Who Influences Whom?

Inequality in the Mutual Responsiveness Between Voters and Elites

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Abstract

Recent years have seen a proliferation of research on the connection between voters and elites. One literature explores whether elites' responsiveness is biased towards affluent voters, but does not allow for reverse causality. Another literature investigates voters' responsiveness to elite cues, but pays limited attention to potential inequality in such responsiveness. This study combines insights from both literatures by analyzing class inequality in elite responsiveness to voters, and vice versa. It does so using detailed time-series data on citizens' preferences and party positions towards government spending in the Netherlands. Preliminary analyses reveal that, contrary to our expectations, middle and lower educated citizens seem to exert the strongest influence on parties, while the higher educated adapt their preferences the most in response to party cues. Our analysis has important implications for the study of representation and inequality and, more broadly, for the relationship between citizens and elites in established democracies.

Introduction

This study addresses the responsiveness of elites to voter preferences, and vice versa. Such mutual responsiveness is vital to understanding the democratic process; indeed, many scholars of representation stress its interactive nature, where citizens and policymakers communicate with and influence each other throughout the policy process (Pitkin, 1967; Mansbridge, 2003; Saward, 2010; Wolkenstein and Wratil, 2020). By extension, to understand inequality in the democratic process, we should also pay attention to skews in both directions between voters and elites. In this study, we ask whether elites are more receptive to some citizens' preferences than to others, and whether some citizens adapt their preferences more strongly to elite cues than others do.

To be sure, there are many studies which have addressed different parts of this question. On one side, a prominent line of scholarship investigates whether political outcomes are more responsive to affluent citizens than to the middle and working class, often finding that they do (cf. Gilens and Page, 2014; Branham, Soroka and Wlezien, 2017; Elkjær and Iversen, 2020; Elsässer, Hense and Schäfer, 2020; Schakel, Burgoon and Hakhverdian, 2020). On the other side is a literature on voter responsiveness, much of which concludes that the policy preferences of average citizens are influenced by elite signals (Zaller, 1992; Ray, 2003; Gabel and Scheve, 2007; Soroka and Wlezien, 2010; Lenz, 2012).

However, each of these research lines has been limited by its relative neglect of the other. Most of the literature on unequal elite responsiveness treats public opinion as exogenous and is therefore – to varying degrees – vulnerable to the threat of endogeneity (Iversen and Soskice, 2019, p. 25). Conversely, the literature on voter responsiveness does consider two-way influence between elites and masses (Steenbergen, Edwards and de Vries, 2007; Hakhverdian, 2012; Barberá *et al.*, 2019) but pays very little attention to possible inequality in these relationships (with some exceptions, e.g. Soroka and Wlezien, 2010). As a result, our knowledge of the (unequal) ties between voters and elites remains limited.

Importantly, this limited knowledge means that there is room for different interpretations of the existing findings. For instance, what has been presented as evidence for a class bias voter influence may actually reflect a class bias in voter adaptation. The same applies to findings of 'middle-class supremacy' (Elkjær and Iversen, 2020). These scenarios not only have different causes and consequences in empirical terms, they also have different normative implications. It is quite clear that biased influence on the basis of social class is incompatible with basic notions of political equality (Dahl, 1989; Sabl, 2015; Ingham, 2021), but it is arguably less obvious where the harm is in some citizens being more attentive or susceptible to elite cues

than others. Finally, if we do conclude that both situations should be avoided, the solutions to ameliorate either are very different.

The current study is an attempt to move the literature forward by addressing unequal influence (of voters on elites) and unequal adaptation (of voters *to* elites) at the same time. We do so using detailed time-series data on citizens' preferences and party positions towards government spending in the Netherlands, measured around parliamentary elections in 2010, 2012 and 2017. In separate regression analyses, including lagged dependent variables and fixed effects for years, parties and policy areas, we consider which education groups affect and are affected by parties' election pledges.

To our surprise, these analyses suggest that middle educated voters exert more influence than the highly educated on party positions, and even the lower educated seem to trump the latter. On the other side, it is the highly educated who adapt their policy views the most in response to the election promises of their party. These findings contradict our expectations and possibly point to the enduring relevance of the well-worn median voter theorem, as well as to the importance of educational skews (or, more broadly, class skews) in political engagement. At the same time, we stress that our analysis – and therefore also its findings – is still preliminary and subject to change.

Theory

The past years have seen a resurging interest in the age-old question of whose demands and needs are reflected in political outcomes, and particularly whether skews in socioeconomic resources yield skews in political power (for reviews, see Erikson, 2015; Peters, 2018; Bartels, 2021). This literature has already contributed greatly to our understanding of political representation in established democracies, but it also faces a number of lingering issues. Perhaps the most fundamental of these issues concerns causality. Few will disagree with the view that, in addition to the potential influence of citizens on political elites, elites also influence citizens' attitudes, and the fact that both may occur at the same time has large implications for the study of (unequal) representation. However, previous studies have not done enough to address and guard against the possibility of endogeneity in their research designs.

This is most obvious in analyses of *congruence*, which focus on who gets what in purely descriptive terms, with citizen and elite positions often measured at the same point in time (e.g. Lesschaeve, 2016; Schakel and Hakhverdian, 2018; Lupu and Warner, 2020; Rosset and Kurella, 2020). One might say that the direction of causality is of no concern here, given that congruence is not based on causal inference in the first place. However, many researchers

implicitly or explicitly assume that potential inequalities in congruence arise from inequalities in citizens' influence on elites, which is afforded much more weight in their conclusions than the reverse possibility (e.g. Lesschaeve, 2016; Schakel and Hakhverdian, 2018; Lupu and Warner, 2020).

The same problem arises in studies of *responsiveness*, where the goal is to find out who has a causal impact on political outcomes, with citizens' positions usually measured before elites' (e.g. Peters and Ensink, 2015; Elkjær and Iversen, 2020; Schakel, Burgoon and Hakhverdian, 2020). For example, Martin Gilens' influential analysis of unequal representation in the United States is based on a research design which measures public opinion as support for policy change, while the dependent variable is whether policy actually changed in the four years after the survey was conducted (Gilens, 2012; the same approach is adopted by Persson and Gilljam, 2017; Mathisen, 2019; Elsässer, Hense and Schäfer, 2020; Lupu and Castro, 2021; Schakel and Van der Pas, 2021). In many instances, however, it is likely that policy change was already being discussed by elites before the survey was conducted; indeed, many survey questions explicitly mention changes proposed by political actors. Hence, many studies of unequal responsiveness are vulnerable to the threat of endogeneity.

Clearly, then, we need to consider influence (of citizens on elites) and adaptation (of citizens *to* elites) at the same time to gain more insight into substantive representation.[1] This is what we do in the current study. We discuss our expectations regarding each of these below, starting with influence.

Unequal influence

Can we expect class inequality in citizens' influence on elite and policy outcomes? This question has been asked by many scholars in the recent past. Mirroring the elitism-pluralism debate of the 1950's and 1960's (Truman, 1951; Mills, 1956; Dahl, 1961; Domhoff, 1967), many studies find that the affluent dominate the policy process (Ellis, 2013; Rigby and Wright, 2013; Gilens and Page, 2014; Peters and Ensink, 2015; Bartels, 2016; Elsässer, Hense and Schäfer, 2020; Lefkofridi and Giger, 2020; Schakel, Burgoon and Hakhverdian, 2020; Lupu and Castro, 2021; Schakel and Van der Pas, 2021), while others argue that the middle class is (also) decisive (Soroka and Wlezien, 2010; Enns, 2015; Rhodes and Schaffner, 2017; Elkjær and Iversen, 2020, 2021; Rosset and Kurella, 2020).

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[1] From the point of view of elites, the terms of "influence" and adaptation" are reversed, but we use these terms from citizens' point of view throughout the paper to avoid confusion.

While we have reason to think that this evidence is far from definitive, these studies do provide some indications of what to expect, and our one-sentence summary of the literature suggests several implications. First, and perhaps unsurprisingly, there is no consensus in the literature on whose views prevail in the political sphere. Second, however, there is more evidence for a pro-affluent bias than a pro-middle-class bias in influence, which is not limited to particular contexts or issue areas. And third, even those who are most optimistic about the prospects of political equality, such as Elkjær and Iversen (2020), discount the political power of the poor.

In terms of mechanisms, we can similarly find arguments to expect either the middle class or the affluent to have the loudest political voice. The major power resource of the middle is that it is closest to the median voter, which is expected to be pivotal in the classic Downsian model (Downs, 1957a). At the same time, other power resources suggest that political outcomes skew away from the middle and towards the top, as Downs himself acknowledged at one point when he argued that "inequality of political influence is a necessary result of imperfect information, given an unequal distribution of wealth and income in society" (Downs, 1957b, p. 141). Beyond information, we see class-based inequalities in electoral participation (Schlozman, Verba and Brady, 2012; Gallego, 2015), descriptive representation (Best, 2007; Carnes and Lupu, 2021), political donations (Bonica *et al.*, 2013), organized interest lobbying (Strolovitch, 2006) and structural power (Lindblom, 1982; Culpepper, 2015). The implication is relatively straightforward: though there is again room to argue in different directions, we expect the affluent to be highly influential, while the middle class exerts far less influence and the voice of the poor is essentially irrelevant.

Unequal adaptation

Next, we turn to potential inequalities in adaptation, which brings us to the voluminous literature on voter responsiveness to elites (Zaller, 1992; Ray, 2003; Gabel and Scheve, 2007; Soroka and Wlezien, 2010; Lenz, 2012). This literature is based on the idea that, as Hacker and Pierson recently put it, voters "are not unmoved; they are mobilized, messaged, and sometimes manipulated" by elites (Hacker and Pierson, 2020, p. 12). There are several variations of this theme across the field. For example, one discussion focuses on the *extent* of voter responsiveness. Most relevant here are studies which, like us, allow responsiveness to go in both directions. Several of these studies conclude that voters exert a stronger influence on elites than vice versa (Steenbergen, Edwards and de Vries, 2007; Hakhverdian, 2012; Barberá *et al.*, 2019), though others find a larger (or equally large) role for elite cues (Soroka and Wlezien,

2010). Scholars also disagree about the *form* of responsiveness, with some arguing that elites prime certain aspects of a pre-existing set of preferences (Jacoby, 2000), while others put forward that voters respond when they learn the policy position of their party (Lenz, 2012), and still others assert that elite cues actually shape these preferences (Slothuus and Bisgaard, 2020). Still, despite these variations, the common denominator is that public preferences are sensitive to elite signals.

For our purposes, however, the most important question is *among whom* elite cues shape attitudes, and, more specifically, whether there is class-based inequality in the adaptation to such cues. This corner of the literature is surprisingly sparse, though existing studies do inform what answers we might plausibly expect to find.

First, we must ask whether there is any heterogeneity in voter responsiveness or whether all groups of voters move in tandem over time. The latter is suggested by classic studies of Page and Shapiro (1992, pp. 289–320) and Soroka and Wlezien (2010, pp. 145–167), who conclude that the policy preferences of different groups of citizens differ in levels but hardly in over-time changes. If so, there is little space for unequal adaptation. On the other hand, other analyses do find group differences in voter responsiveness, often on the basis of political knowledge (or 'political awareness'; for an overview, see Druckman and Lupia, 2000, pp. 13–15).

Second, assuming there is some unequal adaptation, who responds most strongly to elites? Here, too, the likely answer is either the middle class or the affluent, which is illustrated well in another classic study by Zaller (1992). Zaller's seminal model of public opinion departs from the notion that voter responsiveness varies as a function of the propensity to receive and accept elite cues, which again brings us to political awareness. One likely scenario is that politically aware citizens receive the cues sent by elites, but also tend to be more capable of critically assessing the cues they receive. Individuals that are least aware might be susceptible to these cues, but they have a smaller chance of receiving them in the first place. This leaves the moderately aware: they both receive the cue, but are less capable of resisting it. On the other hand, Zaller also finds instances where adaptation rises monotonically with awareness, which is possible when reception is more important than acceptance and/or when reception is low overall. Of course, this is only relevant for our story insofar that class correlates with political knowledge, but there are many studies which show that the former positively predicts the latter (Delli Carpini and Keeter, 1996; Erikson, 2015).

Where does this leave us? We have weaker expectations regarding adaptation than we do regarding influence, but the research on the moderating role of political knowledge leads us to

expect that there is some inequality in voter adaptation to elites. On balance, we also expect that this adaptation is strongest for the middle class and weaker for the poor and affluent, based on the countervailing effects of receiving and accepting elite communications.

Caveats

Before moving on, a few caveats are in order. The story so far covers a lot of ground in little space, leaving a number of ambiguities. First, the outcome that citizens may (unequally) influence or adapt to is rather broad: our expectations extend to positions of parties, MPs and coalitions, parliamentary behavior and policy changes. Second, the concept of social class can be understood and measured in different ways, with potentially different implications for our study. For example, some forms of class are more strongly correlated with political knowledge than others (Delli Carpini and Keeter, 1996). Third, inequality in influence and adaptation plausibly varies with issue characteristics. On more salient issues, for instance, elites have a stronger incentive to be equally responsive to different groups of citizens, while adaptation may also be more widespread (Soroka and Wlezien, 2010). And fourth, both sides of our study are affected by political institutions, as in the case of the frequently posited hypothesis that proportional electoral systems afford more equal influence to voters (Iversen and Soskice, 2006; Bernauer, Giger and Rosset, 2015; Lupu and Warner, 2021).

We flag all these potential extensions here to indicate that they should ideally be taken into account and that our own analysis is rather coarse for not doing so. Still, given the relatively limited knowledge on the topic, we address the more basic questions first, stripping away many important but less fundamental aspects for the moment.

Data and methods

We test our expectations using mass surveys and spending pledges in the Netherlands. In this section, we discuss our case selection, research design, operationalization of variables and analysis, respectively.

Case

Our choice to study the Netherlands is driven by the fact that it has the most suitable data set we know of (detailed below). Nevertheless, we can and should consider how it relates to other contexts.

Regarding influence, one of us has previously argued that the Netherlands constitutes a least-likely case for class-based inequalities, though the same study found large skews in policy

responsiveness (Schakel, 2021). The 'least-likely' claim was probably too strong, but the Dutch context still makes for a relatively unlikely case, given its proportional electoral system, muted levels of income inequality, relative lack of money in politics and pluralist regime of organized interests. However, the expression of class matters here as well; given that we focus on education (see below), the Netherlands might also be characterized as a typical case (Schakel and Van der Pas, 2021).

In terms of unequal adaptation, the Netherlands is also likely to be a typical case, though the scarcity of studies of the topic makes it difficult to judge. The Dutch party system has a high level of volatility on both the aggregate and individual levels (Van der Meer, 2017). Hence, it has relatively weak party attachments, which reduces the likelihood of any adaptation among voters. Still, if we do find adaptation, it is fairly likely to be unequal, given roughly average class differences in political knowledge and participation among Western European countries (e.g. Bovens and Wille, 2017).

All in all, we expect findings from the Netherlands to be fairly representative of similar democracies in Western Europe.

Research design

Our analysis relies on time series data of public opinion and party positions towards government spending in the Netherlands, where citizens' preferences for changes in spending are linked to parties' plans for changes in the same policy areas. We choose this setup for a number of reasons. First, amid low levels of political information among the majority of the electorate, preferences for more or less spending are relatively undemanding and are hence likely to contain a consistent and meaningful signal about the public's wants (Soroka and Wlezien, 2010, pp. 14–20). Second, spending pledges are available for almost all political parties in the Netherlands. These are calculated by the *National Bureau of Statistics* (CPB) on the basis of parties' election manifestos. They are highly publicized in the run-up to parliamentary elections and hence likely to affect and be affected by voters. Third, spending pledges are discussed *at a specific point in time*, given that they are made available several weeks before the election and lose most of their relevance afterwards (Bolhuis, 2018, p. 4). This is important for reducing the risk of endogeneity in our analysis. Fourth, compared to actual spending, pledges are less noisy, as the former is affected by many factors outside of parties' control (see for example the 'dependent variable problem' in welfare state research; Allan and Scruggs, 2004; Green-Pedersen, 2004).

Having said this, our data also has its limitations. First and foremost, the downside of spending pledges is that they are not actual policy, which we still consider "the ultimate metric of representation" (Caughey and Warshaw, 2018, p. 250). We can reasonably expect a strong correlation between pledges and policy changes, particularly for parties who end up in the governing coalition (Thomson *et al.*, 2017; Bolhuis, 2018). But going from the former to the latter stage of the policy process may also introduce bias. For instance, an in-depth analysis by Bolhuis (2018) showed that (post-election) coalition agreements are more advantageous to business and less advantageous to households compared to election manifestos in the Netherlands. Hence, it is plausible that pledges are somewhat more equally responsive to voters compared to actual policy.

Another downside of our data is that, for the moment, we cannot link responses from the same individuals over time. Instead, we rely on repeated group means of party supporters. This not only costs us statistical power but also makes for weaker causal inferences by introducing the risk that the composition of the group changes in systematic ways between survey waves. As of writing this, the *Netherlands Institute for Social Research* is in the process of granting us access to the respondent identifiers, which should ameliorate this issue.

Turning to the specifics of our design, our analysis matches voter preferences to party positions for three elections (2010, 2012 and 2017), eight policy areas and nine parties. As a result, the observations in our data are parties (or party supporters) (8), nested in policy areas (8) and elections (3), resulting in a total N of 192. As this makes clear, we focus on influence and adaptation *within political parties*. Though voters may also affect and be affected by the aggregated, average positions of all parties or the government, our data does not give us much leverage to explore this. In any event, a focus on parties aligns with an established tradition in research on responsiveness, in both directions (e.g. Dalton, 1985; Zaller, 1992; Adams, 2012; Slothuus and Bisgaard, 2020).

The political parties we include are those which are included in the CPB for three elections: the People's Party for Freedom and Democracy (VVD), Labour Party (PvdA), Christian Democratic Appeal (CDA), Socialist Party (SP), Democrats 66 (D66), GreenLeft (GL), Christian Union (CU) and Reformed Political Party (SGP). These parties represent 82% of all parliamentary seats in this period. Much of the remainder (13%) is accounted for by the right-populist Freedom Party, which chose not to have its election manifesto analyzed in some elections. This is a notable omission, though its limited size compared to all other parties means that it has modest consequences, at most.

The policy areas we can match are social welfare, health care, education, defense, mobility, environment, crime and international cooperation. On average, these eight areas represent 79% of the absolute changes in spending proposed by parties, as calculated by the CPB. In some cases, policy areas are worded slightly differently in the survey; in a few cases, we also combined two survey questions to match one policy from the party data (for details, see Appendix Table A1).

To illustrate the structure and timing of the data, **Erreur ! Source du renvoi introuvable.** shows an example of spending preferences for one party (VVD) and one policy area (defense). To be clear, we only use the waves in the shaded areas. The figure makes it clear that the lag between surveys and elections varies somewhat over the years. While we would prefer to use a short lag in all cases, particularly after the election, all surveys were conducted within a year of their respective election.
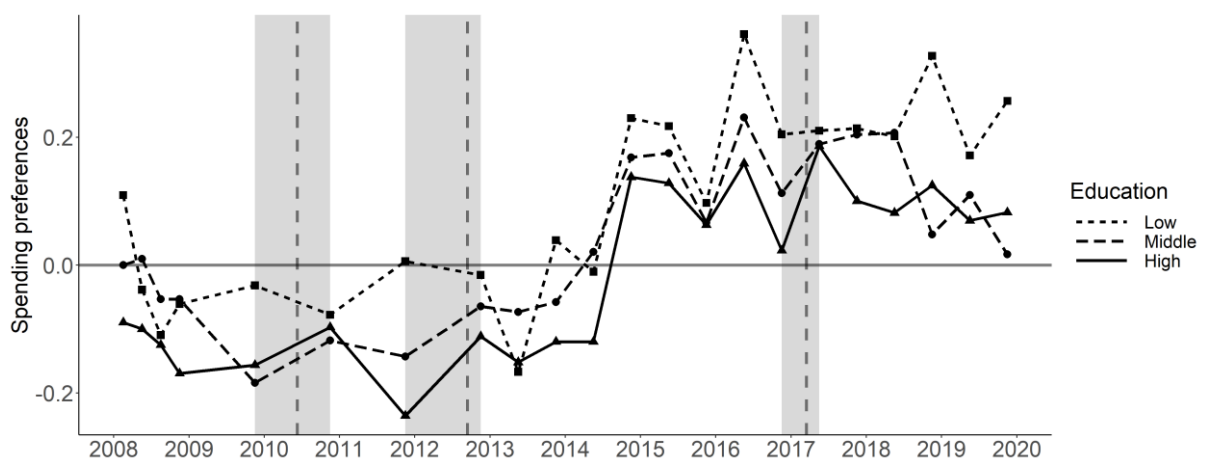

Figure 1. Defense spending preferences over time among VVD supporters (shaded areas indicate survey waves included in the data; dotted lines indicate elections)

Variables

As mentioned above, our measure of party position is based on the budgetary effect of election manifestos as estimated by the CPB. For each election pledge, the CPB estimates its budgetary effect relative to a counterfactual scenario where the pledge would not be implemented. It groups these changes by policy area, indicating how much more or less each party proposes to spend. We divide the original figures by ten, so that an increase of one corresponds to a proposed spending increase of €10 billion. Given the range of the data, this puts party positions on range from -1 to +1, with a similar standard deviation to public preferences (see below).

On the side of voter preferences, we use the *Social State of the Netherlands* (COB) from the *Netherlands Institute for Social Research* (SCP), which is a quarterly, nationally representative survey. The battery of spending questions that we use in our analysis are included 22 times between 2008 and 2020, but we only use the survey waves before and after elections. This means we use data from six waves.

We measure respondents' social class as their highest completed level of education. We acknowledge that this is an incomplete operationalization of class, but it is a meaningful one nonetheless, given the strong effect of education on income, occupational status and many other life chances (Ross and Wu, 1995; Bol, 2013; Organization for Economic Cooperation and Development, 2019). This is particularly true in the Netherlands, where educational cleavages in social, political and economic life are strong and arguably growing (cf. Van de Werfhorst, 2015; Bovens and Wille, 2017; Schakel and Van der Pas, 2021). More practical reasons for choosing education over income are that the former has almost no missing values (0.23% in our six waves) while the latter is only measured as respondent income in three broad categories.

We group respondents into three education groups, with the lowest encompassing everything up to lower secondary education, the highest including higher vocational and university education and the middle covering everything in between. This aligns with the definition used by *Statistics Netherlands* and produces three groups of roughly equal sizes (each covering 32-36% of the sample).

Spending attitudes are measured as preferences for change in each area, using a five-point scale that ranges from "much less" to "much more" money.[2] These categories are recoded to range from -1 to +1, such that the former indicates unanimous support for much less spending and the latter indicates unanimous support for much more spending. Lastly, party choice is measured by asking respondents which party they are most likely to vote for if there were elections that day.

Analysis

In our (preliminary) analysis, we consider influence and adaptation in separate models. Regarding adaptation, we regress post-election spending preferences on parties' spending plans, controlling for pre-election spending preferences. We run separate models for the three education groups, where the key independent variable (party positions) is the same. We include

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[2] The introduction to the spending battery reads as follows (translated from the original Dutch): "Choices have to be made in politics. Spending more money for some purposes means there is less money for others. Do you want national politicians to spend more or less money on the following purposes?"

fixed effects for elections, parties and policy areas. This is partly motivated by the clustering of our data on each of these levels and partly to minimize the risk that – notwithstanding the lagged dependent variable – parties and voters respond to the same time- or policy-related factors.

The analysis of influence is similar in some ways, though here we regress parties' election plans on pre-election spending preferences, controlling for parties' plans at the previous election.[3] We also control for changes in actual government expenditure between the two elections per policy area, using data on the Classification of the Functions of Government (COFOG) from *Statistics Netherlands* (see Appendix Table A1). The rationale behind this is that parties and voters may both respond (thermostatically) to such spending changes (Soroka and Wlezien, 2010). We again include fixed effects for elections, parties and policy areas.

Finally, there are a lot more respondents in some party-area-waves than others, simply because some parties are more popular than others. To ensure that our analysis reflects these differences, we weigh all observations by the inverse of the standard error around their average spending preferences.

Results

Following the order of the theoretical discussion, we will first discuss the empirical results of elite responsiveness to voters' preferences, and then those of voter responsiveness to elites' preferences.

Unequal influence

Table 1 shows our preliminary analysis of influence. The dependent variable – parties' spending promises – is the same across all four models, but they include different groups of their voters. As a reminder, the preferences of the latter are measured *before* the election.

Figure 2. Predicted values of parties' position and support among low, middle and highly educated votersshows the predicted values of parties' support as a function of voters' support for changes in spending. The left plot in the figure corresponds to models 1-3, while the right plot corresponds to model 4.

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[3] Hence, for 2010, we control for the dependent variable as measured before the parliamentary election of 2006.

Table 1. Linear regression models of parties' spending positions

	(1)	(2)	(3)	(4)
Lower educated voter preferences	0.338*** (0.122)	-	-	0.229** (0.111)
Middle educated voter preferences	-	0.460*** (0.128)	-	0.454** (0.176)
Highly educated voter preferences	-	-	0.204** (0.084)	-0.138 (0.142)
Lagged party positions	0.042 (0.125)	0.072 (0.131)	0.094 (0.129)	0.043 (0.125)
Change in spending since previous election	-0.620*** (0.175)	-0.714*** (0.181)	-0.600*** (0.155)	-0.712*** (0.170)
Constant	0.035 (0.055)	0.016 (0.059)	-0.008 (0.057)	0.031 (0.059)
Fixed effects	Yes	Yes	Yes	Yes
Observations	192	192	192	192
Adjusted R^2	0.486	0.497	0.502	0.516

Note: $^*p < 0.10,$ $^{**}p < 0.05,$ $^{***}p < 0.01$. *All models include fixed effects for years, parties and policy areas.*
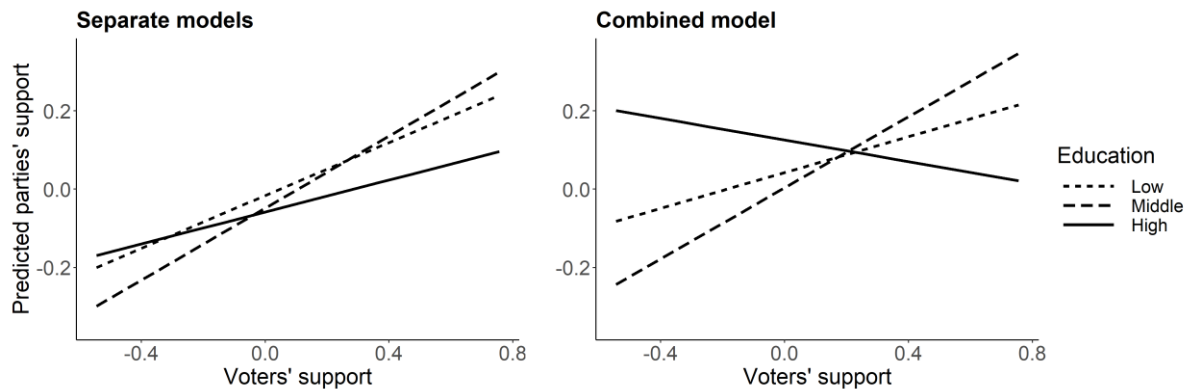

Figure 2. Predicted values of parties' position and support among low, middle and highly educated voters

Models 1-3 show that all groups' views are positively associated with party positions, such that voters and parties tend to prioritize spending increases and decreases in the same areas, even net of fixed effects for parties, years and policies. More surprisingly, we already see substantial differences here, since middle educated voters have the strongest effect on parties, while the effect is weakest for the highly educated.

This is borne out further by model 4, which includes all three groups at once and hence provides the most appropriate test of influence.[4] This model suggests that the middle educated exert substantial influence on parties. Also striking is that the preferences of the lower educated have an independent effect on parties as well, though their influence is roughly half that of the middle. Lastly, the effect for the highly educated is not distinguishable from zero.

To gauge the size of these effects, we note that a coefficient of 0.454 (model 4) means that parties are expected to increase spending ambitions by €4.5 billion when their middle educated supporters move from total opposition (-1) to a neutral position (0), or from the latter to total support (1). Put differently, a one standard deviation increase in preferences increases parties' spending targets by half of a standard deviation. Clearly, this is a very substantial effect.

Beyond our main variables of interest, the lagged dependent variable has little effect, which is perhaps unsurprising when we remember that this is measured several years before its current value. After all, a party which supports higher spending in a policy area might indeed see higher spending in subsequent years and adjust its position accordingly. In line with this, changes in spending since the last election have a negative effect, such that parties are likely to suggest spending decreases when spending has gone up in previous years and vice versa.

Unequal adaptation

Now we move to the reversed causal direction, as shown in Table 2 and Figure 3. Predicted values of low, middle and highly educated voters' position and parties' support. Here, it is the independent variable that is the same in all models, namely party positions measured around the election. We use this to predict the preferences of different groups of voters, as measured *after* the election.

Like before, we see a positive effect of our main variable of interest in all three models, suggesting that voters adjust their spending preferences in response to the election-time positions of parties. However, this effect fails to clear the bar of statistical significance in models 1 and 2.

More importantly, then, we again see inequalities between groups, though they are of a different kind then before. The results suggest that highly educated voters adapt their preferences much more than the lower and middle educated; the regression coefficient for the former is twice as large as for either of the latter. To help interpret this, we note that a one

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[4] This model is somewhat affected by multicollinearity: the preference variables have variance inflation factors between 8 and 10. However, this is a lot less extreme than is found in many similar data sets, and the fact that the standard errors are comparable between models 1-3 and model 4 indicate that its effects are limited.

standard deviation increase in party positions causes a increase of one eighth of a standard deviation in spending support among highly educated voters.

These findings might be interpreted as saying that, overall, there is more influence than adaptation between voters and parties. However, we are hesitant to interpret our results this way, since Table 2 also shows that the lagged dependent variables have stronger effects compared to the analysis of influence. This makes sense, given that the lags are shorter here. Hence, our controls (including the fixed effects) do a better job of soaking up variation in the dependent variable, which makes it tricky to compare Tables 1 and 2 directly.

In sum, our early analyses reveal that political influence is skewed towards middle educated and, to some extent, lower educated voters, while the higher educated adapt their views to elites. These are particularly surprising findings, even allowing for the uncertainty reflected in our theoretical discussion, which challenge much research on political inequality (including our own). But as we have emphasized throughout – and as is clearly on display – these are very preliminary findings, which need further scrutiny.

Table 2. Linear regression models of the public's spending preferences

	Lower educated	Middle educated	Highly educated
	(1)	(2)	(3)
Party positions	0.056	0.060	0.130[***]
	(0.039)	(0.039)	(0.034)
Lagged preferences	0.438[***]	0.547[***]	0.807[***]
	(0.082)	(0.060)	(0.054)
Constant	-0.055	-0.013	-0.051[*]
	(0.034)	(0.031)	(0.030)
Fixed effects	Yes	Yes	Yes
Observations	192	192	192
Adjusted R^2	0.876	0.873	0.861

Note: [*] p < 0.10, [**] p < 0.05, [***] p < 0.01. All models include fixed effects for years, parties and policy areas.
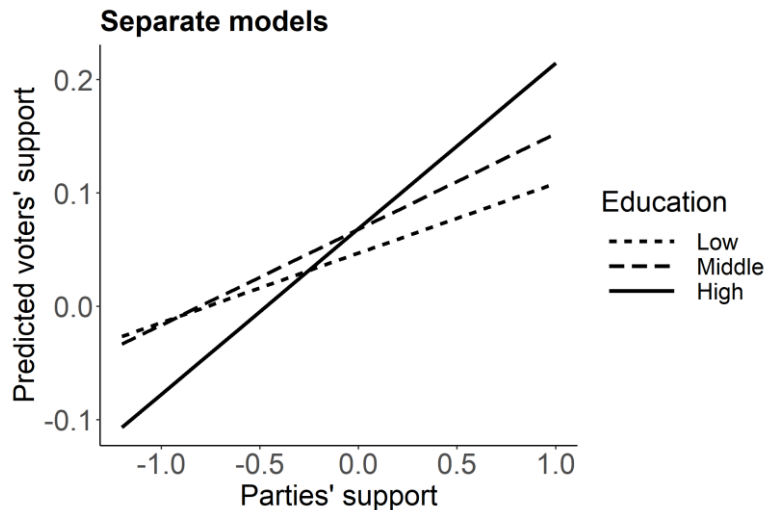
Figure 3. Predicted values of low, middle and highly educated voters' position and parties' support

Discussion

Given the early stage of this paper, there are no conclusions to draw yet. Instead, we list a number of lingering questions where we would particularly appreciate your insights:

- Our data are useful in many respects, but they also have various limitations, as indicated above. More suitable data would cover panel surveys that can be matched to policy changes or party positions, measured at regular intervals. Measuring policy would allow us to address the very real possibility that parties are more equally responsive during election campaigns than in later stages of the policy process. And having measures at regular intervals would allow us to compare influence and adaptation more directly. Equally importantly, it would allow us to start the analysis by presenting estimates of congruence across groups – where voters and policy/party positions are measured at the same time – which we could then separate into influence and adaptation by using lags of one to predict the other.

- Our analysis is quite rudimentary. We wonder whether we can and should incorporate both sides into one model, using techniques like vector autoregression (VAR). Specific suggestions regarding state-of-the-art methods are very welcome.

- We currently do not allow for the possibility that voters respond to the party system as a whole, rather than to their own party. We use party fixed effects in our models, but we would

expect some interdependency across parties as these are not completely independent of each other. Moreover, given the weak party attachments voters have, voters are likely to adapt their preferences not only to the party they would vote for, but potentially also to other parties they consider (of which we have no data).

- More broadly, it remains a challenge to figure out how to deal with the nested structure of our data.

- Needless to say, your thoughts regarding the theoretical setup would also be appreciated. In particular, we would be keen to know if the literature on 'unequal adaptation' is actually as sparse as we suggest or whether there are more studies which address this topic.

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Appendix Table A3. Definition of policy area by dataset

SCP (voters)	CPB (parties)	COFOG (spending)
Education	Education	Education
Health	Health	Health
International military missions and conflict management	Defense	Defense
International environmental problems and climate change	Environment	Environmental protection
Development aid	International cooperation	Foreign economic aid
Mobility (public transport and roads)	Mobility	Transportation
Safety on the street (violence and nuisance) Terrorism in the Netherlands	Safety	Public order and safety
Poverty Unemployment	Social protection	Social protection