

Does affective polarization increase turnout? Evidence from Germany, Spain and the Netherlands

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Abstract

While polarization is often seen as mainly negative for the functioning of democracies, one of its saving graces could be that it raises the stakes of politics, and through that, encourages participation. Recent studies provide some cross-sectional evidence for this assertion. We add to the literature by testing the relation between affective polarization and turnout in a more stringent matter using longitudinal designs. Our analyses span 3 decades of repeated cross-sectional in Germany, a two-wave panel study in Spain, and an eleven-way panel study in the Netherlands. We investigate whether affective polarization increases turnout as well as vice versa using varying operationalizations and specifications, and study whether any boost in participation is not limited to the most politically sophisticated. Our analyses confirm a positive correlation between affective polarization and turnout, and suggest that – while the relation is reciprocal – a sizeable independent effect exists of affective polarization on turnout. Importantly, this effect is not restricted to the most politically sophisticated, and might even be somewhat more pronounced among those who are *least*. We discuss the normative and theoretical implications of these findings.

Introduction

Dislike for opposing parties and partisans has recently become a dominant theme in the analysis of political competition. Extensive research on the United States has shown that negative partisanship and affective polarization are on the rise (Iyengar et al. 2019), but recent work has provided evidence of their importance in many other contexts (Westwood et al. 2018, Helbling and Jungkunz 2020, Gidron et al. 2020, Wagner 2020). In this line of research, affective polarization is generally seen as a dangerous development, with scholars highlighting potential negative consequences in terms of the erosion of democratic norms, the decline of social trust and the increase in partisan prejudice and discrimination.

In contrast, far less scholarly attention has been given to possible benevolent consequences of affective polarization. A potential saving grace – or at least a blessing in disguise – of affective polarization could be that it increases engagement with, and participation in, politics. Interestingly, a recent influential review article (Iyengar et al. 2019) makes no mention of potential mobilizing effects of affective polarization, and there has been little research on this possibility (with the partial exceptions of Ward and Tavits 2019 and Wagner 2020). Yet, the argument for why affective polarization may increase political participation is simple: the greater the dislike of other parties, the more is at stake in political competition (Ward and Tavits 2019). By turning political opponents into enemies, participating in politics becomes more important simply to keep them out of power. While Downs (1957) noted that it is irrational for any individual to invest time in going to the ballot box, group politics might be a force that drives electoral participation (Edlin et al. 2007). By linking politics into that most human of passions, intergroup conflict, affective polarization makes voters care about politics in a way that dry considerations of electoral utility cannot. In this respect, affective polarization can be seen as the oxygen of democracy: while it is needed to keep democracy breathing, an excess can make everything go up in flames.

Although the link between affective polarization and turnout has largely been ignored in existing research, there is some, albeit limited, empirical evidence of such an effect. Using cross-national, cross-sectional data from the Comparative Study of Electoral Systems (CSES), Ward and Tavits (2019) and Wagner (2020) document that higher levels of dislike towards outparties are associated with a higher intention to turn out at elections. This correlation dovetails with the – more impressionistic – observation that turnout has gone up – or at least halted its decline – recently in elections that were characterized by deep partisan divisions, such as in the United States or the United Kingdom.

While some evidence thus exists, there is reason to study this phenomenon further by expanding both the type of data sources and the statistical analyses employed. Ward and Tavits (2019) and Wagner (2020) both use individual-level variation in outparty dislike at election time and operationalize affective polarization based on outparty dislike. While this provides the crucial insight that this correlation is positive, there are limits to the inferences that can be made from such correlations. First, the relation between polarization and turnout might be reciprocal. As people's engagement with politics increases, so might the extent to which they loathe their opponents. Second, affective polarization is likely to be highly correlated with other individual-level characteristics such as personality and interest, so it is important to examine associations across time, both within and across individuals, rather than focussing on cross-sectional studies. Third, given that affective polarization varies strongly between countries (Reiljan 2019, Gidron et al. 2020, Wagner 2020), correlations at the aggregated level might be confounded by factors at the polity level. Fourth, assessing the impact of polarization on turnout is difficult using postelection studies, which take place *after* elections; this means that levels of affective polarization might reflect developments since the vote took place, leading to incorrect inferences about the link between turnout and polarization. Finally, rather than assuming monolithic effects, it is important to consider how the effects of affective polarization might differ between groups of citizens. Here, we build on studies of elite polarization suggest that suggest that effects on turnout are moderated by political sophistication (Moral 2017) and model such interactions explicitly.

Our paper aims to contribute to our understanding of this phenomenon using a combination of three studies that, together, add substantively to the limited findings from earlier research. All three studies consist of data collected at multiple points in time, allowing us to study the relationship between affective polarization and turnout dynamically. Moreover, the studies provide more varied measures of both affective polarization and turnout (intention) than have hitherto been employed. So, each study has unique strengths and weaknesses, and combining results from all three increases confidence in our findings.

In Study 1, we study affective polarization and turnout within the same system – Germany – using monthly data from 1990 to 2018, employing an aggregated time series analysis, with turnout measured using survey-based turnout intention data as well as actual turnout figures from regional elections. This setup has the benefit of providing for many more observations within a single system, allowing for better tests of the causal direction of the polarization-turnout relationship while keeping the country context constant.

In Study 2, we complement these findings with a two-wave panel study in Spain derived from the E-DEM data (Torcal et al. 2018). This second study allows us to use cross-legged models with individual-level data to assess the causal direction of the polarization-turnout relationship. Another advantage of this study is that allows for a more direct operationalization of affective polarization – that of dislike towards *fellow citizens of opposing political camps* (a ‘horizontal’ measure), rather than dislike of *parties* in the abstract (a ‘vertical’ one).

Finally, in Study 3 we use an eleven-wave panel from the Netherlands to confirm the findings from the first two studies. This study adds to the aggregate-level analyses on Germany by, like the Spanish data, having repeated observations of individuals; and adds to the two-wave analysis on Spain by spanning a longer period (1-year intervals over a maximum of 11 years), which might better capture changes in engagement and polarization. Like the German study, the Dutch data relies on party sympathy questions.

Overall, we find strong support for a positive effect of affective polarization on turnout. This effect dwarfs that of ideological polarization and is also appears both stronger and more robust than the reverse effect of turnout on affective polarization. In addition, we find that affective polarization has a mobilizing effect across different levels of political sophistication, with some indication that it might be most mobilizing among the *least* sophisticated. Hence, this paper provides strong, consistent evidence of an important consequence of affective polarization that has hitherto received surprisingly little attention. Moreover, it shows that affective polarization can have normatively good consequences by fostering the motivation to turnout without further increasing the participation gap.

Polarization, partisan affect and turnout: existing findings

Citizens are more likely to go to the polls if they think the election is important, and the perception of importance is clearly related to how much people believe a country would change depending on who is elected. Thus, electoral participation is partly driven by perceptions of what is at stake. There is a lot of evidence suggesting that the more competitive and decisive an election is, the more likely voters are likely to participate (Blais and Dobrzynska 1998, Franklin 2004). Related to this, closer elections also tend to have higher turnout (Geys 2006), which may be because tight elections mean both that people believe

each vote matters more (Matsusaka and Palda 1993) and that elites invest more in campaigns (Cox and Munger 1989).

Ideological polarization, partisanship and turnout

Two established aspects that increase the perceived stakes of elections are partisanship and ideological polarization. Ideological polarization tends to lead to higher levels of turnout (Dalton 2008, Crepaz 1990, Siaroff and Merer 2002, Hetherington 2008, Steiner and Martin 2012, Moral 2017, Wilford 2017, Béjar et al. 2020).¹ Ideological polarization should increase the perception that a lot is at stake: the greater the ideological range of programmes proposed, the more it matters for policy outcomes who is elected (Crepaz 1990, Franklin 2004). Hence, ideological polarization may reduce the impact of abstention induced by alienation or indifference (Adams and Merrill 2003, Adams et al. 2006, Callander and Wilson 2007, Murias Munoz and Meguid 2021). In addition, ideological polarization may also increase the clarity of party positional cues and thereby decrease the difficulty of choosing between competitors (Knutsen and Kumlin 2005, Lachat 2008, Blais and Dobrzyńska 1998). However, not all research points to a clear positive effect of ideological polarization on turnout (Franklin 2004, Rogowski 2014), while Enders and Armaly (2019) find different effects for actual and perceived ideological polarization (but see Moral 2017). Finally, it is important that ideological polarization may encourage turnout in part by fostering partisanship (Crepaz 1990), the distinct effects of which we will now discuss.

Positive partisanship has a positive relationship with turnout because it provides a motivation to vote, namely to see one's own side do well in an election. Ever since it was developed as a concept, partisanship has been linked to political engagement (Campbell et al. 1960). Meta-analyses confirm that political participation increases as social identities increase (Smets and van Ham 2013), so 'commitment to the party as a group ... foster[s] participation' (Greene 2004). Huddy et al. (2015) show that the expressive aspects of partisanship – i.e. those based on identity rather than ideology or perceived competence – are particularly strong drivers of campaign involvement. Elections also present threats to one's in-party, so 'electoral involvement is one way in which partisans can defend their party against such potential losses or can ensure gains' (Huddy et al. 2015). Exposure to electoral threat may mean that these positive identities then generate important mobilizing emotions such as enthusiasm or anger

¹ Similarly, the polarization of evaluations of political leaders may also matter for turnout, as Abramowitz and Stone (2006) show for the United States; this factor lies somewhere between ideological polarization and affective polarization.

(Valentino et al. 2011, Valentino and Neuner 2017). Related work also finds that in-group trust more generally increases political participation (Crepaz et al. 2014).

Affective polarization and turnout

Affective polarization captures both strong positive feelings towards one's in-party as well as strong negative feelings towards out-parties (Iyengar et al. 2012). This concept therefore builds on the notion of partisanship as a social and expressive identity (Greene 2002, 2004, Huddy et al. 2015), but adds out-group bias to the previous focus on positive in-group identification. Affective polarization may also have ideological foundations (Orr and Huber 2020). Hence, affective polarization is intrinsically linked both to positive partisanship and ideological polarization, both of which are positive predictors of affective polarization (Rogowski and Sutherland 2016, Wagner 2020, Hernandez et al. 2020), although the effect may go in both directions (Diermeier and Li 2019).

Here, we argue that affective polarization should have a distinct positive impact on turnout, going beyond the influence of positive in-group partisanship and ideological polarization. We thus follow Ward and Tavits (2019), who argue that 'affective polarization results in viewing politics through the lens of group conflict and thereby raises the perceived stakes of electoral competition'. The role of group conflict more generally is confirmed by Crepaz et al. (2014), who show that lower out-group trust increases political participation.

Existing evidence for the impact of affective polarization on turnout uses cross-national, cross-sectional election survey data. Thus, Ward and Tavits (2019) show that affective polarization has a large effect on turnout. Wagner (2020) finds similar results using the same dataset and various measures of affective polarization while additionally controlling for ideological polarization and positive partisanship. This research shows that the effect of affective polarization is about one third of that of in-group partisanship, but also substantively larger than that of perceived left-right polarization. Finally, Mayer (2017) finds that negative partisanship, a component of affective polarization, increases turnout by about nine percentage points on average (see also Caruana et al. 2015).

A more difficult question concerns the mechanism that connects affective polarization to the willingness to turnout. What distinguishes the impact of affective polarization from mere positive partisanship is the extent to which individuals have negative feelings towards out-parties and their supporters. Negative evaluations of out-group parties and partisans may drive turnout for several reasons. For one, affective polarization may increase turnout because negative out-party feelings may foster important mobilizing and motivating emotions

such as anger and schadenfreude (Valentino et al. 2011, Huddy et al. 2015; Kalmoe and Mason 2019). The role of anger in motivating conflict-oriented intergroup behaviour has been demonstrated more generally (Claassen 2016). In addition, affective polarization is likely to do more than mere positive in-group feelings to raise the perceived stakes of an election. The deeper the intergroup conflict, the more important it becomes to one's self-image not to lose out to the 'outgroup'.² Outgroup bias distorts perceptions of the opposing camps' intentions and the willingness to even consider its claims (Strickler 2017). Moreover, all of these considerations are likely to loom large in citizens' minds due to negativity bias. In short, it might particularly be the possibility of losing to disliked groups that pushes people to participate. We therefore expect that *affective polarization has a positive impact on voter turnout*.

Does political sophistication moderate the impact of polarization on turnout?

Finally, we turn to an important potential moderator of the impact of polarization on turnout: political sophistication. Political sophistication is a concept that captures a range of characteristics, including political knowledge, attention to politics and cognitive ability, and is usually measured using a mixture of questions assessing knowledge, interest and/or education attainment (Gomez and Wilson 2007, Lachat 2008, Lau et al. 2014, Weitz-Shapiro and Winters 2017, Dalton 2020). Understanding the way sophistication moderates the impact of polarization is crucial for our normative understanding of its appeal. After all, if polarization further increase participatory inequalities by making politics appealing to the most sophisticated only, this would reduce its saving grace. However, if polarization draws new groups into politics, its silver lining is more pronounced.

The reason to expect polarization might actually increase engagement gaps comes from the literature on elite ideological polarization. This literature suggests participation boosts due to ideological polarization are confined mainly to more sophisticated voters, as only these engage with politics and electoral decisions at a more detailed ideological or policy level. Indeed, Moral (2017) suggests ideological polarization may even actively alienate less sophisticated voters, leading to lower turnout.

On the other hand, the extent to which polarization mostly appeals to the politically sophisticated might be weaker for affective polarization. Mobilization based on identity is less based on detailed engagement with policy or ideological differences. Indeed, Huddy et al.

² As noted by Huddy et al. (2018), “[p]artisans (...) internalized sense of partisan identity means that the party's failures and victories become personal. The maintenance of positive distinctiveness is an active process, especially when a party's position or status is threatened”

(2015) stress that expressive aspects of partisanship drive involvement even among sophisticated citizens, rather than particularly among such citizens. At the same time, there is also evidence that emotional appeals have a stronger impact among more knowledgeable than among less knowledgeable citizens (Jones et al. 2013). Given this diverging evidence, we expect that *affective polarization has a similar positive effect on turnout among more sophisticated and less sophisticated voters.*

Research design

As noted in the introduction, studying the association between affective polarization is particularly challenging due to their likely reciprocal relationship. Citizens who dislike some political parties and their supporters will be more likely to participate in the political process, but political involvement may itself in turn strengthen affective patterns. For example, if I turned out to vote, I may react much more strongly – and more tribally – to the results of the election.

To address the potential reciprocal effects of our two key variables as well as possible confounders of the effect of affective polarization, our three studies all have longitudinal elements within countries and within individuals. The first study on Germany uses monthly survey data, which we use for an aggregated time-series analysis and for an analysis of predictors of turnout at regional elections. The second and third studies make use of two-wave and eleven-wave panel surveys from Spain and the Netherlands, respectively. Here, we run panel data models that allows us to control for lagged values of both variables. Thus, all studies study the interrelationship between our two key variables over time, but use different modelling and measurement approaches. While each study on its own has limitations, their cumulative findings should lead to confidence in our results.

We measure affective polarization using feeling thermometers, a common approach (Iyengar et al. 2019, Ward and Tavits 2019, Reiljan 2019, Wagner 2020, Gidron et al. 2020). Despite variation in scale length and labeling, the measures we use are very similar to the standard thermometer scales that have been used in US research (Iyengar et al. 2019) and to the like-dislike scales used in comparative research (Reiljan 2019, Wagner 2020). However, thermometer questions measure affect towards party elites rather than partisans (Druckman and Levendusky 2019), even if these thermometer scales correlate to a convincing degree with more detailed measures of affective evaluations of parties and their members (Iyengar et

al. 2015). To address this shortcoming, Study 2 uses a different measure of affective polarization, specifically based on feeling thermometers towards party supporters rather than abstract parties.

We also mostly measure turnout using self-reports, either of turnout itself or of turnout intentions. While survey measures of turnout are strongly prone to overreporting and nonresponse bias (Sciarini and Goldberg 2016), these self-reports still capture engagement with the political process and thus reflect whether affective polarization increases the extent to which people *want* to vote. However, in Study 1 we also model actual turnout at the regional level in Germany to see whether our findings also hold beyond survey-based turnout measures.

Finally, we measure our key moderating variable, political sophistication, using political interest. While there are various aspects to the concept of political sophistication, we are mainly interested in how affective polarization matters across different levels of self-assessed engagement with the political system. If affective polarization also matters for those who do not think they are interested in politics, this shows that the mobilizing effect is broad. However, we also replicate our findings using other measures of political sophistication in the Supplemental Information.

Our three studies also cover three country contexts: Germany, Spain and the Netherlands. This introduces useful variation to our findings, as we can test whether affective polarization has a mobilizing effect in a diversity of contexts and time periods. Studies using cross-country data show that Germany and Spain are moderately affectively polarized, but the Netherlands less so (Reiljan 2020, Wagner 2020). In terms of party systems, the Netherlands has many parties with a broad variety of ideological orientations, while the party systems of Germany and (with regional variation) Spain are more compact and simpler in ideological terms. All three countries are parliamentary systems with proportional representation, so our findings may travel less well to highly personalized systems, e.g. with strong presidents.

Study 1: Aggregate-level evidence from Germany

Data and model

For Study 1, we use monthly public opinion data (known as ‘Politbarometer’) collected by the *Forschungsgruppe Wahlen*, a German polling organization. Since 1988, the Politbarometer polls have been conducted by telephone (landlines only). The sample size varies by month,

ranging from 908 to 7198. Here, we use monthly average values of affective polarization, ideological polarization and turnout intentions for an aggregate-level analysis. We have observations of all variables since 1997.

To measure affective polarization, we use a question that asks respondents what they think of the main parties currently competing. They are asked to imagine thermometer ranging from -5 to +5, with -5 as ‘I strongly dislike this party’ and +5 as ‘I like this party a lot’. Measures of sympathy towards the CDU, CSU, SPD, FDP, Greens and the PDS/Left party are included in every wave. The Republikaner are included in 1989, 1990, 1992, 1993 and 1994, the AfD from 2013 onwards. Since the CSU and CDU compete in different parts of the country, we use whichever of the two scores is higher. We then calculate affective polarization using the index proposed in Wagner (2020); specifically, we use the unweighted spread-of-scores measure as our key indicator of affective polarization.

Turnout intention is asked every month in the survey using a separate question. In most months, the question asks (yes/no) whether someone would vote if an election would be held this Sunday. The format of the question and the answer are modified slightly when an election is imminent or just occurred. Answers are recoded so that those who say they would (definitely) vote are coded as 1. We then use the monthly average vote intention in our models.

We measure ideological polarization as the standard deviation of left-right positions each month. This is asked using a standard 1-11 scale in most months; for some months, branching questions were used instead, and we remove these months from our analysis as they lead to substantially lower estimates of ideological polarization. This reduces the period of observations for this variable to 1997-2019. To account for cycles in polarization and turnout intentions, we include the proportional amount of time elapsed since the last election as a predictor; a squared term accounts for cyclical aspects of turnout intention.

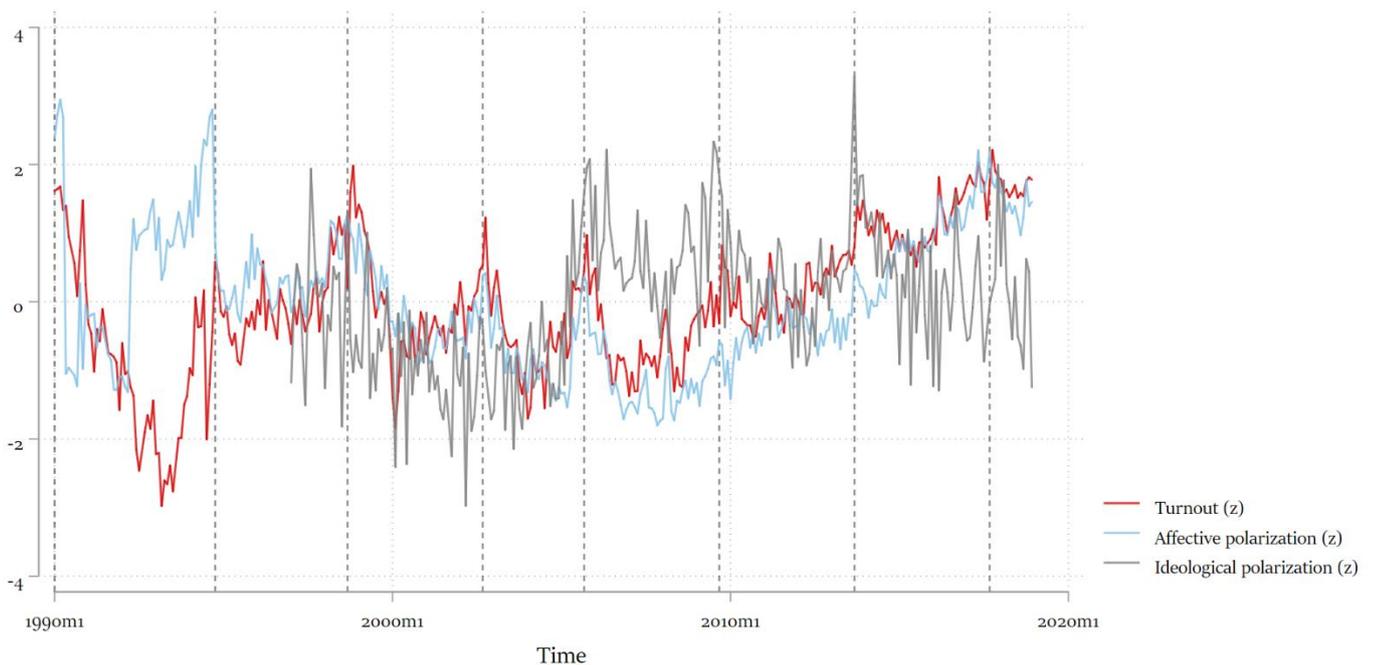
Because the main benefit of the Politbarometer lies in its long timespan, our models use aggregated data. However, it is important to note that at the individual level the data replicates the findings of Ward and Tavits (2019) and Wagner (2020): affective polarization positively predicts turnout.³ For the main analysis, the data were aggregated to the monthly level to create a time series trend with $T = 331$, which we analyze using a ARIMA model (which models both lagged and contemporaneous effects) and a VAR model (which excludes contemporaneous effects but allows for an inspection of the temporal order of affective polarization and turnout). To replicate the findings using actual turnout in state-level

³ See Appendix B for a multilevel model explaining turnout intention.

elections, we re-aggregate the data to the state-election level and apply a repeated cross sectional model with fixed effects for states. We supplement this with data about turnout and party positions on the federal level (Benoit et al. 2009; Gross and Debus 2018).

Figure 1 below shows the development of AP, IP and turnout since 1997, when measurement of all variables became available. It shows, in line with Boxell et al. (2020) that affective polarization has waxed and waned over time in Germany, and that it tends to peak around elections (Hernandez et al. 2020). Turnout intention follows a similar election cycle, which might point to their mutual reinforcement, but also underlines the need to control for the moment in the election cycle in our models below. The last two decades witnessed a steady increase in affective polarization to a level that is high (but not unique) in a historical perspective. Perhaps tellingly, turnout intention has risen with this in tandem too, even net of election cycle effects. Ideological polarization shows no clear trend over the same recent period.

FIGURE 1. TRENDS IN KEY VARIABLES



Results: country-level aggregated time series

As a first step we modelled the dependent variable, turnout. A Portmanteau test of the residuals of turnout shows white noise to be obtained at 2 lags. The main independent variable, affective polarization, is modelled with its contemporaneous variable and also two lags, given that its effects are likely to play out within a couple of months. Contemporaneous

control variables are ideological polarization, salience of economic issues, salience of cultural issues, proportion of time elapsed since last election, and the square term of the latter.

TABLE 1. ARIMA MODEL PREDICTING TURNOUT

	Main model
Affective polarization	0.014*** (0.004)
- <i>first lag</i>	0.003 (0.004)
- <i>second lag</i>	0.002 (0.003)
Salience of cultural issues	-0.002 (0.002)
Salience of economic issues	0.015 (0.013)
Ideological polarization	-0.014 (0.023)
Time until next election	-0.130*** (0.038)
Time until next election ²	0.123*** (0.035)
Intercept	0.955*** (0.021)
<hr/>	
ARMA (turnout)	
- <i>first lag</i>	0.366*** (0.091)
- <i>second lag</i>	0.196* (0.077)
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Sigma	0.013*** (0.001)
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N	158

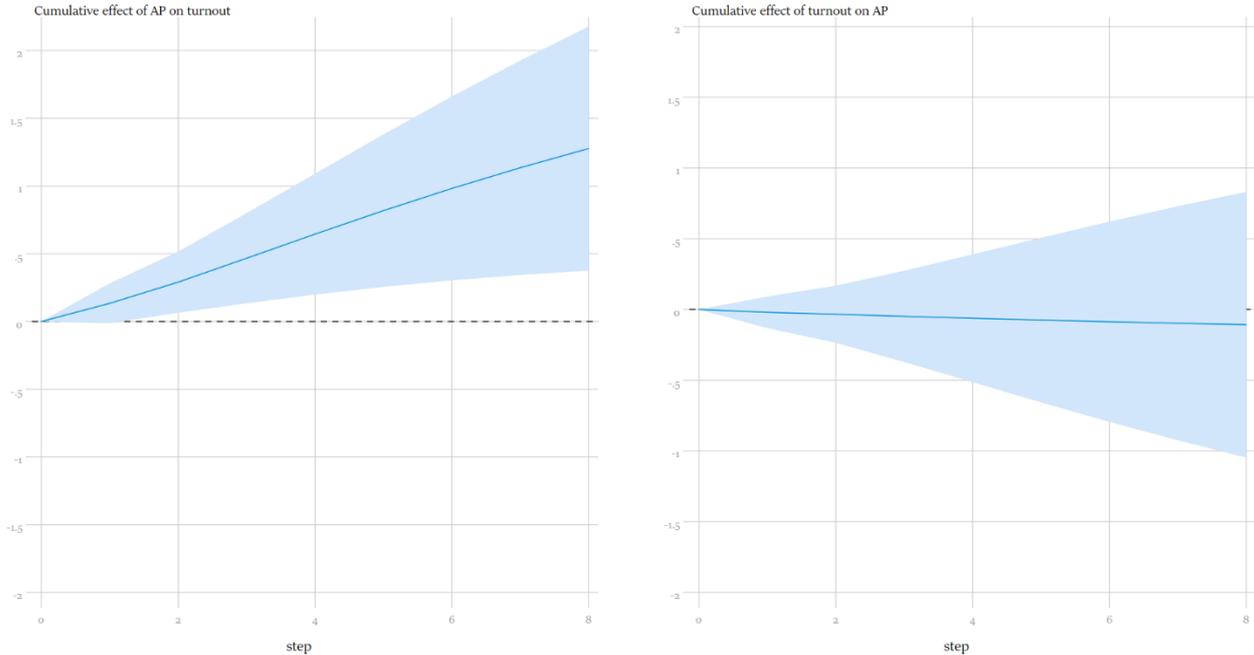
Note: An ARIMA(2,0,0) model predicting turnout. Standard errors within parentheses.
Source: LISS

Table 1 confirms that turnout is positively predicted ($p < 0.05$) by contemporaneous affective polarization with an effect of one standardized variable on another of $b = 0.14$. No substantial or significant lagged effects of affective polarization appear. Increasing or decreasing the number of lags of this variable does not change this. Interestingly, no significant effect of ideological polarization is visible.

To explore the reciprocal interplay between affective polarization and turnout, we turn to a VAR model. This allows to estimate the reciprocal impact through multiple equations, excluding contemporaneous effects. AIC optimization suggest 3 lags for the VAR model. The VAR model, which includes the same contemporaneous control variables, is presented in Appendix B. Figure 2 below shows its cumulative impulse response functions (IRF). While the ARIMA mode above showed affective polarization and turnout to be correlated in the same wave, the IRFs suggest there is also some extended impact both ways. This is least robustly so in the case of the impact of turnout on AP, while the reverse effect is only

significant at the 5% level for the first two succeeding months after which the lingering impact is only significant at the 10% level. In short, the two analyses confirm a correlation between AP and turnout, and provide tentative evidence that it is brought about particularly by the latter impacting the former.

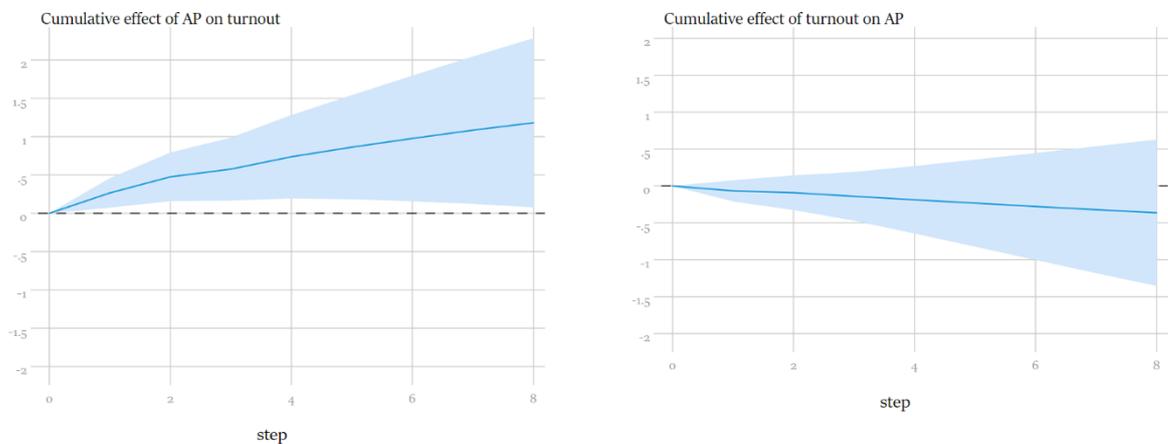
FIGURE 2. CUMULATIVE IMPULSE RESPONSE FUNCTIONS



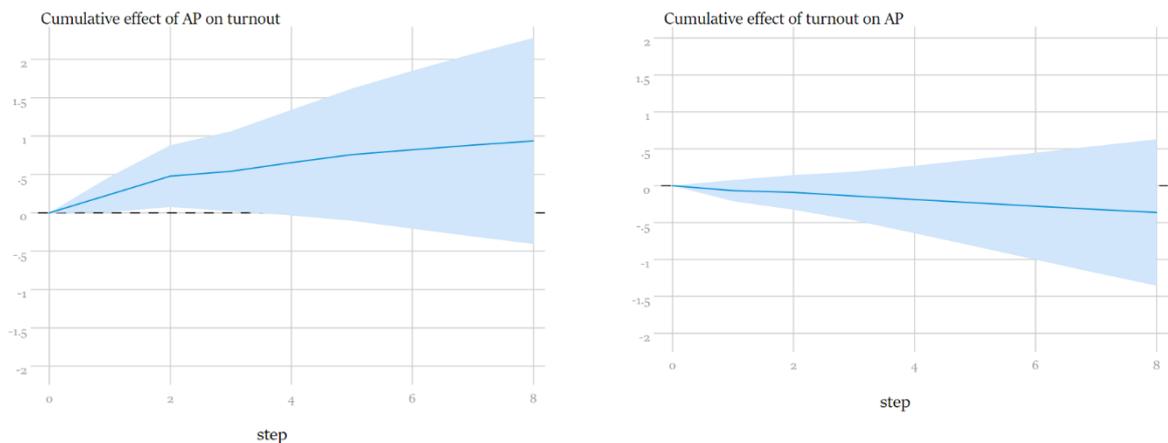
How are these patterns moderated by political sophistication? Figure 3 below shows the results of separate VAR models for individuals with low and high political interest (same specification otherwise). This suggests that, if anything, the clearest effects are visible among the *least* interested. Effects among the high interested follow a similar pattern, but of somewhat smaller effect size and robustness. In contrast to Moral’s (2017) findings in the literature on elite polarization, affective polarization might be especially mobilizing along those who are *least* rather than *most* politically sophisticated. Among this group there is also some evidence of an effect in the other direction, from turnout to affective polarization.

FIGURE 3 CUMULATIVE IMPULSE RESPONSE FUNCTIONS BY POLITICAL INTEREST

Low interest



High interest



Note: 'low' political interest refers to categories 1 and 2, 'high' to categories 3 and 4.

Results: state-level turnout

We then turn to an analysis of the Politbarometer data to predict *actual* official turnout at elections at the federal state (*Bundesland*) level. As these do not take place simultaneously, we aggregated the original data to state-election dyads, yielding 103 observations of elections in 15 federal states. As a measure of ideological polarization, we now employ the standard deviation in left-right position as derived from party manifestos (Benoit et al. 2009; Gross and Debus 2018). As a result, we no longer control for the left-right position as reported by respondents, and this increases the time span to 1990-2018.

In a regression, we predict the turnout at a state-level election by the level of affective polarization in that state *in the preceding month*. To explore the extent of reversed causality, we also include the *lead* of affective polarization (i.e. the score in the *subsequent* month). If turnout above all fosters rather than reflects affective polarization, we should find the lead to have a larger effect than the lag. We model lead and lag both separately and combined (given that they correlate heavily within states). We include fixed effects for each federal state, restricting the analysis to within-state variation in turnout. We control for the closeness of the election (difference between the top-2 parties), ideological polarization of the parties competing in the election based on their election manifesto's (standard deviation of their left-right position), and a time variable (linearly). Table 2 presents the main coefficients.

TABLE 2. PREDICTING ACTUAL TURNOUT AT BUNDESLAND ELECTIONS (KEY COEFFICIENTS)

	Separate models Turnout	Single model Turnout
Lagged affective polarization (previous wave)	0.042* (0.020)	0.041+ (0.022)
Lead affective polarization (subsequent wave)	0.026 (0.034)	0.005 (0.030)

+ 0.10 * 0.05 ** 0.01 *** 0.001

$N = 101$

Note: Includes fixed effects for federal states and controls for election closeness, ideological polarization of parties at the federal state level (standard deviation in left-right positions) and a linear time variable. Full model reported in Appendix B.

An inspection of the effect in two separate models confirms that federal states with higher levels of affective polarization in the month preceding to the election had higher levels of turnout (at $p < 0.05$). Reversely, the coefficient of the *lead* of affective polarization is about half the size and not significant ($p = 0.35$). Combining the two variables even further reduces the effect of the lead more than that of the lag, which confirms the conclusion above that effects of AP on turnout are more robust than the reverse.

Are these effects again moderated by political interest? This analysis is tentative, because the number of waves around elections that includes a measure of political interest is low (42) compared to the total number of waves (101), which is low for a within-state analysis on 16 federal states. This replication yields no substantial or significant effects in either direction among either the lower or higher educated, and thus provides no evidence that either of the two groups would be particularly affected.

Study 2: two-wave panel data in Spain

Data and models

Study 2 employs the E-DEM dataset, which is a four-wave online panel survey of the Spanish voting age population (Torcal et al. 2020). Its four waves were carried out over a six-month period between late October 2018 and May 2019. Only the latter two waves (April and May 2019) contain all items needed for the present analysis. The panel setup provides repeated observations at the level of individuals rather than (as in Study 1) at the level of states or Germany as a whole. Improving on Study 1, affective polarization is measured using sympathy towards *partisans* (asking respondents to evaluate ‘voters of...’ on a feeling thermometer from unfavorable [0] to favorable [100]) rather than *parties* in the abstract. As in Study 1, we calculated Wagner’s (2020) unweighted affective polarization score. Self-reported turnout intention was measured on a continuous scale from 0 (‘definitely not going to vote’) to 10 (‘definitely going to vote’) ($M = 8.6$, $SD = 2.84$). E-DEM measures political interest on a four-point scale, of which we collapsed the lowest two categories because very few respondents (6%) indicated that they were ‘not at all interested’.

Our regression models include both lagged dependent and independent variables. We predict both turnout and affective polarization by their own lags, as well as the lagged value of the other variable. The former acts as a control and explores a temporal order. The two main variables were standardized to facilitate the comparison of effects. The models contain random intercepts for respondents.⁴

Results

Table 3 below shows the results of a panel regression. It confirms that turnout is indeed predicted by the lag in affective polarization. Reversely, and in line with Study 1, affective polarization is also predicted by the lag of turnout, but by a somewhat weaker extent. The full model (presented in Appendix C) furthermore shows that the standardized effect of affective polarization on turnout is more substantial than that of perceived elite polarization (on the issue of decentralization), or of respondents’ ideological extremity on immigration, the economy or the Catalan issue. None of these other factors significantly increased turnout intention at all (all $p > 0.40$). In short, affective polarization appears to be more mobilizing than ideological polarization.

⁴ Respondent fixed effects are not feasible in combination with lagged dependent variables given the low T .

TABLE 3 LAGGED DV PANEL REGRESSION PREDICTING (1) TURNOUT AND (2) AFFECTIVE POLARIZATION

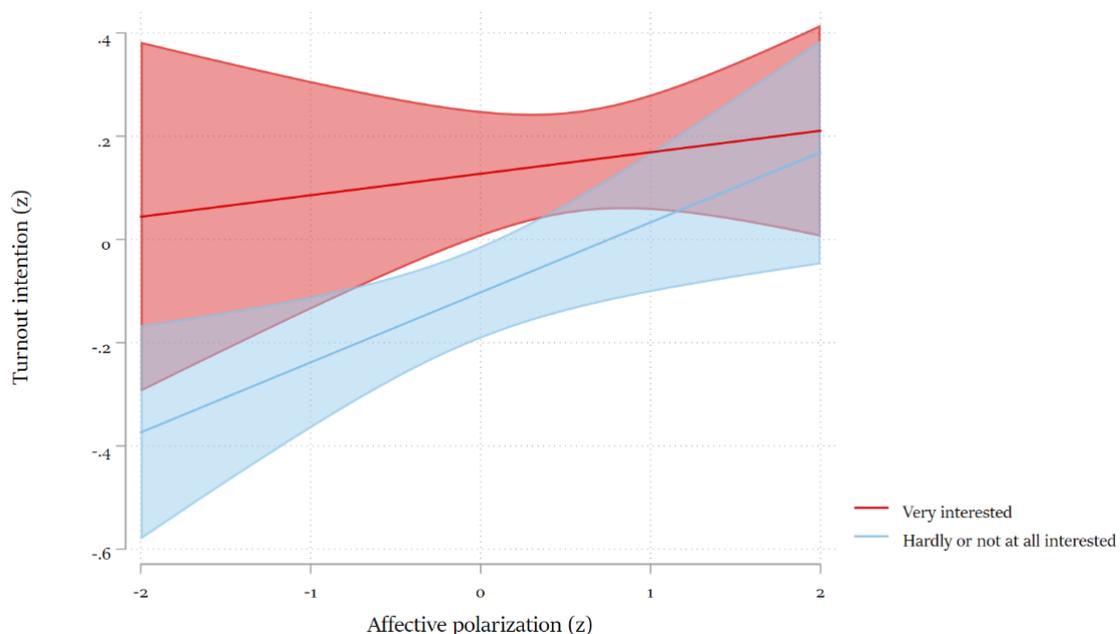
	Turnout	Affective polarization
Lagged turnout		0.037***
Lagged affective polarization	0.056***	

Note: Controlled for lagged dependent variable; political interest (4 dummies); ideological extremity on immigration, economy and the Catalan issue; and perceived elite polarization on decentralization. Standardized variables. Full model in Appendix C.

Source: E-DEM

How does the effect on turnout differ by political sophistication? We interacted affective polarization with political interest dummies (full table in Appendix C). This yielded no significant interactions at conventional levels of significance, and neither does the model with interactions constitute an improvement according to an F test ($p = 0.28$). To nevertheless get an idea of the descriptive direction of patterns, Figure 4 presents the predicted lines for the lowest (1) and highest (3) categories.⁵ This suggests, again, that effects are not restricted to the most politically sophisticated (as testified by the lack of an interaction), and even – if anything – are more clearly visible among those who are not interested even appears slightly stronger.

FIGURE 4. EFFECT OF AFFECTIVE POLARIZATION (Z), BY POLITICAL INTEREST



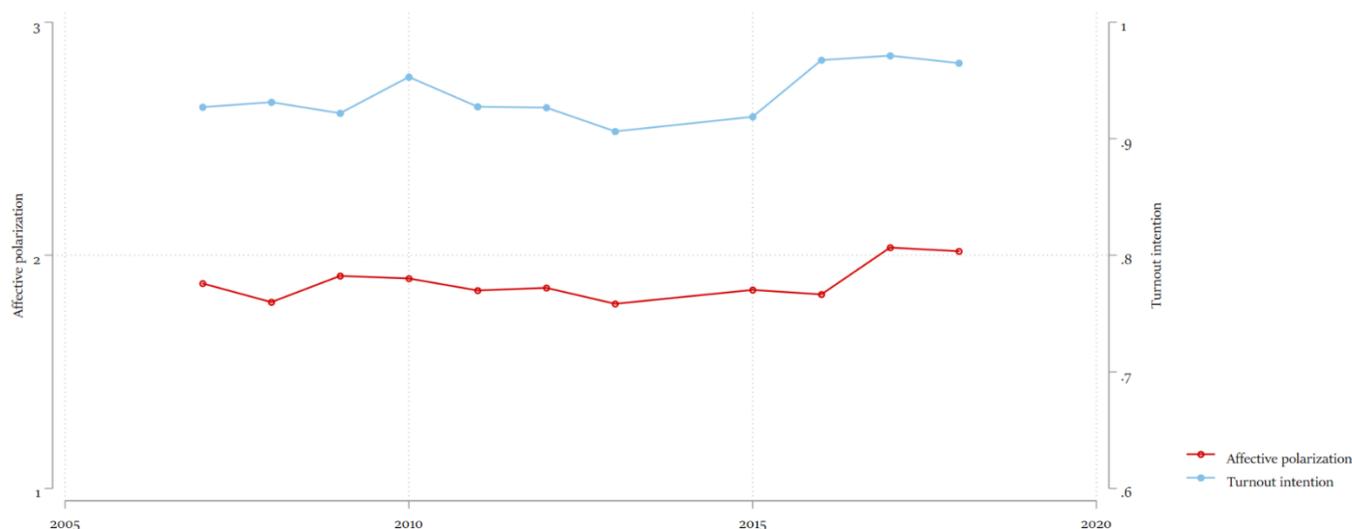
⁵ This is for readability purposes, as the line for intermediate interest overlaps with the other two, being less steep than that of 'very interested'.

Study 3: eleven-wave panel data in the Netherlands

Data and models

The third and final study relies on the Dutch *Longitudinal Internet Studies for the Social sciences* (LISS) panel, which is based on a true probability sample of households drawn from the population register and has been running since 2007.⁶ Its respondents regularly answer questions on a range of topics, including a yearly ‘Politics and Values’ battery. In total, 8205 unique individuals with non-missing observations took part during a part or the whole of the period 2008-2018.⁷ Compared to Study 2, Study 3 includes more waves, spanning a larger period of time, but at greater intervals (yearly). 50% of the respondents took part (with nonmissing values on the key variables) at least 3 waves, whereas 75% took part in six waves or more ($T_{\text{average}} = 3.7$). We employ the same lagged dependent variable model as in Study 2. LISS lacks the alternative direct measure of sympathy towards fellow citizens, instead relying (like Study 1) on party sympathy measures, and again based on Wagner’s (2020) unweighted affective polarization score. Turnout is measured on the basis of a vote choice question (‘if elections were held today’), which includes the option ‘would not vote’. Political interest is measured in three categories, from ‘not at all’ to ‘very’.

FIGURE 5. TRENDS IN KEY VARIABLES



Note: Average scores per year on the original scales (0-10 for affective polarization and 0-1 for turnout intention).

Source: LISS

⁶ The LISS panel data were collected by CentERdata (Tilburg University, The Netherlands) through its MESS project funded by the Netherlands Organization for Scientific Research. See www.lissdata.nl.

⁷ 69% of the respondents has non-missing responses to the relevant questions for at least 3 waves; 59% for at least 4 waves; and 48% for 5 waves or more (on average 3.4 waves).

Figure 5 above presents the development of affective polarization and turnout. As in Germany, affective polarization waxes and wanes, but appears to be relatively high in recent years. Turnout, with some delay, has been on the rise in recent years, too. However, with the limited number of time points the aggregated data cannot provide conclusive evidence. For a more stringent test we therefore now turn to the individual level.

Findings

How does the relationship between turnout and affective polarization play out at the individual level? Table 4 below shows the results of two regressions predicting turnout and affective polarization (in turn) by both their own and the other's lagged value. The coefficients provide evidence for an effect both directions, but the different specifications (logistic and continuous) preclude any direct comparison of effect size based on the coefficients.

TABLE 4. LAGGED DV PANEL REGRESSION PREDICTING (1) TURNOUT AND (2) AFFECTIVE POLARIZATION

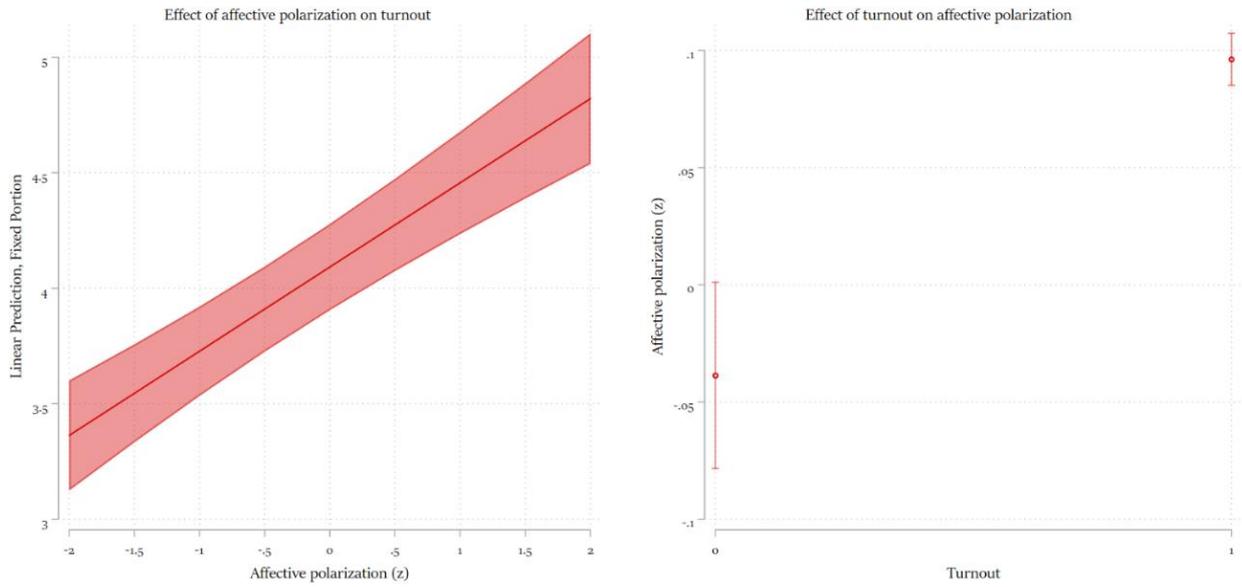
	Turnout	Affective polarization
Lagged turnout		0.139***
Lagged affective polarization	0.378***	

Note: Controlled for lagged dependent variable; political interest (3 categories); ideological extremity on Left-Right; and wave dummies. Random intercepts for respondents. Full table in Appendix X.

Source: LISS

To ease the interpretation of the logistic regression, Figure 6 visualizes the effect sizes. An increase of 2 standard deviations in affective polarization is associated with a subsequent increase in turnout of 1 percentage point (which is sizeable given likely ceiling effects). Reversely, turning out (rather than not) is associated with an increase of 0.15 standard deviations of affective polarization. Again, turnout and affective polarization influence each other, and the effect of the latter on the former appears substantially strongest.

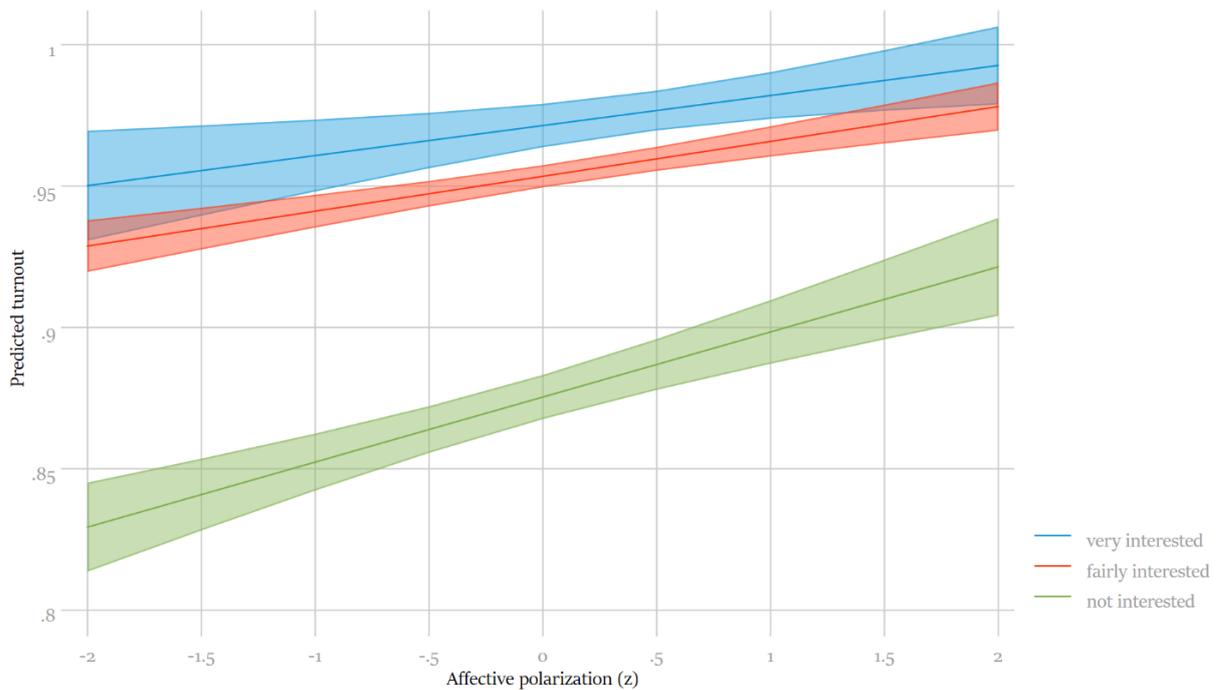
FIGURE 6. EFFECT OF AP ON TURNOUT (LEFT) AND VICE VERSA (RIGHT)



Note: Based on standardized values of affective polarization. Based on Appendix D.

Finally, we analyze whether these effects differ between the more and less politically sophisticated. We interacted affective polarization with the political interest dummies. The full table is presented in Appendix D. The interaction coefficient with 'not interested' is significant and positive. Figure 7 shows the predicted turnout for the three levels of interest.

FIGURE 7. INTERACTION WITH POLITICAL INTEREST



The figure shows that affective polarization is associated with an increased likelihood of claiming to go to the vote among the non-interested group (compared to the reference category of ‘Very interested’). It is important to note that this might be due to a ceiling effect, as those interested in politics are already extremely likely to indicate that they would vote. Still, it is telling that a similar pattern emerges as in Study 1 and 2, which employed measures of turnout that are less prone to a ceiling effect. Again, affective polarization is also associated with higher levels of turnout, and probably even more so among those least interested in politics.

Conclusions

This study set out to investigate the effect of affective polarization on turnout at elections. While previous studies have established a positive correlation using cross-sectional data on the individual level (Ward and Tavits 2019, Wagner 2020), these studies were unable to address the potentially substantial reciprocal effects of turnout and polarization. In this paper, we therefore put this hypothesis up to a more stringent test by analysing three different sources of longitudinal data at the aggregate and individual level, spanning three countries (and up to three decades). Across these sources and specifications – each of them with their own advantages and drawbacks – a coherent picture emerges.

First, the correlation between affective polarization and turnout is confirmed in each of our data sources. Affective polarization is always positively correlated with turnout. This is also the case when we use a more direct operationalization of affective polarization between citizens rather than towards parties in Study 2 on Spain than that used in prior research. It is also true when we measure turnout at actual local elections in Study 1 in Germany instead of relying on survey self-reports. Descriptively, elections that involve more antipathy towards political opponents also draw bigger crowds to the ballot box.

Second, our exploration of the causal direction behind this correlation suggests that the effects are indeed reciprocal. So, increases in affective polarization are associated with a subsequent increase in turnout, and vice versa. This means that cross-sectional correlations pick up more than just a causal effect of polarization even when controlling for confounders, underlining the need for longitudinal data to explore this relation further. At the same time, across our studies, the effects of affective polarization on turnout were usually stronger and more robust than the reverse effects, establishing that affective polarization does have a

sizeable mobilizing effect. Of course, further research should use experimental methods to provide even more robust evidence for our findings.

Third, we found no evidence that the mobilizing effect of affective polarization was restricted to the most politically sophisticated. In fact, all analyses (except that of turnout at regional elections) provided some tentative evidence for the opposite: those who are least interested in political are especially mobilized by affective polarization. While this might in part reflect a ceiling effect in survey responses among the highly interested, it is relevant to note that we also found similar patterns in the aggregate-level time series in Study 1 and a continuous turnout intention scale, which are less vulnerable to ceiling effects.

Our findings have several implications. First, affective polarization, while widely associated with nefarious outcomes such as the erosion of democratic norms and the decline of social trust, also has a saving grace in the shape of increased participation. The increased turnout in recent elections in the US and the UK plausibly testifies that heated political debates draw citizens to the ballot box. This finding implies that group loyalties and intergroup conflict – not just at the level of political parties – play an important role in getting people to vote.

However, the question remains whether this is categorically good news for the health of democracies. The reason why affective polarization increases turnout may be due to negative partisanship (Medeiros & Noel 2014), with voters focusing on keeping the enemies out rather than voting to have their vision of society represented. The resulting incumbent is then perhaps chosen less based on their prospective programme and more based on who they are *not*. This has clear implications for representation and electoral stability, as electoral support becomes a negative rather than a positive endorsement of parties and politicians.

Second, the fact that mobilization due to affective polarization is equal across the board, and perhaps even amplified among the least politically interested, carries the opportunity to bridge participation gaps. Politics as an intergroup conflict is likely less cognitively demanding. In that sense, it is more inclusive than ideological or issue-based political competition. Past declines in turnout are usually caused especially by a drop among the least educated and least interested (Gallego 2009). A stabilization or reverse in this trend due to ongoing affective polarization would (tentatively) be welcome from a normative point of view.

Third, the reciprocal relation between turnout and affective polarization suggests the possibility of a spiralling effect. As societies get polarized, they draw more citizens into participating into politics, which in turn polarizes them further against political opponents,

and so on. In that case both affective polarization and turnout might increase, even if remedies for some of the exogenous causes of affective polarization (such as high choice media or negative campaigning) were to be found.

These findings also call for follow-up research. First, further evidence on the causal direction of any relation can come from experimental evidence. While turnout is hard to model as either an outcome or stimulus, this can also include other types of participation such as joining a protest or contacting politicians. This immediately connects to a second avenue for further research: we should broaden our understanding of the modes of participation and engagement that affective polarization increases. Does this include mostly engagement in formal politics, or also informal and unconventional modes? Third, our studies could not provide evidence on the mechanisms that link affective polarization to increased turnout. Here, researchers could focus on how affective polarization strengthens relevant negative emotions such as anger and fear (Valentino et al. 2011), provide for expressive motivations (Huddy et al. 2015) as well as increases the perceived stakes of elections (Franklin 2004). Finally, there is a need for additional research on the ways in which lower and higher sophisticated citizens relate to affective polarization. The reasons why affective polarization mobilizes may differ for those with low and high sophistication. Here, we should study how affective polarization in turn shapes satisfaction with the functioning of democracy and its institutions, perhaps via participation in elections that shape political outcomes.

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