

# Do voters polarize when radical parties enter parliament?<sup>1</sup>

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## Abstract

*Do voters polarize ideologically when radical views gain political legitimacy, or does the rise of radical voices merely reflect societal conflict? We argue that the elite polarization as signalled by radical parties' first entrance into parliament leads to voter divergence. Immediately after the election, legitimization and backlash effects mean that voters on both ideological sides move towards the extremes. In the longer term, this polarization is solidified because of radical parties' parliamentary presence. A panel study of Dutch voters shows that the 2002 parliamentary entrance of a radical-right party indeed led to immediate ideological polarization across the political spectrum. Estimating time-series cross-sectional models on Eurobarometer data from 17 countries (1973–2016) shows an additional long-term impact of radical-right party entry on polarization. The presence of radical voices on the right has polarizing effects, illustrating how such institutional recognition and legitimation can have a far-reaching impact on society. Replication*

Materials: The data, code, and any additional materials required to replicate all analyses in this article are available on the American Journal of Political Science Dataverse within the Harvard Dataverse Network, at: <https://doi.org/10.7910/DVN/DZ1NFG>

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## 1 Introduction

A recurrent theme of democracies is the rise of radical and extreme parties. The late 19th and early 20th centuries saw the growing success of Socialist and Communist parties, and the 1920s and 1930s witnessed increasing support for National Socialism in Weimar Germany, Benito Mussolini’s National Fascist Party in the Kingdom of Italy. More recently, (left-wing) Green parties rose to prominence in the 1980s in several European countries, while many party systems have recently experienced the entry of radical-right parties into parliament. In 2017, for example, the Alternative für Deutschland entered the German Bundestag, ending that country’s long spell as one of the only Western European countries without an established radical-right party.

When parties and candidates that are more extreme than their competitors become relevant in democratic societies, observers regularly raise concerns about the consequences for public discourse and for societal norms more generally. For instance, Donald Trump’s campaign and election led to such fears. In June 2016 Mitt Romney, the former Republican nominee for president, suggested that Trump’s election could provide legitimacy to radical views through ‘trickle-down racism, trickle-down bigotry, trickle-down misogyny’.<sup>1</sup> The increased usage of racist/fascist symbols<sup>2</sup>, the ensuing counter mobilization<sup>3</sup>, and violent clashes between Trump supporters and other groups<sup>4</sup> all suggest that his election spurred both public mobilization by his supporters and a backlash against their extreme positions.<sup>5</sup>

The theory implicit in these observations is that voters become more ideologically polarized when extreme views are publicly and broadly expressed by parties and candidates that are endowed with some level of political legitimacy ([Hetherington 2001](#); [Layman, Carsey, and Horowitz 2006](#); [Silva 2018](#); [Druckman, Peterson, and Slothuus 2013](#)). Here, we define an extreme actor as a new party or candidate that takes up more ideologic-

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<sup>1</sup>CNN: Mitt Romney says Donald Trump will change America with ‘trickle-down racism’.

<sup>2</sup>Brad Lander (NYC City Council): Swastikas in Adam Yauch Park.

<sup>3</sup>NPR: Swastikas Are Painted At Adam Yauch Park In NYC – But Kids Win The Day.

<sup>4</sup>LA Times: Violence by far-left protesters in Berkeley sparks alarm.

<sup>5</sup>Higher levels of voter polarization are generally important because they can have broader societal consequences ([Silva 2018](#)). For instance, they can lead to lower political interest and lower satisfaction with democracy and government performance ([Layman, Carsey, and Horowitz 2006](#); [Iyengar, Sood, and Lelkes 2012](#); [Sørensen 2014](#)), but can also increase turnout and political engagement ([Abramowitz and Saunders 2008](#)).

ally radical positions than current parties and politicians. Ultimately, the institutional presence and relevance of such new, more radical competitors is thought to increase ideological polarization among citizens (Mudde 2013; Sprague-Jones 2011; Silva 2018). In this context, we mean by polarization that ideological views become more distant from the political center: the variance of positions increases (Ezrow 2007; Dalton 2008). The polarization caused by the rise of radical voices is also often believed to occur on both sides: those who sympathize with the new party and those who oppose it (Tankard and Paluck 2016; Bishin et al. 2016; Bustikova 2014).

We put this implicit theory to test by examining whether the institutional legitimization of parties located at the ideological extremes increases ideological polarization among voters. To study institutional legitimization, we focus on a specific, clearly identifiable type of event: radical party entry into parliament. These are events when new parties at the left or right extremes of the party system enter parliament for the first time.<sup>6</sup> In elections in multiparty systems, such events are regular occurrence (Bolleyer 2014; Tavits 2008). The main examples we consider in this paper are radical-right parties, but we also examine whether ideological polarization occurs when parties enter on the left.

We argue that first-time entry into parliament leads to an institutional recognition and legitimation of radical parties that has both short- and long-term effects on voter polarization. Immediately as a result of a party's successful entry into parliament, voters on both sides will publicly take up more radical positions. On the one hand, voters who sympathize with the party and its stances will see their own views as more socially acceptable (Tankard and Paluck 2016; Bursztyn and Fiorin 2017) and therefore be more likely to openly declare their ideological stance (*legitimization effect*). Voters on the opposite side of the political spectrum will react negatively to the perceived breaking of social norms and feel the need to distance themselves from the new competitors (*backlash effect*) (Bishin et al. 2016). In the very short term, polarization likely arises from changes in how voters present themselves rather than from persuasion.

However, in the longer term the presence of radical parties in parliament will shape

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<sup>6</sup>We use 'extreme' as a spatial ideological description, so we do not use it in the sense of anti-democratic, anti-regime or anti-party (see, e.g., Mudde 1996).

political debate in the country in parliament and the media (Dinas, Riera, and Roussias 2015), and this increased elite-level polarization should lead to further voter polarization. Possible mechanisms include persuasion (Lenz 2009), cueing (Brader, Tucker, and Duell 2012; Druckman, Peterson, and Slothuus 2013), and issue entrepreneurship (Hobolt and de Vries 2015). Hence, in the months and years after radical party entry, many voters may fundamentally change their political stances.

We test the expectation of short- and long-term voter polarization after the first radical party entry in three ways. In Study 1, we look at voter polarization after the first entry into parliament in 2002 of the radical-right Lijst Pim Fortuyn in the Netherlands. Here, we take advantage of a pre-post panel study to compare voter polarization before and after the election.<sup>7</sup> Second, we examine the patterns of left-right polarization after radical right party entry in 17 countries from 1973 to 2016 based on Eurobarometer data. Using two-way fixed effects regression (Study 2) and synthetic control models (Study 3) we again find evidence that the public polarizes after extreme party entrance. Moreover, the size of this effect is substantial, at about one standard deviation. The results of our studies indicate that first-time radical-right party entry leads to voter polarization in both the short term and the long term.

Our focus in this paper is on radical-right parties as these are the most prominent new parties entering at the extremes of the party system. Radical left parties either entered earlier (as Communist parties) or do so more rarely. However, relying on the same strategies we also test if similar patterns emerge after Green party entrance, but do not find evidence of an equivalent polarizing effect. We think that this may be for two reasons: first, radical-right party entrance breaks a greater historical ‘taboo’ than Green party entry (Van Spanje and Van Der Brug 2007); and second, radical-right parties may act more as issue entrepreneurs and successfully shift issue agendas (Hobolt and de Vries 2015).

Our results have important implications for the study of elite polarization and its im-

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<sup>7</sup>Dinas, Hartman, and van Spanje (2016) recently used the same election study to test the effect of Fortuyn’s murder before the election on projection bias, while Silva (2018) takes a longer-term view of polarization in the Netherlands.

pact on voters. Existing work has tended to focus on gradual, over-time changes in political discourse (e.g. [Layman, Carsey, and Horowitz 2006](#); [Layman and Carsey 2002](#); [Hetherington 2001](#); [Fiorina and Abrams 2007](#); [Adams, De Vries, and Leiter 2012](#); [Adams, Green, and Milazzo 2012](#); [Gabel and Scheve 2007b](#)). In contrast, we show how polarization can increase quickly through single, highly newsworthy events – such as elections – that place radical stances at the center of the political debate and provide legitimacy to them. In addition to being focusing events, elections can also have a longer-term impact by providing radical views with an institutionalized platform. Finally, our results address a common issue in studies of elite influence, namely the causal direction of ideological position-taking ([Gabel and Scheve 2007a](#)). By using a specific instance of elite polarization, radical party entry, we are able to better assess the direction and mechanisms of changes in polarization. Furthermore, we add to the findings of [Gabel and Scheve \(2007a\)](#) by showing that ideological polarization among voters is driven by the entrance of specific parties, but not necessarily by increasing party system fragmentation more generally.

Our results also provide new insight into the debate on the broader links between elite and voter ideologies ([Hetherington 2009](#); [Down and Wilson 2010](#); [Adams, Ezrow, and Somer-Topcu 2011](#); [Adams, De Vries, and Leiter 2012](#); [Adams, Green, and Milazzo 2012](#); [Ezrow 2007](#)). Voters are often inattentive and fail to notice shifts in party positions ([Adams, Ezrow, and Somer-Topcu 2011, 2014](#)). Some observers also claim that radical-right parties, for example, have had little effect on voters’ long-term attitudes ([Mudde 2013](#)). In contrast, other work shows that voters do react to elite positioning ([Fernández-Vázquez 2014](#); [Adams, Green, and Milazzo 2012](#); [Seeberg, Slothuus, and Stubager 2017](#)). Our findings highlight that newsworthy, legitimizing events such as elections have a focusing impact, perhaps leading voters to update their views more than after other, more subtle shifts. Elections, like leadership changes ([Somer-Topcu 2017](#); [Fernandez-Vazquez and Somer-Topcu 2017](#)), manage to cut through the broader political debate and reach the general public. However, we also show that the informational, legitimizing effect of radical party entry may well be conditional on the existence of a taboo concerning a party’s views and an ostracization of the party itself ([Van Spanje and Van Der Brug 2007](#)).

## 2 Short-term effects of radical party entry: Legitimization and backlash

The election of a new radical party into parliament is likely to be an important, attention-grabbing and sometimes even shocking development for established political parties, the media and many citizens. In addition to shaping headlines, this event also provides voters with important information about the distribution of ideological preferences among voters and about the social and political acceptability of these views (Tankard and Paluck 2016; Bursztyn and Fiorin 2017). Research in social psychology shows that individuals learn about social norms over time, in a dynamic fashion (Paluck, Shepherd, and Aronow 2016; Tankard and Paluck 2016). As noted by Tankard and Paluck (2016: p.184), ‘summary information about group opinions and behavior (indicated by the group’s voting tallies, or other announcements about the group) ... update[s] our impressions of what the group typically does or what the group values.’ Signal events such as Supreme Court decisions in the United States or referendum outcomes can thus lead individuals to update their perceptions of social norms (Bartels and Mutz 2009: 249; Hoekstra and Segal 1996; Tankard and Paluck 2017: 1334). Similarly, the electoral success of a party that is more extreme than its competitors provides voters with summary information about the distribution of preferences and norms among the population (Tankard and Paluck 2016).<sup>1</sup> The election of the radical party thus tells voters that the views of the new radical party are no longer as socially frowned upon as before, and that many people support these views. Because of this, the entry of radical parties into parliament is likely to increase public polarization among voters on both sides of the political debate.

First, radical party entry will have a legitimization effect: people identifying with the new radical party will express more extreme views. This is not because of short-term persuasion, as voters are probably unlikely to change their ideological stances quickly simply because a new, radical party is elected. Instead, we believe that voters with

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<sup>1</sup>Of course, not all types of radical party entry will contain the same type and amount of information for voters. In some countries, radical party entry will be foreshadowed well by high poll ratings or by election into regional legislatures, weakening the additional informational content of entry into national parliament. Yet, we argue that even if there was prior success, the signaling effect of an electoral entry into national parliament adds substantially to comparable information from surveys or other elections.

extreme views will feel freer to declare and admit their pre-existing (radical) positions (Bursztyn and Fiorin 2017).

One reason for this is that perceptions of social norms will shift due to this event. In most cases, the ideological positions held by radical parties were previously somewhat ‘taboo’. The entry of the radical party from outside the political mainstream will lead supporters and sympathizers to feel that their views have greater legitimacy and social acceptance, even if these parties are still ‘ostracized’ by their mainstream competitors (van Spanje and Weber 2017; Van Spanje and Van Der Brug 2007). The success of a party with radical views signals that the range of views that are voiced and deemed acceptable has changed (Rabinowitz and Macdonald 1989). This type of effect is akin to that posited by ‘licensing’ theory, which states that public information on norms has a greater impact on those who are already in favor of those norms. Awareness of public support for certain views ‘may license supporters to act on their views in public’ (Tankard and Paluck 2016: p.198).

An additional reason to expect a legitimization effect is because the party’s success signals popular support for certain views. Before the radical party entered parliament, people identifying with the party may have felt unsure about how many people also hold their extreme views. The success of the new party may tell these voters that there is more popular support for their views than they previously thought, further encouraging them to state their views openly.

Overall, we therefore expect:

- **Legitimization hypothesis:** After a radical party enters parliament for the first time, people identifying with that party and its views will move further to the ideological extremes.

In addition to legitimizing radical views among party identifiers, the entry of a radical party will lead other individuals to strengthen their opposition to these views. In particular, the electoral success of a disliked party can act as a kind of ‘out-party cue’ (Goren, Federico, and Kittilson 2009). People identifying with parties on the opposite side of the political spectrum will feel the need to act against the legitimization of radical positions.

Focusing events may thus lead to a backlash among voters who fear changes to the status quo (Bishin et al. 2016; Flores and Barclay 2016). For example, some voters – such as minorities – are likely to feel threatened by the normalization of positions that threaten their rights. Even voters who are not likely to be directly affected by the normalization of radical views will want to actively speak out against radical positions they disapprove of. In reaction to the shifting norms, opposing voters may take even stronger stances towards the other side of the political spectrum (Bishin et al. 2016; Bustikova 2014). Given the findings in Goren, Federico, and Kittilson (2009), opposing voters may react just as strongly as sympathetic voters. Hence, we expect:

- **Backlash hypothesis:** After a radical party enters parliament for the first time, people identifying with opposing parties will move further to the ideological extremes.

In sum, the entry of radical parties into parliament may have short-term effects on voters' positions simply by legitimizing extreme views and by creating a backlash among opposing voters. Note that these short-term effects are not due to persuasion. Instead, voters on the same side of the radical party feel more comfortable professing radical views, while opposing partisans feel the need for public opposition to these views. By bringing hidden preferences into public view, these effects are no less consequential than actual persuasion.

### 3 Long-term effects of radical party entry

The short-term effects of radical party entry are likely to be strengthened in the longer term through more deep-seated change. Getting into parliament can provide radical parties with a significant increase in various resources (Dinas, Riera, and Roussias 2015). They can use their parliamentary platform and improved financial means to present their views and gain attention for their positions. In addition, their competitors will also provide them with publicity. Rival parties will treat this new party as a significant threat and may decide to address the issues and positions of their new competitor, thereby raising the party's prominence. For example, they may attack the new competitor more



and take its positions into account when formulating campaign strategies. Moreover, the ability to win seats may also go hand in hand with increased media coverage (Dunn and Singh 2011). Parties with parliamentary representation are often provided with more and better access to the media, in particular by state broadcasters. As a result, parliamentary representation can be a boon for parties' long-term chances of survival, amplifying the effect generated by their initial success in getting into parliament (Dinas, Riera, and Roussias 2015).

The increased resources and attention afforded to parties that manage to enter parliament will affect how voters perceive political debates and may thereby shift voter positions. In this paper, we do not test the mechanisms that explain why radical party presence affects voter polarization. Yet, it is nevertheless helpful to think about plausible mechanisms of this effect. First, if radical views are increasingly prominent on both sides, this may shape voter positions through persuasion (Lenz 2009), perhaps strengthened by biased information processing created by motivated reasoning (Taber and Lodge 2006) and by the activation of latent political values (Goren, Federico, and Kittilson 2009). Analogous to our short term mechanisms outlined above, this will include perceptions of the types of views that are socially acceptable (Tankard and Paluck 2016; Hogg 2010). Second, elite polarization may lead voters to rely more on party positions as cues (Lupia and McCubbins 1998; Brader, Tucker, and Duell 2012), whereby voters simply decide to adopt the positions held by the parties they support (Zaller 1992; Bartels 2002). Motivated reasoning and cue-taking increases when elite polarization rises (Slothuus and de Vreese 2010; Druckman, Peterson, and Slothuus 2013; Brader, Tucker, and Duell 2012; Steenbergen, Edwards, and de Vries 2007). Finally, radical party entry may change the content of political debates and lead to issue evolution (Carmines and Stimson 1986, 1989; Stevens 2013), changing the issue content of the left-right dimension. Polarization will then increase if partisan positions on the new issues are clearer and more distinct (Arndt 2016). With their increased presence in parliamentary debates and the media, radical parties may be important 'issue entrepreneurs' (Hobolt and de Vries 2015) that introduce or emphasize innovative and divisive issues that have the potential to reshape

party competition.<sup>1</sup>

These long-term effects will occur in addition to short-term effects hypothesized above and can be seen as accompanying the legitimization/backlash effect, strengthening the divisions between the two sides. In summary, our final hypothesis is:

- **Long-term polarization hypothesis:** Voter-level ideological polarization will increase after a radical party enters parliament for the first time.

## 4 Research Design

We rely on three studies employing two different data sources to test how voters polarize in the short and long term after radical party entry. The first study makes use of an individual-level panel study conducted during the 2002 Dutch parliamentary elections. This study allows us to carefully evaluate the short-term legitimization/backlash mechanisms by exploiting the survey’s panel design. The second study then extrapolates these findings to a longer-term, macro-level perspective. Based on Eurobarometer data we test if the entry of a radical party led to polarization particularly in countries employing an electoral threshold, a methodological decision we elaborate on below. The third study uses synthetic control methods on the same dataset to provide a better-identified causal estimate of the effect of extreme party entry.

To test our theoretical argument we rely on respondents’ general left-right self-placement. We believe that this survey measure is appropriate to assess public polarization. First, general questions about left-right placement allow respondents to decide for themselves what they understand as left or right. This means that our study gets at the underlying ideological divisions between voters. For many studies, the shifting meaning of left and right is a disadvantage, but for our purposes – capturing summary ideological

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<sup>1</sup>Like the short-term impact of radical party entrance, the long-term effects may also occur on both sides of the political divide. [Nicholson \(2012\)](#) shows that the cues sent out by politicians primarily decrease support among opposing partisans rather than increasing support among the party faithful; similar findings are reported in [Goren, Federico, and Kittilson \(2009\)](#). Moreover, backlash often occurs when individuals feel threatened by change, particularly if they already hold negative views about the relevant group ([Bishin et al. 2016](#)). This holds for radical party entry.

divisions between citizens – it is important to take into account how the policy content of debates shifts (De Vries, Hakhverdian, and Lancee 2013; Lachat 2017), e.g. due to the efforts of “issue entrepreneurs” (Hobolt and de Vries 2015). Hence, in our view polarization also increases if voter views on individual issues stay the same, but politics changes to revolve around more divisive issues. Certainly, making use of policy-specific questions would enrich our analyses and allow us to say more about the underlying structure of the ideological space. Yet, to the extent that left-right responses fail to capture shifts in the issue content of political debates, our findings should in fact underestimate polarization effects. Hence, from our perspective using left-right polarization probably provides a conservative estimate of the impact of radical party entry.

Second and most crucially, in contrast to issue-specific questions, respondents’ left-right placement is available across several countries and time periods. This allows us to test our argument on a large sample of countries and compare these findings to our findings based on the election panel study.

## 5 Results

### 5.1 Study 1: Election panel study in the Netherlands (2002)

We investigate the short-term effects of first-time radical party entry using the case of the Lijst Pim Fortuyn (LPF), which entered the Dutch parliament at the 2002 election. This populist radical-right party focused on opposition to immigration and multiculturalism and criticized the political and cultural elite, while also taking a liberal stance on gay rights (Akkerman 2005; Dinas, Hartman, and van Spanje 2016; Koopmans and Muis 2009; De Lange and Art 2011; Silva 2018; Ennser 2010). The party gained prominence mainly due its popular leader, who founded his new party about three months before the election.

The election of LPF is an ideal case to study our hypothesis (for a similar argument, see Silva 2018). First, the party’s late founding gave its leader little time to build a party brand and influence the media before getting into parliament. This means that the long-term mechanisms outlined in our theory are unlikely explanations for a short-term

polarization effect after the election. Second, the party’s success has been described as “dramatic” (Koopmans and Muis 2009: 643) and “unprecedented” (van Holsteyn, Irwin, and Den Ridder 2003: 42), making this a good case of a shock-like event (Silva 2018). Third, as van Holsteyn, Irwin, and Den Ridder (2003) note, its success was not preceded by a public shift to the right prior to election day. To a certain extent this reduces the possibility of the reversed causation that would arise if public polarization was a cause for, rather than the consequence of, the electoral success of the radical right party.

Specifically, we use the 2002 Dutch Parliamentary Election Study (DPES) to assess within-subject shifts in public attitudes.<sup>1</sup> To our knowledge, this is the only election study that combines two key prerequisites to test our hypotheses: it was conducted before and after the first election of a radical-right party to parliament and includes repeated measures of left-right ideological self-placement. Most election panel studies only ask about respondents’ left-right placement prior to election.

The pre-election wave began interviewing citizens 31 days before election day, and the post-election wave interviewed the same respondents up until 42 days after the election. In total, the DPES interviewed 1,574 panel respondents before and after the 2002 election.<sup>2</sup> The study allows us to compare the same respondents prior to and after experiencing the entrance of a radical party, enabling us to draw on the rare occasion of within-person comparisons. Hence, any time-invariant subject-specific covariates such as gender or education can be controlled for by using subject-specific fixed effects. In addition, our design allows us to rely on covariates observed prior to the election to explain voter shifts on the general left-right scale after LPF entered parliament. So, we can eliminate the alternative explanation that the shift in voters’ general left-right placement resulted from the fact that voters changed their party identification after the successful election of the LPF into parliament.

Respondents placed themselves on a general left-right scale from 1 (extreme left) to 11

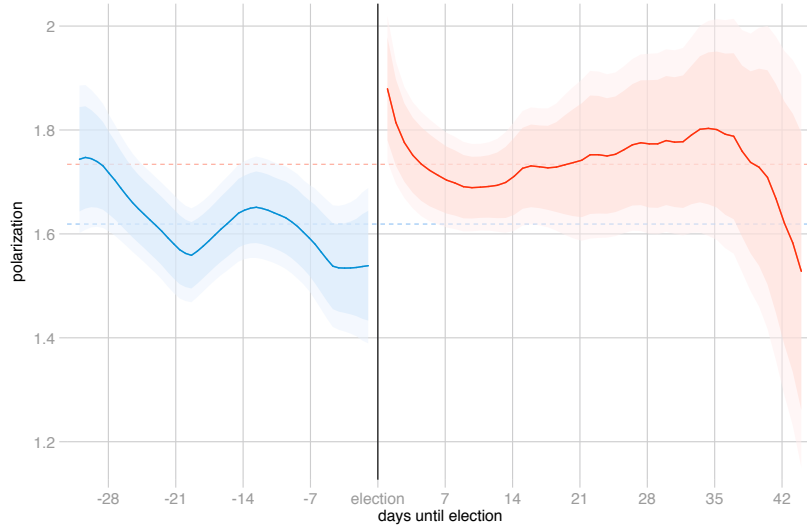
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<sup>1</sup>Some variables were reversed using the Stata ado by Longest (2007).

<sup>2</sup>1,907 respondents were interviewed before the election, of which 1,574 respondents were then also interviewed after the election. According to information in the DPES documentation, new innovations in data collection were introduced at this stage. Some respondents were allowed to use a different interview mode after the election ( $N = 374$ ). This could bias our findings significantly. Yet, excluding these respondents does not change the results reported here.

## 5 Results

**Figure 1:** Descriptives: Did polarization increase after the LPF entrance?  
(Netherlands 2002)



**Note:** Comparison of polarization in pre- and post election panel (within person comparison). The Figure presents local polynomial regression plots, surrounded by 95 and 83.4 % confidence intervals; kernel=epanechnikov; degree of smooth=0. Horizontal lines reported  $\mu$  pre- (in blue) and post-election (in red) polarization. All graphs made using [Bischof \(2017\)](#).

(extreme right). We estimate each respondent's squared distance to the median prior to the election and after the election. In addition, we also use individual movement on the left-right scale, directly investigating voter shifts after the entrance of a radical party.

Figure 1 plots the polarization of panel respondents before (blue) and after (red) the election using local linear regressions. Polarization increased after the election to a substantial degree, and this trend is fairly stable across the time period covered by the election panel.<sup>3</sup> Consistent with [Gerber and Huber \(2010: 157\)](#), the most crucial difference in polarization due to the election is close to the appearance of the treatment, i.e. the election. The dip in polarization towards the end of the post-election panel may simply be driven by the fact that fewer respondents were interviewed towards the end of the panel. While it is also conceivable that short-term legitimization effects may start to decline after a month, the low number of observations should caution us from making such strong inferences.

To substantiate this descriptive finding, Table 1 again uses the squared distance to

<sup>3</sup>The number of respondents placing themselves at 6, the midpoint of the scale, also decreases from 929 to 805, another sign of polarization. Figure A.1 shows that most of these respondents shifted to the right.

## 5 Results

**Table 1:** Regression estimates: Did polarization increase after the LPF entrance?  
(Netherlands 2002)

	(1)	(2)	(3)	(4)	(5)
	Pre/post election	Pre/post election	Pre/post election	Placebo: Fortuyn	Placebo: Fortuyn
before/after	0.121 (0.0314)	0.121 (0.0314)	0.121 (0.0314)	-0.112 (0.0755)	-0.109 (0.0993)
Constant	1.629 (0.0853)	2.059 (0.214)	1.620 (0.0157)	1.644 (0.0357)	
Controls		✓			
Interview timing	✓	✓			
Individual FE			✓		
$R^2$	0.00233	0.0171	0.0105	0.00142	
Obs.	2808	2808	2808	1551	1548
$N$	1404	1404	1404		

**Note:** Regression coefficients with standard errors in parentheses;  
Models (1)-(3) are clustered standard errors by panel id;  
Model (5) uses propensity score matching, 1-match per respondent;  
controls (age, gender, urban vs. rural, social class, voting preference,  
political knowledge, religiosity) omitted from table.

the median as a dependent variable. The key independent variable is a dummy variable coded ‘1’ for each respondent after the election and ‘0’ before the election. Thus, we test if respondents’ distance to the median on average significantly increased after the election. We find a statistically significant increase in ideological polarization between the two waves. This increase remains similar in size across all models we estimated, also when controlling only for the interview date (model 1) or when using individual fixed effects (model 3).

Concerns of confounded treatment may linger because the party leader was murdered seven days before the election (Dinas, Hartman, and van Spanje 2016). Fortuyn’s killing, not the entrance of the LPF into parliament, might be the major cause of public polarization. To address this potential confounding event, we conduct a placebo test that estimates the influence of Fortuyn’s killing on ideological polarization. Using only the pre-election wave, we compare respondents interviewed prior to Pim Fortuyn’s assassination (77 %) with respondents interviewed thereafter but before the election itself (22 %). The latter have experienced Fortuyn’s murder but cannot plausibly be affected by an election outcome they have not yet observed. Any effect on ideological polarization stemming from his murder should be observable in this subsample of respondents. Model (4) in

Table 1 draws a simple OLS comparison between the two pre-election groups. There is no statistically significant polarization effect after Fortuyn’s murder. Given that other differences in the two pre-election groups may exist, Model (5) then uses propensity score matching (Rubin 1974) to compare each respondent after the assassination to a most similar respondent before his assassination (for a similar approach see Dinas, Hartman, and van Spanje 2016). This analysis also fails to show an increase of polarization due to Pim Fortuyn’s assassination. Moreover, the size of the coefficient is much smaller than that in the pre-post-election comparisons. Thus, the placebo tests provide further support for our theoretical argument that the election itself (and not Fortuyn’s murder) led to ideological polarization. While our placebo test can rule out that the murder of Pim Fortuyn was the reason for increased polarization, it cannot account for other major political developments in relation to the election. Yet, given that the election and its campaign was dominated by the electoral success, political agenda and murder of Pim Fortuyn, we believe that the most newsworthy and, thus, plausible event driving our findings is the entrance of the LPF into parliament.

**Legitimization & backlash effects in the 2002 Dutch election** Next, we investigate the legitimization and backlash mechanisms in the Dutch case. This should give us a more fine-grained and substantive understanding of the macro-level effects reported above. Voters’ reactions to the entrance of a radical party should depend on how their general political identity relates to the party entering parliament. In this case, voters identifying with right-wing parties should be subject to a legitimization effect and left-wing party identifiers to a backlash effect.

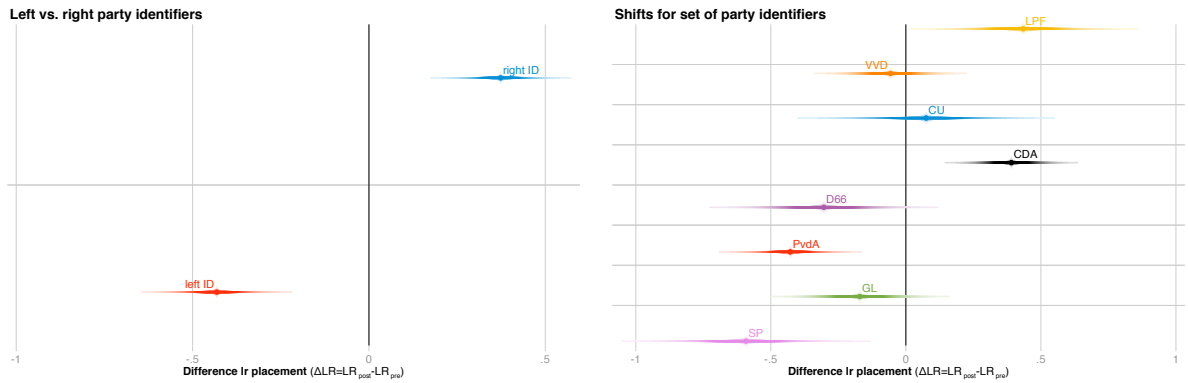
To test this expectation, we first split the respondents into groups based on their reported party identification *prior* to the election. Note that our findings remain similar if we use respondents’ reported voting decision; we do not use this information due to post-treatment bias. Then, we examine how party identifiers change their general left-right self placement after the election. Here, we use as our dependent variable in an OLS regression the difference between voters’ left-right self-placement after and before the election.

Figure 2 reports the findings of analyses of ideological shifts conditional on party sup-

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port. In the left panel we create indicator for respondents identifying with left- and right-leaning parties, respectively.<sup>4</sup> The legitimization and backlash effects are clearly visible: voters identifying with a right-leaning party *ceteris paribus* moved further to the right, while those identifying with a left-leaning party moved to the left.

**Figure 2:** Effect of party identification on shifts in left-right positioning (Netherlands 2002)



**Note:** The two plots report OLS coefficient estimates with 95 % confidence intervals. Coefficients estimates are for variables indicating whether a respondent identifies with a set of parties (left) or a specific party (right) in the pre-election wave. The outcome variable is the difference between the post-election and pre-election left-right position (1-11 scale). The full model specification with covariates is reported in table A.1 on page 2 in the appendix.

The left figure presents the coefficients for voters with left (SP, GL, PvdA, D66) and right (LPF, VVD, CU, CDA) party IDs. The right figure presents the coefficients for each party ID included in the panel study.

The party abbreviations are: LPF=Lijst Pim Fortuyn, VVD=Volkspartij voor Vrijheid en Democratie, CU=ChristenUnie, CDA=Christen-Democratisch Appèl, D66=Democraten 66, PvdA=Partij van de Arbeid, GL=GroenLinks, SP=Socialistische Partij.

The right panel of Figure 2 reports more fine-grained results for each group of party supporters. The parties in the Figure are sorted based on their left-right placement in the Chapel Hill Expert Survey, starting with the most right-leaning party (LPF) (Bakker et al. 2015). The models again use an OLS estimation with the difference between respondents' pre- and post-election left-right self-placements as the outcome variable. We expect right-wing party identifiers (LPF, VVD, CU and CDA) to move to the right and left-wing party identifiers (D66, PvdA, GL and SP) to move to the left.<sup>5</sup>

<sup>4</sup>We omitted very small parties with few identifiers from this analysis (Leefbaar Nederland; Duurzaam Nederland; Partij voor de Dieren; Partij van de Toekomst; Alliantie Vernieuwing).

<sup>5</sup>Since the left-right scale comes with a defined maximum and minimum, some voters cannot move further to the left or right (truncation). Using tobit models, which control for such "ceiling effects", results in the same conclusions as reported here (see Table A.2 in the Appendix).



In general, the estimates are in line with our theoretical expectations. All but one group (VVD identifiers) changed their ideological positioning as expected. Furthermore, these shifts are statistically significant for LPF, CDA, PvdA and SP identifiers. Thus, we find strong movements of left-right placement particularly on the extremes of the ideological scales. These movements are evidence that our mechanisms work as expected, as our argument implies that the strongest effect should be found at the extremes of the ideological scale. Yet, the strong and positive effect for the relatively centrist CDA and D66 voters indicates that the entrance of the LPF also led to an abandonment of the center. This test of our mechanisms further strengthens the conclusion that the ideological movement of voters after the entrance of the LPF is structured and occurred in similar ways on both sides of the ideological spectrum.

## 5.2 Study 2: time-series-cross-sectional findings

Our first study showed that the Dutch public polarized ideologically after an election dominated by the dramatic and unprecedented entrance of a radical right party. But do these findings hold in the longer term and generalize across contexts?

In our second study, the unit of analysis is country-years. We use Eurobarometer data, which contains surveys conducted since 1973 in member states of the European Union. Combining all Eurobarometer studies which asked respondents to place themselves on a general left-right scale running from 1 (extreme left) to 10 (extreme right) gives us information about 1,717,808 respondents across 17 European countries). On average, 1,083 respondents are asked to place themselves in each study and country. To measure public polarization we use the standard deviation of left-right self-placements in each country-year ( $\mu=2.09$ ;  $\sigma=0.22$ ).

Table 2 reports the countries and party entries we analyze. We identified radical-right parties based on standard party family accounts.<sup>6</sup> There are three types of possible country cases for the period studied: no entrance of a radical right party into parliament,

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<sup>6</sup>We base our selection on party families rather than ideological measures for two reasons: first, expert survey and party manifesto left-right scores are often not available for small and new parties; second, radical-right parties are almost by definition outside the mainstream in the systems in which they first emerge, so that using party family provides clear face validity.

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either at all or only after the period we study (e.g. Germany); entrance of a radical right party during the period we study (e.g. Sweden); and entrance of a radical right party before the period we study (e.g. Austria). We exclude the third type of country.<sup>7</sup> We only examine the effects of the first entry of a radical-right party into parliament.<sup>8</sup> Countries are coded as not having experienced radical-right party entry even if such a party has long existed but had not yet entered parliament. Countries are coded as having experienced radical-right party entry for all periods after radical-right party entry.<sup>9</sup> Finally, only in France did the radical-right party, after entering, leave parliament without another competitor taking its place.<sup>10</sup>

**Table 2:** Study 2: Countries & party entries included in the study

country	years	Radical right party entry
<i>Belgium</i>	1973-2016	Vlaams Blok (1978)
<i>Bulgaria</i>	2004-2016	ATAKA (2005)
<i>Denmark</i>	1973-2016	Dansk Folkeparti (1998)
<i>Finland</i>	1992-2016	
<i>France*</i>	1973-2016	Front National (1986)
<i>Germany</i>	1973-2016	
<i>Greece</i>	1980-2016	Laïkós Orthódoxos Synagermós (2007)
<i>Italy</i>	1973-2016	Lega Nord (1992)
<i>Luxembourg</i>	1973-2016	
<i>Netherlands</i>	1973-2016	Lijst Pim Fortuyn (2002)
<i>Poland</i>	2004-2016	Kukiz (2015)
<i>Portugal</i>	1985-2016	
<i>Romania</i>	2004-2016	
<i>Slovenia</i>	2004-2016	
<i>Spain</i>	1985-2016	
<i>Sweden</i>	1994-2016	Sverigedemokraterna (2010)
<i>United Kingdom</i>	1973-2016	

**Note:** \* France employed an electoral threshold in the 1986 election, which helped the FN to enter parliament in this election.

Our theoretical discussion highlighted that parties may shape what voters think. Yet, parties should also follow voters in the positions they take, making elite polarization the

<sup>7</sup>These countries are: Austria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, and Slovakia.

<sup>8</sup>We include Italy, the Netherlands and Sweden even though they had witnessed earlier entrances of radical-right parties over a decade earlier. Results are robust if we exclude these countries from Studies 2 and 3 (Tables B.5 & C.2 in the appendix).

<sup>9</sup>This is even the case if another, more radical party enters. This is only the case once in our period, when Golden Dawn enters the Greek parliament in 2012. In the Netherlands, the PVV entered after the LPF left parliament.

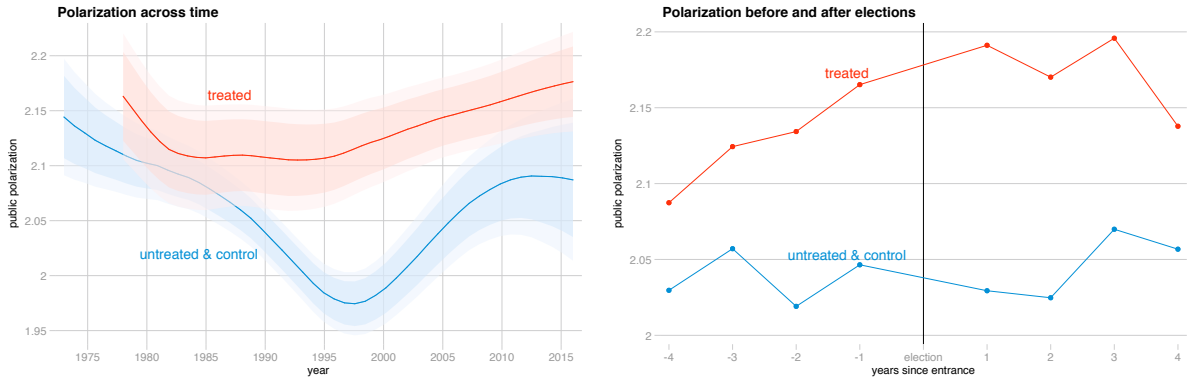
<sup>10</sup>The Front National (FN) experienced 3 time periods (after elections in 1993, 2002, and 2007) without parliamentary representation. As these are short periods and the party remained important in presidential elections, we believe it is warranted to include the FN throughout our analyses.

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consequence of voter polarization (Ezrow 2007; Adams et al. 2006; Ezrow et al. 2010). Untangling the causal association between elite and mass polarization is thus crucial to avoid problems of endogeneity (Gabel and Scheve 2007a; Down and Wilson 2010). Our research designs helps us to assess the causal impact of elite polarization on voters.

Figure 3 shows key descriptives based on the Eurobarometer data. The panel on the

**Figure 3:** Descriptives of polarization measure based on Eurobarometer across time (1973-2016)



**Note:** Figure on the left reports local polynomials (kernel: epanechnikov; degree: 0) surrounded by 95 and 83.7% confidence intervals. Figure on the right plots mean of respective sample by year.

left plots compares polarization in countries which have experienced the entrance of a radical party (“*treated*”) with the countries which either never experienced (“*control*”) or had not yet experienced the entry of a radical party at the respective year drawn on the x-axis (“*untreated*”). It becomes strikingly evident that the trajectories are substantially distinct for treated and control countries: it seems that countries with radical right parties in parliament experience a substantively larger voter-level ideological polarization. The panel on the right then compares the average public polarization in treated and control countries in the legislative periods before and after the entrance of an radical right party. The panel shows that on average the entrance of a radical right party leads to more ideological polarization among voters in the year after the election, while after an election voters *de-polarize* in the control countries. The Figure provides first suggestive evidence that radical-right party entry leads to increased ideological polarization.

To better understand polarization patterns across countries and time, we estimate two-way fixed effects models. Causal claims are difficult to achieve with TSCS data. In the

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best-case scenario we would compare the entrance of a radical party in a country with the absence of such a party entrance in the *same* country at the *same* point in time. Obviously, we can never observe both of these outcomes.<sup>11</sup> The best we can do is to “impute” a credible counterfactual for each country.

We rely on a fixed-effects regression model to approximate such a credible counterfactual (e.g. Folke, Hirano, and Snyder 2011). Thus, we control for country-effects and time-varying effects by introducing fixed effects. Such a model effectively compares countries having experienced the first-time entrance of a radical-right party with countries that had not experienced the same event in the same decade.<sup>12</sup> In essence, such a modeling strategy generalizes the well-known difference-in-differences approach (e.g. Fowler and Hall 2015: 45). Thus, we estimate the following model:

$$\text{polarization}_{c,t} = \alpha + \beta_1 \text{radical right party entry}_{c,t} + \Gamma \mathbf{Z}_{c,t-1} + \zeta_c + \delta_t + \epsilon_{c,t} \quad (1)$$

where  $c, t$  index countries and years respectively;  $\beta_1$  reports the effect of radical party entrance;  $\mathbf{Z}_{c,t-1}$  a set of controls lagged by one year outlined below;  $\zeta_c$  country fixed effects;  $\delta_t$  decade fixed effects and  $\epsilon_{c,t}$  the error term. Due to contemporaneous correlation we cluster the standard errors by the treatment appearance (country/election cycle). Alternatively we also cluster the standard errors on the country level using panel corrected standard errors (see Appendix Table B.6). The variable radical right entry is ‘1’ for the time periods after which a radical party has entered parliament and ‘0’ otherwise. In our models we control for the effective number of parliamentary parties, party system polarization, GDP growth and unemployment. These are all factors which should affect voter-level ideological polarization.

Table 3 reports the OLS estimates from these model specifications.

Radical right parties’ entrance into parliament (radical right enter) has clear con-

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<sup>11</sup>Using a regression discontinuity design that compares situations in which radical parties barely entered parliament with situations they barely did not enter is not possible in our case due to the small number of suitable observations.

<sup>12</sup>Due to sample size we cannot introduce both country and year fixed effects and controls. Yet, we also estimated models using year fixed effects only. The findings remain substantially the same (see table B.5 in the appendix).

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**Table 3:** OLS estimates: Does polarization increase after entrance of extreme right party?

	entire sample			countries with threshold		
	(1)	(2)	(3)	(4)	(5)	(6)
<b>radical right enter</b>	<b>0.0896</b> <b>(0.0344)</b>	<b>0.116</b> <b>(0.0321)</b>	<b>0.131</b> <b>(0.0327)</b>	<b>0.126</b> <b>(0.0530)</b>	<b>0.161</b> <b>(0.0448)</b>	<b>0.174</b> <b>(0.0478)</b>
GDP growth			-0.00640 (0.00314)			-0.00506 (0.00522)
unemployment <sub>t-1</sub>			0.00256 (0.00341)			-0.00297 (0.00471)
party system polarization <sub>t-1</sub>			-0.000746 (0.00209)			-0.000702 (0.00364)
party system fragmentation <sub>t-1</sub>			-0.0177 (0.0126)			-0.0216 (0.0169)
Constant	2.055 (0.0210)	2.103 (0.0512)	2.203 (0.111)	2.088 (0.0360)	2.505 (0.0957)	2.610 (0.140)
$R^2$	0.0348	0.674	0.690	0.0612	0.646	0.670
$N_{elections}$	164	164	145	82	82	74
$N$	534	534	503	253	253	243
Country FEs		✓	✓		✓	✓
Decade FEs		✓	✓		✓	✓

**Note:** Regression coefficients with Standard errors in parentheses;  
Standard errors clustered by country/election;  
country fixed effect & decade fixed effects omitted from table.

sequences for voter polarization. These effects remain remarkably stable across models: without (Model 1) and with fixed effects (remaining models), and for the entire sample (Models 1 to 3) or only for countries which use electoral thresholds (Models 4 to 6).

Radical right party entrance has a positive and significant effect in all models. The effect of radical right party entrance is also substantively large, resulting in an increase in polarization ( $\mu=2.11$ ;  $\sigma=0.23$ ) of almost one standard deviation ( $\beta=0.17$  in Model 6). Electoral thresholds make entrances of new parties more difficult, and as such these events should have even more shock-like effects. We indeed find larger effects for the sample of countries relying on electoral thresholds. While these effects (models 4-6) are not statistically different from the effects for countries without an electoral threshold (models 1-3), we interpret the larger effects as suggestive evidence that lends more plausibility to our findings.

These findings are robust across a set of different model specifications (Table B.5 in the appendix). First, we excluded the three countries which experienced significant success of “old” radical right parties (Italy: Alleanza Nazionale; Netherlands: Centre Party; Sweden: New Democracy). Second, to estimate more flexible time trends we re-estimated our

models using a quadric term for decades (decades<sup>2</sup>). We also tested whether there is a general trend towards ideological polarization around elections. However, controlling for election years and years immediately before an election with dummy variables does not change the substantive results discussed here (Table B.7 in the appendix). Third, we report a LDV model as well as a model using panel-corrected standard errors and bootstrapped standard errors (Table B.5). These modeling decisions do not affect our key findings. Fourth, using van der Eijk’s agreement measure instead of our polarization measure results in equivalent findings (see appendix Figure B.1 and Table B.4). Finally, we conducted randomization tests to check if our findings are model-dependent (Hsiang and Jina 2014: 23-26). We replaced the entry of radical right parties 10,000 times and then re-estimated equation (1) each time. We re-sampled our data in three ways, reported in detail in section B.4 in the appendix. The coefficient estimates confirm our findings.

### 5.3 Study 3: Synthetic control estimates

Using two-way fixed effects model as reported above provides the most conservative test for such data. Yet, this identification strategy rests particularly on one crucial assumption, namely that we can observe parallel trends between the countries which have experienced the entrance of a radical right party and countries without such an entrance prior to the entrance of the radical party. However, given the small number of countries and entrances in our dataset, this parallel trends assumption might be violated. While this assumption cannot be tested, the right panel in Figure 3 suggests that the trends between treated and control countries appear to be fairly similar before the entrance of a radical party, despite a stark outlier two years before the election.

To address this issue we use generalized synthetic control models (GSCM) (Xu 2017; Abadie, Diamond, and Hainmueller 2010, 2015). Synthetic Control Models rest on a similar idea as the better-known difference-in-differences estimator (Keele 2015: 322-323); for a recent application of SCM to polarization, see Silva (2018). GSCM allows researchers to estimate the effect of a non-random intervention (here the first entrance of a radical right party) on an outcome of interest (here ideological polarization) in the treated

unit (*Average Treatment Effect on the Treated*). First, researchers systematically choose the comparative units (also known as the *donor pool*) for the unit which experienced the intervention (Abadie, Diamond, and Hainmueller 2015). Second, based on a set of predictor variables chosen by the researcher the SCM algorithm approximates the temporal trend of the outcome of interest prior to the intervention. Thus, the algorithm assigns different weights to each donor within the pool to minimize the distance between the trend of the treated unit and the control units. The major advantage of GCSM lies in the approximation of the pre-treatment trends. Hence, the method is well-suited to approximating pre-treatment trends even if the analysis rests on a small set of countries (Abadie, Diamond, and Hainmueller 2015: 496-497). Below, we estimate the Generalized Synthetic Control Method (GSCM) (Xu 2017), which generates a counterfactual for each treated unit based on the untreated units by estimating a linear interactive two-way fixed effect model.

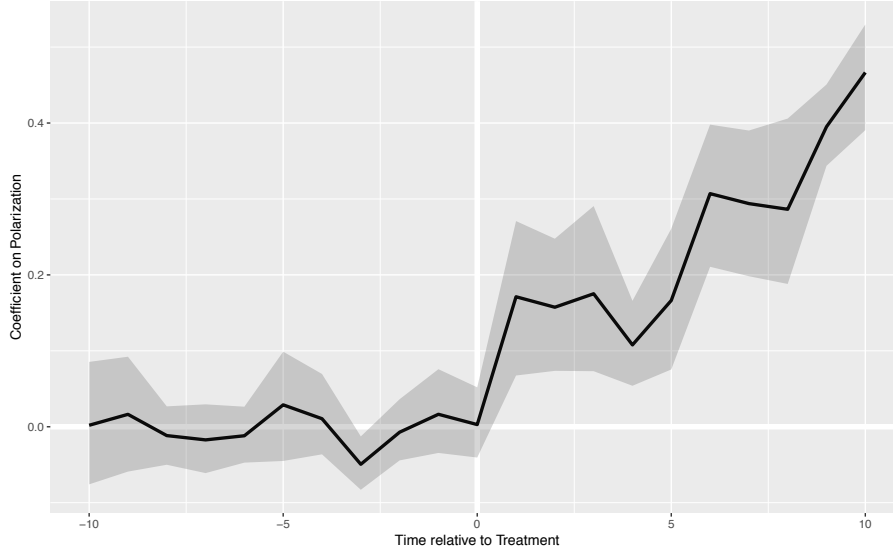
Figure 4 reports our findings for radical right party entries. We can only include countries from the analysis above for which we observe enough pre-treatment time periods for the GSCM to converge.<sup>13</sup> We use the same covariates used for the GSCM estimation as in the TSCS models (Table 3).

The upper panel in Figure 4 reports the Average Treatment Effect across time based on our GSCM estimates, i.e. the difference between the factual and the estimated counterfactual development of polarization across our sample (surrounded by parametric bootstrapped standard errors). We find further support for our previous findings. We observe a clear and strong treatment effect of first-time radical-right entry on voter polarization. Directly after the election of a radical-right party, the factual and counterfactual scenarios diverge dramatically. It is especially noteworthy that in contrast to a simple TSCS model the estimated model fits the pre-treatment trends of the treated units well. Immediately after the first radical right party enters parliament (Lega Nord 1992), the trajectories of

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<sup>13</sup>Countries included are Denmark, Germany, Greece, Italy, Luxembourg, Netherlands, United Kingdom. The GSCM needs panels to be balanced across units to estimate the counterfactuals. Thus, we can only rely on countries which experienced the treatment a minimum of ten years before our panel data start. To maximize the countries included before the treatments, we use countries for which the Eurobarometer provides data since 1980, giving us enough pre-treatment periods before the first entrance of a radical right occurs in our dataset (Italy, 1992, Lega Nord).

**Figure 4:** Generalized synthetic control estimates: Effects of the entrance of the radical right into parliament on polarization



**Note:** Countries included: Denmark ( $Y_{treat}$ : 1998), Germany (no treat), Greece ( $Y_{treat}$ : 2007), Italy ( $Y_{treat}$ : 1992), Luxembourg (no treat), Netherlands ( $Y_{treat}$ : 2002) & United Kingdom (no treat). Years included: 1980-2012.

Average treatment effect on the treated=0.304; confidence interval<sub>lower</sub>=0.2477; confidence interval<sub>upper</sub>=0.3657 using Expectation Maximization algorithm.

the control and treated countries begins to diverge.<sup>14</sup>

We conducted several robustness tests. First, a key concern in relation to our GSCM models is that in some countries radical parties might have entered regional or local parliamentary chambers prior to entering the national parliament. As a result, voters might have polarized prior to radical parties entering the national parliament. To address this concern, we moved the treatment in each country to one electoral cycle ahead of the actual occurrence (Figure C.1). For this placebo test, we do not find a significant effect of radical right party entry. Second, we removed Italy and the Netherlands from our analysis (Figure C.2 in the appendix); the findings remain similar in significance and substance.<sup>15</sup>

<sup>14</sup>Here we only report the first ten years after the entrance of a radical right party. Public opinion appears to de-polarize again approximately 15 years after the treatment takes place, this particular finding should be treated with caution, since effects after 10 years are driven by a single case (Italy) and several other factors might drive polarization then.

<sup>15</sup>For comparability and robustness we conducted another synthetic control method on the entrance of a radical right party into parliament (Appendix on page 15).



## 6 Radical party entry on the left

So far, we have only examined radical party entry on the right. However, party entry on the left may also lead to ideological polarization among voters. Communist, radical left and Green parties may legitimize left-wing views previously thought socially unacceptable, while opponents may react to these parties' success by moving further right.

To test this, we repeat our two studies above for entry on the left of the party system. First, we analyze a multi-wave election panel in Germany (1983). The German Green party entered the parliament after the 1983 elections for the first time and was perceived as an ideological extreme challenger party. Focusing on environmental concerns along with strong anti-nuclear stance the party challenged not only mainstream right parties, but also the Social Democratic party (SPD). We use data from the second wave of a three-wave panel (11 to 23 February 1983) and the third wave (16 to 28 March 1983); the election itself was on 6 March 1983. Using similar covariates as in the Dutch case, we again run models estimating whether the public polarized after the election (Table A.3 in the appendix). However, we do not find an increase of polarization after the entrance of the Green party in Germany. Second, we re-run our two-way fixed effects model controlling for Green party entries <sup>1</sup>. Yet, we do not find a polarizing effect of Green party entries on public opinion (Table B.6 in the appendix). Third, we estimate a synthetic control model for the entrance of the German Greens. We cannot find any effect of this entrance (Figure C.4 in the appendix). Overall, our expectation that voters polarize after radical party entry finds support for the radical right, but not for parties that enter on the left of the party system.

## 7 Discussion and conclusion

Voters polarize ideologically when parties that are more right-wing than their competitors enter parliament for the first time. A panel study in the Netherlands in 2002 provides within-individual evidence of increased immediate polarization on both sides of the polit-

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<sup>1</sup>Testing for radical left (Communist) party entry is not possible given that Communist and post-Communist parties entered parliaments mostly long before the Eurobarometer study period, yet Green parties are arguably radical in many contexts, especially on cultural issues.

ical spectrum when a radical-right party won its first seats. Voters supporting right-wing parties moved further to the right, and voters supporting left-wing parties moved further left. We termed these short-term changes legitimization and backlash. Next, evidence from TSCS and GSCM models using Eurobarometer data showed that there are also long-term effects of first-time radical-right party entry. This finding is consistent with a recent single-country SCM study on the Netherlands (Silva 2018).

Using the same empirical approaches, no equivalent effect was found when Green parties enter parliament, even though these parties often proposed policies at odds with the societal mainstream. Why might voters adjust to radical right party entry in particular? First, the positions of radical-right parties may “suffer” from a significant societal ‘taboo’, more so than the positions of Green parties. Radical-right positions are likely to break social norms and hence experience legitimization by entering parliament. This explains why short-term effects may be greater on the right. Second, long-term polarization effects may be greatest after radical right party entry because these parties have arguably done more to shift issue concerns. Specifically, the rise of the radical right may have shifted the left-right dimension towards cultural concerns centered on immigration. When strong radical-right populist parties place these issues on the policy agenda, this may change how voters place themselves in more general terms as well. Evidence from the Netherlands indeed shows that cultural issues are used more for left-right self-placement today than 30 years ago (De Vries, Hakhverdian, and Lancee 2013). This could be a way in which party strength, and especially party entry, on the radical right influences self-placement in the longer term.

Our study certainly has limitations that should be addressed in future research. First, researchers often need to rely on respondents’ abstract left-right self-placement instead of actual policy positions when testing long-term trends. More specific issue scales may provide better insight into how polarization develops. Second, while allowing a fine-grained look into our mechanisms, the design of the Dutch election study does not allow us to perfectly rule out confound treatments; future research could address this, for example by using survey experiments. In terms of the long-term consequences we relied on two-way

fixed effect models estimated across countries. This constitutes the most conservative test given the data we rely on, but future work could leverage other settings for stricter tests of causality.

Overall, our findings are important for research into the impact of radical parties and candidates on politics. Party systems in Europe have recently been marked by the rise of new competitors, frequently on the fringes of the party system. Often, these competitors have experienced significant electoral success, as in the case of the Sweden Democrats and the Alternative for Germany. In the United States, the election of Donald Trump signified a radical change in presidential discourse and positions. It is important that these events have an impact not just on how voters experience politics, but on how they place *themselves* on ideological scales. While some observers, e.g. [Mudde \(2013: 7\)](#), argue that radical-right parties ‘have rarely changed [voters’] more long-term attitudes’, our results show that radical right party entry has a radicalising and polarizing effect that goes beyond elite discourse and media debates.

More generally, our findings provide strong evidence that elite polarization affects voter polarization when signalled via distinctive, newsworthy and legitimizing events. Radical party entry is arguably a relatively clear-cut form of elite polarization, and the simple entrance of such a new party affects the range of party positions represented in parliament. This binary change on its own appears to have an effect on voters. Other shock-like events, such as referendum outcomes (such as Brexit) or large-scale protests, unrest or riots may have similar effects. Our finding is an important step towards identifying the key mechanisms of voter polarization more precisely. Since voter polarization is both a key characteristic of democratic societies and one where causal relationships are most complex, it is important to study its antecedents and to use careful methodological approaches when doing so.

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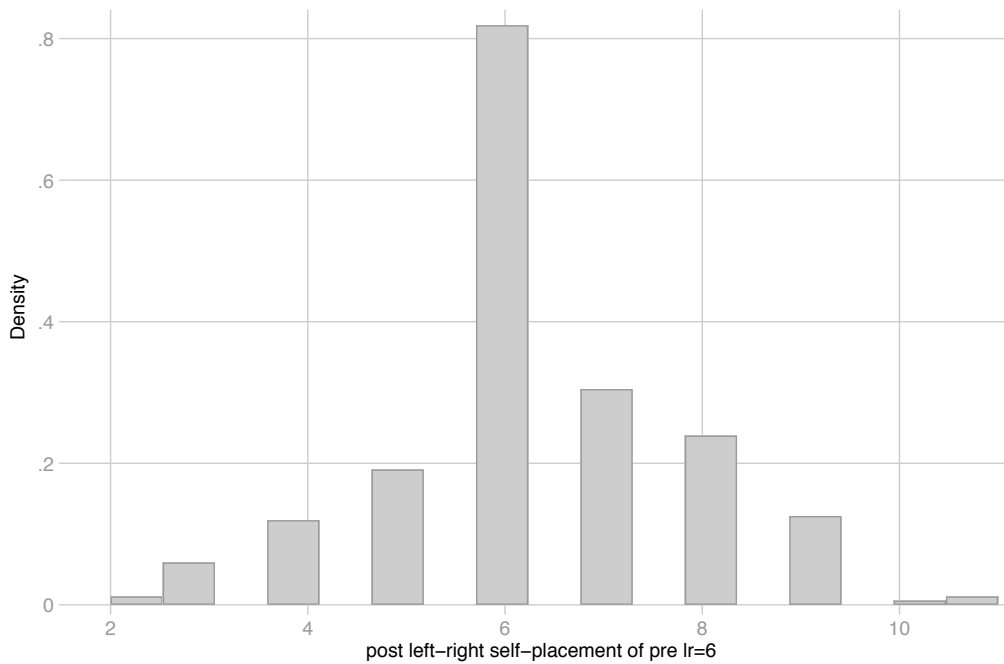
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## A Appendix: study 1

Here, we report full details for our analyses of changes in left-right self-placement conditional on party identification in the Netherlands in 2002. The first two models below in Table A.1 use respondents' left-right self placement after the election as a dependent variable and control for the pre-election left-right self placement ( $LR_{pre}$ ). The third and fourth model are those reported in the paper (in Figure 2 on page 15). They include respondents left-right self placement as predictors in the regression equation. Thus, here the difference between respondents' placement after the election and respondents' placement before the election are used as a dependent variable. Table A.2 then presents results using Tobit regression models for the same analyses.

**Figure A.1:** Density histogram of post election self left-right placement, 6 in  $pre_{lr}$  only



# A Appendix: study 1

**Table A.1:** OLS estimates: Is there a backlash & legitimization effect? Yes.

	(1) Pre/post comparison	(2) Pre/post comparison + controls	(3) Post <sub>lr</sub> -Pre <sub>lr</sub>	(4) Post <sub>lr</sub> -Pre <sub>lr</sub> + controls
LPF ID	0.716 (0.155)	0.672 (0.160)	0.293 (0.171)	0.366 (0.181)
VVD ID	0.387 (0.112)	0.464 (0.116)	-0.172 (0.120)	-0.0935 (0.127)
CU ID	0.321 (0.171)	0.195 (0.185)	-0.0776 (0.189)	-0.109 (0.209)
CDA ID	0.460 (0.0967)	0.412 (0.102)	0.213 (0.107)	0.149 (0.115)
D66 ID	-0.520 (0.153)	-0.371 (0.155)	-0.372 (0.170)	-0.348 (0.175)
PvdA ID	-0.901 (0.104)	-0.793 (0.106)	-0.458 (0.113)	-0.476 (0.119)
GL ID	-0.881 (0.127)	-0.702 (0.130)	-0.209 (0.135)	-0.234 (0.145)
SP ID	-1.377 (0.171)	-1.166 (0.173)	-0.661 (0.186)	-0.659 (0.194)
LR <sub>pre</sub>	0.626 (0.0203)	0.570 (0.0218)		
asylum		0.116 (0.0278)		0.0180 (0.0310)
crime		0.0266 (0.0314)		-0.0485 (0.0354)
euthanasia		0.0489 (0.0221)		0.00451 (0.0249)
inequality		0.0670 (0.0262)		-0.0292 (0.0292)
female		0.0429 (0.0709)		0.0876 (0.0804)
age		0.0000359 (0.00226)		0.000520 (0.00256)
social class		0.00512 (0.0401)		0.0211 (0.0454)
political knowledge		-0.0234 (0.0113)		0.000208 (0.0128)
rural		0.0262 (0.0266)		0.00716 (0.0302)
religion		0.176 (0.0801)		0.117 (0.0909)
Constant	2.612 (0.139)	1.777 (0.324)	0.346 (0.0732)	0.316 (0.358)
R <sup>2</sup>	0.647	0.658	0.0366	0.0416
N	1404	1374	1404	1374

**Note:** Regression coefficients with Standard errors clustered in parentheses.

# A Appendix: study 1

**Table A.2:** Tobit models: Is there a backlash & legitimization effect after LPF? Yes.

	(1) Pre/post comparison	(2) Pre/post comparison + controls	(3) Post <sub>lr</sub> -Pre <sub>lr</sub>	(4) Post <sub>lr</sub> -Pre <sub>lr</sub> + controls
LPF ID	0.740 (0.159)	0.690 (0.163)	0.293 (0.170)	0.366 (0.180)
VVD ID	0.365 (0.114)	0.448 (0.118)	-0.172 (0.120)	-0.0929 (0.127)
CU ID	0.352 (0.176)	0.215 (0.189)	-0.0775 (0.188)	-0.109 (0.207)
CDA ID	0.470 (0.0992)	0.419 (0.104)	0.214 (0.107)	0.149 (0.114)
D66 ID	-0.515 (0.156)	-0.363 (0.157)	-0.372 (0.169)	-0.348 (0.174)
PvdA ID	-0.891 (0.106)	-0.782 (0.108)	-0.458 (0.113)	-0.476 (0.118)
GL ID	-0.857 (0.130)	-0.678 (0.132)	-0.209 (0.135)	-0.235 (0.144)
SP ID	-1.358 (0.175)	-1.148 (0.176)	-0.664 (0.185)	-0.662 (0.193)
LR <sub>pre</sub>	0.644 (0.0209)	0.587 (0.0223)		
asylum		0.116 (0.0283)		0.0178 (0.0308)
crime		0.0303 (0.0321)		-0.0486 (0.0352)
euthanasia		0.0534 (0.0225)		0.00452 (0.0248)
inequality		0.0650 (0.0268)		-0.0296 (0.0291)
female		0.0517 (0.0723)		0.0877 (0.0799)
age		0.000424 (0.00231)		0.000516 (0.00255)
social class		0.00185 (0.0408)		0.0212 (0.0452)
political knowledge		-0.0240 (0.0115)		0.000164 (0.0127)
rural		0.0291 (0.0271)		0.00729 (0.0300)
religion		0.166 (0.0816)		0.117 (0.0903)
Constant	2.503 (0.143)	1.626 (0.331)	0.346 (0.0730)	0.318 (0.355)
$R^2$				
$N$	1404	1374	1404	1374
$L_{censored}$	11	11	1	1
$R_{censored}$	30	28	0	0

Standard errors in parentheses.

**Table A.3:** OLS estimates: Did polarization increase after Green entrance (Germany 1983)? No.

	(1)	(2)	(3)
	DE	DE	DE
pre/post election	0.0346 (0.0432)	0.0346 (0.0433)	0.0346 (0.0432)
Constant	1.073 (0.409)	0.553 (0.490)	1.651 (0.0216)
Controls		✓	
Interview timing	✓	✓	
Individual FE			✓
$R^2$	0.00156	0.0260	0.000656
Obs.	1964	1964	1964
$N$	982	982	982

**Note:** Regression coefficients with Standard errors in parentheses;  
Standard errors clustered by respondent;  
controls (age, gender, urban vs. rural, social class,;  
voting preference, political knowledge, religiosity) omitted from table.

## B Appendix: study 2

### B.1 Party selection

Below we report all radical-right parties we included in our analyses (table B.1). We also discuss the criteria for inclusion/exclusion along with each parties left-right placement according to expert surveys (Castle/Mair & Chapel Hill Expert Surveys). We also report which Green parties we included Table B.2.

Table B.1: Party selection criteria (Radical right)

Country	EB years	Included	RR party name	Year of entry	Entry observed?	Left-right position (year, source)	Notes
Austria	1994-2016	No	FPÖ	1986	n/a	8.63 (1995, HI)	Not included because FPÖ represented in parliament from at least 1986 as an explicitly radical-right party.
Belgium	1973-2016	Yes	Vlaams Blok	1978	Yes	9.8 (1984, CM)	
Bulgaria	2004-2016	Yes	ATAKA	2005	Yes	5.46 (2006, CHES)	Despite this moderate evaluation, the party is clearly radical-right in its positioning.
Czech Republic	2004-2016	No	Sdružení pro republiku	1992	n/a	9.8 (1995, HI)	Not included because Sdružení pro republiku represented in parliament from 1992 as an explicitly radical-right party.
Denmark	1973-2016	Yes	Dansk Folkeparti	1998	Yes	8.86 (1999, CHES)	
Estonia	2004-2016	No	Eesti Kodanik	1992	No	n/a	
Finland	1992-2016	Yes	n/a	n/a	No		We do not classify the True Finns as a radical party. In the CHES, they never score above 6.3 (0-10 scale).
France	1973-2016	Yes	Front National	1986	Yes	9.8 (1984, CM)	
Germany	1973-2016	Yes	Alternative for Germany	2017	No	9.19 (2017, CHES)	Golden Dawn and ANEL entered in 2012; we disregard these additional entrances.
Greece	1980-2016	Yes	Laikós Orthódoxos Synagermós	2007	Yes	9.11 (2006, CHES)	Not included because Magyar Igazság és Élet Pártja represented in parliament from 1998 as an explicitly radical-right party.
Hungary	2004-2016	No	Magyar Igazság és Élet Pártja	1998	n/a	9.71 (2002, CHES)	Movimento Sociale Italiano entered in 1946. Not included because Nacionala apvienība / Tēvzemei un Brīvībai entered in parliament from 1998 as an explicitly radical-right party.
Italy	1973-2016	Yes	Lega Nord	1992	Yes	7.5 (1995, HI)	Not included because Jaunoji Lietuva represented in parliament from 1992 as an explicitly radical-right party.
Latvia	2004-2016	No	Nacionala apvienība / Tēvzemei un Brīvībai	1998	n/a	7.5 (2002, CHES)	Centre Party entered in 1982; PVV entered in 2006, the year the LPF left parliament.
Lithuania	2004-2016	No	Jaunoji Lietuva	1992	n/a	9.8 (2002, CHES)	
Netherlands	1973-2016	Yes	Lijst Pim Fortuyn	2002	Yes	8.4 (2002, CHES)	
Poland	2004-2016	Yes	Kukiz	2015	Yes	8.3 (2017, CHES)	
Portugal	1985-2016	Yes	n/a	n/a	No		
Romania	2004-2016	Yes	n/a	n/a	No		
Slovakia	2004-2016	No	Slovenská národná strana	1990	n/a	8.29 (2002, CHES)	Not included because Slovenská národná strana represented in parliament from 1990 as an explicitly radical-right party.
Slovenia	2004-2016	Yes	n/a	n/a	No		
Spain	1985-2016	Yes	n/a	n/a	No		
Sweden	1994-2016	Yes	Sverigedemokraterna	2010	Yes	8.38 (2010, CHES)	New Democracy was elected in 1991 and exited in 1994. UKIP gained one seat when Douglas Carswell won a by-election in October 2014; he retained this seat in 2015.
United Kingdom	1973-2016	Yes	UKIP	2014	No	9.14 (2010, CHES)	The case is not treated as radical party entry as the party entered parliament outside a general election.

Table B.2: Party selection criteria (Greens)

Country	EB years	Included	Green party	Year of entry	RL/Coms present	Entry observed?	Left-right position (year, source)	Notes
Austria	1994-2016	No	Greens	1986	no		2.86 (1995, HI)	Greens entered before EB availability Communists exited in 1959 Communists had been in parliament since 1925
Belgium	1973-2016	Yes	Agalev/Ecolo	1981	yes	yes	4.5 (1984, CM)	
Bulgaria	2004-2016	Yes	n/a	n/a	n/a	no		
Czech Republic	2004-2016	Yes	Green party	2006	yes	yes	7.4 (2006, BL)	Communists in parliament continuously since 1992 Benoit-Laver scale ranges from 1 to 20.
Denmark	1973-2016	Yes	Red-Green Alliance	1994	yes	yes	1 (1999, CHES)	Left Socialists (VS) in parliament since 1964 Danish Communists in parliament from 1973-1979 Socialist People's Party in parliament since 1960 Estonian Greens elected in 1992 for one term Green League elected in 1983 Finnish People's Democratic League has been in parliament since 1922
Estonia	2004-2016	Yes	n/a	n/a	n/a	no	4 (1995, HI)	Communist party in parliament since 1924 Communist party elected once in 1949
Finland	1992-2016	No	Green League	1983	yes			Communist party (KKE) in parliament since 1974
France	1973-2016	Yes	Greens	1997	yes	yes	4.4 (1995, HI)	
Germany	1973-2016	Yes	Greens	1983	no	yes	2.8 (1984 CM)	
Greece	1980-2016	Yes	OE (Alternative Ecologists)	1989	yes	yes	n/a	
Hungary	2004-2016	Yes	LMP (Politics can be different)	2010	no	yes	3.5 (2010, CHES)	
Italy	1973-2016	Yes	FdLV	1987	yes	yes	2.6 (1995, HI)	Communist party in parliament since 1946 Communist parties entered parliament in 1990 and 1998
Latvia	2004-2016	Yes	n/a	n/a	n/a	no		
Lithuania	2004-2016	Yes	n/a	n/a	n/a	no		
Netherlands	1973-2016	Yes	Green Links	1989	no	yes	1.78 (1995, HI)	Green Links formed by a merger of four smaller left parties and was substantially more successful than some Communist parties briefly successful in early 1990s
Poland	2004-2016	Yes	n/a	n/a	n/a	no		Green entry as part of alliance with Communists
Portugal	1985-2016	No	Ecology Party - Greens	1983	yes			Short-lived Green party in early 1990s
Romania	2004-2016	Yes	n/a	n/a	no	no		Short-lived Green party in early 1990s
Slovakia	2004-2016	Yes	n/a	n/a	n/a	no		Short-lived Green party in early 1990s
Slovenia	2004-2016	No	Youth Party - European Greens	2000	no	yes	8.7 (2006, BL)	Benoit-Laver scale ranges from 1 to 20. Green entry only in Catalonia
Spain	1985-2016	Yes	n/a	n/a	n/a	no		as part of alliance with United Left
Sweden	1994-2016	No	Greens	1988	yes			Communists in parliament continuously since 1920
United Kingdom	1973-2016	Yes	Green Party	2010	n/a	no	2.5 (2010, CHES)	Single seat won by Greens in 2010



## B.2 Further analyses

This Appendix presents further analyses relevant to the TSCS analysis of Eurobarometer data. Table B.3 provides the sources for the aggregate-level controls included in some of the TSCS models.

Next, Figure B.1 and the subsequent tables presents our analyses when using the Van Der Eijk (2001) measure of agreement (calculated using (Ecker 2011)) rather than the standard deviation. To ease interpretation we rescaled van der Eijk’s measure to reflect *disagreement*. Results of these analyses match the results presented in the main paper.

Table B.6 presents results for the entrance of radical left parties. There is no evidence of polarization among voters after radical left party entry. The Table also shows that the effect of radical right party entry holds if we control for radical left party entry.

Finally, section B.4 presents a placebo test using simulated data. These results provide further evidence in favour of our expectations.

**Table B.3:** Sources used to create controls included in analyses

variable	source	download date	web	sample covered
GDP growth (% change from previous year)	Comparative Political Data Set (Variable: <i>realgdpgr</i> )	7/12/17	<a href="#">link</a>	entire
unemployment (% of civilian labour force)	European Commission (Variable <i>ZUTN</i> )	2/23/18	<a href="#">link</a>	entire
party system polarization (standard deviation)	Manifesto Project Database (based on standard deviation of “ <i>rile</i> ”)	2/22/18	<a href="#">link</a>	27 country/years not covered
party system fragmentation ( <i>Effective Number of Parties</i> )	Manifesto Project Database (based on <i>ENP</i> estimated from “ <i>absseat</i> ”)	2/22/18	<a href="#">link</a>	27 country/years not covered

### B.3 Using van der Eijk measure of agreement

**Figure B.1:** Scatterplot of van der Eijk's agreement & standard deviation of LR scale

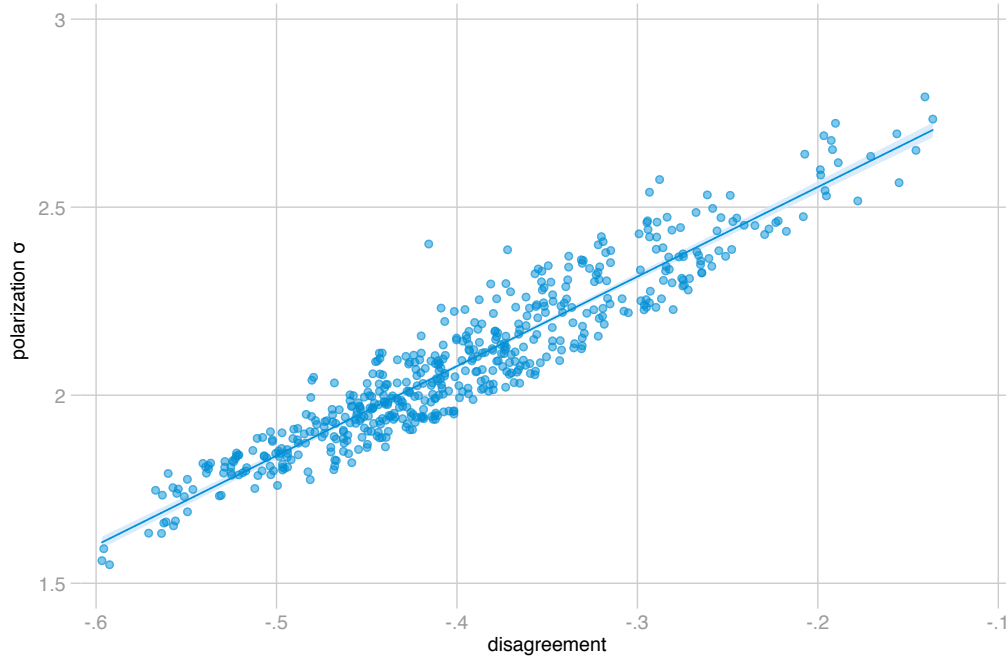


Table B.4: Robustness: OLS estimation using van der Eijk's agreement measure

	entire sample		(3)		(4)		(5)		(6)	
	disagreement	disagreement	disagreement	disagreement	disagreement	disagreement	disagreement	disagreement	disagreement	disagreement
<b>radical right enter</b>	<b>0.0482</b>	<b>0.0657</b>	<b>0.0700</b>	<b>0.0597</b>	<b>0.0852</b>	<b>0.0890</b>				
GDP growth	(0.0138)	(0.0142)	(0.0148)	(0.0198)	(0.0200)	(0.0216)				
unemployment <sub>t-1</sub>			-0.00307			-0.00238				
			(0.00124)			(0.00211)				
			0.000157			-0.00149				
party system polarization <sub>t-1</sub>			(0.00129)			(0.00194)				
			-0.000120			-0.000162				
party system fragmentation <sub>t-1</sub>			(0.000844)			(0.00146)				
			-0.00355			-0.00920				
			(0.00562)			(0.00785)				
Constant	-0.412	-0.400	-0.382	-0.387	-0.271	-0.226				
	(0.00814)	(0.0221)	(0.0478)	(0.0135)	(0.0411)	(0.0589)				
$R^2$	0.0641	0.633	0.660	0.0929	0.555	0.583				
$N_{elections}$	164	164	145	82	82	74				
$N$	534	534	503	253	253	243				
Country FEs	✓	✓	✓	✓	✓	✓				
Decade FEs	✓	✓	✓	✓	✓	✓				

**Note:** Regression coefficients with Standard errors in parentheses;

Standard errors clustered by country/election;

country fixed effect & decade fixed effects omitted from table.

Table B.5: Robustness, OLS estimation: Does polarization increase after entrance of extreme right party? Yes.

	(1) year FE	(2) bootstrap	(3) without IT, NT, SW	(4) without IT, NT, SW (countries with threshold)	(5) Decade <sup>2</sup>	(6) LDV	(7) LDV+ controls	(8) PCSE+ LDV	(9) PCSE+ LDV+controls
radical right enter	0.117 (0.0335)	0.116 (0.0453)	0.0829 (0.0419)	0.164 (0.0712)	0.172 (0.0492)	0.0523 (0.0188)	0.0610 (0.0204)	0.0523 (0.0157)	0.0610 (0.0169)
GDP growth					-0.00587 (0.00504)		-0.00421 (0.00225)		-0.00421 (0.00237)
unemployment <sub>t-1</sub>					-0.00306 (0.00448)		0.00110 (0.00188)		0.00110 (0.00204)
party system polarization <sub>t-1</sub>					-0.000461 (0.00360)		-0.00136 (0.00119)		-0.00136 (0.000892)
party system fragmentation <sub>t-1</sub>					-0.0235 (0.0171)		0.000725 (0.00874)		0.000725 (0.00717)
polarization <sub>t-1</sub>						0.605 (0.0474)	0.596 (0.0529)	0.605 (0.0449)	0.596 (0.0455)
Constant	2.230 (0.0909)	2.103 (0.0487)	2.097 (0.0550)	2.390 (0.0978)	2.647 (0.129)	0.788 (0.0996)	0.816 (0.143)	0.788 (0.0974)	0.816 (0.115)
$R^2$	0.697	0.674	0.708	0.734	0.667	0.806	0.804	0.806	0.804
$N_{elections}$	164	164	133	51	74	150	142	142	142
$N$	534	534	428	147	243	508	493	508	493
Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Decade FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Note:** Regression coefficients with Standard errors in parentheses;

Model(2) reports bootstrapped standard errors by country, 1000 replications;

Models (6) & (7) use panel-corrected standard errors (panel-specific AR1 + panel-level heteroskedastic errors);

Remaining models: clustered standard errors by country/election;

country fixed effect & decade fixed effects omitted from table.

## B Appendix: study 2

**Table B.6:** Robustness, OLS estimation: Does polarization shift after entrance of extreme left party? No.

	(1)	(2)	(3)	(4)
	polarization	polarization	polarization	polarization
Green party enter	-0.137 (0.0452)	-0.131 (0.0356)	-0.121 (0.0357)	-0.111 (0.0343)
radical right enter				0.124 (0.0313)
GDP growth			-0.00549 (0.00308)	-0.00476 (0.00319)
unemployment <sub>t-1</sub>			0.00329 (0.00320)	0.00240 (0.00345)
party system polarization <sub>t-1</sub>			-0.000972 (0.00209)	-0.00149 (0.00204)
party system fragmentation <sub>t-1</sub>			-0.00459 (0.0126)	-0.0141 (0.0119)
Constant	2.185 (0.0417)	2.223 (0.0418)	2.237 (0.103)	2.232 (0.101)
Country FE		✓	✓	✓
Decade FE		✓	✓	✓
$R^2$	0.0723	0.672	0.682	0.703
$N_{elections}$	164	164	145	145
$N$	534	534	503	503

**Note:** Regression coefficients with Standard errors in parentheses;  
clustered standard errors by country/election;  
country fixed effect & decade fixed effects omitted from table.

### B.4 Placebo tests: simulating random data

We conducted randomization tests to check if our finding is model dependent, a spurious correlation (for a more detailed discussion please consult: [Hsiang and Jina 2014](#): 23-26). To do so we randomize our entire sample and create a false new data set. We then re-estimate equation 1. We replaced the entry of radical right parties 10000 times, each time re-estimating equation 1. We re-sampled our data in three ways: (1) *entire sample* – Randomly re-assigning each radical right entry; (2) *between countries* – Randomly re-assigning each country’s history of radial right entry to another country while preserving the order of years. Thereby we can test if global trends in our data (contemporaneous correlation) drive our findings; (3) *within countries* – Randomly re-ordering the appearance of radial right entry in each country. Thereby we can test if invariant cross-sectional patterns drive our findings.

**Table B.7:** Robustness, OLS estimation: Are our findings driven by election years only? No.

	(1)	(2)	(3)
	polarization	polarization	polarization
<b>radical right enter</b>	<b>0.0899</b>	<b>0.113</b>	<b>0.128</b>
	<b>(0.0345)</b>	<b>(0.0325)</b>	<b>(0.0331)</b>
year before election	0.0220	-0.00286	-0.00818
	(0.0156)	(0.0118)	(0.0119)
election year	0.0619	0.0226	0.0208
	(0.0136)	(0.0116)	(0.0114)
GDP growth			-0.00642
			(0.00313)
unemployment <sub>t-1</sub>			0.00247
			(0.00340)
party system polarization <sub>t-1</sub>			-0.000722
			(0.00210)
party system fragmentation <sub>t-1</sub>			-0.0176
			(0.0126)
Constant	2.031	2.096	2.200
	(0.0235)	(0.0518)	(0.111)
Country FE		✓	✓
Decade FE		✓	✓
$R^2$	0.0503	0.676	0.693
$N_{elections}$	164	164	145
$N$	534	534	503
Country FEs	-----	✓	✓
Decade FEs		✓	✓

**Note:** Regression coefficients with Standard errors in parentheses;  
clustered standard errors by country/election;  
country fixed effect & decade fixed effects omitted from table.

**Figure B.2:** Randomizing the entry of radical right parties

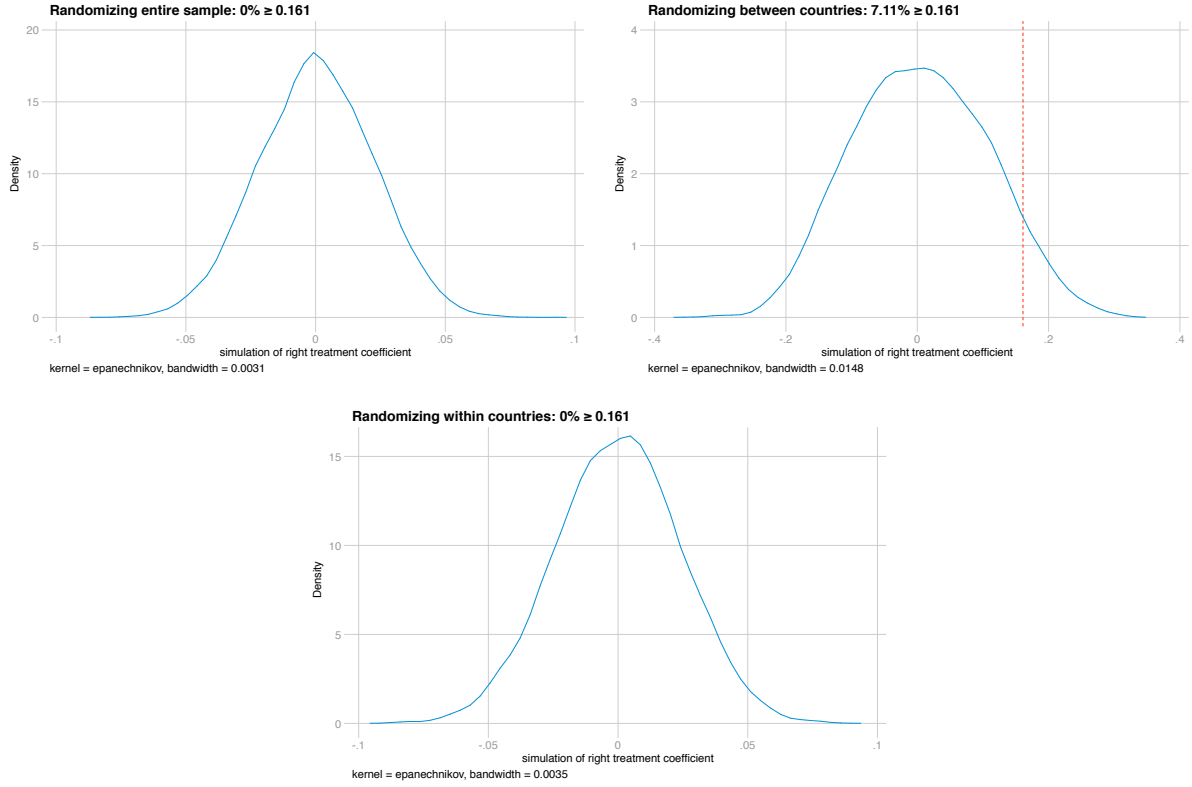


Figure B.2 reports the findings from these three simulations. It becomes visible that both for the entire sample and the within sample simulations we cannot randomly find the same coefficient as our analysis. Also in case of the between simulation we randomly find our coefficient only in 7.1 % of our simulations. Thus, the simulations are re-assuring for our findings. These appear to be truly not spurious and based on our modeling decisions.

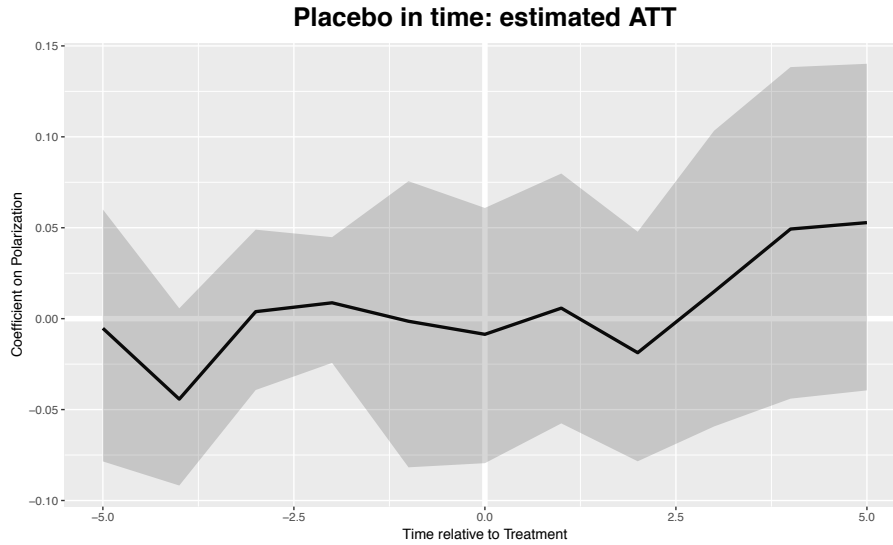
## C Appendix Study 3

This Appendix presents further analyses relevant to the GSCM analysis of Eurobarometer data. We present results when we run the same analyses on a placebo in time (section C.1), where no equivalent effect is found. We also present results when we exclude Italy and the Netherlands (section C.2). Here, the results match those presented in the main paper very closely.

Next, we also present SCM analyses for radical right entry in Denmark and radical left (Green party) entry in Germany. While we find evidence of ideological polarization among voters after radical right entry in Denmark, there is no such evidence for change among voters in Germany after Green party entry.

### C.1 Placebo in time

**Figure C.1:** GSCM, placebo in time: no effect

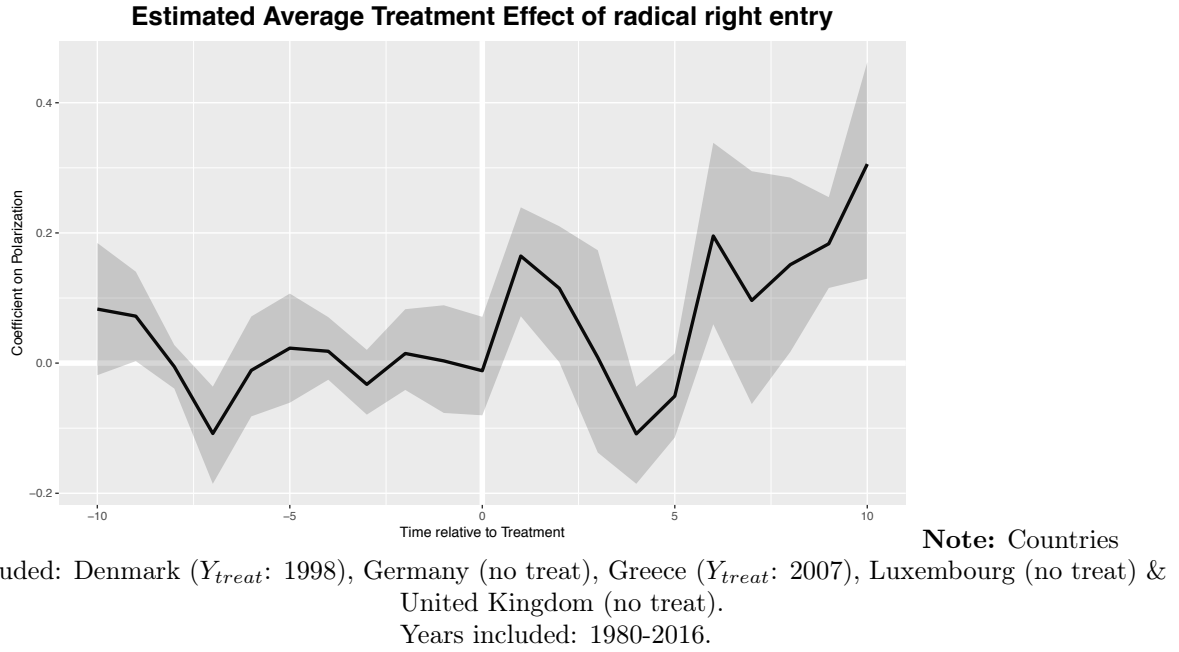


**Note:** Countries included: Denmark ( $Y_{treat}$ : 1994), Germany (no treat), Greece ( $Y_{treat}$ : 2004), Italy ( $Y_{treat}$ : 1987), Luxembourg (no treat), Netherlands ( $Y_{treat}$ : 1998) & United Kingdom (no treat).  
Years included: 1980-2016.



## C.2 Robustness: GSCM without Italy & Netherlands

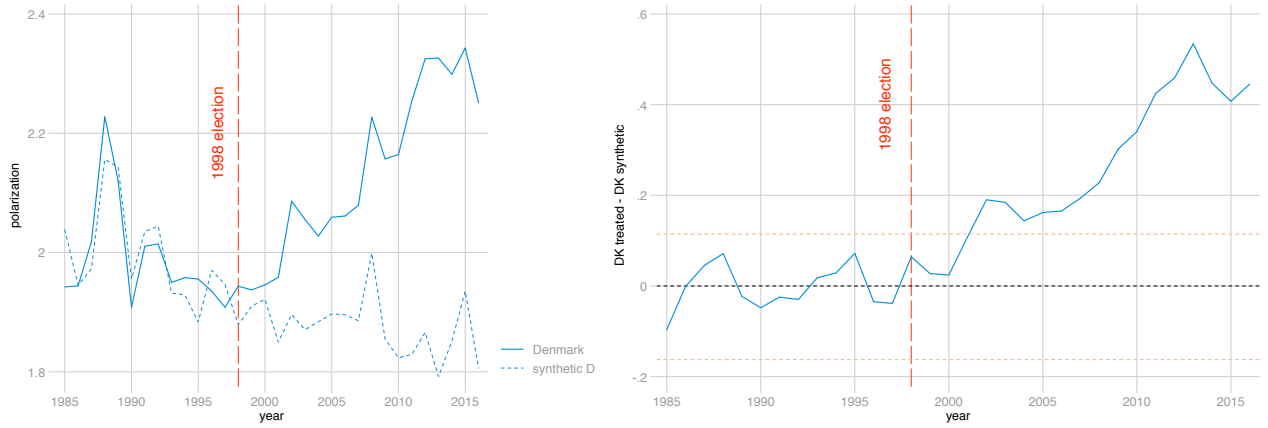
**Figure C.2:** Robustness: GSCM without Italy & Netherlands



## C.3 SCM: radical right entrance in Denmark

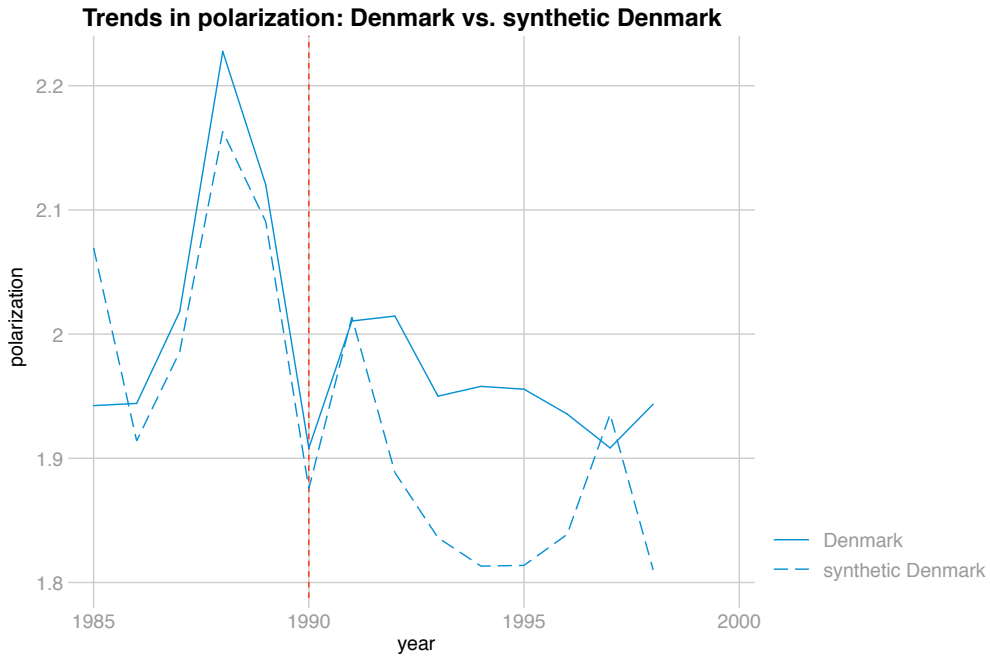
Below we report our findings for the entrance of the Dansk Folkeparti (DF) in Denmark. The general elections in Denmark in 1998 experienced the entrance of the DF. The platform of the DF promised to protect the cultural heritage of the Danish people against foreigners, to work against the idea of a multicultural Denmark along with strict enforcement of law and order. The party has been classified as populist radical right and as such this is the first such party to enter parliament in Denmark. They entered the parliament by achieving 7.5% of the popular vote after several politicians split from the Fremskridtspartiet. Subsequently DF held 13 out of 179 seats in the Folketing. Since then the DF has always been represented in the Folketing and has frequently influenced and supported governmental legislation in Denmark (Mudde 2007: 43). All of this suggests that the DF should have had a substantial influence on how public opinion and polarization has developed in Denmark since 1998. Indeed, the results of our SCM analysis confirm that polarization took place after this party's initial success.

**Figure C.3:** Synthetic control: Denmark & synthetic Denmark

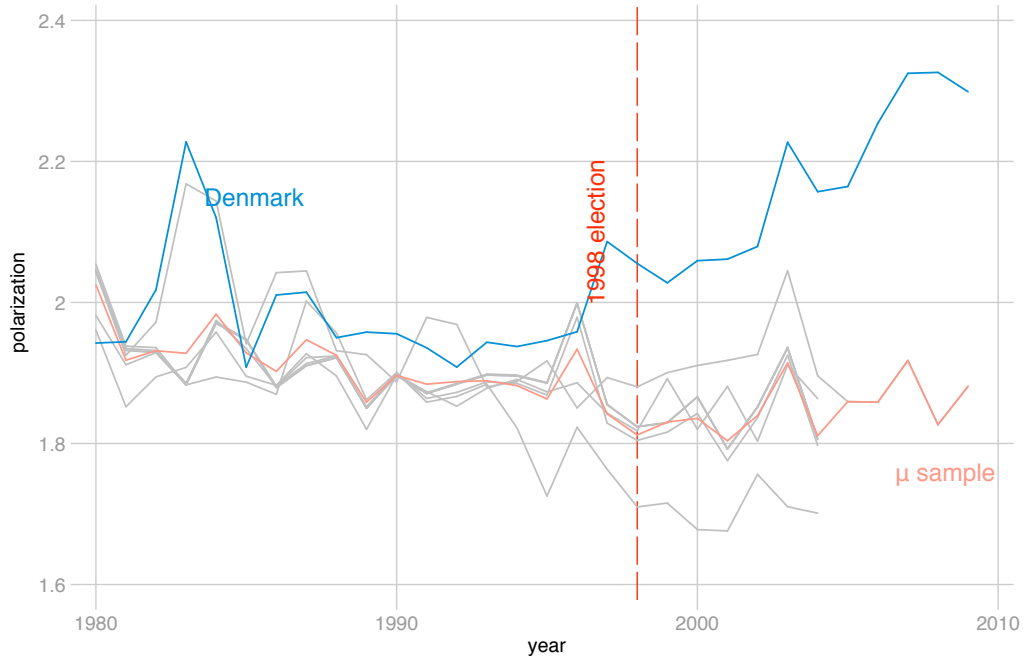


**Note:** Comparison of Polarization in Denmark & synthetic Denmark.

**Figure C.4:** Synthetic control, placebo in time: would we observe a comparable effect if the intervention happened one election earlier? No.



**Figure C.5:** Synthetic control, Jackknife-1 deletion: are the differences driven by a specific donor? No.



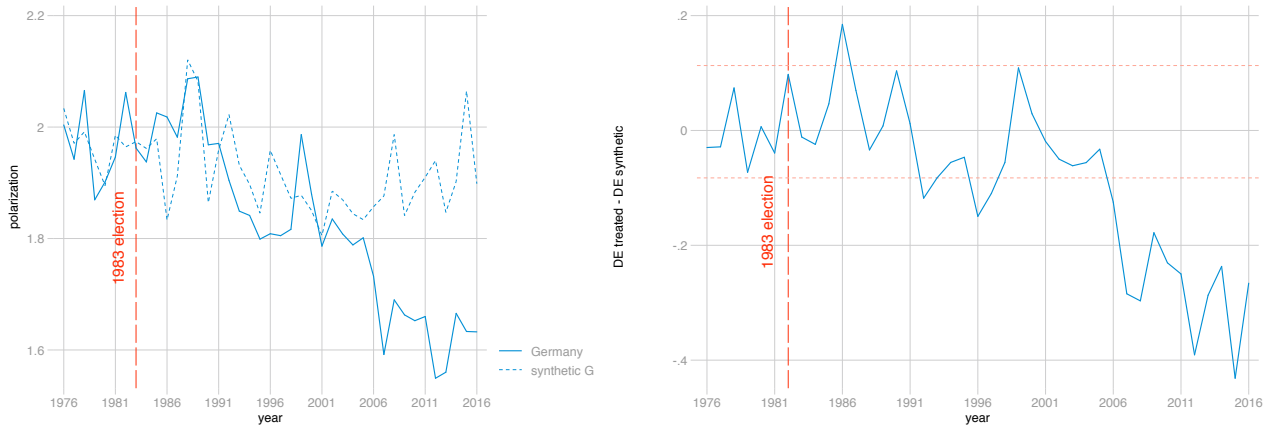
**Note:** Reported are the synthetic “Denmarks” dropping each donor and re-estimating our models.

#### C.4 SCM: radical left entrance in Germany

We do not have sufficient pre-treatment information across our sample to employ the GSCM for radical left party entrance. Yet, we can make use on the entrance of the Green party in Germany in 1983 to estimate the long-term effect of radical left party entrance. This case is well-suited for a SCM estimation since it is one of the earliest entries of radical left/Green parties within our sample. This is especially important because the entrance of the Green party in Germany is spatially correlated with other entries that occurred after the entry of the German Greens.

Figure C.6 reports the findings for the entrance of the Green party in Germany. The entrance of the Green party in Germany did not meaningfully affect ideological polarization. The left panel suggests that in the early 2000s public polarization decreased. Yet, this effect occurs approximately two decades after the treatment occurred, so it seems unlikely that this decrease can be causally linked to the entrance of the Greens in 1983.

**Figure C.6:** Synthetic control: Germany & synthetic Germany



**Note:** Comparison of Polarization in Germany & synthetic Germany.