observations	31,523	31,173	36,262	18,403
R-squared	0.418	0.297	0.280	0.326
	Panel II: Extended Model			
Satisfaction BR	0.004	-0.034	0.026	0.102
	(0.045)	(0.048)	(0.028)	(0.080)
Alignment	-0.100***	0.750***	0.150***	0.109***
	(0.024)	(0.026)	(0.008)	(0.030)
Satisfaction BR * Alignment	0.469***	0.337***	0.392***	0.206**
	(0.034)	(0.064)	(0.057)	(0.064)
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. Controls	YES	YES	YES	YES
Region controls	YES	YES	YES	YES
Observations	25,865	24,757	34,206	17,439
R-squared	0.504	0.394	0.396	0.425

Note: This table replicates Table 4 with standardized regression coefficients. Dependent variable measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the German national government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Different columns look at different years of the electoral cycle: Column (1) analyses the year of the regional elections, while columns (2) to (4) look at one, two and three years after the regional election. Panel I provides results for the baseline model including only full set of time and region fixed effects, while Panel II provides results for the models including a full set of individual and regional controls as well as region and year fixed effects. Standard errors clustered by (16) regions in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A.13: Regression results with control variables

VARIABLES	(1) Baseline	(2) Ind. controls	(3) Econ perception	(4) Region controls
Satisfaction BR	-0.0299	0.0282	0.0166	0.0169
	(0.0282)	(0.0231)	(0.0219)	(0.0216)
Alignment	-3.361***	-2.379***	-2.360***	-2.497***
	(0.336)	(0.315)	(0.309)	(0.295)
Satisfaction BR * Alignment	0.483***	0.354***	0.349***	0.347***
	(0.0405)	(0.0331)	(0.0339)	(0.0331)
Mean responses	0.569***	0.529***	0.512***	0.519***
	(0.0402)	(0.0314)	(0.0322)	(0.0317)
Regional economy assessment			0.558***	0.559***
			(0.0282)	(0.0249)
Party preference SPD		0.0920	0.0908	0.0377
		(0.0797)	(0.0803)	(0.0848)
Party preference FDP		0.525**	0.508**	0.467**
		(0.180)	(0.178)	(0.172)
Party preference Grüne		0.976***	0.940***	0.929***
		(0.265)	(0.273)	(0.277)
Party preference PDS/Linke		1.091***	1.126***	1.095***
		(0.221)	(0.211)	(0.215)
No party preference		0.883***	0.889***	0.866***
		(0.0567)	(0.0588)	(0.0593)
Other party preference		0.381***	0.436***	0.434***
		(0.0997)	(0.0948)	(0.101)
Personal alignment * Alignment		2.197***	2.139***	2.141***
		(0.0970)	(0.0957)	(0.0978)
Personal alignment		-0.439***	-0.429***	-0.450***
		(0.0698)	(0.0694)	(0.0710)
Gender		0.0949***	0.0173	0.0286
		(0.0240)	(0.0237)	(0.0272)
Ages 30-39		-0.00646	0.00218	-0.00178
		(0.0328)	(0.0261)	(0.0293)
Ages 40-49		0.0106	0.00552	0.00870
		(0.0325)	(0.0320)	(0.0367)
Ages 50-59		0.123***	0.111**	0.106**
		(0.0383)	(0.0391)	(0.0430)
Ages 60-69		0.270***	0.221***	0.215***
		(0.0417)	(0.0400)	(0.0430)
Ages 70+		0.318***	0.228***	0.219***
		(0.0677)	(0.0674)	(0.0711)
Married		0.0356	0.0142	0.0106
		(0.0270)	(0.0258)	(0.0262)
Retired		0.199***	0.173***	0.179***
		(0.0401)	(0.0376)	(0.0421)
Fulltime employed		0.109***	0.0799***	0.0868***
		(0.0272)	(0.0260)	(0.0250)

	(1)	(2)	(3)	(4)
Secondary education		-0.0626*	-0.0914***	-0.0639**
		(0.0332)	(0.0290)	(0.0253)
Higher education		-0.0305	-0.0868**	-0.0540*
		(0.0311)	(0.0361)	(0.0306)
In school		0.210	0.176	0.204
		(0.122)	(0.137)	(0.131)
Catholic		0.0311	0.0392	0.00884
		(0.0394)	(0.0398)	(0.0364)
Protestant		0.0230	0.0298	0.0177
		(0.0280)	(0.0288)	(0.0288)
Other		0.194	0.226*	0.199
		(0.128)	(0.115)	(0.116)
Population				-4.93e-07
				(7.92e-07)
Share male				-99.97**
				(35.46)
Share elderly				-4.682
				(7.988)
GDP per capita				-0.0722
				(0.0478)
Unemployment rate				5.375
				(17.18)
Voter turnout				-0.132*
				(0.0664)
Fiscal equalization				0.000469***
				(0.000112)
Tax income				0.00332
Year FE	YES	YES	YES	YES
Region FE	YES	YES	YES	YES
Ind. controls	NO	YES	YES	YES
Region controls	NO	NO	NO	YES
Observations	117,361	112,239	110,141	102,267
R-squared	0.315	0.394	0.409	0.412

Note: Dependent variable measures respondents' satisfaction with the regional government on a 11-point scale from (1) 'extremely dissatisfied' to (11) 'extremely satisfied'. The variable *Satisfaction BR* is respondents' satisfaction with the German national government on a similar scale. Partisan alignment across government levels – *Alignment* – is equal to 1 if the same party holds the prime minister position in the federal and regional government, 0 otherwise. Mean responses approximate individuals' propensity to use a given response scale in a specific way. Regional economic assessment measures respondents' economic assessment of the regional economy on a 3-point scale from (1) 'bad' to (3) 'good'. Individual controls cover respondents' *Party preference* (where CDU/CSU is the reference category), *Personal alignment* (1 if the prime minister in the respondent's region is also the respondents' preferred party), *Gender* (1 if male), *Age* (in age groups from (1) '16-29 years', to (6) '70-plus', where group (1) is the reference category), *Married* (1 if married), work status (*Fulltime worker* is 1 for full-time employed individuals and *Pension* is 1 if receiving old-age pension), *Education* (in four levels from (1) 'Basic' to (3) 'Higher' and (4) 'in school', where (1) is the reference category), and *Religion* (where none (0) is the reference category). The regional controls include *Population* (number of inhabitants), *Share male, Share elderly* (over 65), *GDP per capita, Unemployment rate* (number of unemployed as a share of the regional population), *Voter turnout* (number of valid ballots as a share of the regional population), *Fiscal equalization* (payments or revenues per capita), and *Tax income* (Regional tax revenues per capita). Column (1) presents a baseline model including only full set of time and region fixed effects, while columns (2) to (4) gradually add additional time-varying individual- and region-level control variables. Standard errors clustered by region in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A.14: Region characteristics – aligned versus unaligned

	(1) Pop.	(2) Share male	(3) Share elderly	(4) GDP growth	(5) Unempl.	(6) Voter turnout	(7) Fiscal equal.	(8) Tax income	(9) East Germany	(10) Debt	(11) Publ. empl.
Unaligned	4.338	48.781	18.358	3.236	5.363	76.393	-736.400	230.293	0.333	0.641	5.410
	(0.673)	(0.065)	(0.374)	(0.403)	(0.315)	(0.824)	(425.483)	(12.155)	(0.071)	(0.087)	(0.139)
Aligned	5.713	48.851	18.644	3.019	4.988	75.778	-116.553	203.280	0.333	0.563	5.171
	(0.661)	(0.048)	(0.467)	(0.723)	(0.319)	(0.795)	(81.420)	(10.810)	(0.067)	(0.060)	(0.126)
Difference	1.375	0.070	0.286	0.218	0.378	0.615	619.847	27.013	0.000	0.078	0.239
N	96	96	95	88	92	96	90	96	96	58	64
P-value	0.148	0.387	0.634	0.793	0.404	0.593	0.160	0.100	1.000	0.466	0.209

Note: The dataset employed here contains one observation per region and regional election year after 1990, which implies a maximum of 96 region-year observations over the period of analysis. Pop. is the region's number of inhabitants. Share male and share elderly (over 65 years) are self-explanatory and measured relative to the regional population. GDP growth is regional year-on-year growth in GDP. Unempl. is the number of unemployed as a share of the regional population. Voter turnout is the number of valid ballots as a share of the regional population Fiscal equal. measures a region's payments into (negative) or revenues from (positive) the German regional fiscal equalization system (measured per capita). Tax income equals regional tax revenues per capita. Debt measures regional financial debt per capita. Publ. empl. equals the share of full-time equivalents employed in public administration. Standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

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