

# Following the Coalition? Testing the Impact of Coalitions on Policy Preferences in Germany

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## **Abstract**

Ultimately, electoral democracy is about governments doing what citizens want. However, considerable evidence shows that parties influence citizens' preferences. Most studies on party influence rely on experimental designs that present participants with parties' positions. The disadvantage of experiments is that many citizens are already aware of those positions, thus underestimating party influence. Very few studies assess reactions to real changes in party positions, which avoids this limitation. We break new ground by assessing the impact of changes in coalition governments, which lead parties to express different positions for reasons that are partly exogenous to elite and mass preferences, on partisans' attitudes. Using panel data from the German Longitudinal Election Study (GLES), we leverage a major coalition change by Angela Merkel in Germany in 2013. We find that that change influenced the preferences of partisans of the coalition parties. Our findings have significant implications for how we think about democratic representation in multi-party contexts.

Keywords: Parties; Public Opinion; Party Cues; Representation; Coalitions; Germany

# 1 Introduction

Elections are a key mechanism by which citizens get government to do what they want (Powell, 2000). According to conventional models of political representation, citizens select parties based on their policy preferences and government parties adopt popular policies in order to maximize their vote shares (e.g. Downs, 1957). However, considerable evidence has accumulated that, rather than signaling their preferences to political elites, citizens “follow” parties. When an issue becomes salient and/or when partisans learn their party’s policy positions on a particular issue, party supporters adopt that position as their own (Lenz, 2012). Scholars have recently explained this phenomenon by partisan motivated reasoning (Druckman et al., 2013; Leeper and Slothuus, 2014). Partisans adopt their party’s positions to show their support for it.

Most existing scholarship exploring this phenomenon has been experimental. Studies beginning with Cohen (2003) have shown that people’s policy preferences are closer to their party’s positions when they read cues from them. However, almost no studies on party cue effects have shown that citizens respond to changes in party positions in the real world (for a rare exception, see Slothuus, 2010). Situations in which parties change positions may be the most interesting situations in which to consider party cue effects. Citizens often already know their party’s positions and, therefore, experiments may underestimate the effects of cues (Slothuus, 2016).

Finding cases of parties shifting positions for reasons that are independent of their partisans’ preferences is difficult. As Downs (1957) argued, parties have a strong incentive to keep the same positions over time. We break new ground by leveraging a situation that frequently occurs in multi-party contexts in which parties form coalitions partly for non-policy reasons. When parties join coalitions, they are frequently forced to compromise their policy positions and have to express positions that go against those they expressed during the preceding election campaign. Moreover, citizens are also aware of coalition compromises (Adams et al., 2016; Fortunato and Stevenson, 2013). Partisans may thus notice their party supporting different policy positions while in government and change their positions in the same direction. Consequently, when parties are forced to compromise their positions, their partisans may in turn change their policy preferences.

There is another way coalitions could influence partisans' preferences. When one party forms a coalition with another, the former signals that its new partner is acceptable. Given prior evidence that parties influence attitudes (e.g. Druckman et al., 2013), parties may influence their partisans' feelings about coalition partners and, in turn, partisans may, indirectly, adopt the new partner's policy positions.

We focus on a recent change in coalition government in Germany under Chancellor Angela Merkel and her Christian Democratic Union (CDU) as well as its Bavarian sister party, the Christian Social Union (CSU). Of particular interest for our study are the changes in coalition governments that have taken place since 2005. Since then, the CDU and CSU have twice changed coalition partners. Three of the four Merkel governments have been "grand coalitions" between the CDU, the CSU, and the Social Democratic Party (the SPD), while the other was a centre-right administration with the traditional CDU/CSU partner, the liberal Free Democratic Party (FDP). Germany thus provides a compelling case to test the effects of changes in coalitions on citizens' preferences. We leverage the transition between the centre-right coalition that was in power from 2009 to 2013 and Merkel's second grand coalition (2013-2017) to study the effects of changes in coalitions on the policy preferences of the coalition parties' partisans.

We selected the transition from the centre-right coalition to the grand coalition because it was unexpected and because excellent panel data from this period are available. We use a panel study from the German Longitudinal Election Study (GLES, 2018). It allows us to track the same voters over time and assess whether they shifted their perceptions of their parties' positions, their attitudes towards other parties, as well as their policy preferences when the coalition was formed. On important policy dimensions, the CDU/CSU and the SPD have strikingly distinct positions. Consequently, we expect the emergence of these coalitions to have led partisans of coalition parties to: 1) change their perceptions of their parties' policy positions; 2) change their attitudes towards their new coalition partners; 3) and, most importantly, change their policy preferences on dimensions on which the coalition partners have contrasting positions. Our results provide strong support for most of these expectations.

We proceed as follows. In the next section, we review the literature on partisan motivated

reasoning and on citizens' behaviour in coalition contexts before laying out our expectations. Section 3 describes the data and outlines our research strategy. Section 4 presents our empirical analyses. Finally, we conclude with a discussion of the implications of our findings for the broader literature on the impact of coalitions on democratic representation.

## **2 Party Cues, Coalitions, and Policy Preferences**

### **2.1 What We Know About Party Cues and Coalitions**

Scholars of political behaviour have long argued that citizens' policy preferences are at least partly dependent on their orientations toward parties. According to one perspective, when citizens make decisions, they use parties as heuristics to make up for low levels of political knowledge (Downs, 1957). Others argue that citizens identify with parties and seek to show support for their parties by adopting political attitudes that are consistent with their positions (Campbell et al., 1960). Recently, several authors have combined earlier theory about party identification with the theory of motivated reasoning (Kunda, 1990; Lodge and Taber, 2013). These scholars have called partisans' tendency to adopt their parties' positions to show support for them partisan motivated reasoning (Druckman et al., 2013; Leeper and Slothuus, 2014).

Findings that parties influence preferences became much more convincing when the research design used in such studies was greatly improved. Beginning with Cohen (2003), scholars began to use experimental data to show that party positions influence citizens' preferences. When participants are shown their party's position on a policy issue, they adjust their opinions in the direction of their party's position. Countless experimental studies have documented this party cue phenomenon in the United States (e.g. Druckman et al., 2013) and elsewhere (e.g. Guntermann, 2017).

While party cue effects are pervasive, there is a key limitation to the study of the influence of parties using experimental designs: studies may find weak or nonexistent party cue effects if citizens are already aware of party positions (Slothuus, 2016). Given that citizens have frequently been exposed to party cues before an experiment, a more fruitful approach to studying party influence may be to observe real-world changes in party positions. Existing studies of the effects on partisans of

changes in party positions are rare because changes in party positions are uncommon (Downs, 1957) and the necessary panel data to study the effects of such changes at the individual level are almost never available. We consider one type of context in which parties are forced to support new positions either directly or indirectly. In multi-party contexts, parties frequently are forced to form coalition governments in order to command a majority in the legislature. Several motivations have been ascribed to parties when seeking to form coalitions (Martin and Stevenson, 2001). While similarity in policy preferences is one factor that has been associated with coalition formation (Axelrod, 1970; de Swaan, 1973), another is simply forming the smallest coalition possible to maximize a party's control of government offices (Gamson, 1961; Riker, 1962). Thus, parties frequently form coalitions for reasons that have nothing to do with policy.<sup>1</sup>

However, coalitions have major implications for policy. Coalitions lead to policy compromise (Martin and Vanberg, 2014) and citizens use coalitions to infer coalition parties' positions (Adams et al., 2016; Fortunato and Stevenson, 2013). Consequently, coalitions induce parties to support different policies at least partly for reasons that have nothing to do with their own policy preferences or with citizens' preferences and citizens may be aware of these changes. Partisan motivated reasoning leads us to expect that citizens then follow these changes.

## 2.2 Our Expectations

There are two ways that coalitions should influence people's policy preferences. First, policy compromises among coalition parties should lead partisans to change their perceptions of their parties' positions. However, coalitions should only lead to important changes in perceptions of positions if the new partner has positions that sharply contrast with those of the party in question. In turn, partisans should adjust their policy preferences to the positions they perceive their party to have after coalition formation.

Second, coalitions should change partisans' attitudes towards parties' coalition partners. By coalescing, parties signal that other parties are acceptable. Partisans of coalition parties should thus

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<sup>1</sup>Our claim is that coalition formation is partly exogenous to policy considerations. Both mass and elite policy preferences clearly have some influence on the coalitions that are considered.

become more favourable towards their parties' new coalition partner. In turn, they should become more supportive of their new partners' policy positions. This second mechanism also requires that there be an important contrast between the policy positions of the coalition partners. In sum, we expect coalitions to influence partisans' preferences directly, by influencing their perceptions of their party's positions and, indirectly, by influencing how partisans feel about the coalition partner.

### **2.3 Coalition Formation and Party Shifts in Germany**

Germany is particularly interesting because, in recent years, it has experienced very different coalitions. From 2005 to 2009, Angela Merkel's Christian Democratic Union (CDU) and the Christian Social Union (CSU), together often called the Union, formed a centrist coalition with the Social Democratic Party (SPD). From 2009 to 2013, the CDU/CSU then formed a centre-right government with the centre-right Free Democratic Party (FDP). Finally, since 2013, the Union has been in grand coalitions with the SPD.

The CDU and CSU have been in government consistently throughout this period. However, they changed coalition partners twice. Moreover, the coalition partners were on opposite sides of the ideological spectrum as well as on other policy dimensions. One of them, the SPD, has positions that strongly contrast with those of the CDU and CSU. The German case under Merkel thus provides us with an exceptional context to study changes in policy preferences caused by coalitions because we expect coalition agreements between parties with diverging policy positions to influence their partisans' preferences.

The change in coalition partners in 2013 is also interesting because, unlike in previous elections, parties did not signal to voters before the election that they wanted to form the coalition that was ultimately formed (Gschwend et al., 2016). If that were the case, we might expect coalitions to influence preferences even before the election. In 2013, the CDU and CSU avoided committing to forming another coalition with the FDP, but they did not signal support for a grand coalition either. When the FDP asked CDU/CSU voters to vote strategically for them to ensure they could form a new centre-right coalition, the CDU/CSU responded by asking their voters to vote sincerely (i.e. for the CDU or CSU) (Gschwend et al., 2016).

The SPD, on the other hand, which had faced its worst election defeat in modern German history in 2009 after its participation in the previous grand coalition (Faas, 2010), tried to avoid forming another coalition with the CDU/CSU (Mader, 2014). The SPD gave strong indications during the campaign that it opposed this linkup (Saalfeld and Zohlnhoefer, 2019, 2). The SPD's preference was for a coalition with the center-left Green Party, which had governed Germany between 1998 and 2005. However, such a coalition was unrealistic given the party standings in the polls. A coalition between the SPD, the Green Party, and the Left Party appeared viable, but the SPD ruled out a governing alliance with that party due to longstanding hostilities (Hough et al., 2007). Thus, prior to the election, neither party signaled its support for a viable coalition.

These coalition vetoes, coupled with the results of the election held on 22 September 2013, determined which coalition arrangements were possible. The CDU and CSU won 49.3 percent of the seats. Being close to a majority of seats, they had more coalition options than the SPD, which won a disappointing 30.6 percent of seats. Meanwhile, the FDP (the Union's traditional partner) failed to cross the electoral threshold and crashed out of parliament for the first time in the history of the Federal Republic, thus removing from the stage the natural coalition partners of the CDU/CSU.

The Christian Democrats could form a grand coalition with the SPD or a coalition with the Green Party. However, the Green Party vetoed such a coalition (Faas, 2015). Alternatively, the SPD could form a coalition with the Green Party and the Left, but the SPD still refused to join up with the Left Party. Consequently, the only viable option was a grand coalition between the CDU/CSU and the SPD.

However, forming a coalition required overcoming reluctance on both sides. The SPD was largely opposed to a grand coalition because they were so much weaker than the last time they joined with the Union (Faas, 2015). The SPD also remembered the damage it endured with the compromises from the last grand coalition, where it had to implement policies it had previously campaigned against (Faas, 2010). A poll of SPD members right after the election showed that 65 percent were opposed to a coalition with the Union (Reuters, 2013). There was similar concerns on the Union side with the CSU leader voicing opposition to a coalition with the SPD (Stuttgarter Nachrichten DPA, 2013).

Because of this reluctance, the 2013 coalition negotiations were the longest in the history of the Federal Republic at the time. The parties began negotiations on October 23 and finalized a coalition agreement on 27 November. Following the adoption of the agreement by both parties, the grand coalition emerged on 17 December 2013.

Because the CDU/CSU and SPD went from refusing to support a particular coalition government before the election to accepting that they had to govern together, they made major changes in the messages they sent out to voters about each other. Prior to the election, they were ambiguous. When they agreed to govern together, they clearly showed that the other party was an acceptable coalition partner even if it was not their first choice.

In the agreement the parties signed at the end of November, the partners also compromised on several policy issues. In the domain of government spending and social welfare, the SPD forced the CDU/CSU to accept a national minimum wage and a reduction in the retirement age to 63 (Faas, 2015, 46). Here, this was a gain for the SPD at the expense of the Christian Democrats. A review after the coalition's term of office found that the SPD pushed the Union's social policies leftward (Voigt, 2019, 439). In exchange, the SPD agreed to not increase German public debt, a key objective of the Christian Democrats.

On climate change, the CDU/CSU agreed to reduce greenhouse gasses by at least 40 percent from 1990 levels after having only committed to a 30 percent reduction during the campaign, while the SPD gave up its commitment to a binding climate protection law that would lead to greater reductions in emissions in later decades (Konrad-Adenauer-Stiftung, 2014). In sum, there were clear signals in the coalition agreement that both sides had compromised on a range of policy issues.

## **2.4 Specific Expectations**

Our general expectations outlined in subsection 2.2 lead us, more concretely, to expect that, CDU/CSU and SPD partisans changed their attitudes following the coalition compromise between the parties. We should expect these changes to have occurred after the parties reached a coalition agreement in November 2013 because the parties changed their messages concerning their partner and they moderated their positions at this time. However, we do not assume change is confined



merely to the formation of the alliance. A recent study of political communication strategies of coalition parties finds that coalition parties show the most compromise in the middle of their terms and then begin to differentiate their messages when the subsequent election approaches (Sagarzazu and Klüver, 2017). We thus expect, the changes in coalition party supporters’ attitudes to have begun when the coalition was formed and to have continued at least to the second half of the coalition’s four-year term.

We expect that Union partisans shifted their perceptions of their party’s positions to the left. We also expect them to have become more positive about their new coalition partner, the SPD, and to have shifted their policy preferences to the left. We expect SPD partisans to have shifted their perceptions of their party’s positions to the right because of the limits to their left-wing agenda imposed by the coalition compromise. We also expect them to have become more positive about their new partner, the CDU, and to have shifted their own positions to the right.

Importantly, we do not expect such changes on policy dimensions on which the CDU and SPD have similar positions because coalition participation does not signal a change in what the parties consider acceptable on those dimensions.

Table 1 sums up our expectations of reactions by each partisan group to the coalition change we consider in this paper.

Table 1: Expectations of Partisans’ Reactions to the 2013 Grand Coalition

Partisans Influenced	Variable Changed		
	Perceptions of Party Positions (Mediator 1)	Party Ratings (Mediator 2)	Policy Preferences (DV)
CDU/CSU partisans	CDU to the left	Like SPD more	Move left
SPD partisans	SPD to the right	Like CDU more	Move right

Note: expectations about changes in policy positions apply to all policy dimensions because they are scaled so that higher values indicate more right-wing positions.

## 3 Data and Analysis

### 3.1 Data

Our data come from the German Longitudinal Election Study study (GLES, 2018). We use data from the short-term panel component of the GLES for the 2013 election. We graphically present data from all available waves and test changes using waves 6, 7, 8, 10, and 11 (depending on when questions about each policy dimension were asked).<sup>2</sup>

Respondents were interviewed repeatedly during the election year (2013), and were re-interviewed on one occasion in 2014, 2015, and 2016, and several times in 2017 (the following election year). In all cases, we consider the attitudes before and after the coalition was formed of respondents who identified with each coalition party prior to coalition formation.

In our analyses, we compare the last wave prior to coalition formation (wave 7, from 24 September to 4 October) to the first wave after coalition formation with the relevant question. Given our goal of assessing the effect of the coalition agreement as well as of the parties governing together, this is appropriate.

### 3.2 Analytical and Modelling Strategy

Our analysis has three components: changes in perceptions of one's own party's positions, changes in party ratings, and changes in policy preferences.

Our first analyses assess changes in perceptions of party positions. Here, we compare measures from wave 7 to wave 11, because of when the relevant questions were asked. We do not run regression models of perceptions because our analysis of changes in perceptions is merely descriptive inference (do partisans notice the changes in their parties' positions?). Consequently, we calculate t-tests of whether partisans' perceptions of their parties' positions change during the relevant period.

For analyses of party ratings and policy preferences, we use change-score models (Finkel, 1995). We run regression models for these analyses because they assess a causal claim (coalition formation

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<sup>2</sup>Table S1 in the Supplementary Appendix shows the waves of each study, their dates and the questions we use from each. Section S3 presents the wording of all policy questions analyzed below.

causes partisans to change their ratings of coalition partners and their policy preferences). We rely on a differences-in-differences design in which we compare changes in our outcome variables in the partisan groups of interest to non-partisans and partisans who should not have strong feelings about possible coalitions or the parties that form them. We thus exclude partisans of parties that have been in recent coalition governments (FDP and the Greens), and that either the CDU/CSU or SPD or both refused to govern with (far-right parties and the Left). We label this residual category “None/Other”.

The reasoning behind this decision is that these non-partisans and partisans of parties that are not involved in coalitions should not have partisan attitudes that led them to react to decisions by the CDU/CSU and the SPD to form the coalition. In fact, we find that they give the most neutral ratings (i.e. closest to the midpoint) towards the major coalition parties. We can thus take them as a useful baseline to compare partisans of coalition parties. Our differences-in-differences design thus assumes that this residual category is only affected by developments other than coalition formation during this period of time. There is one limitation to using these respondents as a baseline category. They have significantly lower political interest and knowledge than other partisan groups. However, we rerun our main analyses simply comparing the two main partisan groups (CDU/CSU and SPD) and find similar results (see Section S5 of the Supplementary Appendix). Thus, our results do not reflect the lack of attentiveness of this category. See further details about the differences-in-differences design in Section S4 of the Supplementary Appendix.

For analyses of changes in party ratings, we compare wave-7 ratings to ratings in wave 8 (2014), the first time they were asked following coalition formation. Our main analyses of changes in policy preferences focus on comparing attitudes just before the parties entered coalition negotiations (wave 7) to attitudes three years into the four-year coalition government (wave 10). For analyses of climate, immigrant integration, and European integration preferences, we compare preferences from wave 6 (right before the 2013 election) to wave 10 (the first wave in 2017), which is when those questions were asked.

In our models, our dependent variables are differences between the preference of an individual before coalition formation and the preference of the same respondent following coalition formation.

Our primary independent variables of interest are dummies indicating that a respondent identifies with each of the 2013 coalition partners: the CDU/CSU and the SPD.

Our models do not control for lagged dependent variables because the traditional conception of partisanship assumes it is mostly fixed and unlikely to change over time (Campbell et al., 1960). Consequently, it is likely to be mostly uninfluenced by lagged policy views. Moreover, given the prior literature on party cue effects, it is reasonable to expect prior policy views to be influenced by partisanship, and, therefore, lagged policy preferences would constitute a “bad control” (Angrist and Pischke, 2008). In all analyses, we hold partisanship constant by assessing party affiliation using identification measured before the parties announced the coalition that would be formed (wave 7).<sup>3</sup>

## 4 Results

### 4.1 Do Partisans Perceive Changes in Party Positions Following Coalition Formation?

As explained above, the CDU/CSU and SPD made several compromises in the 2013 coalition agreement. Did that compromise lead them to change their policy positions? In preliminary analyses, we test for changes in party positions following coalition formation by analyzing speeches in the *Bundestag* (German Parliament) and find evidence that they do. See Section S6 of the Supplementary Appendix. Our next step is to establish whether partisans perceived those changes. Figure 1 shows perceptions of the CDU and the SPD’s ideological positions among self-identified partisans of each party.

As there were no surveys with ideological perception questions conducted between election years and to make the figures more legible, we separate them by year. The expectation is that, after the CDU/CSU and SPD agreed to govern together, their partisans should have perceived that the two parties moved towards each other. The first measure of perceptions of the parties’ positions after the coalitions were formed are from 2017. However, using a measure from the year of the subsequent election makes these analyses more conservative because by then the parties should have

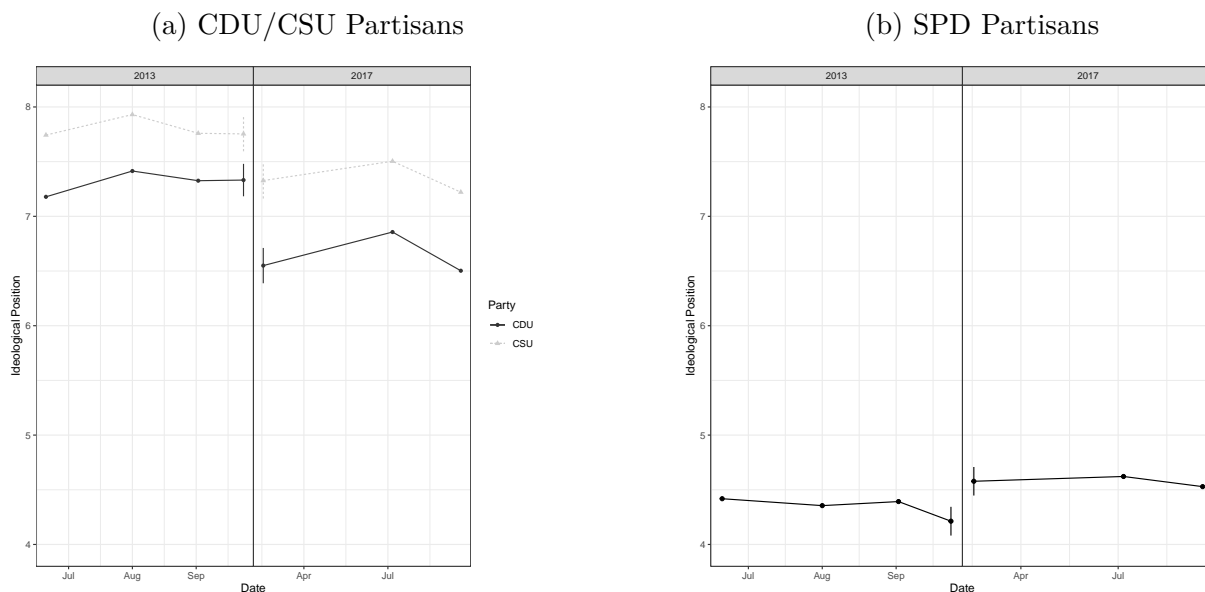
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<sup>3</sup>Except in analyses where the baseline is wave 6 for which we use party identification from wave 5.

started attempting to differentiate themselves, as recent work by Sagarzazu and Klüver (2017) would suggest.

We include 95% confidence intervals for the values at the time points we compare. We expect Union partisans to have perceived a movement to the left by the CDU following the formation of the second grand coalition. We also expect Social Democratic partisans to perceive a movement to the right by their party. Figure 1 shows that Christian Democrats perceived a significant shift to the left by both the CDU and CSU in 2013 ( $p < 0.01$  from one-tailed t-tests for both). It also shows that SPD partisans perceived a shift to the right by their party ( $p < 0.01$  from a one-tailed t-test).

Figure 1: Perceptions of Ideological Positions by Partisans Over Time (2013)



Note: these graphs show perceptions of parties' ideological positions over time among respondents who identified as partisans of each party in the seventh wave of the 2013-2017 panel (October-November 2013). They show that between the time they formed the grand coalition and the subsequent election year, CDU/CSU partisans perceived a movement to the left by the CDU and CSU and SPD partisans saw a movement to the right by their party.

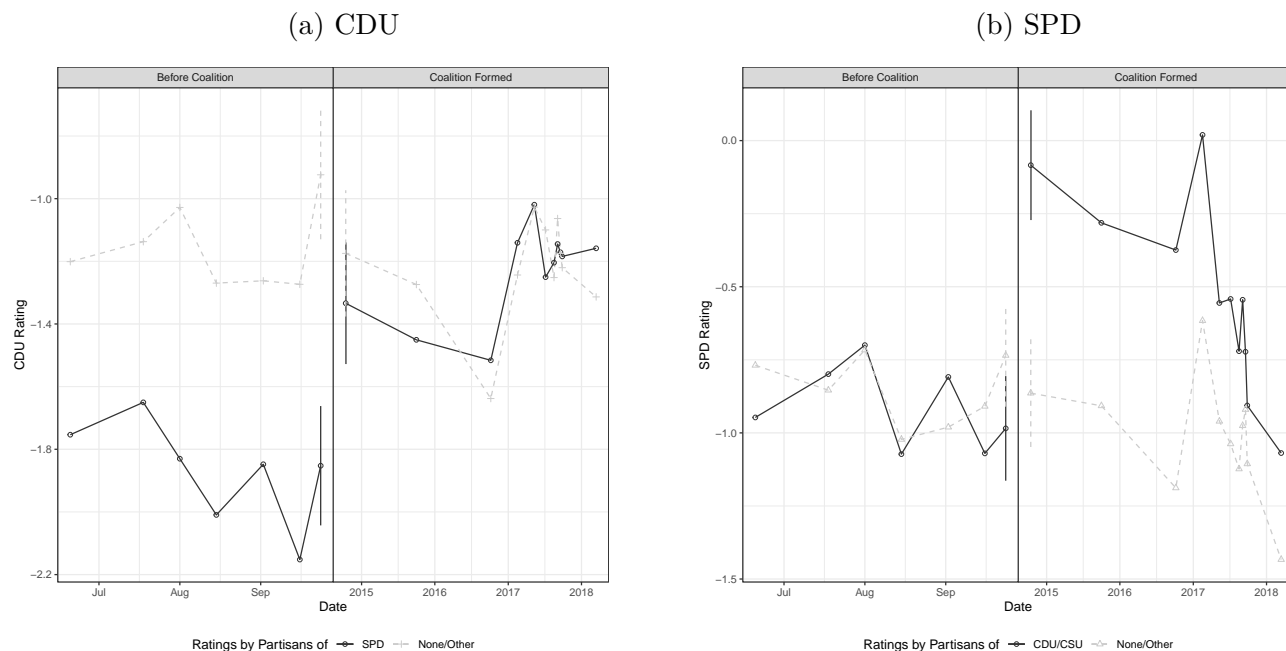
In sum, as expected, we found that, when parties form a coalition with a party with contrasting policy positions, partisans adjust their perceptions of their parties' positions.

## 4.2 Does Coalition Formation Influence Partisans' Attitudes Towards Coalition Partners?

The second way we expect coalition agreements to affect partisans' preferences is by influencing how they feel about their coalition partner. We expect partisans to become more favourable towards parties with which their parties enter coalition agreements. Here, we expect that changes among these partisan groups were greater than changes in the "None/Other" group. We adopt a differences-in-differences design comparing the partisan groups of interest to respondents who do not indicate an identification with a party that was either part of recent coalitions or that was rejected as a possible coalition partner. While all partisan groups may move in a particular direction due to changes that influence all of them, following a party implies that a given partisan group changes more than others. This design relies on the assumption of parallel trends between partisans of each party and the "None/Other" group. We assess the plausibility of this assumption briefly here and in more detail in section S4 of the Supplementary Appendix.

Figure 2 shows ratings of coalition parties by their coalition partner's partisans as well as by the "None/Other" category over time. As above, we include 95 percent confidence intervals for the survey waves we compare. The left panel shows that before coalition formation, SPD partisans liked the CDU considerably less than the "None/Other" group. Both groups also moved roughly in parallel. However, after the coalition was formed, SPD identifiers increased their ratings of the CDU by just over half a point on the scale from -5 to +5. (from -1.9 to -1.3). Moreover, SPD partisans and the residual category became statistically indistinguishable. The right panel shows that Union partisans and the "None/Other" category were indistinguishable in their ratings of the SPD before the coalition was formed (and thus moved in parallel), but then CDU/CSU partisans became significantly more positive about the SPD. CDU/CSU partisans increased their ratings of the SPD by nearly a full point (from -1.0 to -0.1). Both shifts are significant ( $p < 0.01$  from one-tailed t-tests for both) and support our expectations.

Figure 2: Evaluations of Parties by Partisan Groups Over Time



Note: these graphs show ratings of the 2013-2017 coalition partners over time among respondents who identified as partisans of each party in the seventh wave of the 2013-2017 panel and in the “None/Other” category. They show that, between 2013 and 2014, partisans of the coalition parties became more favourable towards the other party, while the “None/Other” category did not change its party ratings.

To test our expectations about the effect of coalitions on attitudes towards coalition partners, we run regressions of changes in ratings of each of the parties that participated in coalitions during this period on dummy variables indicating identification with each of these parties (See Table 2). These models include partisans of the two coalition partners as well as the “None/Other” category. Thus, coefficients on the party identification dummies reflect comparisons of changes between those partisan groups and the residual category.

Table 2 shows the results. We can see that SPD partisans increased their ratings of the CDU by 0.82 points more than the residual category (on the scale from -5 to +5). Moreover, CDU/CSU increased their ratings of the SPD by 1.06 points more than the “None/Other” category. In short, as expected, after the coalition was formed, partisans of the coalition partners became more positive about their new partner and they did so more than respondents who should not have been influenced by the coalition.

Table 2: Models of Effects of Coalition Change on Party Ratings (2013)

	Party Evaluated	
	CDU	SPD
Intercept	-0.28*	-0.11
	(0.07)	(0.08)
CDU/CSU Identifier	-0.11	1.06*
	(0.11)	(0.12)
SPD Identifier	0.82*	-0.23
	(0.11)	(0.12)
<i>N</i>	1737	1724
<i>R</i> <sup>2</sup>	0.05	0.06
Adjusted <i>R</i> <sup>2</sup>	0.04	0.06
Resid. sd	1.89	2.09

Standard errors in parentheses

\* indicates significance at  $p < 0.05$ 

Note: these are results of regressions of changes in ratings of the coalition parties on party identification dummies. The reference category includes respondents who did not identify with a party that had recently been in government or that had been vetoed as a partner. The results show that, as expected, partisans became more favourable towards their coalition partners.

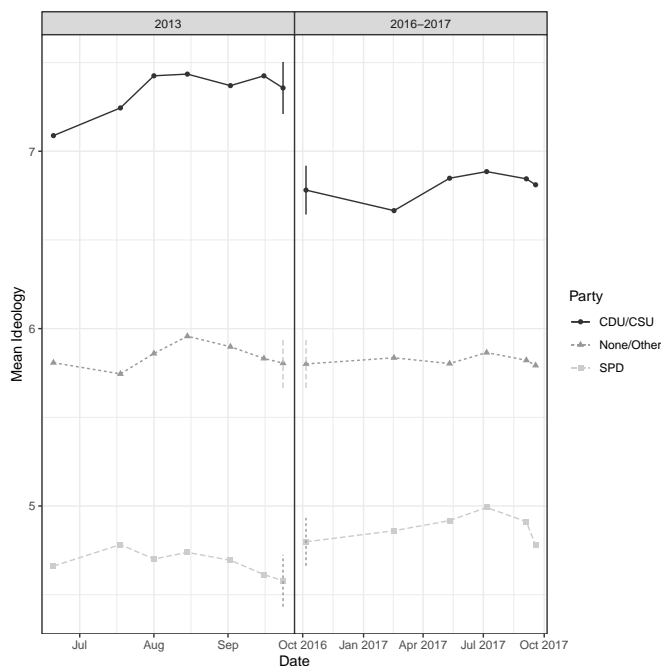
### 4.3 Do Coalitions Lead Partisans to Adjust their Policy Preferences?

We expect the 2013 coalition agreement to have influenced partisans' ideological self-placements because the partners were on opposite sides of the ideological spectrum. We thus expect CDU/CSU identifiers to have moved to the left and SPD partisans to have moved to the right after the coalition was formed.

To assess these expectations, Figure 3 plots out mean ideological self-placements by partisans of the two coalition partners as well as in the baseline category (None/Other). It shows ideology over time among respondents who indicated that they identified with each party right before coalition formation (September-October 2013). As above, we show confidence intervals at the time points that we compare in analyses. Here we can compare ideology right before coalition formation (September-October 2013) to ideological self-placements three years into the coalition (in 2016). We can see that, as expected, CDU/CSU partisans moved to the left between 2013 and 2016 (from 7.4 to 6.8 on the 1 to 11 scale). Conversely, SPD partisans moved to the right (from 4.6 to 4.8). Both changes are significant ( $p < 0.01$  from one-tailed t-tests for both).



Figure 3: Mean Ideological Self-Placements by Partisan Group Over Time



To test whether CDU/CSU and SPD partisans shifted their ideologies more than the baseline group, we regress changes in ideological self-placements between 2013 and 2016 on dummy variables indicating identification with the CDU/CSU and with the SPD. As above, analyses include these two partisan groups as well the “None/Other” category. Results are in the first column of table 3. Between 2013 and 2016, CDU/CSU identifiers moved their ideologies -0.57 points to the left (on a scale from 1 to 11) more than the residual category. Meanwhile, SPD identifiers moved 0.23 points more to the right. These results support our expectations, especially for CDU/CSU partisans. When the CDU/CSU and SPD formed the grand coalition in 2013, their partisans shifted their ideologies towards the other party’s ideology.

Table 3: Models of Changes in Policy Preferences

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Ideology	Spending	Climate	Immigration	Integration	Europe
Intercept	-0.02 (0.08)	-0.06 (0.06)	-0.60*** (0.06)	0.11 <sup>†</sup> (0.06)	0.03 (0.05)	-0.34*** (0.05)
CDU/CSU Identifier	-0.57*** (0.12)	-0.35*** (0.09)	-0.18* (0.09)	0.15 (0.09)	-0.02 (0.08)	0.04 (0.09)
SPD Identifier	0.23* (0.11)	0.10 (0.09)	0.12 (0.09)	0.12 (0.09)	0.02 (0.08)	0.01 (0.09)
<i>N</i>	1379	1656	1652	1644	1583	2081
<i>R</i> <sup>2</sup>	0.04	0.01	0.01	0.00	0.00	0.00
adj. <i>R</i> <sup>2</sup>	0.04	0.01	0.01	0.00	-0.00	-0.00
Resid. sd	1.72	1.49	1.47	1.54	1.29	1.68

Standard errors in parentheses

<sup>†</sup> significant at  $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Note: these are linear regression models of changes in each policy preference on dummy variables distinguishing partisans of the coalition partners from non-partisans and partisans of non-coalition parties. It shows that CDU/CSU partisans moved to the left on the three dimensions on which its positions contrast with those of the SPD and that SPD partisans shifted their ideologies to the right between before the coalition was formed and late in the coalition's term.

Do partisans also shift their preferences on more specific policy questions? We now consider preferences in five policy areas: a taxation and spending scale, a climate change scale, an immigration scale, an immigrant integration scale, and a European integration scale (See Section S2 of the Supplementary Appendix for plots of partisans' preferences on these dimensions over time). On the first two scales, the CDU/CSU and SPD have clearly contrasting positions. Therefore, we expect changes in coalitions to have influenced the preferences of CDU/CSU and SPD partisans. On the other three dimensions, the parties have similar positions. We, consequently, do not expect any changes by partisan groups on them.

We first consider movement on the taxation and spending scale. Respondents were asked to place themselves on a scale from 1 to 7, where 1 means they want higher taxes and higher government spending and 7 means they want lower taxes and less government spending. As with the left-right dimension, the SPD was on the opposite side of this dimension from the CDU/CSU. The median perception of the SPD was 3 and the median perception of the CDU/CSU was 5 right before the coalition was formed (wave 6). Thus, we should expect coalition formation to influence the preferences of CDU/CSU and SPD partisans on this issue.

The results support our expectations for CDU/CSU partisans. Between waves 7 and 10, CDU/CSU partisans shifted from an average position of 4.5 to 4.1 ( $p < 0.01$  from a one-tailed t-test). Meanwhile, SPD partisans remained at 3.5. The results of Model 2 in Table 3 show that CDU/CSU identifiers moved 0.35 points more to the left than the “None/Other” category on this dimension after the coalition was formed in 2013.<sup>4</sup> This difference is significant. However, SPD identifiers did not move significantly more to the right than the residual category.

Respondents were asked about another issue on which the SPD had a position that sharply contrasted with that of the CDU and CSU: climate change. The 1 to 7 scale assessed how much priority respondents attributed to fighting climate change compared to promoting the economy. Higher values indicate a greater priority for the economy. The median perceived position of the CDU/CSU was 5 before the election, while the median perceived position of the SPD was 4. We thus expect Union partisans to move to the left and SPD partisans to move to the right. As with the spending scale, as expected, we find that CDU/CSU partisans moved to the left from 4.2 to 3.4 ( $p < 0.01$ ). Contrary to our expectations, we also find that SPD partisans moved to the left from 3.3 to 2.9. This parallel movement may reflect broader changes in German public opinion at this time (the “None/Other” category also shifted from 3.8 to 3.2 at this time). What matters is comparing the change in each partisan group to the change in the baseline category. Results for the climate scale are in the third column of Table 3. Once again, it shows CDU/CSU partisans moved 0.18 points to the left on this dimension more than the “None/Other” category, a significant difference that supports our expectation. However, SPD partisans did not move significantly more than the “None/Other” group. Thus, our findings support our expectations for CDU/CSU partisans on the spending and climate change scales.

The other three issue scales are dimensions on which the CDU/CSU the SPD have similar positions. The GLES asked respondents how open they want Germany to be to immigrants on a scale from 1 to 7 where 1 means they want to facilitate immigration the most and 7 that they want to restrict it to the most. On this issue, the median GLES respondent placed the CDU/CSU and

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<sup>4</sup>Note that we compare waves 7 and 10 in models of spending, climate, and immigration preferences. In models of immigrant integration and European integration preferences, we compare waves 6 and 10. These choices were determined by when the questions were asked.

the SPD at 4. Given the similarity in positions on this issue, there is no reason to expect the 2013 coalition to have led any of the partisan groups to change their attitudes. We detail the results in Column 4 of Table 3. As expected, we find no differential changes among partisan groups. However, we do find that all partisan groups became less supportive of immigration at this time.

Respondents were also asked to place themselves on a related immigrant integration scale ranging from 1 to 7, where 1 means that foreigners should be able to live according to their own culture and 7 means that foreigners should fully adapt to German culture. We altered the scale so that higher values represent more right-wing positions (i.e. foreigners should adapt). Results are in column 5 of Table 3. Once again, as expected, there is no differential change by either partisan group.

The fifth dimension concerns European integration. Respondents were asked to place themselves on a scale from 1 to 7 where 1 means they want to promote European integration the most and 7 that they want to promote it the least. According to the last wave of the Chapel Hill Expert Survey (CHES) carried out prior to the 2013 election (2010), the CDU and SPD had essentially identical positions on European integration (around 6 on the CHES scale from 1 to 7, where 7 indicates the strongest level of support) (Bakker et al., 2015). Our results are in Column 6 of Table 3. Again, they confirm our expectation that partisan groups did not shift in response to the formation of a coalition between parties sharing similar European integration positions.

Our results broadly confirm our expectations. Partisans of both coalition partners shifted their preferences in response to coalition formation on the left-right dimension. CDU/CSU partisans also shifted their preferences on the other policy dimensions on which the parties had contrasting positions and there were no differential partisan shifts on dimensions on which the parties had similar positions.

## 5 Conclusion

We have broken new ground in the study of party cue effects. Nearly all studies of party cues use experiments to assess the influence parties have on partisans' policy preferences. Instead we focus on real-world changes in party cues that result from changes in coalitions. Parties form them

partly for non-policy reasons, notably to command a majority in the legislature, and coalitions lead to policy compromise among coalition partners. Studying changes in party positions induced by coalitions, particularly when the coalition is unexpected, reduces the problem of pre-treatment faced by experimental studies (Slothuus, 2016).

We leverage an unexpected coalition change in Germany to determine whether coalitions influence partisans' perceptions of party positions, their attitudes towards coalition partners, and, in turn, their policy preferences. We assess how partisans of Angela Merkel's Christian Democratic Union (CDU) and its Bavarian sister party, the Christian Social Union (CSU), reacted when they formed a coalition with the centre-left Social Democratic Party (SPD) in 2013. We also consider reactions among partisans of the SPD. We use German Longitudinal Election Study (GLES) data from the period between the 2013 and 2017 elections.

We show that changes in coalitions influence their partisans' preferences through two mechanisms. First, coalitions lead parties to change their policy positions while in government and citizens perceive these changes. Second, coalitions influence the attitudes partisans of member parties have towards their coalition partners. We have seen that, in response to changes in coalitions, partisans change their perceptions of their party's positions on the left-right dimension on which the old and new partners have opposing positions. We also find that, coalition formation leads partisans to adjust their attitudes towards new partners. They become more positive about their new partners.

Most importantly, on dimensions on which the governing partners have contrasting positions, partisans of the party that stays in government, shift their policy preferences towards the new partner's positions. We have found evidence for such party influence on the left-right dimension and two specific policy dimensions for the partisans of the coalition leader. However, we only find evidence of such influence on ideology for partisans of its coalition partner.

These findings have significant implications for citizens' ability to get government to implement their preferences and for the assessment of political systems, especially evaluations of the extent to which policy outputs correspond to citizens' preferences. As Lenz (2012) points out, if parties influence citizens' policy preferences, their ability to influence government policy is compromised.

Moreover, when scholars think about evaluating governments, they often consider whether and to what extent they represent citizens' policy preferences. An influential strand of comparative politics research focuses on how close governments are to citizens' positions on policy dimensions notably the left-right ideological dimension (Powell, 2000). However, such studies do not consider that governments influence such preferences. Congruence may not only be achieved by governments adapting to citizens' preferences but also by influencing those preferences. Therefore, any evaluation of how close governments are to citizens' preferences should consider that citizens adapt their preferences to governments in addition to governments adapting to citizens' preferences.

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Following the Coalition? Testing the Impact of Coalitions on  
Policy Preferences in Germany  
Supplementary Appendix

October 27, 2020

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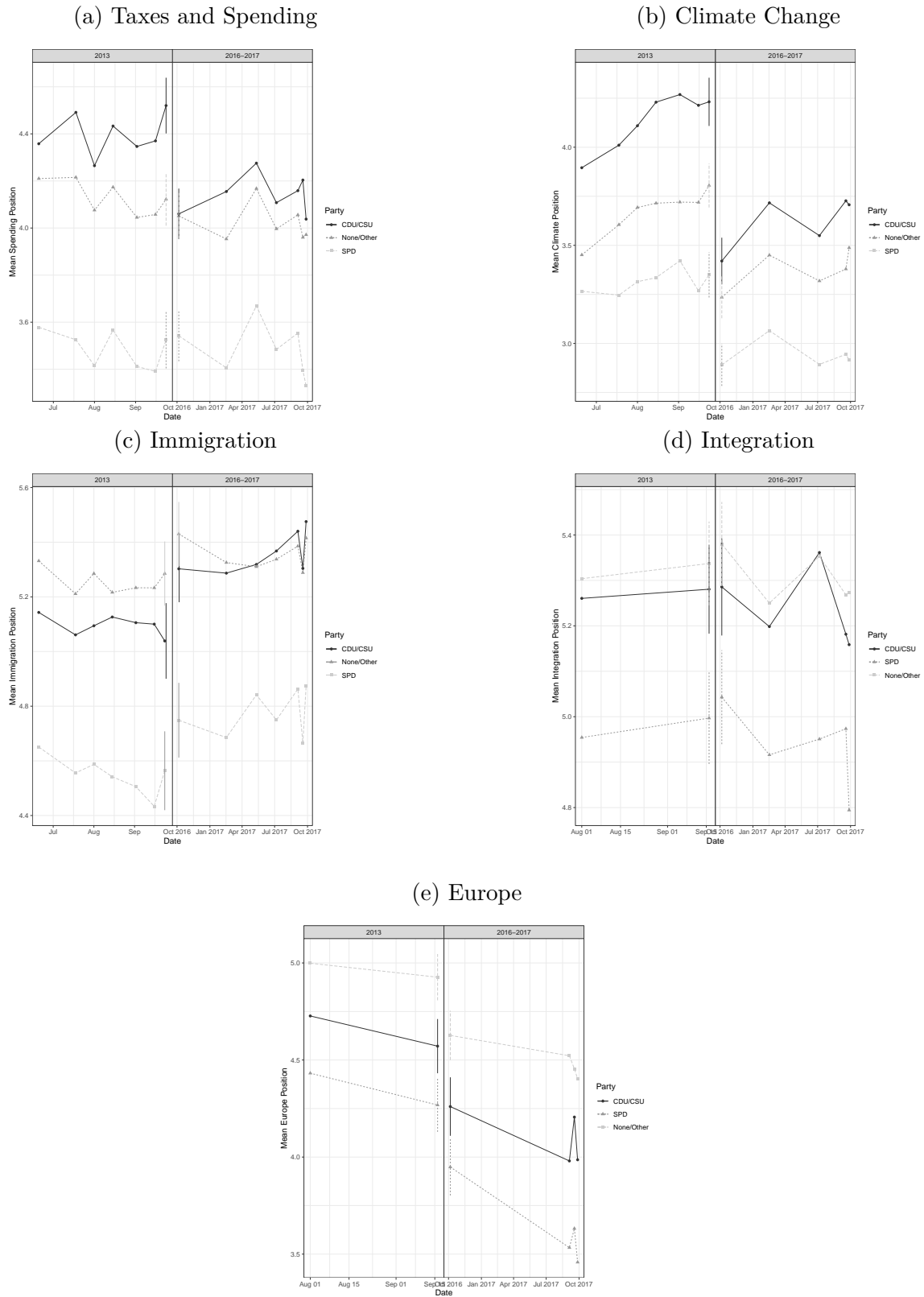
# S1 Panel Waves and Variables Used

Table S1: 2013-2017 Survey Waves and Variables Used

Wave	Field Dates	Questions Asked
1	06/20/2013-07/07/2013	Party Ratings, Ideological Self-Placement, Perceptions of Party Ideological Positions, Spending Preferences, Climate Preferences, Immigration Preferences
2	07/18/2013-07/28/2013	Party Ratings, Ideological Self-Placement, Spending Preferences, Perceived Party Spending Positions, Climate Preferences, Perceived Party Climate Positions, Immigration Preferences, Perceived Party Immigration Positions
3	08/01/2013-08/11/2013	Party Ratings, Ideological Self-Placement, Perceptions of Party Ideological Positions, Spending Preferences, Climate Preferences, Immigration Preferences, Integration Preferences, EU Preferences
4	08/15/2013-08/25/2013	Party Ratings, Ideological Self-Placement, Spending Preferences, Perceived Party Spending Positions, Climate Preferences, Perceived Party Climate Positions, Immigration Preferences, Perceived Party Immigration Positions
5	09/02/2013-09/12/2013	Party Ratings, Ideological Self-Placement, Perceptions of Party Ideological Positions, Spending Preferences, Immigration Preferences
6	09/16/2013-09/21/2013	Party Identification, Party Ratings, Ideological Self-Placement, Spending Preferences, Perceived Party Spending Positions, Climate Preferences, Perceived Party Climate Positions, Immigration Preferences, Perceived Party Immigration Positions, Integration Preferences, EU Preferences
7	09/24/2013-10/04/2013	Party Identification, Merkel Rating, Party Ratings, Ideological Self-Placement, Perceptions of Party Ideological Positions, Spending Preferences, Climate Preferences, Immigration Preferences,
8	10/14/2014-10/28/2014	Party Ratings
9	10/01/2015-10/23/2015	Party Ratings
10	10/06/2016-10/11/2016	Party Ratings, Ideological Self-Placement, Spending Preferences, Immigration Preferences, Integration Preferences, EU Preferences
11	02/16/2017-03/03/2017	Party Ratings, Ideological Self-Placement, Perceptions of Party Ideological Positions, Spending Preferences, Perceived Party Spending Positions, Climate Preferences, Perceived Party Climate Positions, Immigration Preferences, Perceived Party Immigration Positions, Integration Preferences
12	05/11/2017-05/23/2017	Party Ratings, Ideological Self-Placement, Spending Preferences, Immigration Preferences
13	07/06/2017-07/17/2017	Party Ratings, Ideological Self-Placement, Perceptions of Party Ideological Positions, Spending Preferences, Perceived Party Spending Positions, Climate Preferences, Perceived Party Climate Positions, Immigration Preferences, Perceived Party Immigration Positions, Integration Preferences
14	08/17/2017-08/28/2017	Party Ratings
15	09/04/2017 09/13/2017	Party Ratings, Ideological Self-Placement, Immigration Preferences, EU Preferences
16	09/18/2017-09/23/2017	Party Ratings, Ideological Self-Placement, Perceptions of Party Ideological Positions, Spending Preferences, Perceived Party Spending Positions, Climate Preferences, Perceived Party Climate Positions, Immigration Preferences, Perceived Party Immigration Positions, Integration Preferences, EU Preferences
17	09/27/2017-09/10/2017	Party Ratings, Spending Preferences, Climate Preferences, Immigration Preferences, Integration Preferences, EU Preferences
18	03/15/2018-03/26/2018	Party Ratings

# S2 Positions on Issue Scales by Partisan Group

Figure S1: Mean Positions on Policy Scales by Partisan Group Over Time (2013-2017)



## S3 Wording of Questions Measuring Dependent Variables

In this section, we present the wording of all policy questions we use. Note that we rescaled the taxes and spending and the immigrant integration scales so that higher values correspond to more right-wing positions (lower taxes and less government spending on welfare state benefits and foreigners should completely assimilate to the German culture, respectively).

### S3.1 Ideological Self-Placement

Respondents were first asked:

In politics people often talk about "left" and "right". How would you describe the following parties?

Please use again the following scale.

- (A) CDU
- (B) CSU
- (C) SPD
- (D) FDP
- (E) GRUENE
- (F) DIE LINKE

Coding:

- (1) 1 Left
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7
- (8) 8
- (9) 9
- (10) 10
- (11) 11
- Right (98)
- Don't know (99)
- No answer

Then, they were asked:

And how about you? How would you describe yourself?

Coding:

- (1) 1 Left
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7
- (8) 8

- (9) 9
- (10) 10
- (11) 11
- Right (98)
- Don't know (99)
- No answer

### **S3.2 Taxes and Spending Scale**

Respondents were first asked:

Some people would like to see lower taxes even if that would imply some reductions in welfare state benefits; others would like to see more government spending on welfare state benefits even if that would entail higher taxes. In your view, what are the positions of the political parties on this issue? Please use the depicted scale.

- (A) CDU
- (B) CSU
- (C) SPD
- (D) FDP
- (E) GRUENE
- (F) DIE LINKE

- (1) 1 Lower taxes and less government spending on welfare state benefits
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 Higher taxes and more government spending on welfare state benefits
- (98) Don't know
- (99) No answer

Then, they were asked:

And how about you? What is your position on taxes and on government spending on welfare state benefits?

- (1) 1 Lower taxes and less government spending on welfare state benefits
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 Higher taxes and more government spending on welfare state benefits
- (98) Don't know
- (99) No answer

### S3.3 Climate Change Scale

Respondents were first asked:

Some people think that combating climate change should be a priority, even if this damages the economy. Others say that combating climate change should be renounced if this damages the economy.

In your view, what are the positions of the political parties on this issue? Please use again the following scale,

- (A) CDU
- (B) CSU
- (C) SPD
- (D) FDP
- (E) GRUENE
- (F) DIE LINKE

- (1) 1 Combating climate change even if this damages the economy
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 No combat of climate change if this damages the economy
- (98) Don't know
- (99) No answer

Then, they were asked:

What is your personal opinion to the combat of climate change?

- (1) 1 Combating climate change even if this damages the economy
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 No combat of climate change if this damages the economy
- (98) Don't know
- (99) No answer

### S3.4 Immigration Scale

Respondents were first asked:

Let's turn to the issue of immigration. Should laws on immigration of foreigners be relaxed or made tougher? What do you think are the positions of the political parties on this issue? Please use again the following scale.

- (A) CDU
- (B) CSU
- (C) SPD



- (D) FDP
- (E) GRUENE
- (F) DIE LINKE

Coding:

- (1) 1 Relax immigration restrictions
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 Make immigration restrictions tougher
- (98) Don't know
- (99) No answer

Then, they were asked:

And what is your personal opinion on immigration of foreigners?

Coding:

- (1) 1 Relax immigration restrictions
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 Make immigration restrictions tougher
- (98) Don't know
- (99) No answer

### **S3.5 Immigrant Integration Scale**

Respondents were first asked:

There are different views on how much foreigners should assimilate in Germany. Some people express the view that foreigners should completely assimilate to the German culture, while others think that foreigners should be able to live according to their own culture.

What do you think are the positions of the political parties on this issue? Please use the following scale.

- (A) CDU
- (B) CSU
- (C) SPD
- (D) FDP
- (E) GRUENE
- (F) DIE LINKE

Coding:

- (1) 1 Foreigners should completely assimilate to the German culture
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 Foreigners should be able to live according to their own culture
- (98) Don't know
- (99) No answer

Then, they were asked:

What is your personal opinion on the integration of foreigners?

Coding:

- (1) 1 Foreigners should completely assimilate to the German culture
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 Foreigners should be able to live according to their own culture
- (98) Don't know
- (99) No answer

### **S3.6 European Integration Scale**

Respondents were first asked:

Let's turn to the issue of European unification. Should the European unification be further promoted in order to establish a joint government soon or does European unification already go much too far?

What are the positions of the political parties on this issue in your view? Please use the following scale.

- (A) CDU
- (B) CSU
- (C) SPD
- (D) FDP
- (E) GRUENE
- (F) DIE LINKE

Coding:

- (1) 1 Promote European unification in order to establish a joint government soon
- (2) 2
- (3) 3
- (4) 4
- (5) 5

- (6) 6
- (7) 7 European unification already goes much too far
- (98) Don't know
- (99) No answer

Then, they were asked:

And what is your personal opinion on European unification?

Coding:

- (1) 1 Promote European unification in order to establish a joint government soon
- (2) 2
- (3) 3
- (4) 4
- (5) 5
- (6) 6
- (7) 7 European unification already goes much too far
- (98) Don't know

## S4 Differences-in-Differences Design

Showing that one variable causes another using observational data is extremely difficult. The problem is that unobservable variables can confound the relationships that are found.

When panel data are available, a differences-in differences design allows researchers to show a causal relationship even with non-experimental data (see Angrist and Pischke 2009, Chapter 5). This design focuses on changes between a measure of the dependent variable that take place after some event. By focusing on changes, it controls for confounders that are stable over time. Even if a confounding variable is associated with both the independent variable and the dependent variable, that is not a problem because the value of the confounder is the same at the times of both the pre- and post-measures of the dependent variable. Taking differences thus controls for such a variable. In our analyses, we compare changes among partisans of each coalition party to respondents who did not identify with a party that was relevant for coalition formation.

Another concern is that other events may occur between the pre- and post-measures. Differences-in-differences compares changes between groups (hence, differences-in-differences), which allows it to control for such over-time confounders. Usually it compares a group of individuals who are affected by an event to a group that is not affected by it, thus allowing researchers to estimate the effect of the event on the affected. Other events are not a threat to showing causality as long as they affect both groups equally.

We compare the main partisan groups of interest to the “None/Other” category of partisans. The “None/Other” category includes respondents who explicitly report no party identification and those who identify with parties that are not relevant for coalition formation. We thus exclude partisans of the coalition partners (CDU/CSU and SPD), of former coalition partners (FDP and Green Party), of the far-left Left Party, which was explicitly ruled out as a partner by the SPD, and far-right parties like the Alternative for Germany (AfD) which the major parties refused to join with. The reasoning is that partisans of these parties should have positive or negative attitudes towards the coalition parties that may lead them to react in a particular way to the coalition agreement.

Supporting our use of this residual category as a baseline group is the fact that they have relatively neutral, although moderately negative, attitudes towards the main coalition partners. The mean rating of the CDU and SPD in this group were -0.9 and -0.7 (on a scale from -5 to +5) in wave 7 (before the coalition was formed). On the other hand, partisans of the Green Party were much more positive about their former coalition partner the SPD (1.0) than the CDU (-1.8) and FDP partisans were more positive about their former partner the CDU (1.3) than the SPD (-1.3). Far-right partisans were negative about both partners. AfD partisans for example rated the CDU -2.1 on average and the SPD -2.6 on average. Finally, Left partisans were negative about both partners although more negative about the CDU than the SPD (-2.6 for the CDU and -0.4 for the SPD).

The major limitation to using the “None/Other” group as a baseline is this group has lower levels of political interest and information. They scored 0.6 on information and 0.5 on interest, compared to 0.8 and 0.7 in other partisan categories (on scales from 0 to 1). Thus, it is possible that this group is simply inattentive and misses the other changes that occurred during the period of interest. If that is the case, the change among them would not effectively control for other changes that have occurred. To deal with this issue, we rerun our main models in the next section limited to CDU/CSU and SPD partisans, thus showing that results are not dependent on an inattentive baseline category (see next section).

Controlling for over-time confounders relies on a major assumption, which is that the change between the pre- and post- measures of the dependent variable in the group that is unaffected by the event reflects the counterfactual change in the dependent variable among those who were affected by the event if they had not been affected by it. In other words, this design assumes that affected and unaffected individuals would move in parallel over time in absence of the treatment (Angrist and Pischke 2009, 171). If that is the case, the deviation from the unaffected group’s trend among affected individuals during the period of the event represents a causal effect of the event on the affected group.

It is impossible to test this for the period of treatment because we cannot observe affected respondents in the counterfactual state in which they are not affected by the event. However, we can observe changes in our outcome variables in the different partisan groups prior to the 2013 election, which is suggestive of trends in the absence of treatment. Figure 2 in the main text shows that evaluations of parties moved largely in parallel prior the coalition agreement. The major exceptions though are evaluations of the CDU among SPD partisans. While the “Other/None” group remained relatively stable in its evaluations of the CDU prior to coalition formation, SPD partisans became slightly more negative. However, if there is a trend among SPD partisans that goes against the finding, it suggests that the actual effect of coalition formation on them is even larger than our results suggest.

Figure 3 in the main text shows trends in mean ideological self-placements over time. It shows that the partisan groups largely move in parallel prior to coalition formation except that the residual group seems to move more in parallel with CDU/CSU partisans early in the campaign then it moves more in parallel with SPD partisans towards the end of the campaign. Because CDU/CSU partisans and the “Other/None” category somewhat diverged in the waves prior to coalition formation, this trend should make our test conservative. We are probably underestimating the actual convergence that took place.

Figure S1 above suggests parallel trends prior to coalition formation on the other policy dimensions. To the extent that prior trends do suggest some non-parallel movement, the results in the next section should reassure readers. Even if partisans of the future coalition partners were moving apart prior to the coalition agreement, they converged after the agreement.

## S5 Models Comparing CDU/CSU to SPD Partisans

The analyses in this section simply compare CDU/CSU and SPD partisans. The idea is to show that the variables of interest moved in the expected direction when comparing these partisan groups to each other and not only when comparing each partisan group to the residual category.

Table S2: Models of Changes in Party Ratings

	Model 1	Model 2
Intercept	-0.39*	-0.34*
	(0.08)	(0.09)
SPD Identifier	0.93*	
	(0.11)	
CDU/CSU Identifier		1.28*
		(0.12)
$N$	1074	1064
$R^2$	0.06	0.09
adj. $R^2$	0.06	0.09
Resid. sd	1.81	2.02

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

Note: these models only include CDU/CSU and SPD identifiers.

Table S3: Models of Changes in Policy Preferences

	Ideology	Spending	Climate	Immigration	Integration	Europe
Intercept	0.21*	0.04	-0.49*	0.22*	0.08	-0.33*
	(0.07)	(0.06)	(0.06)	(0.07)	(0.05)	(0.04)
CDU/CSU Identifier	-0.76*	-0.42*	-0.26*	0.01	-0.06	0.04
	(0.11)	(0.09)	(0.09)	(0.10)	(0.08)	(0.09)
$N$	923	1010	1006	1000	971	2081
$R^2$	0.05	0.02	0.01	0.00	0.00	0.00
adj. $R^2$	0.05	0.02	0.01	-0.00	-0.00	-0.00
Resid. sd	1.68	1.48	1.48	1.55	1.28	1.68

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

Note: these models only include CDU/CSU and SPD identifiers.

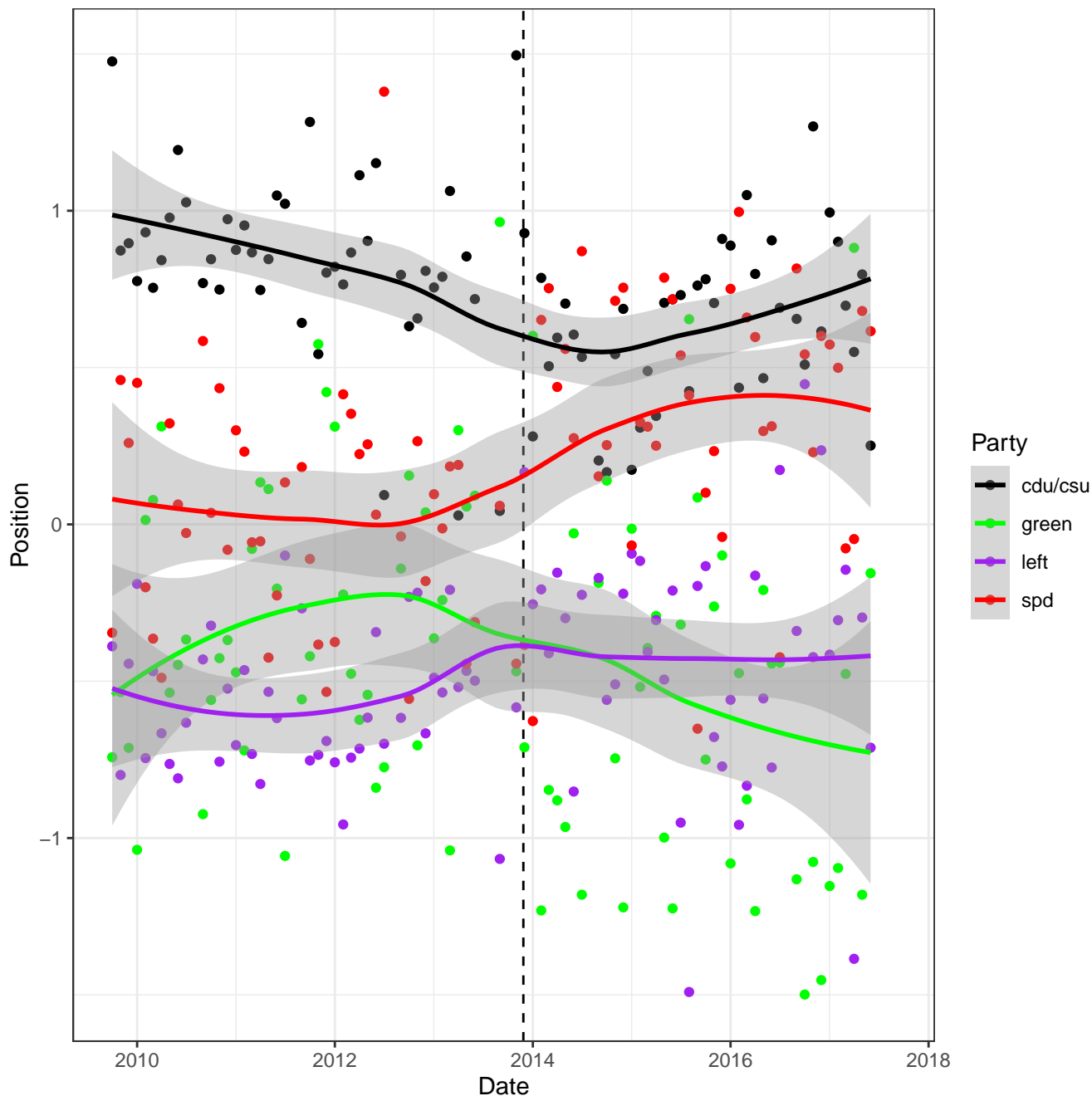
## S6 Do Coalition Parties Change Positions Following Coalition Formation?

To determine whether coalition formation led parties to shift positions, we estimated party positions as expressed in the Bundestag (German Parliament). We first scraped the Bundestag's website. We downloaded transcriptions of all plenary meetings. For each meeting, we separated speeches by

party, removed numbers and punctuation, then ran the text scaling program Wordfish (Slapin and Proksch, 2008) on speeches from each meeting. Because words likely change meaning over time, we cannot use Wordfish to produce estimates of party positions that can be compared within each party over time. Instead, we estimate separate positions within each meeting. We then assess how close each party's positions are to their new and old coalition partners following coalition formation. Note that Wordfish measures positions along the first dimension underlying legislative speeches. In our first analyses, given that we include all debates, we assume that this first dimension is the conventional left-right ideological dimension, which structures many policy conflicts in contemporary democracies. In subsequent analyses, we focus on specific policy dimensions.

Figure S2 shows positions for the 17th and 18th sessions (2009-2013 and 2013-2017). It allows us to observe changes in party positions around the time of the 2013 election and the coalition formation that followed it. Note that we excluded the FDP from analyses of both these sessions because the FDP did not win enough votes in 2013 to enter the Bundestag. Excluding it for the first period allows us to rule out the possibility that changes following the 2013 election are due to the exclusion of the FDP. As we can see, the CDU/CSU and the SPD moved towards each other around the time of the election and especially following coalition formation.

Figure S2: Overall Party Positions in 17th and 18th Sessions of the Bundestag (2009-2017)



We also estimated positions on the individual policy dimensions on which the coalition partners have contrasting positions for the period around the 2013 election. We did so by only analyzing Bundestag plenary meetings that used one or more of the keywords included in the policy question wording at least once. We do not claim that the positions we estimate are entirely specific to the individual dimensions, simply that they are closer to these dimensions than the overall positions expressed above.

For the taxation and spending scale, we looked for words with root *steuer* (tax) and/or *sozial-staatliche* (welfare state). For the climate change scale, we looked for all words with root *klima* (climate). We did not estimate party positions on the immigration, immigration integration or

European integration dimensions dimensions because Wordfish relies on variation in party positions to estimate meaningful positions. On these dimensions, all main parties had similar positions.

Figures S3 and S4 show positions in debates discussing taxes and spending, on the one hand, and climate change, on the other hand. As we can see, positions shift in a similar way to overall positions. While the positions expressed by the CDU/CSU and the SPD prior to coalition formation were clearly distinct before the coalition was formed, after it was formed they became much more similar.

Figure S3: Party Positions on the Taxation and Spending Scale in 17th and 18th Sessions of the Bundestag (2009-2017)

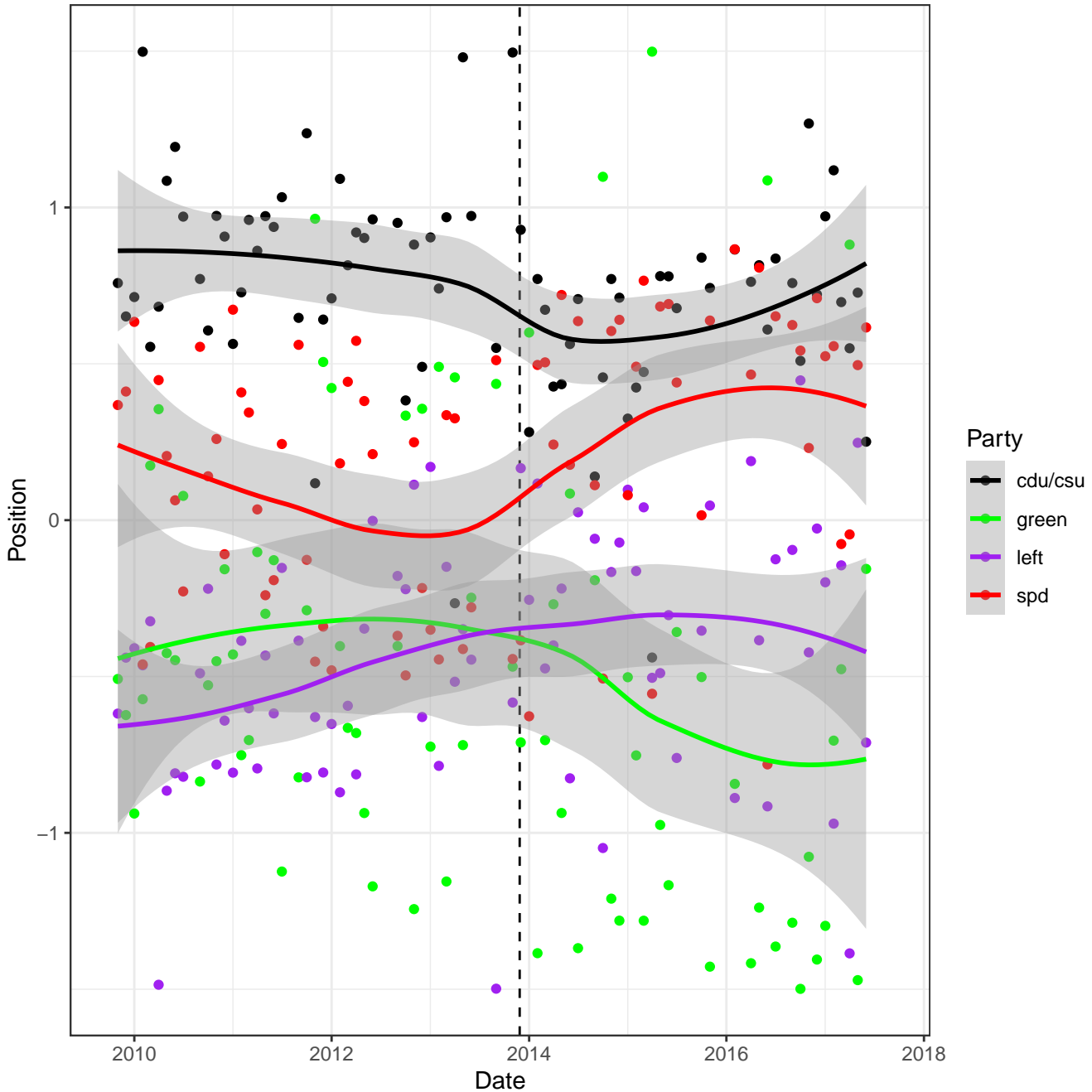
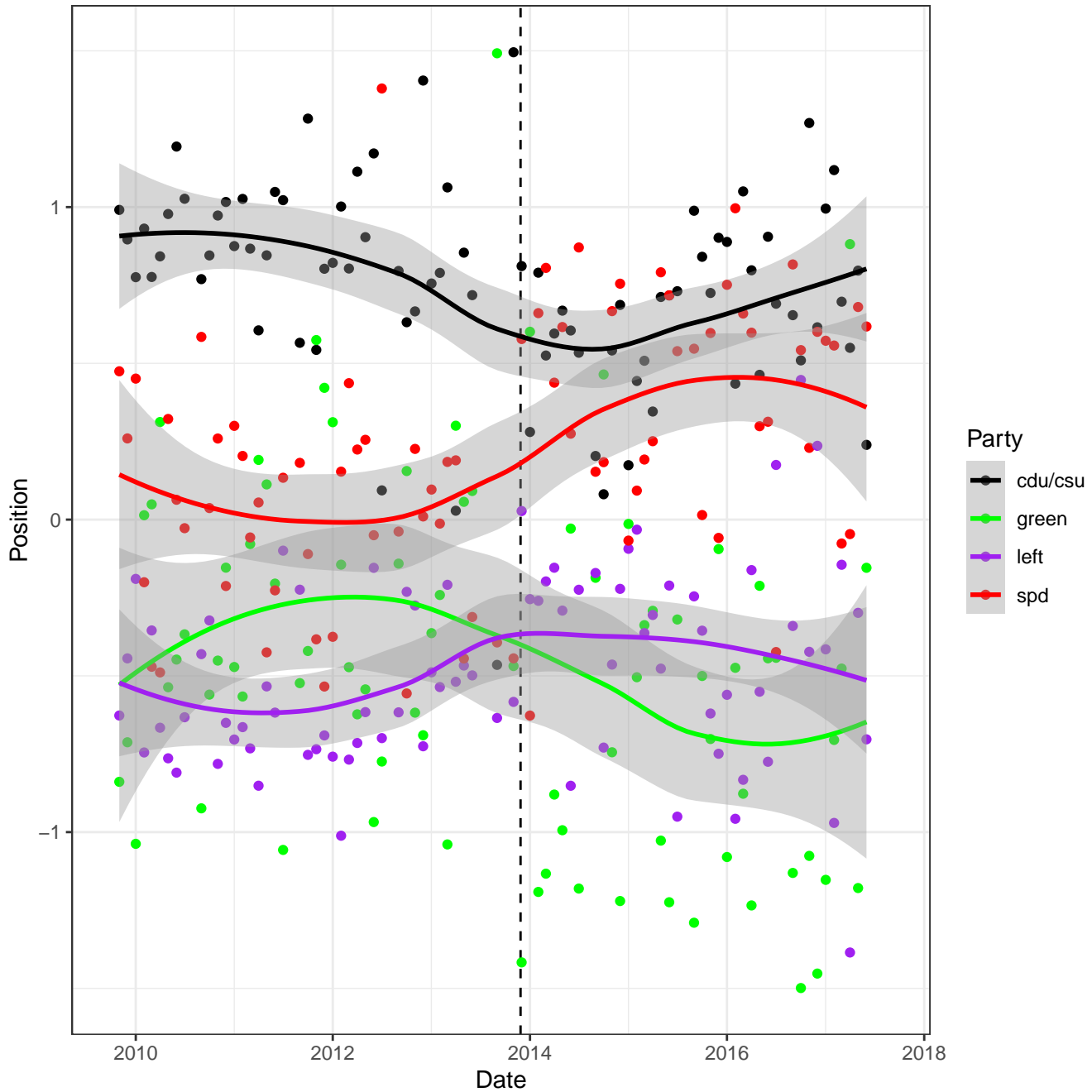




Figure S4: Party Positions on the Climate Change Scale in 17th and 18th Sessions of the Bundestag (2009-2017)



## References

Slapin, Jonathan B and Sven-Oliver Proksch. 2008. "A Scaling Model for Estimating Time-Series Party Positions from Texts." *American Journal of Political Science* 52(3):705–722.