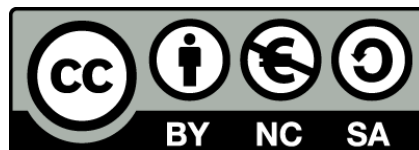




UNIVERSITAT DE
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How Changing Party Systems Shape the Functioning of Democracy

Sergi Ferrer Juan



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Línia de recerca: Ciència Política

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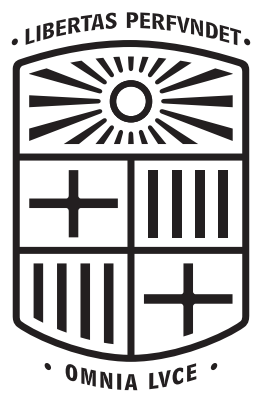
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Als meus pares i a mon germà, per haver-me ajudat quan més ho necessitava. I a la Cris, per haver compartit amb mi tots aquests anys.

Abstract

Party systems have become increasingly complex in the last decades. Although they are one of the cornerstones of liberal democracies, there is still little agreement in the literature as to whether different configurations of party systems constitute good or bad news for democracy. In the three empirical papers of this dissertation, I explore the relationship between party system fragmentation and polarization and two outcomes crucial for the functioning of democracy: accountability and incumbent turnover.

First, I analyze the effect of government fragmentation on accountability with respect to corruption scandals. Most previous studies on the topic have assumed that voters punish all kinds of governments for all types of corruption. I challenge this assumption by distinguishing between two types of governments (single-party majority governments and minority/coalition governments) and two types of corruption (welfare-increasing and welfare-decreasing corruption). I argue that voters are better able to identify bad governments when one party holds the majority of seats. Using data from Spanish municipalities, I show that corruption has a negative effect on the electoral performance of single-party majority governments, but this is not the case in minority/coalition governments, in which the mayor relies on the support of other parties.

The second article focuses on the fragmentation of the opposition and analyzes how it shapes the vote for incumbents who have been charged with corruption. Opposition parties play a key role in holding governments accountable, as voters need to find an attractive alternative in order to vote against the incumbent. I argue that ideological proximity and the opposition parties' viability are the two main parameters that explain how opposition fragmentation conditions accountability. I also argue that voters are not homogeneous when it comes to evaluating the alternatives: some give more weight to ideology, others to viability. I test these hypotheses using data from a survey experiment. The results indicate that opposition fragmentation clearly facilitates accountability. This is specially the case for more ideologue voters, who only punish incumbents when they can find an ideologically close alternative.

Finally, the third article delves into the effects of polarization on support for the incumbent and incumbent turnover. This study contends that polarization can decrease turnover by favoring voters' coordination around incumbent candidates. The hypotheses are tested using a Regression Discontinuity Design on data from legislative and cantonal elections in France. The results show that polarization clearly increases the vote for incumbent candidates and, consequently, decreases alternation. These effects are particularly strong when polarization is associated with the presence of extreme runner-up candidates in the election: when that is the case, almost every single incumbent is able to secure reelection.

Overall, this dissertation improves our understanding of how different properties of party systems shape how democracy works and clarifies when and why each of these properties matters for each outcome. By applying a variety of methods (observational, experimental, and quasi-experimental), I show that, in terms of accountability, single-party governments facing fragmented oppositions are best for democracy. Polarization, in turn, feeds electoral support for incumbent candidates and prevents them from losing office.

KEYWORDS: party systems, fragmentation, polarization, accountability, incumbent turnover, survey experiment, Regression Discontinuity Design.

Resum

En els darrers anys la complexitat dels sistemes de partits ha augmentat substancialment. Encara que els sistemes de partits són un dels elements més rellevants al voltant dels quals s'organitzen les democràcies, no hi ha acord sobre els potencials efectes que diferents configuracions d'aquests sistemes poden exercir sobre el funcionament de la democràcia. Els tres articles que conformen aquesta tesi exploren la relació entre la fragmentació i la polarització del sistema de partits i dues variables que són crucials per la democràcia: la rendició de comptes i l'alternança en el govern.

En primer lloc, aquesta tesi analitza l'efecte de la fragmentació del govern sobre el càstig electoral de la corrupció. La majoria d'estudis sobre aquest tema han assumit que els votants castiguen qualsevol govern per qualsevol cas de corrupció. En aquesta tesi, poso a prova aquesta hipòtesi i distingeixo entre dos tipus de governs (governos unipartidistes amb majoria absoluta i governos de minoria/coalició) i dos tipus de corrupció (corrupció amb/sense externalitats positives en el curt termini). L'argument principal és que pels votants és més fàcil identificar els mals governs quan només un partit té la majoria dels escons. Els resultats mostren que la corrupció disminueix el suport electoral cap als governos unipartidistes amb majoria absoluta. En canvi, no té cap efecte sobre els governos de coalició/minoritaris.

El segon article se centra en la fragmentació de l'oposició i analitza com aquesta condiona el vot a governos acusats de corrupció. L'oposició té un paper clau en el procés de rendició de comptes, donat que els votants només poden castigar els mals governs si troben una alternativa atractiva. L'argument principal d'aquest capítol és que la fragmentació de l'oposició condiona aquest procés a través de dos mecanismes: la proximitat ideològica i la viabilitat dels partits. També s'hi argumenta que els votants no són homogenis a l'hora de valorar les alternatives: uns votants donen més pes a la ideologia, mentre d'altres donen més pes a la viabilitat dels partits. A través d'un experiment d'enquesta es mostra que la fragmentació de l'oposició afavoreix la rendició de comptes, especialment pels votants més ideològics, que només castiguen els governos corruptes quan troben una alternativa propera ideològicament.

Finalment, el tercer article examina els efectes de la polarització sobre el suport al partit que governa. Aquest estudi argumenta que la polarització pot dificultar l'alternança en el poder mobilitzant els ciutadans en favor del govern. Per a testar-ho, s'utilitza un disseny de regressió discontinua a partir de dades de les eleccions legislatives i cantonals franceses. Els resultats mostren que la polarització augmenta clarament el suport electoral als candidats que governen i n'afavoreix la reelecció. Aquests efectes són especialment forts quan la polarització s'associa amb la presència de candidats que pertanyen a partits d'extrema dreta/esquerra.

En resum, aquesta tesi millora la nostra comprensió de com les diferents propietats dels sistemes de partits condionen el funcionament de la democràcia i aclareix quan i per què cadascuna d'aquestes propietats és important. Mitjançant l'aplicació de diversos mètodes (observacionals, experimentals i

quasi-experimentals), es demostra que, pel que fa a la rendició de comptes, els governs unipartidistes que s'enfronten a oposicions fragmentades faciliten el bon funcionament de les democràcies. La polarització, al seu torn, afavoreix el suport electoral als governants i evita que perdin el càrrec.

PARAULES CLAU: *sistemes de partits, fragmentació, polarització, rendició de comptes, alternança en el poder, experiment d'enquesta, regressió discontinua.*

Resumen

En los últimos años la complejidad de los sistemas de partidos ha aumentado sustancialmente. Aunque los sistemas de partidos son uno de los elementos más relevantes en torno a los cuales se organizan las democracias, no existe acuerdo sobre los potenciales efectos que diferentes configuraciones de estos sistemas pueden ejercer sobre el funcionamiento de la democracia. En los tres artículos que conforman esta tesis, se explora la relación entre la fragmentación y la polarización del sistema de partidos y dos variables cruciales para las democracias: la rendición de cuentas y la alternancia en el gobierno.

En primer lugar, esta tesis analiza el efecto de la fragmentación del gobierno sobre el castigo electoral de la corrupción. La mayoría de estudios al respecto han asumido que los votantes castigan a cualquier gobierno por cualquier caso de corrupción. En esta tesis, pongo a prueba esta hipótesis y distingo entre dos tipos de gobiernos (gobiernos unipartidistas con mayoría absoluta y gobiernos de minoría/coalición) y dos tipos de corrupción (corrupción con/sin externalidades positivas en el corto plazo). El argumento principal es que para los votantes es más fácil identificar a los malos gobernantes cuando solo un partido posee la mayoría de los escaños. Los resultados muestran que la corrupción disminuye el apoyo electoral hacia los gobiernos unipartidistas con mayoría absoluta. Por el contrario, no tiene ningún efecto sobre los gobiernos de coalición/minoritarios.

El segundo artículo se centra en la fragmentación de la oposición y analiza cómo condiciona el voto a gobiernos acusados de corrupción. La oposición tiene un papel clave en el proceso de rendición de cuentas, dado que los votantes solo pueden castigar a los malos gobiernos si encuentran una alternativa atractiva. El principal argumento de este capítulo es que la fragmentación de la oposición condiciona este proceso a través de dos mecanismos: la proximidad ideológica y la viabilidad de los partidos. También se argumenta que los votantes no son homogéneos a la hora de valorar las alternativas: unos dan más peso a la ideología, mientras que otros dan más peso a la viabilidad de los partidos. A través de un experimento de encuesta se muestra que la fragmentación de la oposición favorece la rendición de cuentas, especialmente para los votantes más ideológicos, que solo castigan a los gobiernos corruptos cuando encuentran una alternativa cercana ideológicamente.

Por último, el tercer artículo examina los efectos de la polarización sobre el apoyo al partido que gobierna. Este estudio argumenta que la polarización puede dificultar la alternancia en el poder movilizándolo a los ciudadanos en favor del gobierno. Para testarlo, se utiliza un diseño de regresión discontinua a partir de datos de las elecciones legislativas y cantonales francesas. Los resultados muestran que la polarización aumenta claramente el apoyo electoral a los candidatos que gobiernan y favorece su reelección. Estos efectos son especialmente fuertes cuando la polarización se asocia con la presencia de candidatos pertenecientes a partidos de extrema derecha/izquierda.

En resumen, esta tesis mejora nuestra comprensión de cómo las diferentes propiedades de los sistemas de partidos condicionan el funcionamiento de la democracia y aclara cuándo y por qué cada una de estas propiedades es importante. Mediante la aplicación de diversos métodos (observacionales, experimentales y casi-experimentales), demuestro que, en lo que se refiere a la rendición de cuentas, los gobiernos unipartidistas que se enfrentan a oposiciones fragmentadas facilitan el buen funcionamiento de las democracias. La polarización, a su vez, favorece el apoyo electoral a los gobernantes y evita que pierdan su cargo.

PALABRAS CLAVE: *sistemas de partidos, fragmentación, polarización, rendición de cuentas, alternancia en el poder, experimento de encuesta, regresión discontinua.*

Thesis Regulations

This dissertation is an article-based thesis fulfilling the regulations of the doctoral academic committee at the Universitat de Barcelona, Faculty of Law. According to the established requirements, this dissertation includes the following pieces:

1. RESPONSIBILITY ATTRIBUTION FOR CORRUPTION SCANDALS

This is the first empirical chapter of this dissertation and it was published in *Local Government Studies* in 2020. This journal has a Five-Year Impact Factor of 2.791 and it was a Q2 journal in the Political Science field, according to the Journal Citation Reports (JCR) classification in 2020. According to the Scopus classification in 2020, the journal had a CiteScore of 3.6 and it was a Q1 journal in the field of Sociology and Political Science. This article is reprinted in chapter 2.

2. OPPOSITION FRAGMENTATION FACILITATES ELECTORAL ACCOUNTABILITY. EVIDENCE FROM A SURVEY EXPERIMENT.

This article is the second empirical chapter of this dissertation and it was published in *Party Politics* in 2021. This journal has a Five-Year Impact Factor of 3.105 and it is a Q2 journal in the Political Science field, according to the latest Journal Citation Reports (JCR) classification (2021). According to the latest Scopus classification (2021) the journal has a CiteScore of 4.5 and it is a Q1 journal in the field of Sociology and Political Science. This article is reprinted in chapter 3.

By including these two articles, this dissertation fulfills the main requirement to submit a paper-compilation thesis according to the Universitat de Barcelona regulations.

3. THE POLITICAL CONSEQUENCES OF POLARIZATION: QUASI-EXPERIMENTAL EVIDENCE FROM RUNOFF ELECTIONS

This article is a working paper version and it is presented in chapter 4. The article has not yet been submitted to any journal.

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Durant els anys que he sigut doctorand al Departament de Ciència Política, Dret Constitucional i Filosofia del Dret de la Universitat de Barcelona he pogut gaudir del suport acadèmic i personal de molts dels seus membres. No voldria deixar de mencionar a ningú, així que moltes gràcies a tots pels dinars a la sala del *tupper*, pels cafès al bar de la facultat, per les xarrades recurrents sobre sèries, llibres i pel·lícules i per tot el *feedback* que m’heu donat al llarg de la tesi. Voldria agrair especialment a en Pep Vallbé, l’Anna Palau i en Jaume Magre haver-me ajudat en diferents qüestions burocràtiques i haver-me donat totes les facilitats per tal que pogués obtenir un contracte pre-doctoral.

Tot i que he passat moltes bones estones a la sala del *tupper*, la major del temps l’he passat al despatx. Allí he tingut la sort de coincidir i compartir el meu dia a dia amb un grup excel·lent de doctorands i doctorandes. Pau, Leire, Andreu, Luís, i més recentment Víctor i Iris, gràcies per tot el suport d’aquests anys, però sobretot, gràcies per fer que aquest viatge fos molt més amable i divertit. Tant de bo els nostres camins es tornin a creuar ben aviat! No seria just aquí si no reconeguéis que, a més de tots els comentaris substantius, aquesta tesi també s’ha beneficiat d’en Pau en termes estètics. Un document *cls.* ben endreçat no té preu. Gràcies!

Si alguna cosa he après en aquests últims mesos és que com més difonguis i més discuteixis la teua recerca amb altres investigadors/es millor en serà el resultat final. He tingut la sort de poder-ho fer en diverses ocasions a diferents seminaris, *workshops* i conferències internacionals com EPSA, MPSA, APSA o el *Barcelona PhD Workshop on Empirical Political Science*. La meua gratitud a tots els qui hi han participat, en particular a aquells que han hagut de discutir la meua recerca.

Una de les parts més m’emocionava del doctorat, però que alhora em feia més por, era fer estades de recerca a l’estranger. Un temps després puc dir amb serenor que els tres mesos que vaig estar a Göteborg són de les millors coses que he pogut fer a la vida. Certament, compartir aquesta estada amb en Pau i en Guillem va contribuir enormement a convertir aquells dies en un record tan especial. Gràcies per tots els moments que hi vam compartir, pels dinars a la universitat, per les tardes de xocolata calenta i per les nits de Catan i cervesa. Fent meves les paruaes d’en Pau: “*Ullarga vida als pàjarus!*”.

Una menció especial la mereixen en Víctor i la Marta. Abans d’anar cap a Göteborg vaig pensar molts cops amb què em trobaria un cop allà. El que no hauria imaginat mai és que acabaria jugant a futbol els dissabtes amb la Marta, en Víctor, l’Elena i família i que passàriem les tardes jugant a Catan a casa seva. Gràcies infinites per la vostra hospitalitat i generositat.

A very special thanks to Andreas Bågenholm for hosting me during my stay and for making the Quality of Government Institute such an inspiring and stimulating place to work on my dissertation. Also a big thanks to Peter Esaiasson for inviting me to present my work at the GEPOP Morning Meetings and for the great conversations we had at lunch. Finally, a big thanks to the wonderful community of PhD Candidates based at the QoG for their valuable feedback on my research, and for the fantastic time we spent together.

Fer una tesi doctoral és tot un repte des d'un punt de vista psicològic i personal. No sé si he sabut afrontar aquest procés bé o no, però el que sí que sé és que si fa uns anys no hagués demanat ajuda a n'Eduard Tapias el procés hauria set molt més difícil. Tot i la distància temporal que em separen d'aquells dies, gràcies per tota la seva ajuda.

He tingut la sort de tenir uns pares i un germà que m'han recolzat en qualsevol moment i en qualsevol situació: a Formentera, a Barcelona i a Tarragona, en moments bons i en moments que no ho han sigut tant. Sempre. Milers de gràcies a tots tres pel suport incondicional i ser un punt de referència on anar a trobar-me si en algun moment del camí em perdia. Gràcies també a la resta de la família, que sempre s'han interessat i preocupat per com avançava la tesi, tot i a vegades no acabar d'entendre exactament el que feia. *Por supuesto, gracias también a aquellos que “legalmente” aún no forman parte de mi familia – pero que para mí ya hace tiempo que lo son – por todos los buenos momentos que hemos compartido y que seguiremos compartiendo.*

A la colla d'amics de tota la vida, la meva gratitud per totes les estones invertides a parlar de coses que no tenien res a veure amb la tesi i que tan necessàries són per descansar i prendre perspectiva. Discutir entre bon beure i menjar sobre futbol, política, turisme, el futur de Formentera, sèries i ciclisme han sigut els remeis més adequats per tots els mals que sovint desencadena una tesi.

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I

Introduction

1.1 Motivation

Party systems, one of the cornerstones of liberal democracies, have become increasingly complex in the last decades. The degree of party system fragmentation and polarization, the two most important features that characterize party systems (Dalton, 2008), have experienced a substantive increase in many Western democracies. The average number of effective parties in the national parliaments of the European Union has steadily increased from 3.5 in the 1980s to 4.5 at present¹. In some of the most populated European countries the magnitude of this variation has been even larger: in Germany the effective number of parties grew from 3 in 1980 to 5.5 in 2021 while in Spain it climbed from 2.3 in 1982 to 4.75 in 2019.

Similarly, several scholars show that ideological polarization between parties is growing (Funke et al., 2016; McCoy et al., 2018; Svobik, 2019). The increase in polarization has sometimes been associated with the appearance and electoral success of parties from the extremes of the ideological spectrum (Casal Bértoa & Rama, 2021) and with a decrease in the vote shares of centrist-liberal parties (Zur, 2021). Parties of the extreme right have taken on governmental responsibilities in Austria, Finland, and Italy and they have obtained remarkable results in many other countries, including France, Spain, and Germany (Mudde, 2013; Rodon, 2020). Although the electoral success of extreme left parties has been more limited (Funke et al., 2016), some of them have also been able to form governmental coalitions, such as in Greece, Portugal, and Spain.

¹ Data from Casal Bértoa (2022).

Understanding how these changes affect the functioning of democracy is simultaneously crucial and challenging, as the degrees of party system fragmentation and polarization are likely to be endogenous to several societal and institutional characteristics. Moreover, although our knowledge about these questions has advanced significantly over recent years, little agreement can be found in the scientific literature as to whether different configurations of party systems are good or bad news for the functioning of democracy.

On the one hand, some scholars argue that multiparty systems may improve how democracy works by providing voters with a wider range of alternatives (Charron & Bågenholm, 2016) and allowing for the representation of minorities and traditionally-excluded groups of voters (Lijphart, 2012). Moreover, a certain degree of fragmentation in party systems may be desirable because it can help curb corruption by raising competitiveness among parties (Schleiter & Voznaya, 2014). On the other hand, other scholars contend that fragmentation may harm democracies by fueling political instability (Hellström & Walther, 2019) and hindering voters' ability to hold underperforming governments accountable (Anderson, 2000; Powell Jr & Whitten, 1993; Schwindt-Bayer & Tavits, 2016).

Similarly, party polarization is sometimes said to enhance the democratic process by making electoral choices more meaningful (Hetherington, 2008) and clarifying parties' ideological stances on different issues (Layman et al., 2006; Levendusky, 2010). However, another strand of literature argues that polarization is among the major threats to democracies today (McCoy et al., 2018; Svobik, 2019), because it allows politicians to escape punishment when they engage in undemocratic practices (Graham & Svobik, 2020) and makes cooperation among parties more difficult (Barber et al., 2015).

This dissertation contributes to and expands this literature by exploring the relationship between party system fragmentation and polarization and two outcomes that are closely related with the functioning and quality of any democracy: accountability and incumbent turnover. In a healthy democratic system elections are expected to work as a democratic tool, wielded by citizens to remove underperforming governments (Cheibub & Przeworski, 1999; Ferejohn, 1986) and guaranteeing peaceful alternations of power (Przeworski, 2019). Specifically, this dissertation addresses two questions: 1) *Do the fragmentation of the government and the fragmentation of the opposition condition the extent to*

which incumbents are held accountable? and 2) *Does polarization among candidates condition incumbent turnover?*

Of course, providing answers to these questions triggers other, more specific questions that I also address in this dissertation. For instance, if fragmentation conditions accountability, what are the mechanisms behind this correlation? And what is the specific role of the opposition in this story? Does its fragmentation matter for accountability? If so, does this effect differ from that of governments' fragmentation?

Furthermore, party polarization is usually defined in terms of ideological distance between parties (Dalton, 2008), but it is often argued that the presence of extreme candidates is also a sign of polarization (King et al., 1990; Schmitt & Freire, 2012). This raises the question of whether the effects of polarization associated with the presence of parties from the extreme-left or extreme-right differ from the effects associated with pure ideological distance.

All these questions address different gaps in the literature. This is not to say that these questions have never been explored, but rather that the evidence is not conclusive and multiple conflicting explanations persist. On the one hand, fragmentation may enhance accountability because it makes it easier for voters to find an alternative to an incumbent that has not performed as expected (Charon & Bågenholm, 2016). On the other hand, fragmentation may indicate that the alternatives are so small that they cannot be seen as credible or viable choices (Maeda, 2010). Similarly, sometimes polarization is said to contribute to the erosion of democracy by preventing voters from defecting from politicians who violate democratic principles (Graham & Svobik, 2020), but at other times it is said to strengthen democratic systems by clarifying the differences between the government and the alternatives and by making the potential choices more meaningful (Stiers & Dassonneville, 2020).

In addition, studying the political effects of fragmentation and of polarization is challenging from a causal inference perspective. Fragmented and polarized party systems are themselves outcomes of societal and institutional contexts, which may lead to issues of endogeneity and omitted variables. For instance, the extent to which a political system is fragmented into multiple parties may depend on the preexisting distribution of preferences and divisions in the electorate (Lipset & Rokkan, 1967), which may also condition accountability and how the democratic system works. At the same time, this relationship may go in the opposite direction since the extent to which a system is fragmented may

depend on the performance of incumbents and mainstream parties, particularly in times of economic hardship. If traditional parties do not provide satisfactory answers to voters' demands, they may be tempted to vote for new options, thus contributing to more fragmented politics (Sanz et al., 2022).

Similarly, studies on the effects of polarization are not typically well-equipped to establish causal relationships, since it is not easy to find exogenous shifts in the explanatory variable (Levendusky, 2010). As in the case of fragmentation, variations in the degree of party polarization are likely to correlate with many other changes. For example, parties and candidates now use their speeches to address several issues that they had not dealt with in the past, such as climate change, gender equality, and LGBT rights. How, then, can we know whether differences in government survival are due to different levels of polarization or to the introduction of new issues in the agenda? Furthermore, even if we hold issues constant, it may also be the case that levels of polarization are the outcome and not the cause of incumbents' electoral prospects. If parties perceive that polarization may bring them electoral benefits, they may adopt strategies to artificially raise the degree of polarization before elections (Arbatli & Rosenberg, 2021), which may pose a threat to the validity of any conclusions regarding the causal effects of polarization.

All in all, this dissertation is intended to answer the questions mentioned above and aims to improve our knowledge about the democratic consequences of fragmentation and polarization, with a particular emphasis on causal identification. Given that this dissertation is structured as a three-paper compilation, in the following sections I provide an overview of the argument in which I highlight the common underlying intention of the papers. Then, I present what I believe to be the key contributions of the dissertation. Finally, I present the methods and data used in the three papers. I leave the more comprehensive literature reviews and in-depth discussions of the results and implications to each individual paper.

1.2 Overview of the argument

Political scientists and pundits alike have debated about the advantages and inconveniences of fragmented party systems for democracy for several decades. Additionally, in recent years, the discussion of the potentially pernicious effects of political polarization has received a great deal of scholarly at-

tention. However, no consensus has been reached as to whether fragmented party systems perform better in terms of holding governments accountable (Anderson, 2000; Charron & Bågenholm, 2016; Maeda, 2010; Tavits, 2007; Valentim & Dinas, 2020) or as to whether polarization improves the alternation of power by increasing the meaningfulness of the vote (Hetherington, 2008) and clarifying the ideological stances of the government and the opposition (Stiers & Dassonneville, 2020).

The main aim of this dissertation is to analyze the effects of fragmentation and polarization on two outcomes that lie at the heart of all democratic systems: accountability and incumbent turnover. To do so, I delve into the specific mechanisms that explain how each of the properties condition the outcomes of interest. Figure 1.1 provides a summary of the argument in this dissertation.

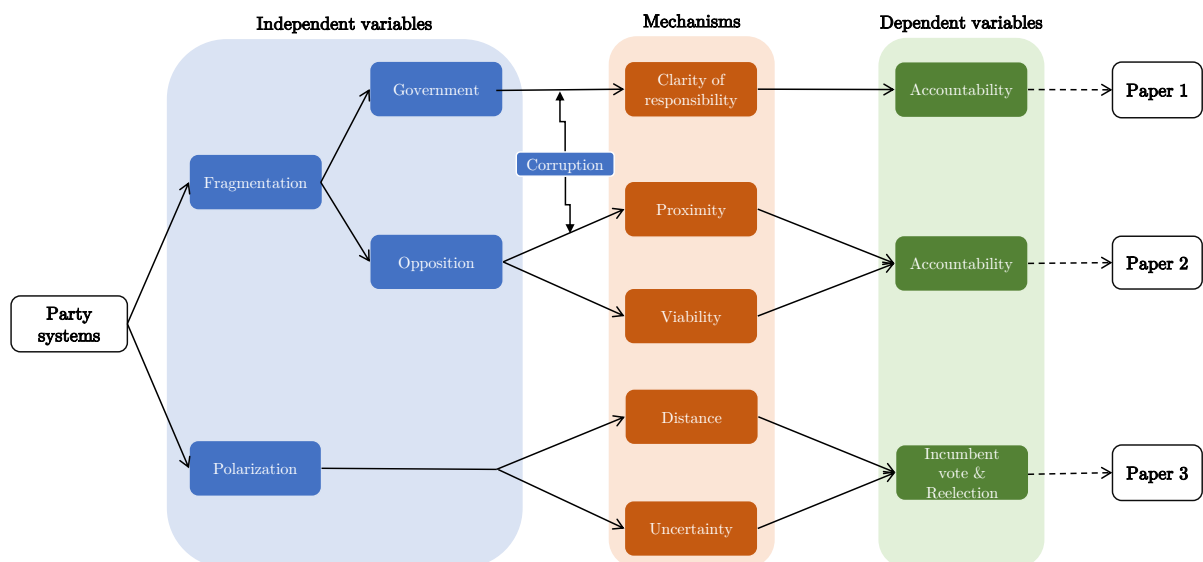


FIGURE 1.1 Summary of the argument

First, I argue that there is no reason to assume that governments' fragmentation and oppositions' fragmentation condition accountability in the same way. Indeed, studies linking “clarity of responsibility” with political fragmentation argue that when the multiple parties share office, citizens may struggle to correctly attribute responsibilities (Anderson, 2000; Powell Jr & Whitten, 1993; Schwandt-Bayer & Tavits, 2016). Following this “clarity of responsibility” argument, other scholars argue that in contexts in which the opposition is fragmented into multiple parties the alternatives are less “clear”. However, they do not provide clear answers with respect to what the alternatives should be “clear” about, nor when a given alternative should be defined as “clear”.

Therefore, in the first empirical paper of this dissertation, I argue that there are good theoretical reasons to expect a fragmented government to either facilitate or hamper accountability for corruption scandals. In line with the classic “clarity of responsibility” argument we should expect coalition and minority governments to make it more demanding for citizens to identify who is responsible for what, thus hindering accountability. When power is shared by different parties – whether due to the existence of a multiple party cabinet (i.e. coalition governments) or because a single party holds office but lacks the votes needed to control the legislature (i.e. single-party minority government) – voters may have a hard time linking policy outcomes with parties (Powell Jr & Whitten, 1993; Schwindt-Bayer & Tavits, 2016). However, it can also be argued that coalition governments may improve accountability since in these cases the increased relative power of opposition parties allows them to exert more effective control over the government’s actions. Moreover, members of a coalition government have different tools to check each other’s activities to ensure that do not act in their own interests (Strøm, 1990). If information is publicly available, both because more parties have access to relevant information and due to control mechanisms, then voters should be able to identify who is responsible for policy outcomes. Therefore, there are reasons to believe that coalition and minority governments will be more easily held accountable for their performance.

Although the fragmentation of party systems may foster the formation of coalition governments, thus influencing “clarity” and the electoral incentives of coalition partners, it may also condition accountability by shaping the characteristics of the opposition. I address this topic in the second paper of this dissertation. Specifically, I focus on the fragmentation of the opposition and argue that the perceived attractiveness of the opposition is influenced by the ideological proximity between voters and the alternatives, and the extent to which these alternatives are strong enough to be seen as a focal point through which to coordinate anti-incumbent votes, gain office, and replace the incumbent. Following this argument, fragmentation of the opposition conditions accountability by pulling voters in opposite directions: on the one hand, the more the parties in competition the easier for voters to find at least one party close to their own preferences. On the other hand, as fragmentation increases it becomes harder for voters to mobilize against the incumbent due to the lack of a focal point over through which to amass an anti-incumbent swing vote. Therefore, when election day comes, fragmentation of the opposition poses a trade-off between proximity and viability.

Moreover, I contend that certain contextual factors and certain voter characteristics are also important factors that may help understand how the fragmentation of the opposition conditions accountability. With regard to the electorate, I argue that when considering alternatives to disappointing governments, some voters may prefer to vote for an ideologically-close party while other more pragmatic voters may focus on large-sized parties that are more likely to concentrate the votes against the incumbent. Similarly, I argue that whether the main issues are debated in positional terms or in valence terms may influence how voters consider proximity and viability. In other words, if a prominent issue is debated in ideological terms, the increased salience of ideological positions should reinforce the weight of this criterion in voters' minds, making them more sensible to variations in the ideological positions of the alternatives. In contrast, debates structured around the parties' competence in handling an issue may trigger a change in voters' political priorities and preferences in the opposite direction in the short term, making them instead more sensitive to parties' viability.

Finally, in the third empirical chapter of the dissertation I turn my attention to the other defining characteristic of party systems: polarization. In particular, in this chapter I hypothesize that polarization among candidates may actually decrease incumbent turnover by favoring voters' coordination around incumbent candidates. Specifically, I argue that in polarized scenarios, in which candidates tend to be ideologically distant from one another, the increased distance between the incumbent and the runner-up candidate hampers the conditions under which replacing the incumbent is more likely because it increases the relative cost of voting for an alternative. Moreover, I argue that high levels of polarization may also increase uncertainty about the consequences to the system that may come from turnover, which will ultimately benefit the incumbent. That is, in any election in which an incumbent seeks reelection, voters are aware of how the incumbent has behaved. By contrast, voters have to make a prospective judgement about what the runner-up candidate will do if elected (Eckles et al., 2014; Kam & Simas, 2012). According to my argument, this uncertainty about what the runner-up will do if elected and the electoral consequences thereof will be arguably larger in polarized contexts, since the room for change is, by definition, broader. I also argue that these effects maybe stronger when polarization is associated with the presence of runner-up candidates from extreme parties because these candidates will be perceived as particularly unpredictable and threatening to the system.

1.3 Contribution

The first contribution of this dissertation is that it provides an analytical framework for the study of fragmentation at the government / opposition level and tests the specific mechanisms through which each type of fragmentation may affect accountability. While previous literature has already discussed the effects of the fragmentation of the party system on accountability (Charron & Bågenholm, 2016; Hellwig, 2010; Xezonakis et al., 2016) and has considered the role of governments' fragmentation (Powell Jr & Whitten, 1993; Schwindt-Bayer & Tavits, 2016), it has overlooked the possibility that governments' and oppositions' fragmentation may condition accountability through different mechanisms. I contribute to fill this gap by analyzing the effects of the fragmentation of the government and the fragmentation of the opposition separately and by providing theoretical accounts as to why and how the two may condition accountability.

Relatedly, this dissertation also contributes to the literature on party systems by underlining the role of the characteristics of the opposition. With some notable exceptions (see Agerberg (2020), Breitenstein (2019) and Maeda (2010)), the literature on accountability has mostly focused on incumbents and governments. While I do address the effects of governments' fragmentation on accountability in the first empirical chapter of this dissertation, in the second paper I turn my attention to the characteristics of the alternatives (parties' ideological proximity and viability) and analyze how these may interact with voters' demands and contextual factors. My main argument here is that for an anti-incumbent vote to take place voters need to find an appealing alternative. In this regard, opposition fragmentation shapes citizens' choices by conditioning the extent to which citizens can find ideologically close and viable alternatives. Moreover, I further contribute to the literature by interacting the supply side with the demand side and argue that the trade-off between proximity and viability posed by fragmentation may not be considered equally by the electorate: some voters may prefer alternatives that are close to their own views while others may prioritize strong, viable alternatives.

The third contribution of the dissertation is its hard test of the "clarity of responsibility" theory (Powell Jr & Whitten, 1993), which improves our knowledge on why underperforming governments sometimes escape from electoral punishment. The corruption scandals analyzed in the first paper always affect individuals belonging to or having connections with political parties; the criminal charges

are brought by a non-partisan actor; and some corruption scandals have only negative consequences on citizens' welfare. In this context, with reliable information on a welfare-decreasing corruption scandal affecting a member of the local government, I would expect voters to easily identify who is responsible for the scandal, regardless of the type of government. And yet, I still find that single-party majority governments are more punished for corruption scandals.

Fourth, I experimentally test and show that fragmentation of the opposition enhances accountability by providing voters with a greater range of ideological alternatives. I further show that this effect is stronger for those voters who prioritize ideology when deciding whom to vote for. Delving into the specific mechanisms, I also demonstrate that the overall positive effect of fragmentation on accountability can be explained because marginal gains in ideological proximity outweigh losses in viability. These results, together with the results provided in the previous paragraph, mean that, in terms of accountability, single-party governments facing fragmented oppositions are best for democracy.

Fifth, this dissertation makes a substantive contribution to the literature on the consequences of polarization. I argue that polarization may incumbent candidates from losing office by leading voters to rally around them. This fact can be explained because polarization increases the average ideological distance between voters and challenger candidates and increases the uncertainty about what to expect from an incumbent turnover. The results support my argument: as polarization between the incumbent and the runner-up increases, turnover is less likely to happen. Moreover, the results show that this is particularly the case when polarization is associated with the presence of an extreme candidate in the election.

The sixth contribution of this thesis is the variety of empirical methods used to answer the research questions as well as the focus on causal identification. By using different research methods such as a survey experiment and a Regression Discontinuity Design (RDD) in this dissertation, I have been able to exogenize both the extent to which the opposition is fragmented and the degree of polarization between incumbent and runner-up candidates. The use of these methods is relevant because they allow me to overcome potential issues such as endogeneity and omitted variables. As previously noted, existing studies on political fragmentation and polarization using observational data face several concerns since fragmented vs. less-fragmented contexts and polarized vs. less-polarized

scenarios are likely to be different in a number of observable and unobservable characteristics. Moreover, fragmentation and polarization are themselves outcomes of different democratic processes that may also affect the outcomes of elections. By using experimental and a quasi-experimental methods I am able to overcome the issues outlined here and test whether the causal mechanisms I propose move in the expected direction(s).

All in all, the contributions laid out in this section have important implications for our understanding of how party system fragmentation and polarization condition various outcomes that are closely related to how democracies work and they clarify why and how each of these properties of the party systems matters. In a nutshell, fragmentation of the government may hamper the functioning of democracy by increasing the costs of holding governments accountable. By contrast, fragmented oppositions make it easier for voters to find acceptable alternatives. Finally, polarization may condition democratic outcomes by preventing incumbents from losing office.

1.4 Data and methods

In this section I provide a brief discussion of the data and methods used in the dissertation. As stated earlier, given that this thesis has been written as a collection of three empirical papers, more detailed discussions of the specific data and methods are provided in each of the individual papers.

Analyzing how different properties of party systems affect the outcomes of democracy requires not only a consistent theory but also strong empirical tests. The tasks of establishing a causal relationship between fragmentation or polarization and various outcomes and of disentangling the mechanisms that may account for these relationships face several challenges, which underscores the need for different methodological strategies. Therefore, in order to test the hypotheses presented above, this dissertation follows a multi-method approach, drawing on different research designs and types of data, depending on the specific puzzle addressed in each empirical chapter.

In the first empirical chapter, which is devoted to the study of the effects of governments' fragmentation on accountability, I rely on data concerning corruption scandals in Spain between 2007 and 2011 that was collected by Fernández-Vázquez et al. (2016) and data on fragmentation in local councils that comes from the Spanish Ministry of Home Affairs. As has been noted by Agerberg

(2020), Anduiza et al. (2013) and Breitenstein (2019), Spain is a particularly suitable scenario for the purpose of this chapter due to its political fragmentation and the salience of corruption in the period under study. After providing an overview of corruption scandals and fragmentation in Spain, I analyze the data by running a series of multivariate OLS regressions. Although the analyses are embedded in a single country, which allows me to keep socio-economic and institutional variables constant (Falcó-Gimeno, 2020), and the use of real-world data minimizes issues such as social desirability bias compared to survey-based research (Chong et al., 2015), the evidence presented here is based on correlations. This fact limits the extent to which the results can be interpreted in terms of causality. For this reason, in the second and the third empirical papers I take advantage of experimental and quasi-experimental methods to further investigate whether fragmentation and polarization have causal impacts on the outcomes of interest.

Consequently, for the second empirical paper, which analyzes the effect of opposition fragmentation on accountability, I designed a survey experiment with multiple choice-tasks in which I manipulated the number of opposition parties (*within-subjects design*) and the frame of the corruption scandals (*between-subjects design*). The experiment was conducted in Spain in January 2020. A total of 1,008 individuals who had been recruited on-line by the commercial firm Netquest participated in the experiment. By randomly manipulating the degree of opposition fragmentation and the framing of the scandals to which respondents were exposed, the experiment enables me to analyze how opposition fragmentation conditions accountability while holding the distribution of individual preferences constant, and then to test the effect of ideological and valence debates on corruption at different levels of opposition fragmentation. In the analysis section, I also use a conditional logit approach to test specifically whether the mechanisms I propose condition accountability in the expected direction, along with the intensity of these effects. Overall, these strategies allow me to test empirically how opposition fragmentation conditions accountability and to overcome potential endogeneity concerns.

Finally, in the third empirical chapter of the dissertation, which analyzes the effect of political polarization on incumbent turnover, I apply a Regression Discontinuity Design to data from the French legislative and cantonal elections between 1981 and 2021. France is a particularly interesting scenario for the purpose of this chapter for two main reasons. First, since the 1980s the degree of polarization among the French parties that have run for office has varied greatly in different electoral

arenas. This means that parties from all sides and ideologies have been in position to reach office. Second, both legislative and cantonal elections use a two-round system in which the two most voted candidates in the first round automatically qualify for the second round. Following the logic of “close race elections”, I compare cases in which the runner-up candidate barely qualifies for the second round and polarizes the election, with cases in which the runner-up also qualifies but decreases the degree of polarization. The final database for study includes a total of 5,305 observations, 1,600 of which come from legislative elections and 3,705 of which come from cantonal elections. As I further detail in the main text, this use of this strategy is relevant because it allows me to treat polarization as a truly exogenous variable thus overcoming the issues that scholars of polarization typically face, such as endogeneity (i.e. polarization may be a function of parties’ strategic behavior in an attempt to reach office) and omitted variables (i.e. systems with high polarization and systems with low levels of polarization are likely to be systematically different).

1.5 Outline of the dissertation

This dissertation is divided into five chapters, including this introductory chapter, three empirical chapters where I provide answers to the aforementioned questions and a final chapter in which I outline the main conclusions of this dissertation. The empirical chapters are summarized below. In the following chapters I explain in detail the theoretical arguments and the empirical analyses I put forward in order to answer different but related questions regarding the effects of fragmentation and polarization on two democratic outcomes: accountability and incumbent turnover.

Paper 1: Responsibility attribution for corruption scandals

Following previous work on political fragmentation and accountability, in the first empirical chapter of the thesis, titled “*Responsibility attribution for corruption scandals*” and published in *Local Government Studies*², I analyze the effect of the type of government on the vote for the incumbent when it has been charged with corruption. In this sense, most studies on the topic have assumed that voters pun-

² See Ferrer (2020)

ish all kinds of governments for all types of corruption. I challenge this assumption by distinguishing between two types of governments (single-party majority governments and minority/coalition governments) and between welfare-enhancing and welfare-decreasing corruption (Fernández-Vázquez et al., 2016).

I argue that there are good reasons to expect both single-party majority and minority governments to be more punished for corruption scandals. On the one hand, according to the literature on “clarity of responsibility” (Powell Jr & Whitten, 1993), it is expected that single-party majority governments will be more punished because they make it easier for voters to attribute responsibility for corruption. Moreover, coalition governments may have less incentive to clearly identify the culprit if they take into account the possibility of forming coalitions in the future (Kunicova & Rose-Ackerman, 2005). On the other hand, there are also good reasons to expect coalition and minority governments to be more punished at the polls. Indeed, minority situations increase the control tools (or relative power) of the opposition, which enhances the latter’s capacity to control and check the government’s action. Moreover, coalition partners may have the incentive to clearly point out who is responsible for corruption if they expect to receive electoral benefits as a result (Lupia & Strøm, 1995).

I test these hypotheses using empirical evidence from Spanish municipalities. In my sample, corruption scandals always affected individuals belonging to the municipal executive branch, and criminal charges were always brought about by a non-partisan actor – a judge, a public prosecutor or the police. Under these conditions, in which the information about scandals comes from reliable sources and the charges are pressed against individuals that belong to or have strong attachments to the local incumbent party, I would expect citizens to be able to easily identify who is responsible for the scandal, regardless of the type of government. For these reasons, I consider this paper to constitute a hard test for the “clarity of responsibility” theory. Even so, the results show that majority governments are more punished at the polls than coalition/minority governments when corruption practices have clear negative externalities for the municipality but not when corruption may have positive economic consequences in the short term. These results support the idea that fragmentation of governments makes it more demanding for voters to identify who is responsible for what.

Paper 2: Opposition fragmentation facilitates electoral accountability. Evidence from a survey experiment

In the chapter titled “*Opposition fragmentation facilitates electoral accountability. Evidence from a survey experiment*”, which has been published in *Party Politics*³, I focus on oppositions and analyze how their fragmentation shapes the vote for incumbents who have engaged in corrupt practices. The extent to which party systems condition the electoral success of incumbent parties may not only depend on the government’s characteristics but also on the characteristics of the alternatives. In the end, for an anti-incumbent vote to take place voters need to find an attractive alternative (Maeda, 2010). Nevertheless, what constitutes an attractive alternative remains unclear.

I argue that ideological proximity (Charron & Bågenholm, 2016) and the parties’ viability (Maeda, 2010) are the two main parameters that explain how opposition fragmentation conditions accountability. Moreover, I contend that voters are not homogeneous when it comes to evaluating the alternatives: some voters are more likely to focus on proximity while other more pragmatic voters are more likely to look for viable alternatives. Finally, I argue that extent to which voters respond to proximity and viability may also be conditioned by certain contextual factors. More concretely, I argue that if the main issues addressed in the electoral campaign are discussed in positional (vs. valence) terms voters may feel more compelled to base their choices on ideological proximity (viability) which, in turn, will make them more sensitive to more (less) fragmented oppositions.

The hypotheses are tested using data from a survey experiment conducted in Spain. The results show that opposition fragmentation clearly facilitates accountability. As theorized, this effect is stronger for more ideological voters, who only punish underperforming governments when they can find an extremely close alternative, although it is also present at a lower degree for more pragmatic voters. I further show that when corruption is framed in valence terms voters are less tolerant of corruption than when it is framed as an ideological issue. Yet, this effect is not conditioned by the degree of fragmentation. Finally, by running a conditional logit I am able to show that while voters prefer both ideologically close alternatives and viable parties, the effect of ideological proximity is signifi-

³ See Ferrer (2021)

cantly larger, which means that opposition fragmentation enhances accountability because marginal gains in proximity offset losses in viability.

Paper 3: The political consequences of polarization: Quasi-experimental evidence from runoff elections

In the final empirical chapter of my dissertation – which constitutes my job market paper⁴ – I turn my attention to polarization and how it conditions incumbent turnover, another outcome the signals the extent to which democracies and elections function correctly (Przeworski, 2019). The study of the effects of polarization has received renewed attention in recent years. In fact, many authors claim that polarization has become one of the major threats democracies are facing today (Graham & Svobik, 2020; Levitsky & Ziblatt, 2018) because it deteriorates the dynamics of political competition (Gervais, 2017), undermines the role of citizens as a democratic check (Graham & Svobik, 2020) and opens a “window of opportunity” for leaders with autocratic tendencies (McCoy et al., 2018; Svobik, 2019, 2020).

In this chapter I contribute to this literature and argue that polarization may decrease turnover by favoring voters’ coordination around incumbents. The main rationale behind this expectation is that polarization increases the average ideological distance between incumbents and challenger candidates, and raises the degree of uncertainty about to what expect from an incumbent turnover. That is, for citizens to be able to switch their votes, alternative candidates must be seen as a potentially acceptable choice. In a polarized scenario where, by definition, candidates are ideologically distant from one another, the increased distance between the incumbent and the runner-up candidate is expected to raise the cost of voting for the latter. Moreover, as polarization increases, so does the cost of anticipating the potential consequences for the system that may derive from an incumbent turnover, since the potential room for change is larger. In such a context, I expect voters to reject the option that is associated with higher uncertainty and consequently vote for the incumbent.

I test this hypothesis by applying a Regression Discontinuity Design to data from French legislative and cantonal elections between 1981 and 2021. This strategy allows me to treat polarization as a truly exogenous variable and overcome issues associated with the study of polarization such as en-

⁴ A version of this chapter has been uploaded to the *OSF Preprints* repository, see Ferrer (2022).

dogeity and omitted variables. Overall, the results show that polarization clearly favors stability by benefiting the incumbent in terms of electoral support and reelection rates. This effect is particularly strong when polarization occurs due to the presence of candidates from extreme parties in the second round. When that is the case, almost every incumbent is able to secure reelection. These results have clear implications for our understanding of citizens' behavior and their potentially stabilizing role in polarized political contexts.

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Paper 1

Responsibility attribution for corruption scandals*

2.1 Introduction

Elections are a fundamental pillar of representative democracies. Through elections, citizens choose their representatives and, in addition, elections allow citizens to reward or punish them. Given that corruption is a scourge, socially conceived as something negative, we would expect electorates to sanction those candidates and parties affected by corruption scandals (Fernández-Vázquez et al., 2016; Winters & Weitz-Shapiro, 2013). However, in recent years, there have been numerous elections in which candidates and parties affected by political corruption did not see themselves penalized.

This is, therefore, one of the fields of research which have occupied those scholars engaged in electoral analysis. Beyond some attempts to explain the low electoral punishment of corrupt parties and candidates as being a consequence of cultural and religious issues (Paldam, 2001), numerous authors have tried to identify other factors and mechanisms by which voters punish political corruption. First of all, information is a key determinant of the punishment of corruption. A lack of information, the non-veracity of it, or its irrelevance in comparison with other types of information, have been alternative bases for some of the formulated hypotheses.

* Paper published in *Local Government Studies*, see Ferrer (2020).

Without disregarding the issue of information, another mechanism which determines whether corruption is punished or forgiven may be the formation of clientelistic networks, i.e., the purchase of votes using the means gained by corruption. According to this theory, the benefits from corruption would not all accrue individually; a part would be destined to be spent buying the support necessary to secure re-election and thereby continue to reap further benefits (Hidalgo & Nichter, 2016).

Some studies point to personal factors such as political sophistication or economic status to explain why some people are more likely to punish corrupt parties (Riera et al., 2013). Other authors, influenced by social psychology, relate those factors to cognitive dissonance to explain the contradiction that voters face when deciding whether or not to vote for a candidate of their preferred party who is engaged in political corruption (Muñoz et al., 2016).

Finally, other authors focus on institutions. The more classical studies analyze how the institutional architecture or electoral system affect the punishment of corruption (Kunicova & Rose-Ackerman, 2005), while other recent studies focus on determining the interaction between institutional variables and individual variables, to explain the paradox of support for corruption (Charron & Bågenholm, 2016). Among the institutional variables, some of the most keenly discussed have been the mechanisms or characteristics through which institutions limit or allow the attribution of responsibilities. From this perspective, a democratic system is effective when the institutional and partisan arrangements make it easier for voters to monitor their representatives, identify those responsible for undesirable outcomes, and hold them accountable by voting them out of office (Schwindt-Bayer & Tavits, 2016; Tavits, 2007).

Following these approaches and drawing on previous knowledge, this project aims to contribute to existing literature by studying the impact of a government's status on electoral support for corrupt governments. This project uses data from local elections in Spain, a country where numerous corruption scandals at the local level have hit the headlines, to analyze whether or not the electoral consequences of corruption differ depending on how many parties are needed to control a parliamentary majority. I restrict my analyses to corruption scandals involving the mayor or another member of the executive branch in criminal behavior and abuse of public office. Moreover, I only consider those cases in which charges of criminal behavior were brought by a non-partisan actor (i.e., a judge, a public prosecutor or the police). In line with the theory forwarded by Fernández-Vázquez et al. (2016),

to the effect that citizens respond differently to corruption depending on its short-term welfare consequences, I also conduct an analysis in which I distinguish between two types of corruption based on the nature of its welfare consequences for the municipality.

Given that, in my sample, corruption scandals always affected individuals belonging to, or having connections with, political parties, and that the criminal charges were brought by a non-partisan actor, I consider this study to constitute a hard test of the clarity of responsibility theory. Even so, I find that majority governments are more punished at the polls as a consequence of corruption than coalition or minority governments, although this is not the case when corrupt practices have positive economic externalities for the municipality. The results have important implications for constitutional designers and electoral rulers who are concerned about corruption levels and corruption voting.

2.2 Responsibility attribution and corruption voting

The power of citizens to choose their representatives is one of the fundamental elements of democracy. Democracy is a means for the people to choose their leaders and to hold them accountable for their policies and their conduct in office. Some authors affirm that elections are the mechanism through which citizens choose the best candidates (Fearon, 1999), while others maintain that the primary function of elections is to punish or reward the rulers (Ferejohn, 1986).

If the former is the main element that defines democracy, elections become a control mechanism, in which accountability becomes the mechanism through which citizens vote to reward or punish their representatives for their policies (Maravall, 2010). As Cheibub and Przeworski (1999, pp. 225) said, “accountability consists, then, of a retrospective mechanism in the sense that, government actions are judged *ex post* by the effects they have had”. Therefore, accountability rests on the capacity of voters to reward or punish incumbents for their performance in office (Maravall, 2010).

The vast majority of the literature on retrospective voting focuses on economic voting, i.e., to what extent the electoral success of the party in the government depends on the state of the economy (Fiorina, 1981). Although there seems to be a consensus about the impact of the economy on the electoral fortune of governments, it has been observed that the relationship is not always marked

with the same intensity (Healy & Malhotra, 2013). Therefore, there are other variables that hinder or facilitate the attribution of responsibilities to the government.

Powell Jr and Whitten (1993) argue that if voters can identify those politicians responsible for the policies made, it will be easier for them to make them accountable. They concluded that minority governments, bicameral opposition, low party cohesiveness, and participatory and inclusive committee structures allow incumbents to diffuse blame for economic troubles. Following Powell Jr and Whitten (1993), Duch and Stevenson (2008) show that the economic vote seems to be more relevant in states where citizens can attribute economic responsibilities more easily. That is, in those states where citizens can attribute the economic situation to a single party and when economies are less attached to external forces, there is clearer evidence of economic voting. However, some scholars (Cheibub & Przeworski, 1999; Maravall, 2010) have rejected this thesis arguing that clarity of responsibility does not affect the accountability of governments.

If corruption voting is socially undesirable, we would expect that citizens would evaluate corruption negatively and, therefore, punish those officials and parties affected by corruption scandals. However, empirical data shows that citizens do not punish their representatives with the expected intensity; in some cases, not at all (Anduiza et al., 2013; Kauder & Potrafke, 2015; Muñoz et al., 2016; Tavits, 2007).

Some of the first theories that tried to explain why corruption is not punished are, to a certain extent, intuitive: concentrating on vote buying and patronage networks. According to these theories, the politician uses the benefits obtained from corruption to buy votes and thus, ensures reelection. However, as Hidalgo and Nichter (2016) show, the scope of this mechanism is limited.

Given the limitations of the theory about explicit exchange, the literature has focused on a more refined mechanism of exchange of interests between voters and corrupt officials. From this point of view, the citizen, even knowing the politician is corrupt, decides to maintain his support because he perceives the official as a good manager. In some way, the benefits he receives are greater than the cost of corruption. Winters and Weitz-Shapiro (2013) show that citizens vote for corrupt rulers when they perceive that politicians are competent public servants while Muñoz et al. (2016) show that voters tend not to penalize corrupt politicians who achieve, among other things, economic growth or an effective distribution of wealth.

With a slightly different theoretical mechanism, Fernández-Vázquez et al. (2016) also show evidence that citizens do not penalize those politicians who, while being corrupt, are perceived to increase the electorate's welfare. According to these authors, voters perceive corruption in a different way depending on its impact on their welfare. The voters must make their decision, assessing that the politician is corrupt, but at the same time, considering that the situation generates externalities which increase their welfare. The authors distinguish two types of corruption, depending on the type of welfare consequences they have: corruption which benefits welfare in the short term, and corruption which prejudices welfare in the short term. According to the authors, a case of over-invoicing in public procurement is an example of behavior that implies a waste of public resources and damages the economic welfare. On the other hand, the paradigmatic case of corruption that increases the economic welfare of the community would be authorizing the construction of housing in a protected area.

Information theories of corruption are also robust. Possessing information is a necessary, though not sufficient, pre-condition for citizens to punish corrupt politicians (Chong et al., 2015). In this sense, Winters and Weitz-Shapiro (2013) suggest that voters vote for corrupt candidates when there is a lack of information about corruption cases. Once they have information, a second requirement appears: the voters must consider it truthful and credible (Chong et al., 2015; Muñoz et al., 2016; Winters & Weitz-Shapiro, 2013).

At the individual level, authors argue that the reason why most corruption scandals are not punished lies in the fact that individual characteristics of citizens could have an impact on their voting behavior. Riera et al. (2013) focus on three factors: employment status, political sophistication and closeness to the incumbent party. They found mixed effects and concluded that the effects of corruption indeed exist, but that these are neither homogenous nor constant across elections.

Anduiza et al. (2013) propose a different mechanism. According to these authors, partisan preferences are a fundamental variable necessary to understanding why some voters forgive corruption. The authors show that the same offense is judged differently depending on whether the responsible politician is a member of the voter's party, of unknown partisan affiliation, or of a rival party. Furthermore, they show that the degree of partisan bias depends on respondent's political sophistication. In this sense, Winters and Weitz-Shapiro (2015), using data from survey experiments in Brazil, ana-

lyze how political corruption affects voter linkage to the corrupt parties. They find that information on corruption has no consistent measurable effect on the less educated.

Recently, Charron and Bågenholm (2016) developed a theory in which individual mechanisms and institutional factors interact. They developed a model of interaction between supply (effective number of parties) and demand (voters must have acceptable alternatives, in the ideological axis, to their preferred party). From a theoretical point of view, the more focused a voter is on the left-right axis, the more options he will have to choose between, if his preferred party is involved in corruption. However, the ability to change parties depends on what they offer. Therefore, they expect that voters in limited party systems will be guided more by ideology when they vote, given the lack of available alternatives close to the voter. Accordingly, in limited party systems, they should find that voters are more likely to continue supporting parties involved in corruption cases, especially those at the extremes of the ideological spectrum.

2.3 Majorities, coalitions and accountability for corruption

Based on the works of Powell Jr and Whitten (1993) and Powell Jr (2000), Tavits (2007) constructs an indicator of clarity of responsibility. The index includes the parliamentary status of the government, the duration of the government, the opposition's strength and the effective number of parties. In a survey analysis that includes the OECD countries and Western and Eastern Europe, Tavits (2007) concludes that the higher the clarity of responsibility, the lower the perception of corruption. Thus, when clarity of responsibility is high, it is easier for the voters to identify corrupt politicians and to hold them accountable.

Schwindt-Bayer and Tavits (2016) conduct a survey experiment in order to test the causal link between clarity of responsibility and corruption voting. They ask a representative sample of people in United States to consider a political context with high levels corruption and then provided a random treatment: half of them received a treatment prompt that described a setting with high clarity and the other half received a treatment prompt that described a context with low clarity. Their findings seem to confirm Tavits' previous theory: citizens punish corruption scandals more heavily when they affect single-party majority governments.

Nevertheless, the results obtained should be viewed with caution. One potential problem of using no real world conditions and data is that respondents' responses may be conditioned by biases related to social desirability (Chong et al., 2015). Other studies on corruption voting have used survey data. Since the data is from a survey, its corruption variables refer to perceived corruption and stated support for the incumbent party is measured in intention to vote. Using these variables may incur endogeneity problems in the sense that the partisan bias of the voter, or other factors derived from it, is not taken into account when interpreting perception data. It could be argued that citizens perceive as less corrupt those governments for which they have voted. Those governments who rule with majority do so precisely because they have obtained more votes, and due to that, their voters will be more reluctant to assume that they have made a mistake by voting for a corrupt party. The rates of perceived corruption will, therefore, be lower. Moreover, some authors measure the dependent variable (incumbent party vote share) asking about the vote in the previous elections and in future elections.

These factors are important enough to propose an empirical analysis with other types of data that allow me to test this hypothesis. As will be developed in the following sections, this project considers the analysis of real electoral data, including municipalities from one country (Spain) where corruption is very salient. Focusing on real data from Spanish local governments allows me to keep social, economic, cultural and institutional variables constant (Falcó-Gimeno, 2020).

Other institutional variables that have been considered are the party and electoral systems in use. Kunicova and Rose-Ackerman (2005) affirm that the electoral systems that generate incentives to cultivate personal votes, lead to higher levels of corruption, given that each candidate must find their own resources to finance their re-election. But there have also been arguments for the opposite view, that is, that personal voting promotes the attribution of responsibilities and, therefore, creates incentives to remove corruption (Tavits, 2007).

Following the discussion initiated by Tavits (2007) and Schwindt-Bayer and Tavits (2016) about the effect of the government's status on corruption voting, the question this paper aims to answer is: Is it easier for the voters to punish corruption when it affects single-party majority governments? Since the ability of citizens to assign accountability to the government depends on the extent to which those responsible are identified (Powell Jr, 2000), it should be easier for citizens to attribute responsi-

bility for corruption to single-party majority governments. In Powell Jr (2000, pp. 51)'s own words: "If the resources necessary for policy making are dispersed in the control of numerous groups and individuals, citizens cannot identify who is responsible for policies". Therefore, the problem of determining the distribution of responsibility for changes in welfare is greater in coalition governments, because the information and attribution costs are also greater (Ferejohn, 1986).

These are the main reasons why Schwindt-Bayer and Tavits (2016) suggest a single-party majority government is easier to punish than coalition governments. There are, in addition, other factors that contemplate those costs, associated with the formation of coalition governments. In this sense, minority and coalition governments have less incentive to denounce corruption and to clearly point out the culprit when the political partners are close on the ideological spectrum because the partners will take into account the possibility of forming coalitions in the future (Kunicova & Rose-Ackerman, 2005). Therefore, it is far more likely that majority governments will be punished electorally over cases of corruption.

The hypothesis is that it is easier for voters to punish corruption when it affects single-party majority governments.

On the other hand, there are theories that contradict this hypothesis and suggest that minority and coalition governments are more likely to be punished than single-party majority governments. Above all, the fact that a government is supported by a parliamentary minority situation increases the control tools (or relative power) of the opposition and, therefore, the procedures followed to approve laws or other regulations will be subject to greater control. In short, the fact that a government is supported by a parliamentary minority gives the opposition more tools to check the government's action.

Following this argument, in cases where there are coalition governments, the diversity of partners allows members of the government themselves to control their partners, since in order for government action to be developed, information must be shared. These factors suggest that, during the electoral period, both the opposition and the other government partners may have incentives to clearly point out who is to blame for corruption, hoping that it will result in electoral benefits. It is true that government partners or ideologically close members of the opposition must also take into account the transaction costs associated with the negotiation of a future coalition (Lupia & Strøm, 1995), but

in cases where the electoral benefits to be derived from pointing out who is to blame are superior, it is to be expected that these parties will act in this way.

Moreover, it could be argued that corruption scandals are usually attributed to politicians that have connections with, or who belong to, specific parties. If information is available thanks to the efforts of the press or media then, even in the case of a coalition government, the voters should be able to identify who is responsible for the corrupt behavior.

There are, therefore, reasons to believe that minority and coalition governments will be more clearly punished at the polls when they are implicated in corruption cases.

2.4 Empirical analysis

2.4.1 The Spanish case

The hypothesis is tested using data from the 2007 and 2011 Spanish local elections, compiled by Fernández-Vázquez et al. (2016). The Spanish scenario is especially indicated for the analysis of corruption. In recent years, in Spain, corruption has become one of the main topics of debate in the political arena, as well as focusing much of the attention of the media and part of the judiciary (Fernández-Vázquez et al., 2016). The presence of corruption cases in the media gradually increased between 2007 and 2011, with some periods when interest rises sharply, triggered by more serious corruption cases being uncovered, such as the Gürtel case in 2009 (Fundación Alternativas, 2008). Using data from Spanish municipalities allows me to ensure that unobservable variables are similar.

According to surveys prepared by the Center for Sociological Research (CIS), corruption is one of the main problems for Spaniards (Riera et al., 2013). However, several authors have pointed out that, in electoral terms, there is a paradox since even though it is one of the main problems acknowledged by society, candidates and parties affected by corruption have obtained better electoral results than might be expected (corruption has a negative effect on electoral support, but the loss of votes is not great enough to prevent re-election of the corrupt candidate or party).

Spain is also an appropriate scenario for this analysis, since at the local level there is a significant degree of political fragmentation due to the local electoral system. The municipal elections in Spain

are regulated by the General Electoral System Law (LOREG). Elections are held every four years on the fourth Sunday of May, simultaneously, in all the territories' municipalities.

Municipalities with more than 250 inhabitants are governed by a proportional system, in which seats are assigned to candidates that have exceeded 5% of valid votes cast by the d'Hondt method. The number of councilors making up the Municipal Council is regulated by law, in line with the number of inhabitants registered in the municipality. Each Council is headed by a mayor, elected by that local assembly in an investiture vote that follows the local election.

The most relevant consequence for this paper is the fact that the electoral system translates into several coalition governments. Of all the municipalities introduced in the analysis for which data is available, 1,571 (19.9%) were minority or coalition governments, while 6,316 (80.1%) were single-party majority governments.

2.4.2 Data

In order to test the hypothesis, I use data from local governments for the 2007–2011 period. The data used on corruption and the electoral performance of the incumbent parties are obtained from Fernández-Vázquez et al. (2016). The authors define corruption as 1) any irregularity associated with fraud in procurement, 2) diversion of public funds, or 3) over-invoicing. Moreover, the charges must be brought by a non-partisan actor (judge or prosecutor). This is to ensure that there is no possible doubt regarding the illegality and dishonesty of the case. The authors, following their strict definition, register a total of 75 cases of corruption during this period¹.

In addition, the authors also collected information on which party holds the mayoralty, the incumbent's vote share in the 2007 elections, its seat share (which can be easily translated into a majority/minority dichotomous variable), the incumbent's vote share in 2011, whether the mayor elected in 2007 ran again as a candidate in 2011, and the population for the 8,004 Spanish municipalities included in the analysis. Finally, the database also distinguishes two types of corruption, according to the type of welfare consequences it has for the constituency. If the externalities are clearly nega-

¹ A problem could arise when a criterion of distinction is so narrow that cases where some form of corruption actually exists are, nevertheless, coded as 'No corruption'. According to Fernández-Vázquez et al. (2016), however, this factor is not problematic since the control group is large enough that, even though these cases exist, their effect on the total number of cases would be imperceptible. In addition, even if their effect could be minimally perceptible, it would result in an underestimation of the status effect.

tive for the community (such as with fraud or misappropriation), Fernández-Vázquez et al. (2016)'s argument goes, the government will be penalized more than if the externalities are able to enrich the community in the short term (for example, licensing construction on non-developable land).

2.4.3 Variables

The main independent variables of this project are the status of the government and corruption scandals. The data regarding corruption come from Fernández-Vázquez et al. (2016). I code corruption scandals as they do; as a dichotomous variable in which the value 1 will indicate the existence of corruption scandals, and the value 0 the non-existence of corruption. In addition, as it has been mentioned, the authors distinguish between those cases of corruption that generate positive externalities in the short term and those cases in which corruption penalizes citizen welfare. Therefore, when corruption can increase the economic activity of the municipality, 'welfare-enhancing' has been codified as 1. When corruption is clearly negative for the welfare of the community, 'welfare-enhancing' has been codified as 0.

Due to the available data I consider single-party majority governments as opposed to minority and coalition government. Value 1 has been assigned to those governments in which the mayor's party has not obtained half plus one of the seats. Therefore, the value 1 refers to coalition agreements broadly understood (i.e., minority or coalition governments). Minority governments are, in terms of parliamentary dynamics, similar to coalition governments. In a parliamentary system the governing party depends on the support of other parties in parliament in order to ratify laws. Support can be obtained through parliamentary agreements, which may be stable (coalition governments) over time or may alternate (jumping majorities) (Strøm, 1990). For this reason, in this project, there is no difference between single-party minority governments and coalition governments, both majority and minority². The value 0 has been assigned to the cases in which the mayor's party obtained the absolute majority of the seats.

The control variables that will be introduced in the analysis come from Fernández-Vázquez et al. (2016), albeit the coding of the variables is different in some cases. These variables are: the previous

² I considered running regressions to test whether there are any differences when considering minority and coalition governments as two distinct groups. However, this was not feasible because of the very small number of scandals affecting minority governments (just two).

vote share of the incumbent party (irrespective of whether the mayor elected in 2011 was a repeat candidate or not); the population; the unemployment rate; the mayor's party (i.e., the main conservative party (Popular Party (PP)), the main social-democratic party (Spanish Socialist Workers' Party (PSOE)), or other; and the region. The previous vote share of the incumbent party (the vote in the 2007 elections) is expressed as a proportion between 0 and 1. The variable 'different candidate' is a dummy that takes the value 1 when the mayor elected in 2007 does not stand in 2011, and 0 where there is a repeat candidate. This control variable is included because a change of candidate may occur as part of a party's strategy to dilute the corruption penalty at the polls. The population has been included (logged) since the magnitude of the municipal district is determined by the population size. Population is, in turn, closely related to the proportionality of the system, with more favorable coalition conditions in municipalities with a larger population.

As for the political parties, dummy variables have been introduced for PP and PSOE, taking the value 1 where the mayor represents either party and 0 otherwise. In the same way, 19 dummy variables have been created corresponding to the regions and autonomous cities. These variables are included to capture associated party fixed effects – there is a greater fragmentation of parties and voting in certain regions, which leads to a greater probability of finding coalitions and minority governments among the left parties³. Finally, I have also introduced an economic indicator: the unemployment rate variation in each municipality between 2007 and 2011⁴.

The dependent variable of this analysis is the incumbent party's vote share in the 2011 elections (data from Fernández-Vázquez et al. (2016)). The vote for the incumbent party is expressed as a proportion between 0 and 1. For those municipalities in which the government's status has been codified as 1 (minority or coalition governments), only the vote for the mayor's party has been taken into account, leaving aside the vote shares of potential coalition partners, for which I do not have the data.

³ PP and PSOE are very different parties when it comes to agreeing on possible local coalition governments. In the observed period PP held 2,972 mayoralties, of which 2,705 were single-party majority governments and 271 minority/coalition government. On the other hand, PSOE held 2,486 mayoralties. Of these, 2,051 were single-party majority governments and 435 minority/coalition governments. For this reason, regressions have also been repeated, but only by selecting the municipalities whose mayor belonged to PP, on the one hand, and the municipalities whose mayor belonged to the PSOE, on the other. The results do not show any significant change.

⁴ I have introduced the unemployment rate because GDP data are not available at the Spanish local level for the period 2007-2011. The data were obtained from the *Instituto Nacional de Estadística* (Spanish National Statistics Institute). It should be noted that I used the total population aged between 16 and 64 as a divisor as there were no specific data available for the 'labor force' group.

2.4.4 Research design

This project aims to analyze the differential impact of corruption on the electoral performance of governments depending on whether they are single-party majority governments or minority and coalition governments. This analysis will be carried out with data from Spanish municipalities between 2007 and 2011.

However, a simple comparison of these municipalities would not give us a conclusive answer. The municipalities could present great differences in other variables, such as the population, the economic situation, the type of corruption (where it exists), etc.

In the attempt to obtain a comparable treatment and control group and thus deal with these problems, I run a series of multivariate OLS regressions with an interaction between corruption and government status, and a series of control variables. This approach will allow me to observe any difference in the electoral punishment of corruption, depending on whether the governments are single-party majority or coalition/minority.

The dependent variable is the incumbent party's vote share. The effect of government type on corruption voting will be computed using the following regression:

$$\begin{aligned} \text{Incumbent Vote Share}_{i,t=1} = & \alpha + \beta_1 \text{Incumbent Vote Share}_{i,t=0} + \beta_2 \text{Corruption} \\ & + \beta_3 \text{Minority} + \beta_4 \text{Corruption} * \text{Minority} + X_{iy} + \varepsilon_i \quad (2.1) \end{aligned}$$

where the dependent variable is the incumbent vote share in a municipality i at $t = 1$ (after the corruption case), and the independent variables are the vote for the same party at $t = 0$ (before the corruption scandal), and X_i represents a vector of control variables. To control possible variations between the different municipalities, I introduce into the regression the population, the region, the party the mayor belongs to, the unemployment rate variation, and whether the mayor elected in 2011 had already been mayor in 2007. At the same time, dummy variables have been included in the analyses to capture fixed effects associated with the regions and parties.

2.5 Results

Before commenting in depth on the regression tables with which the hypotheses have been tested, it is worth mentioning that the analysis of the electoral results in the Spanish municipalities is consistent with what was established by the previous literature. Thus, we can observe that for municipalities suffering from corruption, the average loss of electoral support between the 2007 and 2011 elections was 8.5 percentage points (pp). For those municipalities that were not affected by corruption we observe that the average loss of support for the parties in the government was 3.4 pp (Table 2.1).

TABLE 2.1 Summary statistics

	Mean/Prop.	Std. Dev.	N
Incumbent Party Vote Share (2011)	0.514	0.178	8,004
Incumbent Party Vote Share (2007)	0.549	0.161	8,004
Incumbent Party Vote Share Variation (VSV)	-0.035	0.153	8,004
VSV Corruption	-0.085	0.131	75
VSV No Corruption	-0.034	0.154	7,929
VSV Single Party Majority Gov.	-0.042	0.153	6,316
VSV Minority/Coalition Gov.	-0.002	0.134	1,568
Corruption Scandals	0.010	0.096	75
Welfare-Enhancing Corruption	0.004	0.060	29
Welfare-Decreasing Corruption	0.006	0.076	46
Minority Governments	0.20	0.399	7,884
Different Candidate	0.23	0.422	7,884
Population (logged)	6.60	1.80	7,884
Unemployment Rate Variation	0.049	3.74	7,884

If we focus on municipal governments affected by corruption, we can observe that their electoral fortunes are very different. For example, in El Ejido (Almería), the party that held the mayoral office lost 36.6 pp between the two elections. On the other hand, Cee (A Coruña) and Parla (Madrid) stand out in stark contrast: there, the parties that held the mayoralties in 2007 and were affected by corruption cases, nevertheless improved their 2011 results by 15.4 and 37.3 pp, respectively. Figure 2.1 shows the incumbent vote share for both corrupt and non-corrupt municipalities in 2007 and 2011.

In addition to the variation among municipalities, the corruption voting has penalized the PP and the PSOE differently. The average loss of PP support when there has been affected by corruption

is 2.8 pp, while in those cases in which the PSOE has been affected by corruption the party loses, on average, 12.7 pp of vote share.

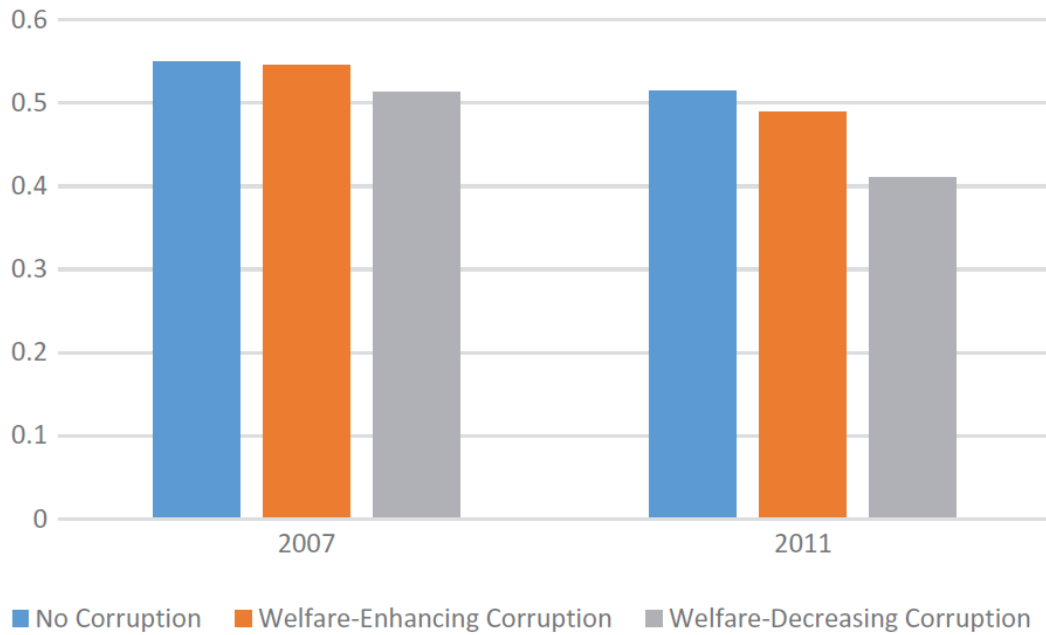


FIGURE 2.1 Incumbent Vote Share 2007–2011.

The main hypothesis of this project is that variations in the punishment of corruption may be partly due to the relative ease or difficulty of penalizing corruption, according to the government’s status. From a descriptive point of view, the punishment of corruption is more severe for single-party majority governments than for minority or coalition governments. Specifically, when corruption scandals are present, the vote for single-party majority governments fell by an average of 9.9 pp, while for the mayoral parties in minority or coalition governments, the average loss was 2.8 pp (not shown in Table 2.1).

Control variables are progressively introduced in Tables 2.2 and 2.3, which contain the main results. In Table 2.2, Model 1 is presented in the simplest form, without any of the control variables that are included in Models 2 and 3. In Model 2 other control variables that may affect the relationship between the independent variables under study and the vote for the mayor’s party are introduced. The results show that corruption decreased support for the incumbent party by 2 pp compared to those who were not involved in corruption scandals. For coalition governments, interaction shows that the penalty is 1 pp less severe than for majority governments, keeping the rest of the variables constant. However, these estimates are not statistically significantly different from zero. It is also

remarkable that pitching a different mayoral candidate has a negative effect, reducing the governing party's support by 6.3 pp ($p < 0.01$).

TABLE 2.2 OLS regressions on incumbent vote share.

	Model 1	Model 2	Model 3
Minority	-0.062 (0.005)*** [0.012]***	-0.040 (0.005)*** [0.010]***	-0.040 (0.005)*** [0.010]***
Corruption	-0.071 (0.018)*** [0.012]***	-0.020 (0.017) [0.009]**	-0.020 (0.017) [0.009]**
Corruption × Minority	0.047 (0.040) [0.032]	0.010 (0.038) [0.023]	0.010 (0.038) [0.023]
Previous vote share	0.577 (0.012)*** [0.030]***	0.459 (0.013)*** [0.026]***	0.459 (0.013)*** [0.027]***
Different candidate	X	-0.063 (0.004)*** [0.005]***	-0.063 (0.004)*** [0.005]***
Population (logged)	X	-0.019 (0.001)*** [0.003]***	-0.018 (0.001)*** [0.003]***
Unemployment rate variation	X	X	-0.001 (0.000)*** [0.000]***
Party fixed effects	X	✓	✓
Region fixed effects	X	✓	✓
Constant	0.211 (0.008)*** [0.019]***	0.362 (0.014)*** [0.028]***	0.366 (0.014)*** [0.028]***
R^2	0.380	0.459	0.460
Observations	7,884	7,884	7,884

Dependent variable: vote share for incumbent mayor in 2011. Standard errors in parentheses. Standard errors clustered by region in brackets. Signif: *10% **5% ***1%

When including these variables, the fact that the population is revealed as a statistically significant explanatory variable ($p < 0.01$) stands out. This result can be explained by the influence of population size on the proportionality of the local electoral system. As has been mentioned above, in Spain, the number of seats in the local assembly is determined by the population residing in the municipality. The larger the population, the greater the number of representatives to choose. This results in a greater proportionality of the system.

In Model 3, I also include an economic variable in the analysis. As expected, the unemployment rate presents a clearly negative and statistically significant effect on the vote for the mayor's party ($p < 0.01$): in other words, the poorer the economic performance, the lower the incumbent's vote share.

Following the theory of Fernández-Vázquez et al. (2016), which states that citizens respond differently to corruption according to its short-term welfare consequences, in Table 2.3 the corruption variable has been replaced by the variables 'welfare-enhancing' and 'welfare-decreasing'. Model 1 (simplified model) shows that when the mayor's party holds the majority, corruption scandals associated with positive externalities reduce the vote share to the incumbent party by 3 pp, while corruption associated with negative externalities reduces it by 9.7 pp. For minority and coalition governments the coefficients are not statistically significant.

When introducing other control variables such as a different candidate dummy, unemployment rate variation, population size, or fixed effects of party and region (Model 3), it is shown that for the parties ruling with an absolute majority, corruption that generates positive externalities increases support for the mayor's party by 2 pp, while corruption that generates negative externalities for the welfare of citizens decreases the support to the mayor's party by 4.7 pp ($p < 0.05$). Under coalition or minority governments, the estimated coefficients for both welfare-enhancing and welfare-decreasing corruption are not statistically significant.

To illustrate the effects of majority or minority and coalition governments on corruption voting more clearly, Figure 2.2 presents the marginal effect of corruption and the associated 95 percent confidence intervals at the different mayor's party status (based on Table 2.3, Model 3). When corruption enhances citizens' welfare in the short term, the effect of government's status has no significant positive effect on the probability of voting for incumbent parties.

When corruption decreases citizens' welfare in the short term, the majority status of governments has significant negative effect on the support for the incumbent parties ($p < 0.05$). Under coalition or minority governments, the estimated coefficient for welfare-decreasing corruption is indistinguishable from zero. The fact that the effect of welfare-decreasing corruption is negative and statistically significant for single-party majorities but not when various parties are involved in the making of decisions is evidence that suggests that clarity of responsibility matters for the electoral consequences of corruption.

TABLE 2.3 Welfare-enhancing and welfare-decreasing OLS regressions.

	Model 1	Model 2	Model 3
Minority	-0.062 (0.005) ^{***} [0.012] ^{***}	-0.040 (0.05) ^{***} [0.010] ^{***}	-0.040 (0.005) ^{***} [0.010] ^{***}
Welfare-enhancing corruption	-0.030 (0.028) [0.022]	0.019 (0.027) [0.018]	0.020 (0.027) [0.018]
Welfare-decreasing corruption	-0.097 (0.023) ^{***} [0.016] ^{***}	-0.047 (0.022) ^{**} [0.020] ^{**}	-0.047 (0.022) ^{**} [0.019] ^{**}
Welfare-enhancing corruption × Minority	0.025 (0.068) [0.017]	-0.002 (0.064) [0.017]	-0.001 (0.064) [0.017]
Welfare-decreasing corruption × Minority	0.064 (0.050) [0.048]	0.023 (0.047) [0.038]	0.023 (0.047) [0.037]
Previous vote share	0.577 (0.012) ^{***} [0.030] ^{***}	0.459 (0.013) ^{***} [0.027] ^{***}	0.459 (0.013) ^{***} [0.027] ^{***}
Different candidate	X	-0.064 (0.005) ^{***} [0.005] ^{***}	-0.063 (0.004) ^{***} [0.005] ^{***}
Population (logged)	X	-0.019 (0.001) ^{***} [0.003] ^{***}	-0.018 (0.001) ^{***} [0.003] ^{***}
Unemployment rate variation	X	X	-0.001 (0.000) ^{***} [0.000] ^{***}
Party fixed effects	X	✓	✓
Region fixed effects	X	✓	✓
Constant	0.211 (0.008) ^{***} [0.019] ^{***}	0.361 (0.014) ^{***} [0.028] ^{***}	0.366 (0.014) ^{***} [0.028] ^{***}
R ²	0.381	0.459	0.460
Observations	7,884	7,884	7,884

Dependent variable: vote share for incumbent mayor in 2011. Standard errors in parentheses. Standard errors clustered by region in brackets. Signif: *10% **5% ***1%

In order to account for any remaining correlation between municipalities within a region I also show standard errors clustered at the regional level. Clustering standard errors by region do not alter the main findings of the paper, although in general reduces standard errors and thus increase statistical significance. The most significant change is, perhaps, that even without differentiating between types, corruption in general does exert a significant negative impact on election results under single-

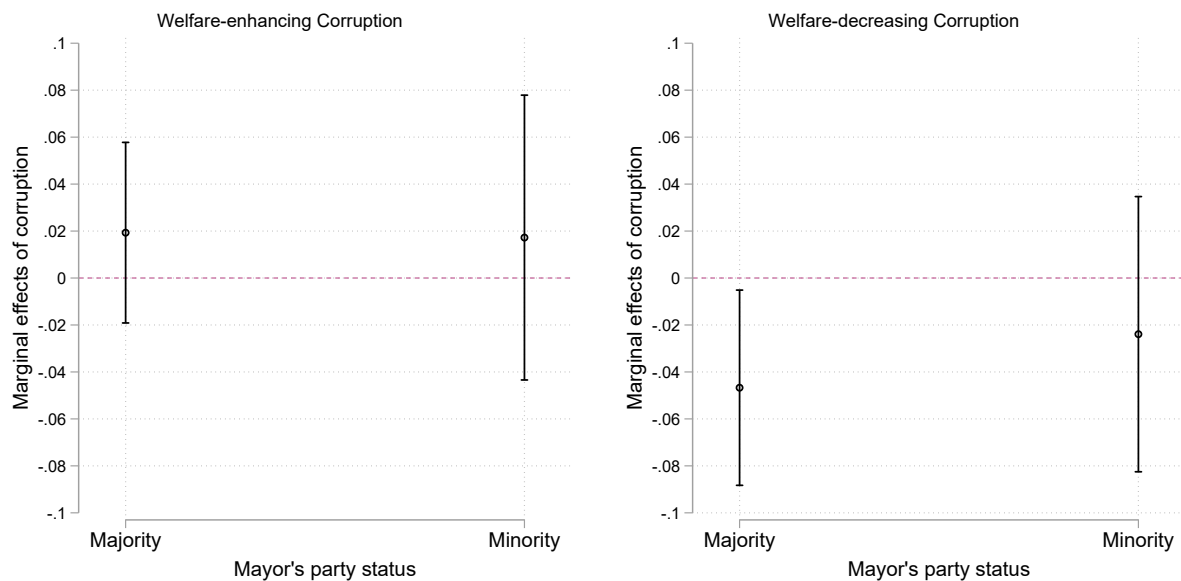


FIGURE 2.2 Marginal effects of corruption depending on mayor's party status

party majorities but not under minority situations. When considering both types of corruption separately, welfare-enhancing and welfare-decreasing, we can see that the accountability mechanism operates through the latter only.

It could be argued that the extent to which there are clear voting alternatives in relatively close elections is important for dissatisfied citizens who may switch their vote. In Appendix A.1, I also run regressions that include the effective number of parties at the local level as a control variable. The results show that while this number has a negative effect on the incumbent vote share, the minority variable loses its statistical significance. These results can be explained by the fact that the effective number of parties appears to capture the effect of party fragmentation associated with minority and coalition governments. However, under single-party majority governments, the coefficient associated with welfare-decreasing corruption is still statistically significant. These results confirm that, beyond the close connection with party fragmentation, the government's status is an important factor in the attribution of responsibility.

2.6 Conclusions

Most studies have assumed that voters punish all kinds of governments. This article challenges this assumption by distinguishing between two types of governments: single-party majority governments

and minority/coalition governments. This hypothesis is tested using data from the 2011 Spanish local elections.

Influenced by the theories of retrospective voting and economic voting, several studies have pointed out which factors intervene in, or modulate, the ability of citizens to punish or reward governments for their actions. Since corruption is socially conceived as a scourge, it would be expected that those responsible will be punished.

Various authors have studied which variables facilitate or make it difficult for citizens to penalize corruption at the polling station. In summary, it can be concluded that it is necessary that citizens have enough information about cases of corruption, and that this information is true and comes from a reliable source. But those are not the only variables to consider: the formation of clientelistic networks of exchange is also part of the picture. Partisanship, political sophistication and education are other variables that have shown significant explanatory power and must contribute to an understanding of this phenomenon. From an institutional approach, some authors have pointed out that governments with a high level of clarity of responsibility are perceived as more corrupt (Tavits, 2007), despite others have found that there are no differences between types of governments with respect to how prone they are to corrupt practices.

Either way, the question of how corruption voting differs according to the status of the government, remains unanswered. It is true that Schwindt-Bayer and Tavits (2016) deal with this question and find support for the clarity of responsibility hypotheses. However, my observational data differs from theirs because it refers to real electoral results rather than individual perceptions of corruption and declared voting intentions in surveys, with the usual associated problems of social desirability and ex post rationalization. Also, in contrast to previous efforts, I keep the heterogeneity between political systems constant by using local data from a single country only.

Using data on corruption scandals that occurred in Spanish municipalities between 2007 and 2011, results seem to confirm the hypothesis only partially. After controlling for a series of relevant covariates and region fixed effects, corruption seems to decrease single-party majority governments' support by 2 pp, while for minority/coalition governments the penalty is just 1 pp. This difference, however, is not statistically significant.

Following the differentiation proposed by Fernández-Vázquez et al. (2016), between welfare-decreasing and welfare-enhancing corruption, I find that welfare-decreasing corruption has a clear negative effect on the electoral performance of the mayor's party when it impacts single-party majority governments, but not when the mayor needs the support of other parties (minority or coalition governments). Therefore, when I differentiate between the two types of corruption, I do find differences in the way some governments are penalized compared to others. This result would be consistent with those authors who have theorized a different punishment due to attribution of responsibilities.

This study has important implications for theories of retrospective voting and electoral rulers. The results suggest that voters' evaluation depends on how clearly they can identify who is responsible for political outcomes. The focus has been governments' fragmentation, but the argument could be generalized to power dispersion, more generally (Schwindt-Bayer & Tavits, 2016). Moreover, these results have important implications in political contexts where corruption voting is a salient issue. Politicians in low-clarity settings (i.e., minority and coalition governments) may suffer lower electoral costs for corruption scandals than single-party majority governments. In contexts with high levels of corruption, it may be useful to introduce some changes to facilitate the attribution of responsibilities.

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Appendix A: Supplementary materials

A.1 OLS regressions including the effective number of parties

TABLE A.1 OLS regressions including the effective number of parties

	Model 1	Model 2
Minority	-0.004 (0.006)	-0.004 (0.006)
Corruption	-0.018 (0.016)	
Corruption × Minority	0.011 (0.034)	
Welfare-enhancing corruption		0.019 (0.024)
Welfare-decreasing corruption		-0.044** (0.020)
Welfare-enhancing corruption × Minority		-0.013 (0.058)
Welfare-decreasing corruption × Minority		0.031 (0.043)
Previous vote share	0.425*** (0.019)	0.425*** (0.019)
Different candidate	-0.054*** (0.004)	-0.054*** (0.004)
Population (logged)	-0.021*** (0.001)	-0.021*** (0.001)
Unemployment rate variation	-0.002*** (0.001)	-0.002*** (0.001)
Effective number of parties	-0.042*** (0.005)	-0.042*** (0.005)
Party fixed effects	✓	✓
Region fixed effects	✓	✓
Constant	0.489*** (0.020)	0.489*** (0.020)
R^2	0.503	0.503
Observations	5419	5419

Dependent variable: vote share for incumbent mayor in 2011. Standard errors in parentheses. Signif: *10% **5% ***1%. I only possess data for those municipalities with a population greater than 250 inhabitants, which reduces my sample to 5,419 municipalities. These municipalities were affected by 74 corruption scandals.

3

Paper 2

Opposition fragmentation facilitates electoral accountability. Evidence from a survey experiment.[†]

3.1 Introduction

Are the characteristics of democratic oppositions relevant in terms of electoral accountability? If so, which is better for democracy: a fragmented opposition with many alternatives close to voters' preferences or fewer bigger parties that facilitate coordination among dissatisfied voters? Scholars interested in party systems have stressed the potential negative effects of fragmentation on accountability. By fostering the formation of divided governments and rising information costs multiparty systems have been said to blur the attribution of responsibilities and thus make it harder for citizens to hold governments accountable for their performance (Anderson, 2000; Powell Jr & Whitten, 1993; Schwindt-Bayer & Tavits, 2016).

However, the extent to which party systems condition the electoral success of underperforming governments may not only depend on the governments' division but on the characteristics of the alternatives. In the end, for an anti-incumbent vote to take place both a dissatisfying government and an attractive opposition are needed (Maeda, 2010). But what constitutes an attractive opposition

[†] Paper published in *Party Politics*, see Ferrer (2021).

remains unclear: some scholars argue that the fragmentation of the opposition enhances accountability by providing voters with ideologically close alternatives (Charron & Bågenholm, 2016) while others contend that multiparty systems make accountability more demanding due to the lack of viable alternatives through which to coordinate anti-incumbent votes (Maeda, 2010). Drawing on this literature, in this article, I first test whether opposition fragmentation fosters or hampers accountability. Moreover, I argue that there is no reason to expect the whole electorate to consider ideological proximity and the viability of parties in the same way. When looking for an alternative, some voters may prioritize proximity, while others may focus on viability. Lastly, I contend that certain contextual factors, such as whether campaign issues are discussed in positional (vs. valence) terms may encourage voters to focus on ideological proximity (viability) and thus make them more sensitive to highly (less) fragmented oppositions.

To test these hypotheses, I designed an online survey experiment in which respondents read a randomly assigned vignette reporting the upcoming celebration of elections. The vignettes differed in terms of how they presented the information about a corruption scandal involving two members of the incumbent party. To ensure that accountability was desirable the incumbency status was always assigned to the respondents' closest party. After reading the vignette, respondents were shown a set of four figures depicting parliaments with varying levels of opposition fragmentation and were asked which party they would vote for in each case.

The results show that fragmentation clearly enhances accountability. As expected, this effect is particularly strong for ideologues, although it also occurs at a lower degree for pragmatic voters. I go on to show that, when corruption is framed as a valence issue, voters are less tolerant of corruption than when corruption is framed in ideological terms. However, this effect does not appear to depend on the degree of fragmentation. Finally, in the analyses section I also use a Conditional Logit approach to test the specific effect that parties' viability and ideological proximity have on accountability while holding everything else constant. The results show that, although voters prefer both ideologically close and viable parties, the effect of ideological proximity is significantly bigger, which means that fragmentation enhances accountability because marginal gains in proximity offset losses in viability.

These results contribute to the existing literature in two different ways. First, by focusing on the provision of alternatives this study shows that fragmented party systems may be more effective

in holding governments accountable than previously thought. Even though multiparty systems tend to make responsibility attribution more demanding, they may enhance accountability by providing voters with a greater range of ideological alternatives. Second, by incorporating the demand side and contextual factors into the analysis this study shows that voters may not equally respond to opposition fragmentation. While some voters always punish corruption regardless of the level of fragmentation, others only hold governments accountable when they can find ideologically close alternatives, which makes them more sensitive to the degree of fragmentation.

3.2 Related literature

One of the main reasons that accountability is crucially important is that, through elections, citizens are expected to vote underperforming governments out of office. Yet, the empirical evidence shows that poor performers are not always punished with the expected intensity (Achen & Bartels, 2017; Anderson, 2000; Duch & Stevenson, 2008; Schwindt-Bayer & Tavits, 2016).

While numerous studies have been conducted to account for this paradox, most of the literature focuses on the institutional characteristics and the political contexts within which elections take place. At a contextual level, provision of information is widely accepted as a key determinant of accountability: voters can only hold governments accountable if they possess credible and truthful information on their performance (Botero et al., 2015; Ferraz & Finan, 2008; Muñoz et al., 2016).

Regarding institutional settings, in their seminal work Powell Jr and Whitten (1993) develop an “Index of Clarity” and show that countries with clearer responsibility systems tend to foster accountability, while those with blurred lines of responsibility tend to hamper it. Thenceforth, a growing body of research has expanded this line of inquiry and has sought to identify the specific conditions that enable greater “clarity” (Dassonneville & Lewis-Beck, 2017; Hobolt et al., 2013). Focussing on the distinction between government and opposition, Stiers and Dassonneville (2020) show that a higher degree of ideological polarization between incumbent and non-incumbent parties enhances accountability by facilitating the association between governments and policy outcomes. Although some authors report rather limited correlations between “clarity” and accountability (Xezonakis et al., 2016) and the effect of some indicators is still disputed (see Dassonneville and Lewis-Beck (2017)

and Royed et al. (2000)), there seems to be a consensus among scholars that durable, cohesive, single-party governments are more likely to be held accountable for their performance (Anderson, 2000; Hjermitsev, 2020; Schwindt-Bayer & Tavits, 2016).

However, if underperforming governments are supposed to lose support, it is because we expect dissatisfied citizens to vote for an acceptable alternative party. But what constitutes an acceptable, attractive alternative? Scholars have highlighted two main characteristics: ideological proximity (Charron & Bågenholm, 2016) and the viability of the choice (Maeda, 2010). With respect to ideological proximity, Charron and Bågenholm (2016) argue that accountability can only occur if voters who voted for the current incumbent in the previous election find an ideologically acceptable alternative among the opposition parties, which can be easier in fragmented party systems. Using cross-country survey data the authors show that voters located at the poles of the ideological scale are more likely to support corrupt parties than those towards the center, since the number of ideologically acceptable alternatives tends to be lower at the extremes. However, at high levels of fragmentation, extreme and moderate voters tend to behave in a more similar way. The main implication of these results is that high levels of fragmentation should enhance accountability by providing voters with a greater range of ideological alternatives. These findings are consistent with Royed et al. (2000), who show that coalition governments are more likely to be held accountable than single-party governments because in multiparty systems dissatisfied voters can more easily find an acceptable alternative.

Nonetheless, these results should be treated with caution as other studies have found that high levels of fragmentation tend to hinder rather than foster accountability due to the lack of a focal point through which to coordinate an anti-incumbent vote. In fragmented party systems, the argument follows, where it can be difficult to estimate how an alternative government would look like, voters are less certain about the potential effect of their votes and thus have less incentive to punish underperforming governments (Anderson, 2000; Maeda, 2010). This argument is reaffirmed by Duch and Stevenson (2008) who show that larger opposition parties and the opposition parties that voters consider likely to enter government tend to reap the benefits of economic voting aimed at incumbent parties. This means that, in order for accountability to be effective, opposition parties need to be perceived as viable alternatives to the current incumbent.

3.3 Theoretical argument and predictions

How does the fragmentation of democratic oppositions condition electoral accountability? Governments facing tough times, such as economic crises or corruption scandals, will surely disappoint some voters and thus lose votes to some degree. However, the magnitude of the vote loss also depends on the appeal of the opposition. When is an opposition alternative considered appealing? Holding everything else constant, it is reasonable to expect that voters prefer parties close to their own views because they are supposed to share and cater for their interests. However, to be effective, electoral accountability requires coordination among voters, as it is not just an individual action. Disappointed voters looking for an alternative may decide to keep voting for the incumbent if they do not see any opposition party as a realistic alternative through which to coordinate an anti-incumbent vote. In this respect, the size of the alternatives affects the extent to which opposition parties may be seen as a meaningful and viable alternative to the incumbent, reducing uncertainty with respect to what a future government would look like and thus facilitating coordination among dissatisfied voters. Therefore, I argue that the perceived attractiveness of the opposition is determined by the ideological proximity between voters and the alternatives, and the extent to which these alternatives are strong enough to be seen as a focal point through which to concentrate anti-incumbent votes, gain office and replace the incumbent.

However, under real world conditions, the fragmentation of the opposition generates two effects that pull voters in opposite directions: on the one hand, the more the parties in competition the easier for voters to find at least one party really close to their own preferences. On the other, as fragmentation rises it becomes harder for voters to coordinate against the incumbent due to the lack of focal points over through which to amass an anti-incumbent swing vote. Therefore, when election day comes, voters may face a trade-off between proximity and viability: they must decide whether to vote for an ideologically close party or a party that might be ideologically further from them but more likely to replace the incumbent.

In order to formalize how I expect the fragmentation of the opposition to condition accountability, I define the following utility function:

$$U_{ij} = -(X_i - X_j)^2 * (\alpha_{it}) + V_j * (1 - \alpha_{it}) \quad (3.1)$$

where a voter i 's utility of voting a party j depends on the squared distance between the ideological position of the voter i (X_i) and the ideological position of the party j (X_j) weighted by the specific importance that voter i assigns to proximity in a particular context t (α_{it}) plus the viability of the party j (V_j), that is, its size, weighted by the importance voter i places on viability in context t ($1 - \alpha_{it}$). From this utility function, I derive three predictions about how opposition fragmentation affects accountability. Given that fragmentation poses a trade-off between proximity and viability, and that previous studies have led to mixed results, in this study I first test whether opposition fragmentation fosters (hampers) accountability by providing citizens with ideologically close (viable) alternatives. Therefore, the first hypothesis is as follows:

Hypothesis 1a: If proximity matters more than viability, fragmented oppositions will improve accountability.

Hypothesis 1b: If viability matters more than proximity, fragmented oppositions will hinder accountability.

Secondly, I argue that the effect of opposition fragmentation may not be constant among voters. When considering alternatives to disappointing incumbents, some voters may focus on ideological proximity, while other more pragmatic voters may prefer large-sized parties that are more likely to concentrate the votes against the incumbent. Lastly, certain characteristics of the electoral context may influence the voters' assessments of alternatives, making them more (less) sensitive to ideological positions or parties' viability. In the following sections, I define what I mean by pragmatic voters and context, and how I expect them to moderate the effect of opposition fragmentation on accountability.

3.3.1 Ideologues and pragmatic voters

So far, I have argued that both proximity and viability are the key mechanisms through which fragmentation conditions accountability, and I have assumed these parameters to be equally considered

by the electorate. However, it is reasonable to expect that voters are not homogeneous when it comes to evaluating alternatives to the corrupt incumbent.

Voters have different systems of preferences and attitudes and pursue different priorities on a wide range of topics. When deciding whom to vote for, voters not only consider parties' ideological preferences but other relevant factors such as parties' performance (Stiers, 2019; Williams et al., 2017) and capacity to "get the job done" (Breitenstein, 2019), and the extent to which these parties look viable (Maeda, 2010) or have the power to influence policy outcomes (Van der Brug et al., 2000). To the extent that ideological proximity rather than the parties' viability is the priority that guides voters' evaluations of alternatives I define ideological voters as opposed to pragmatic voters, who are more likely to put aside ideology and prioritize other factors such as the parties' potential to reach office and tackle public problems (Van der Brug et al., 2000). Considering the utility function, ideological voters are defined as those for whom the proximity parameter outweighs the viability parameter ($\alpha_i > 1 - \alpha_i$) while the reverse applies in the case of pragmatic voters ($1 - \alpha_i > \alpha_i$).

Ideological and pragmatic voters are expected to differ in their political priorities and goals. The former, who prioritize strong ideological positions, are more likely to look for the implementation of specific policies in line with their preferences. In contrast, the key factor for pragmatic voters is not which policies parties pursue, but rather which of the alternatives seem more likely and capable of replacing the underperforming government and tackle the problems that need to be addressed.

So, on the demand side, the voters' preferences define what they need to be able to punish corrupt governments. On the supply side, democratic oppositions provide a range of alternatives that may (not) satisfy voters' needs, thus fostering (hampering) the punishment of dissatisfying governments. In this respect, a highly fragmented opposition allows the ideologues to satisfy their priority: the more parties there are, the higher the chances of finding at least one party really close to their preferences. In contrast, if disappointed pragmatic voters do not see any of the opposition parties as a realistic alternative through which to coordinate an anti-incumbent vote, they may continue to vote for the incumbent. Therefore:

Hypothesis 2: Highly fragmented oppositions are more likely to enhance accountability for the ideologues while low fragmented oppositions will enhance accountability for pragmatic voters.

3.3.2 Positional and valence issues

Moreover, the relationship between opposition fragmentation and electoral accountability may depend on how the characteristics of the main issues in the campaign influence the voters' considerations of proximity and viability.

The most common differentiation in the literature on issue voting is the division between positional (Downs, 1957) and valence (Stokes, 1963) issues. This strand of literature considers the economy, along with corruption, to be prototypical valence issues. Therefore, during electoral campaigns, we should expect these issues to be discussed in valence terms, and parties to compete by emphasizing their ability and capacity to achieve vigorous economic growth or eradicate corruption. However, as Green and Hobolt (2008) contend, whether an issue is more valence than positional is an empirical question that cannot be addressed from a theoretical point of view. The economy, which the classical model of issue voting considers to be a valence issue, may rather be positional, with voters holding different opinions as to whether tax rates should be higher for the wealthy (Paparo & Lewis-Beck, 2019). In the case of a corruption scandal, ideological considerations may arise if we focus on the *means* rather than the *end*¹. For instance, in Spain, where corruption cases have abounded at both a local and regional level, some media outlets and researchers have highlighted the links between certain scandals and the housing boom that started in the late 1990s (Costas-Pérez et al., 2012), the privatization of public services and the uncontrolled growth in building permit approvals (Jiménez, 2009). On the other hand, certain left-wing policies that have been said to increase the scope for corruption, such as excessive public intervention in the economy (Goel & Nelson, 2010) and rising public expenditure on social schemes (Corrado & Rossetti, 2018), have sometimes been associated to corruption scandals involving the PSOE, the Spanish Social Democratic Party, especially the major scandals affecting its regional branch in Andalusia².

¹ Note that I do not say that all issues are equally likely to be defined either as ideological or valence. Some issue-specific characteristics and historical trends may have resulted in a particular form of public debate (e.g., it is certainly difficult to think about gay marriage or euthanasia debates focusing on valence considerations). What I do say is that some issues that have often been defined as valence issues, such as economic growth or even corruption, can be easily framed as positional issues, and these different frames may affect citizens' electoral behavior.

² See Palau and Davesa (2013) and <https://www.casos-aislados.com> for a deeper insight into the Spanish media system and the reporting of corruption scandals.

How do issue debates influence voters' considerations with respect to proximity and viability? In the case of a prominent issue debated in ideological terms, in which parties emphasize their own positions to maximize their electoral prospects, the increased salience of ideological positions should prime and reinforce the weight of this criteria in voters' minds, making them less sensitive to other variables ($\alpha_t > 1-\alpha_t$). In contrast, debates structured around the parties' competence to handle an issue may trigger a change in voters' political priorities and preferences in the opposite direction in the short term. In this case, large parties may be seen as the only effective and reliable alternatives to the underperforming government ($\alpha_t < 1-\alpha_t$). Hence, my expectation is:

Hypothesis 3: Highly fragmented oppositions are more likely to enhance accountability when issues are debated in ideological terms, while low fragmented oppositions will enhance accountability when issues are discussed in valence terms.

3.3.3 Voters and issues

Finally, in line with the aforementioned utility function, I hypothesize that the issue effect may be conditional on the type of voter. In other words, while I have argued that debating an issue in ideological or valence terms may affect how voters consider parties' ideological proximity and viability, it is reasonable to expect this effect to differ depending on voters' prior beliefs and priorities. Given that ideological voters, by definition, place most weight on proximity, and that this parameter is expected to be the most important when issues are discussed in ideological terms I expect:

Hypothesis 4a: When issues are debated in ideological terms, the fragmentation of the opposition will improve accountability, and this effect will be stronger for the ideologues.

Pragmatic voters, who, by definition, outweigh the viability parameter, are expected to maximize the utility of their vote when the opposition is not fragmented and when issue debates focus on the parties' ability and capacity to handle the issue.

Hypothesis 4b: When issues are debated in valence terms, fragmentation will hamper accountability and this effect will be greater for pragmatic voters.

3.4 Empirical strategy

Identifying the causal effect of opposition fragmentation and the mediating effect of voters' priorities and issue debates on accountability may be difficult since the extent to which a political system is fragmented into multiple parties may depend on the distribution of preferences among the electorate. At the same time, one could argue that the way in which issues are framed and debated may be a function of the social divisions within an electorate and the degree of political fragmentation. Therefore, to test the hypotheses and the specific mechanisms through which opposition fragmentation may condition accountability I designed an original survey experiment in which voters were presented with a case of an incumbent government accused of corruption and were asked to express their willingness to support or punish it. I randomly manipulated the framing of the case and the order in which I presented four figures that depicted different levels of opposition fragmentation. There are good reasons for doing so. The experiment allows me to design and manipulate the degree of political fragmentation and the issue framing to which respondents are exposed. By randomly presenting voters with different degrees of fragmentation and corruption frames, I am able to analyze the impact of opposition fragmentation on accountability holding the distribution of individual preferences, and then to test the effect of ideological and valence debates on corruption at different levels of opposition fragmentation. Overall, this strategy enables me to test empirically whether the causal mechanisms I propose move in the expected direction and thus overcome potential endogeneity concerns.

The experiment was run in Spain in January 2020. The survey was administered online by the commercial firm Netquest to a sample of 1,008 individuals selected by gender, age, and education quotas³. The Spanish scenario is particularly useful because in the last years political corruption has been a salient issue in Spanish politics and corruption scandals have filled Spanish main journals' front pages. Spain is also an appropriate setting because there is a significant degree of political fragmentation in the different arenas due to the electoral system⁴. For instance, nineteen parties are currently represented in the Spanish Parliament. At a regional level, the fragmentation of the party systems

³ Appendix B.1 shows a comparison of my sample with the data from survey carried out in the same month by the official Spanish Center for Sociological Research.

⁴ Most elections in Spain are held using a proportional representation system with closed party lists.

ranges from three (Castilla-La Mancha) to nine parties (Balearic Islands). This is important because it allows me to assign treatment conditions that are not unusual for Spanish voters.

In the experiment, respondents were first given a background survey with standard questions about ideological self-placement and political knowledge. Moreover, to capture the extent to which respondents were more ideological or pragmatic in their views towards politics I presented them with the following statement (inspired by the definition of pragmatic and ideological voters developed by Van der Brug et al. (2000)):

- Some people prefer to vote for a party that shares their ideas, even if they have not managed public affairs well, while others prefer to vote for a party that has managed public affairs well, although they do not share their ideas. Which do you prefer?

To code the answers I used a 7-point scale, where 1 means “*I would always vote for the party that shares my ideas*” and 7 means “*I would always vote for the party with a good management record*”⁵. For the analyses, I define ideologues as respondents who answered “*I would always vote for the party that shares my ideas*”, and pragmatics as those who stated “*I would always vote for the party with a good management record*”.

Then, respondents read a vignette reporting fictitious elections and the most discussed issue during the electoral campaign. The experiment consisted of randomly assigning respondents to four different groups (*between-subjects randomization*)⁶. These groups differed in terms of how the vignettes presented the information about a corruption scandal involving two members of the incumbent party. In the ‘Control’ group, respondents were only given information about the upcoming elections to be held. There was no mention of any corruption scandal in this case. In the ‘No Frame’ group, respondents were told that the most discussed issue during the campaign was a corruption scandal involving two members of the government. In the ‘Valence frame’ group, I also informed voters that a group of experts had criticized the government’s incapacity to prevent corruption. Finally, voters assigned the ‘Ideological frame’ were told that a group of experts had criticized some policies developed by the government that allowed corruption scandals to arise, emphasizing their left-right wing attachments (for the exact wording of the experimental conditions see Appendix B.4).

⁵ The distribution of this variable is displayed in Appendix B.2

⁶ Appendix B.3 reports covariate balance tests across treatment groups. As one would expect, there are no significant differences across groups due to randomization.

After reading the vignette, respondents were shown in a randomized order a set of four figures depicting the composition of the parliament (*within-subjects randomization*) and were asked which party they would vote for in each case⁷. These figures displayed a parliament in which I manipulated the number of alternatives, their relative size and the ideological range of these parties. The incumbency status was always assigned to the respondents’ closest party among the available alternatives since the explanations for why voters support underperforming governments apply to citizens with a preference for the underperforming incumbent, the incumbency status⁸. To avoid potential links with real-world cases and to ensure that the task was not too demanding, I named parties in terms of their left-right position and informed voters that the incumbent party held the absolute majority of seats in the parliament, with the remaining seats being equally distributed among the opposition parties (see Appendix B.5 for a template example). The dependent variable, the vote for the incumbent, takes value 1 if respondents voted for the incumbent party and 0 if they voted for an opposition party. Table 3.1 summarizes the experimental design.

TABLE 3.1 Experimental design

Sample	1008 individuals
Treatments (<i>between-subjects design</i>)	Control
	No frame
	Valence
	Ideological
Party system fragmentation (<i>within-subjects design</i>)	Two - party system: Left, Right
	Three - party system: L, Center, R
	Five - party system: L, Center-Left, C, Center-Right, R
	Seven - party system: Far-left, L, CL, C, CR, R, Far-Right
Incumbency status	Respondent’s closest party, among the available alternatives
Dependent variable	1 Vote for the incumbent
	0 Vote for an opposition party

⁷ As a robustness check, in Table B.14 in the Appendix I replicate the main results taking into consideration only first choices.

⁸ In three scenarios, the incumbency status was randomly assigned because, by design, respondents were provided with two equally distant parties. I run additional analyses excluding these cases in Tables B.12 and B.13 in the Appendix.

This specific design has several advantages. Firstly, by presenting respondents with a case of a corruption scandal affecting their closest party among the available alternatives, I ensure that accountability is desirable which allows me to confront those participants who are willing to punish the incumbent with a direct trade-off between viability and ideological proximity, which are the two mechanisms through which opposition fragmentation may condition accountability. Secondly, respondents have information about a corruption scandal that only affects the incumbent party, that is, the respondents' preferred party. Moreover, by depicting different parliaments with varying levels of fragmentation and naming parties in terms of their left-right position, I ensure that respondents are provided with credible information about the parties' viability and their ideological positions. These two specific features of the design allow me to keep the first stages of the accountability process fixed: information about a corruption scandal, who is to blame for it, and clean alternatives (Agerberg, 2020). Thirdly, by holding the incumbents' size constant, I ensure that fragmentation only affects the opposition, which enables me to test whether opposition fragmentation, rather than the governments' division, affects accountability. Lastly, I asked respondents to consider a hypothetical situation, in which elections were to be held in a foreign country and with fictitious parties. Although this "stylized" design might come at the cost of external validity, it allows me to discourage participants in the experiment from responding based on specific situations they may have experienced. This may be especially relevant in Spain, where political corruption has been pervasive in the last decades. As Anduiza et al. (2013) and Schwindt-Bayer and Tavits (2016) state, using hypothetical situations is expected to enhance the precision of the treatment and increase voters' willingness to respond honestly by discouraging them to consider certain specific situations they may have experienced.

3.5 Main results

Figure 3.1 shows the predicted probabilities of voting for the incumbent at different levels of fragmentation. As one would expect, when there are no corruption scandals threatening the incumbent, fragmentation does not have any significant effect on the probability of voting for them. However, when the incumbent faces a corruption scandal, fragmentation of the opposition clearly enhances accountability: as the number of opposition parties rises, the predicted support for the corrupt in-

cumbent declines. These results are consistent with hypothesis 1a, which asserts that fragmentation will improve accountability if $\alpha > 1-\alpha$, that is, if ideological proximity is the main parameter that drives the voters' evaluations of the alternatives⁹.

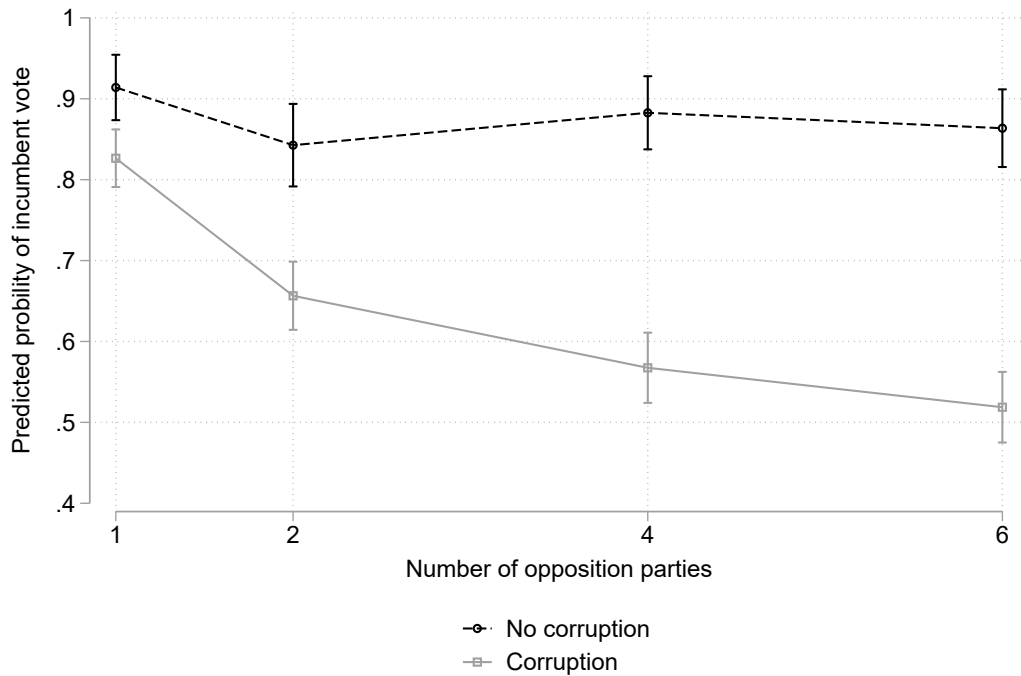


FIGURE 3.1 Predicted probabilities of voting for the incumbent, with 95% CIs

Although voters seem primarily to base their vote decisions on proximity, we can observe that the effect is not constant: the sharpest marginal reduction in the voters' probability of voting for the incumbent occurs when the fragmentation of the opposition increases from one to two parties. When we move from two to four parties, the slope flattens slightly, implying that the marginal utility yielded by each of these two extra parties is becoming smaller. When fragmentation rises up to six parties, the marginal drop in the probability of voting for the incumbent is not statistically significant. These results reveal that the voters' marginal gains in utility are greater when fragmentation levels rise from low to moderate. At high levels of fragmentation, when voters can already find an ideologically close alternative, the expected marginal gain in utility yielded by an extra opposition party is imperceptible, so that it has no significant effect on the probability of punishing the corrupt incumbent.

⁹ Main regression results and additional plots are shown in Appendix B.6 and B.7 respectively. I exclude from the analysis respondents who did not answer which party they would vote for since, in real elections, the parties' vote share are computed without considering abstainers. As a robustness check, in Tables B.15, B.16, and B.17 in the Appendix, I run several multinomial logit models including abstention as a potential outcome.

Regarding the second hypothesis, I posited that increased fragmentation would enhance accountability for ideological voters while making it more difficult for pragmatic voters. As we can see in Figure 3.2, ideological voters seem to be significantly more tolerant of corruption scandals than pragmatic voters.

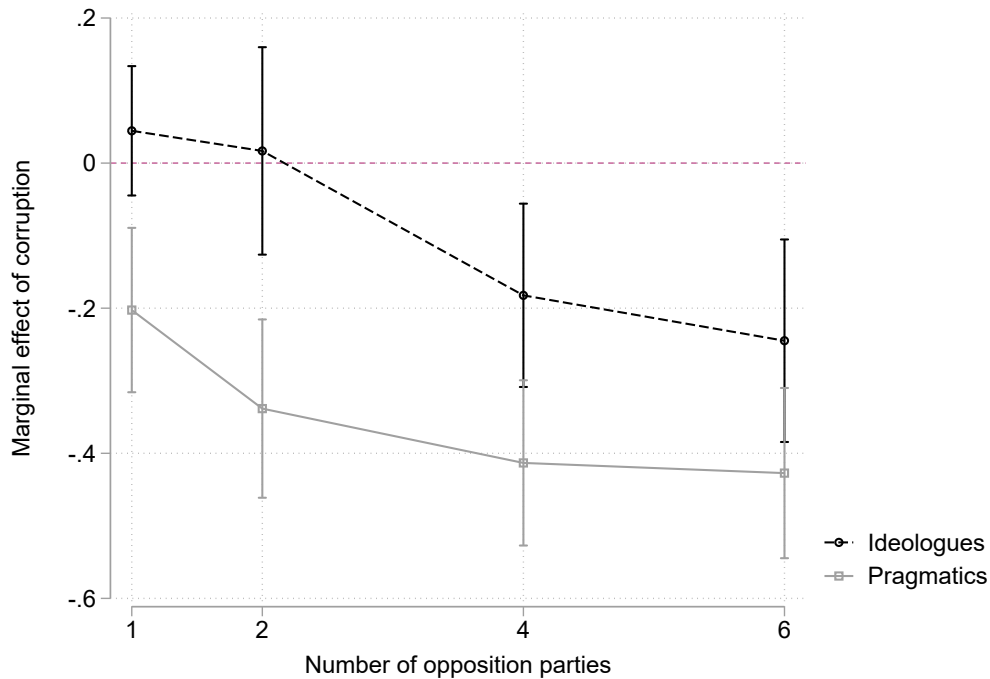


FIGURE 3.2 Marginal effects of corruption on the probability of voting for the incumbent conditional on opposition fragmentation and type of voter, with 95% CIs

As it shows, pragmatic voters clearly penalize corruption at low levels of fragmentation. For ideologues, the marginal effect of corruption at these levels of fragmentation is statistically insignificant, they seem not to punish corruption at all. However, when the number of alternatives rises up to four and six, the gap in the punishment of corruption between these two groups of voters narrows, with this effect mainly being driven by ideological voters. While increasing opposition fragmentation from two to six parties has no statistically significant effect for pragmatic voters, for ideologues, it decreases the probability of voting for the corrupt incumbent by 26 percentage points (pp), so that, at high levels of fragmentation, the gap in the punishment of corruption between ideologues and pragmatics is not statistically significant¹⁰. These findings support my hypothesis that the effect of fragmentation on accountability may be conditioned by the voters’ priorities: ideological voters, who by definition outweigh the proximity parameter ($\alpha > 1-\alpha$), only punish corrupt governments when

¹⁰ See Table B.11 and Figures B.5 and B.6 in the Appendix for additional analyses using alternative measures of pragmatism.

the alternatives are ideologically acceptable and consequently are more sensitive to variation in the degree of fragmentation.

Finally, I theorized that discussing an issue in valence rather than positional terms may affect the voters' consideration of α and $1-\alpha$, that is, the importance that citizens place on ideological proximity and viability. Overall, the results show that, when corruption is framed as a valence issue, respondents punish the incumbent party more severely than when the ideological frame and no frame are applied (Figure 3.3). However, this effect is not statistically significant nor conditioned by the degree of fragmentation, which suggests that discussing corruption in valence rather than positional terms does not modify α and $1-\alpha$. Nevertheless, these results still have implications in different ways. Firstly, they reinforce the idea that voters primarily base their voting decisions on proximity: even if corruption scandals are presented with different wording, the voters' probability of voting for the incumbent significantly drops as opposition fragmentation rises. Secondly, if we compare valence and ideological frames, the former seems to work as a more powerful signal, indicating that the incumbent was clearly responsible for the corruption scandal and thus deserved to be punished.

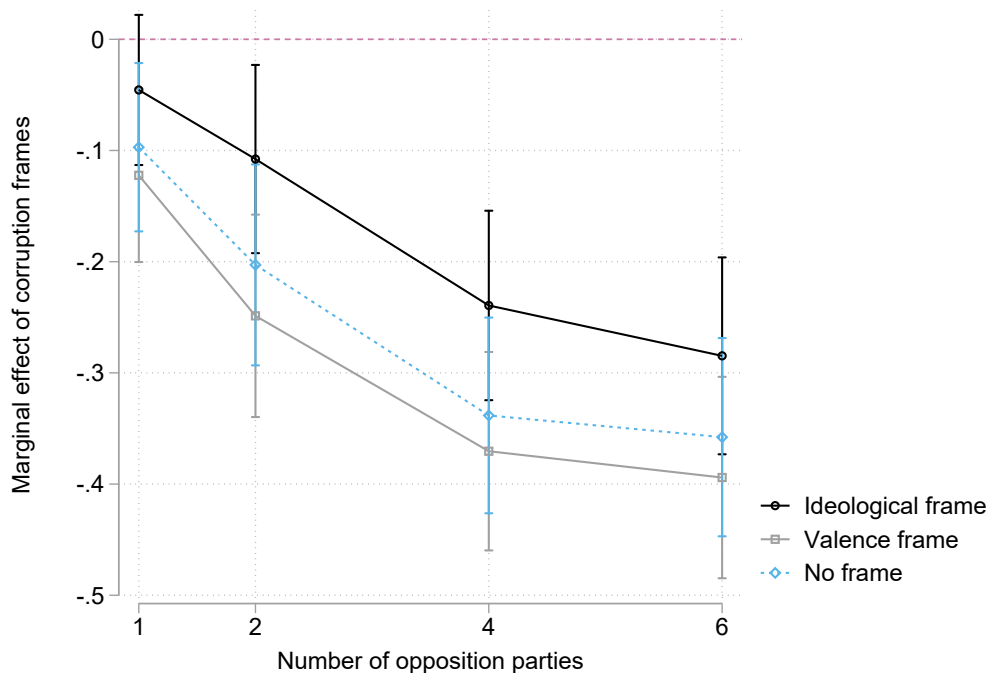


FIGURE 3.3 Conditional marginal effects of corruption frames on the probability of voting for the incumbent, with 95% CIs

Based on the logic of the results obtained above, in Figure 3.4 I compute the conditional marginal effects of corruption framing, differentiating between ideologues and pragmatic voters to analyze

whether the findings depicted in Figure 3.2 are sensitive to different corruption frames. While we could see in that figure that voters are not homogeneous when considering whom to vote for, now we can see that this is particularly the case when corruption is framed in valence terms. In this case (Figure 3.4a), ideologues only hold the corrupt government accountable if there are at least four opposition parties.

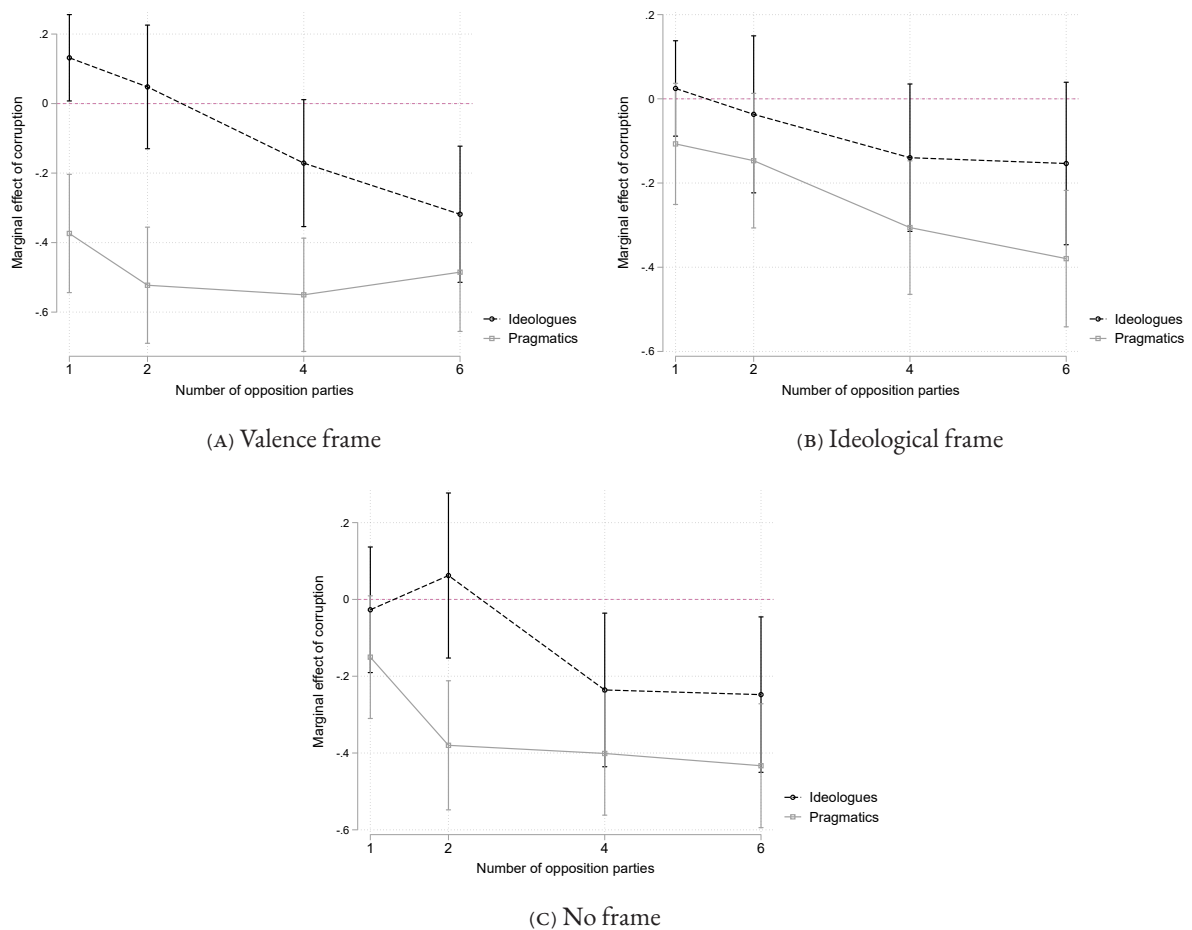


FIGURE 3.4 Marginal effects of corruption frames on the probability of voting for the incumbent conditional on type of voter, with 95% CIs

In contrast, pragmatic voters seem to punish underperforming governments more severely, but this effect is not conditioned by the degree of fragmentation. When corruption is framed in ideological terms (Figure 3.4b) both pragmatics and ideologues seem to punish corruption less severely, although the results do not show any significant difference between them. We do observe, however, that ideological voters behave in a very similar way regardless of corruption frames, while pragmatic voters, who severely punish incumbents when corruption is framed as a valence issue, become more tolerant when scandals are debated in ideological terms, particularly when the degree of fragmen-

tation is low. When more alternatives are available, these voters become less tolerant with corrupt incumbents, behaving as if they were ideologues. These results are partially congruent with my expectations: I find that corruption debates affect how the pragmatics consider ideological proximity (α) and viability ($1-\alpha$) since for these voters opposition fragmentation enhances accountability when corruption is debated in ideological terms, but not when is debated in valence terms. For ideologues, small differences in the severity of punishment may arise when comparing corruption debates, but this effect is neither statistically significant nor conditioned by the degree of fragmentation.

3.6 Mechanisms: ideological proximity and viability

The results obtained so far have shown that, on aggregate, opposition fragmentation facilitates accountability and that this effect is significantly larger for ideologues. This may suggest that ideological proximity is the main driver of vote choice. However, given that fragmentation of the opposition generates contrary effects to ideological proximity and the viability of parties, in this section, I rely on a different modelling approach to estimate the effect of proximity and viability on accountability separately. More specifically, I run a conditional logit regression in which the respondents' party choice from the available alternatives for each degree of fragmentation is the dependent variable¹¹. The main independent variables, *ideological distance* and parties' *viability* were computed as follows:

- Ideological distance: calculated as the absolute distance between alternative parties' ideological positions (see Table 3.1) and individuals' ideological self-placement according to a left-right 7-point scale.
- Viability: in the experiment, I signaled the incumbent parties' viability by depicting a parliament in which the governing party always held 51% of the seats. To measure the viability of the opposition parties, I divided the remaining 49% by the number of opposition parties.

Since voters are only expected to abandon their preferred party and vote for an opposition alternative when a corruption scandal occurs, to estimate the effect of the aforementioned variables on

¹¹ I follow Alvarez and Nagler (1998), who argue that conditional models are preferable when analysing the effect of the characteristics of the alternatives on individuals' vote choice, and their interaction with voters' own attributes.

the respondents' vote choice, I interact them with *corruption*, which takes the value 1 if respondents were assigned a corruption treatment; *opposition*, which takes the value 1 if the available parties in a specific choice-set belong to the opposition; and *pragmatism*.

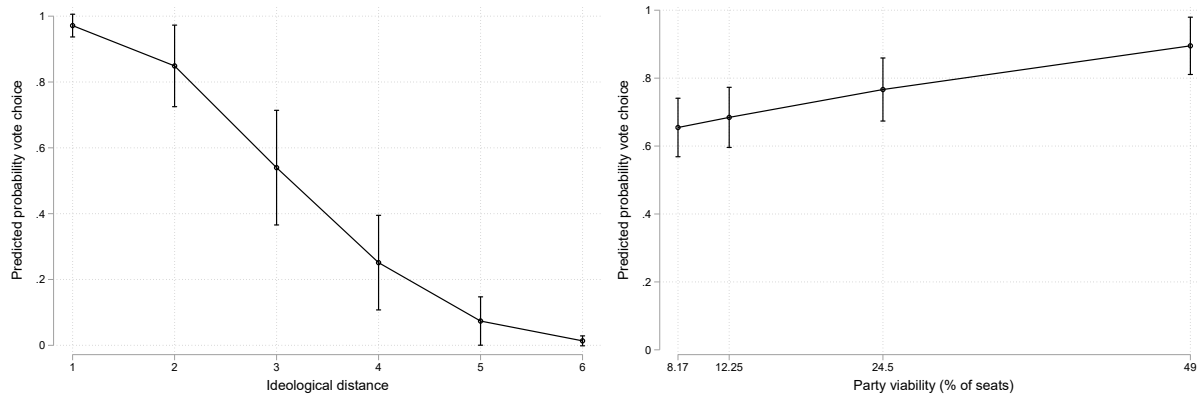


FIGURE 3.5 Predicted probabilities of voting for an opposition party conditional on ideological distance and viability, with 95% CIs.

Note: Predicted values computed when the incumbent has been accused of corruption

Figure 3.5 depicts the predicted probability of voting for an opposition party at different values of ideological distance and party viability¹². These results are restricted to opposition alternatives since my expectations of the effect of proximity and viability referred to opposition characteristics and computing marginal effects for incumbent parties, for which I held size constant in the experimental design, would be meaningless. The results show that, when an incumbent faces corruption allegations, the greater the ideological distance between a voter and an opposition party, the less likely they are to vote for that party. In fact, when opposition parties are very close (i.e., one unit of distance) the probability of voting for that party is almost 100 per cent. However, as the distance increases, the probability of voting for an opposition party declines, so that, at a distance of six units, the highest value in my design, the probability of voting for that party is close to zero, which underscores the role of ideological proximity in the accountability process. With respect to viability, increasing the size of the alternatives raises the probability of punishing the incumbent. But the magnitude of its effect is far more limited: increasing the size of an opposition party from the lowest to the highest observed value in my design raises the probability of voting this alternative by 24 pp. In line with my expectations, these results show that both ideological proximity and party viability increase the probability

¹² Conditional logit regression results can be found in Appendix B.8.

of voting for an opposition party. What actually happens is that marginal gains in viability do not offset losses in proximity and, as a result, increased fragmentation facilitates electoral accountability.

To further explore whether ideologues and pragmatic voters are different when considering the alternatives, in Figure 3.6 I plot the marginal effects of ideological distance and viability on the probability of voting for an opposition party distinguishing between ideologues and pragmatic voters.

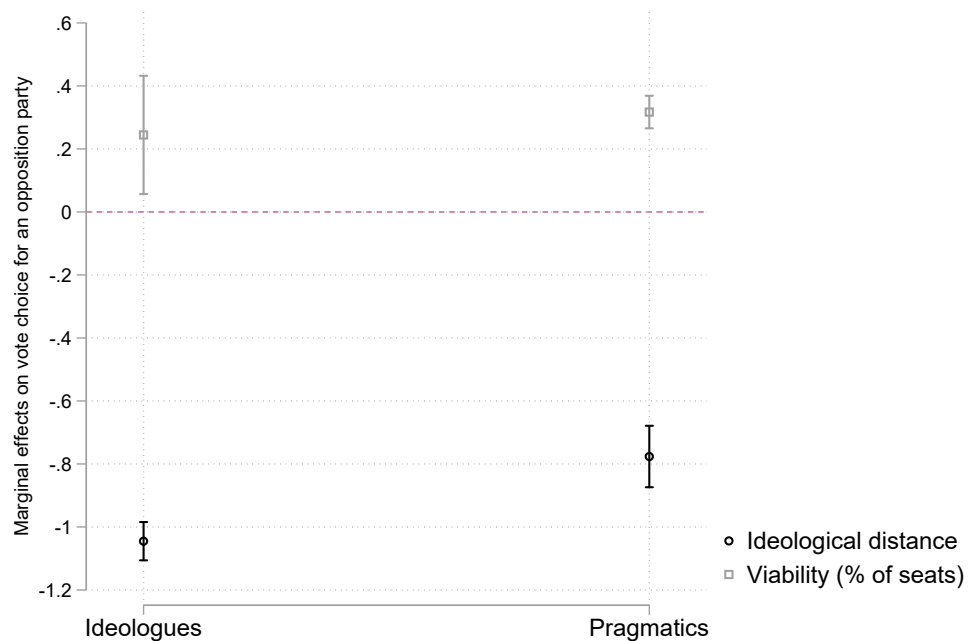


FIGURE 3.6 Marginal effects of ideological distance and viability on the probability of voting for an opposition party conditional on type of voter, with 95% CIs

Note: Marginal effects computed when the incumbent has been accused of corruption. Given that ideological distance and viability were measured on different scales, to compute the marginal effects I normalize both variables between 0-1. Therefore, the depicted results reflect the marginal change in the probability of voting for an opposition party when *distance* and *viability* increase from their minimum to their maximum observed value.

As we can see, increasing ideological distance between a voter and an opposition party when the incumbent has been charged with corruption sharply decreases the probability of voting for the alternative party. While the effect is significantly larger for ideologues, the overall negative effect of distance for pragmatic voters is not deniable. With respect to viability, the figure shows that both pragmatics and ideologues prefer larger parties, although its overall effect on party choice is noticeably smaller than ideological distance. Overall, these results help to explain the mechanisms through which fragmentation enhances accountability and show that, for both ideologues and pragmatic voters, α is greater than $1-\alpha$. However, the negative effect of ideological distance on vote choice is significantly larger for the ideologues evincing that ideologues and pragmatic voters are different when

it comes to considering alternatives to underperforming governments. The former, who are more constrained by their ideological preferences, are more sensitive to the degree of fragmentation: they only hold governments accountable when they can find an ideologically acceptable alternative¹³.

3.7 Conclusions

This study analyzes how opposition fragmentation conditions electoral accountability. By exploiting the analysis of a survey experiment, I show that voters primarily base their choice on proximity. Fragmentation clearly enhances accountability, although the effect is not linear. While increasing the number of alternatives from one to four parties sharply decreases the support for the incumbent, increasing opposition fragmentation from four to six parties has no significant effect.

Regarding voters, I find empirical support for my claim that voters are not homogeneous when it comes to evaluating the available alternatives. Although pragmatic voters seem to punish corruption more severely, ideological voters are more sensitive to the level of fragmentation. While the latter hardly punish the incumbent when the number of alternatives is limited, the probability of voting for a corrupt incumbent sharply decreases at high levels of fragmentation. With respect to the distinction between valence and ideological issues, I cannot confirm nor reject the validity of this mechanism. Although corruption frames do not seem to condition the effect of fragmentation on accountability, I do find that pragmatic voters are more tolerant of corruption when the scandals are debated in ideological terms, evincing that voters do not always consider proximity and viability in the same way.

To provide further support regarding the mechanisms through which opposition fragmentation conditions accountability, I directly estimated the effect of the parties' viability and ideological proximity on the respondents' choice. The results show that ideologically close and large-sized parties are more appealing for voters looking for an alternative. Although the effect of both mechanisms moves in the expected direction, the effect of ideological proximity is significantly larger which means that fragmented oppositions enhance accountability because marginal gains in proximity offset losses in viability. As expected, the positive effect of ideological proximity on the respondents' choice is par-

¹³ Figure B.4 in the Appendix provides further support for these findings.

ticularly strong for ideologues, making it clear that, for these voters, accountability can only occur when ideologically acceptable alternatives are available.

Finally, it should be noted that, while this experiment allows me to overcome the potential endogeneity concerns mentioned in previous sections of this paper, the extent to which I can generalize my findings beyond the experimental context may be limited. For instance, in order to keep the first stages of accountability constant, in the experiment I held the incumbent's size constant and voters were given clear and credible information about the incumbent's performance, the ideological positions of the available alternatives and their size. Moreover, in the different sets of parties the availability of left and right-wing alternatives was always balanced in terms of ideological closeness and viability. Of course, under real world conditions this might not be the case since it can be possible to find strong viable parties in extremely fragmented oppositions and gathering information on the incumbent's performance may be less straightforward. It remains for future research to analyze how the proposed mechanisms may work in less stylized environments. Another potential limitation of this study stems from the fact that some of the analyses presented include several interactions. Although this may raise concerns about the statistical power of the analyses due to sample limitations, all the robustness checks included in the appendix support the main findings of this paper.

In summary, this study identifies one of the mechanisms that can help explain how underperforming incumbents sometimes escape electoral punishment. The implications of the findings are twofold. Firstly, they cast doubt on the general claim that fragmentation tends to undermine electoral accountability. By focusing on the provision of alternatives and this study shows that fragmented party systems may be more effective in holding governments accountable than previously thought. If there are fewer alternative parties, many voters dissatisfied with the government may decide to keep voting for the incumbent. Secondly, in this age of growing dissatisfaction with politics, these results may be of use to policymakers and scholars interested in accountability and institutional settings. While increasing institutional clarity may be a good way to boost accountability, according to this study, any measure addressing this issue should also consider the potential costs of limiting the number of alternatives.

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Appendix B: Supplementary materials

B.1 Sample composition

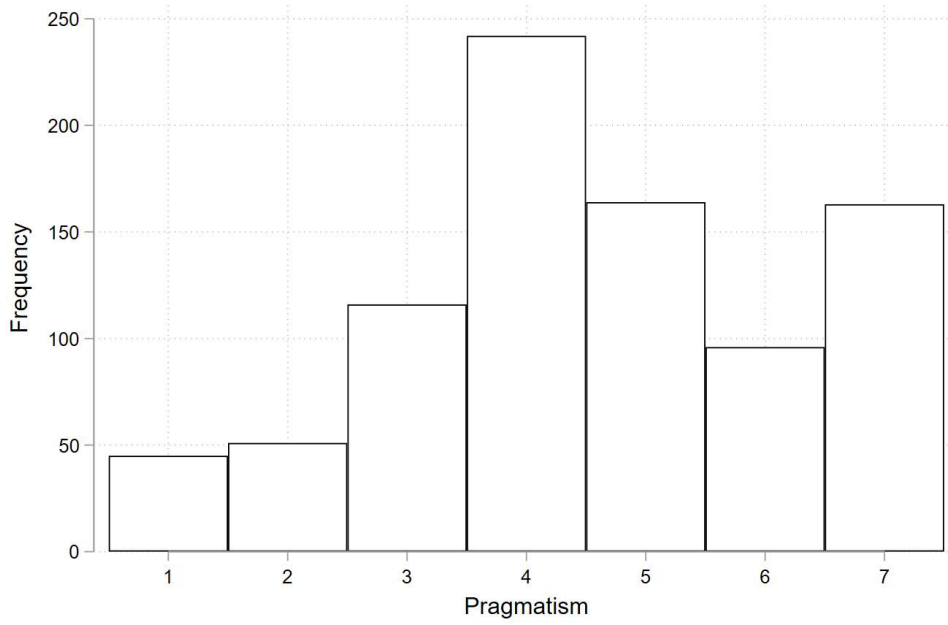
TABLE B.1 Sample composition

	Sample	CIS survey	Difference
Age			
18 to 24	11.81	7.58	+4.23
25 to 34	15.08	12.95	+2.13
35 to 44	22.52	19.04	+3.48
45 to 54	20.34	18.97	+1.37
55 to 64	17.06	16.27	+0.79
over 65	13.19	25.19	-12
Gender			
Female	51.09	51.78	-0.69
Male	48.91	48.22	+0.69
Education			
No education	4.96	2.95	+2.01
Primary	13.59	14.92	-1.33
Secondary	24.90	25.12	-0.22
High School	26.29	33.68	-7.39
Short college degree	8.04	7.60	+0.44
Long college degree	10.52	13.32	-2.8
Masters	9.92	1.46	+8.46
PhD	1.79	0.96	+0.83
Ideology			
1 (Extreme left)	8.26	6.33	+1.93
2	13.37	7.69	+5.68
3	19.40	18.61	+0.79
4	15.47	16.89	-1.42
5	19.66	21.43	-1.77
6	7.34	9.72	-2.38
7	6.42	7.65	-1.23
8	4.98	6.45	-1.47
9	1.83	2.51	-0.68
10 (Extreme right)	3.28	2.71	0.57

In the experiment *ideology* was measured in a 0-10 scale. I collapsed the 0 and 1 categories for comparison.

B.2 Distribution of pragmatism

FIGURE B.1 Distribution of pragmatism



B.3 Randomization test

TABLE B.2 Randomization test

	Ideological b/(se)	Corruption frames	
		Valence b/(se)	No frame b/(se)
Age (years)	0.008 (0.008)	0.009 (0.008)	0.002 (0.008)
Female	0.048 (0.218)	-0.000 (0.222)	-0.013 (0.220)
Political sophistication	-0.556 (0.339)	-0.465 (0.345)	-0.124 (0.343)
Interest in politics	-0.149 (0.142)	-0.115 (0.144)	0.118 (0.142)
Ideology (1-7)	0.020 (0.071)	0.059 (0.071)	0.002 (0.072)
Education	0.062 (0.065)	0.023 (0.066)	0.084 (0.065)
Pragmatism	0.025 (0.063)	-0.063 (0.063)	0.068 (0.063)
Constant	-0.163 (0.742)	0.056 (0.754)	-0.975 (0.751)
Pseudo R^2		0.006	
Log lik.		-1115.734	
Chi-squared		13.676	
Observations		810	

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. 'Control' is the reference category.

B.4 Experimental conditions

TABLE B.3 Wording of the treatment groups

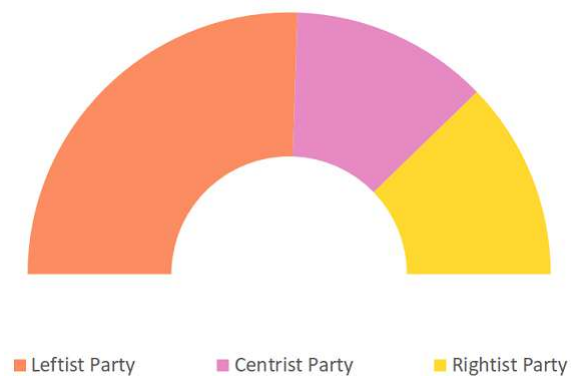
Treatment	Wording
Control	Consider the following hypothetical situation. Imagine that elections were to be held tomorrow in a different country. In the elections, the XXXX Party [<i>respondents' closest party</i>], which currently holds the absolute majority of the seats in the parliament, will try to revalidate its victory.
No frame	Consider the following hypothetical situation. Imagine that elections were to be held tomorrow in a different country. In the elections, the XXXX Party [<i>respondents' closest party</i>], which currently holds the absolute majority of the seats in the parliament, will try to revalidate its victory. The most discussed issue during the campaign has been a corruption scandal involving two members of the government.
Valence frame	Consider the following hypothetical situation. Imagine that elections were to be held tomorrow in a different country. In the elections, the XXXX Party [<i>respondents' closest party</i>], which currently holds the absolute majority of the seats in the parliament, will try to revalidate its victory. The most discussed issue during the campaign has been a corruption scandal involving two members of the government. A group of experts harshly criticized the government for not taking any measure to prevent it.
Ideological frame	Consider the following hypothetical situation. Imagine that elections were to be held tomorrow in a different country. In the elections, the XXXX Party [<i>respondents' closest party</i>], which currently holds the absolute majority of the seats in the parliament, will try to revalidate its victory. The most discussed issue during the campaign has been a corruption scandal involving two members of the government. A group of experts report that some left-wing policies developed by the government such as the creation of new state-owned companies and excessive intervention in the economy allowed corruption scandals to arise. However, another group of experts report that certain right-wing policies developed by the government, such as the privatization of public spaces and uncontrolled growth in the building permit approvals allowed corruption scandals to arise.

B.5 Template

Template example for a respondent who reported to be a leftist voter in the pre-treatment survey. Parliaments are supposed to be depicted in a randomized order. Here I only show the three-party system parliament designed for a leftist voter who was randomly assigned to the Valence frame. As it is shown in Table 3.1, the parties included in the three-party system are the leftist, the centrist and the rightist party. Given that the respondent's closest party among the available options is the leftist one, the incumbency status was assigned to this party.

Consider the following hypothetical situation. Imagine that elections were to be held tomorrow in a different country. In the elections, the Leftist Party, which currently holds the absolute majority of the seats in the parliament, will try to revalidate its victory.

The most discussed issue during the campaign has been a corruption scandal affecting two members of the government. A group of experts harshly criticized the government for not taking any measure to prevent from it. The current composition of the parliament is the following:



Which of the following parties would you vote for?

- Leftist Party (government)
- Centrist Party (opposition)
- Rightist Party (opposition)
- I wouldn't vote
- I don't know

B.6 OLS Regression Models

DATA STRUCTURE

TABLE B.4 Data structure for the main regression analyses

Respondent ID	Ideology	Pragmatism	Opp. Fragmentation	Treatment	Inc. vote
1	2	4	6	Valence	0
1	2	4	1	Valence	1
1	2	4	2	Valence	1
1	2	4	4	Valence	0
2	7	7	1	No Frame	NA
2	7	7	4	No Frame	0
2	7	7	6	No Frame	0
2	7	7	2	No Frame	1
3	4	5	2	Control	1
3	4	5	6	Control	1
3	4	5	4	Control	1
3	4	5	1	Control	1
...					
1008	1	1	4	Ideological	1
1008	1	1	6	Ideological	1
1008	1	1	1	Ideological	NA
1008	1	1	2	Ideological	1

TABLE B.5 Fragmentation and pragmatism effects on corruption voting

	(1)		(2)	
	Fragmentation		Pragmatism	
corruption	-0.087***	(0.027)	0.086	(0.059)
opp.fragmentation 2	-0.071**	(0.030)	-0.154**	(0.075)
opp.fragmentation 4	-0.031	(0.029)	-0.090	(0.060)
opp.fragmentation 6	-0.050*	(0.030)	-0.124*	(0.071)
opp.fragmentation 2 × corruption	-0.099***	(0.038)	-0.010	(0.098)
opp.fragmentation 4 × corruption	-0.228***	(0.037)	-0.229**	(0.089)
opp.fragmentation 6 × corruption	-0.257***	(0.039)	-0.300***	(0.099)
pragmatism			-0.023**	(0.010)
opp.fragmentation 2 × pragmatism			0.017	(0.017)
opp.fragmentation 4 × pragmatism			0.012	(0.014)
opp.fragmentation 6 × pragmatism			0.017	(0.016)
corruption × pragmatism			-0.041***	(0.015)
opp.fragmentation 2 × corruption × pragmatism			-0.018	(0.022)
opp.fragmentation 4 × corruption × pragmatism			0.003	(0.021)
opp.fragmentation 6 × corruption × pragmatism			0.011	(0.023)
Constant	0.914***	(0.021)	1.018***	(0.038)
R^2	0.102		0.130	
Adjusted R^2	0.100		0.125	
Observations	2718		2664	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

TABLE B.6 Framing effects on corruption voting by pragmatism

	(3)		(4)	
	Framing		Framing × Pragmatism	
opp.fragmentation 2	-0.071**	(0.030)	-0.154**	(0.076)
opp.fragmentation 4	-0.031	(0.029)	-0.090	(0.060)
opp.fragmentation 6	-0.050*	(0.030)	-0.124*	(0.072)
Ideologic	-0.046	(0.034)	0.047	(0.075)
Valence	-0.122***	(0.040)	0.216***	(0.083)
No frame	-0.097**	(0.039)	-0.006	(0.106)
opp.fragmentation 2 × Ideologic	-0.062	(0.051)	-0.065	(0.130)
opp.fragmentation 2 × Valence	-0.126**	(0.050)	-0.073	(0.133)
opp.fragmentation 2 × No frame	-0.106**	(0.049)	0.142	(0.133)
opp.fragmentation 4 × Ideologic	-0.194***	(0.050)	-0.159	(0.124)
opp.fragmentation 4 × Valence	-0.248***	(0.052)	-0.324**	(0.127)
opp.fragmentation 4 × No frame	-0.241***	(0.050)	-0.202	(0.141)
opp.fragmentation 6 × Ideologic	-0.239***	(0.054)	-0.163	(0.140)
opp.fragmentation 6 × Valence	-0.272***	(0.054)	-0.507***	(0.139)
opp.fragmentation 6 × No frame	-0.261***	(0.051)	-0.211	(0.132)
pragmatism			-0.023**	(0.010)
opp.fragmentation 2 × pragmatism			0.017	(0.017)
opp.fragmentation 4 × pragmatism			0.012	(0.014)
opp.fragmentation 6 × pragmatism			0.017	(0.016)
Ideologic × pragmatism			-0.022	(0.019)
Valence × pragmatism			-0.084***	(0.022)
No frame × pragmatism			-0.021	(0.025)
opp.fragmentation 2 × Ideologic × pragmatism			0.004	(0.031)
opp.fragmentation 2 × Valence × pragmatism			-0.011	(0.031)
opp.fragmentation 2 × No frame × pragmatism			-0.053*	(0.030)
opp.fragmentation 4 × Ideologic × pragmatism			-0.006	(0.030)
opp.fragmentation 4 × Valence × pragmatism			0.021	(0.030)
opp.fragmentation 4 × No frame × pragmatism			-0.007	(0.030)
opp.fragmentation 6 × Ideologic × pragmatism			-0.016	(0.033)
opp.fragmentation 6 × Valence × pragmatism			0.056*	(0.033)
opp.fragmentation 6 × No frame × pragmatism			-0.010	(0.029)
Constant	0.914***	(0.021)	1.018***	(0.038)
R^2	0.110		0.147	
Adjusted R^2	0.106		0.137	
Observations	2718		2664	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

B.7 Main results: Additional Plots

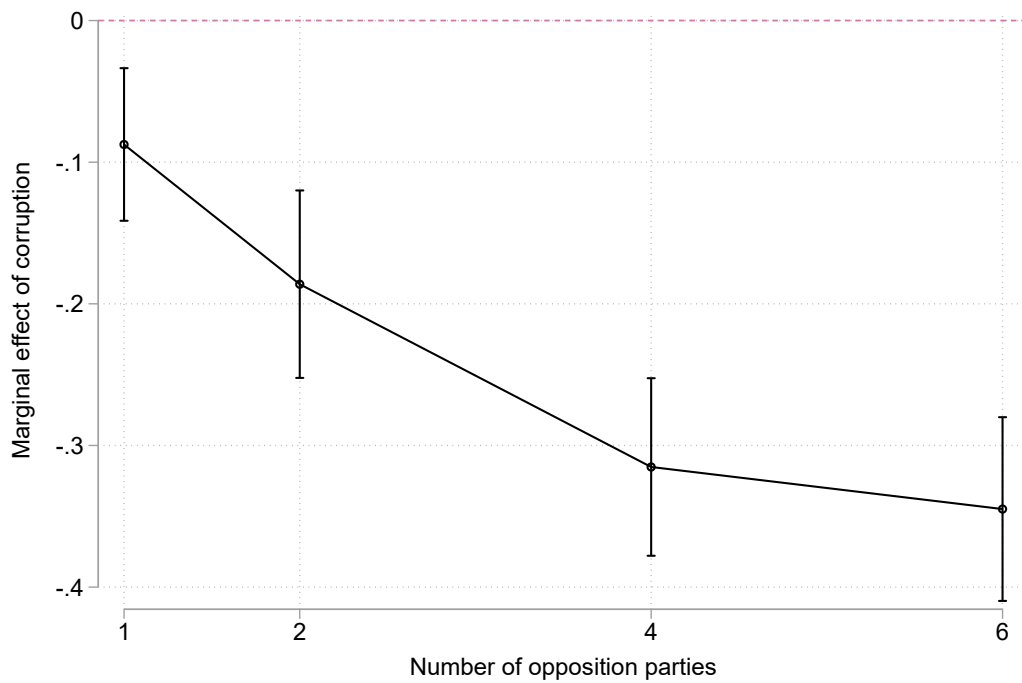


FIGURE B.2 Marginal effect of corruption on the probability of voting for the incumbent conditional on opposition fragmentation, with 95% CIs

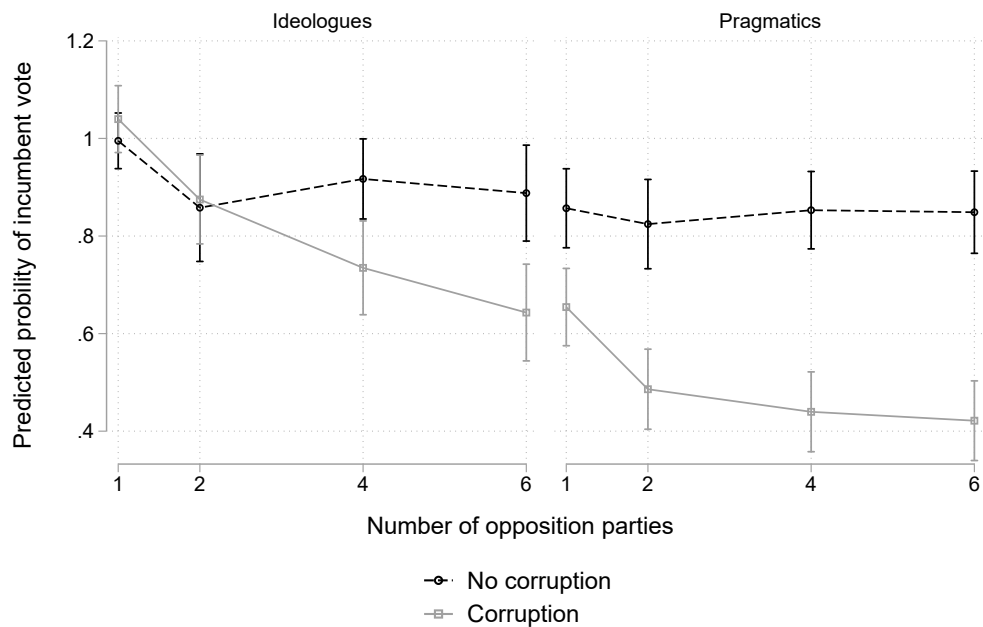


FIGURE B.3 Predicted probability of voting for the incumbent conditional on opposition fragmentation and type of voter, with 95% CIs

B.8 Conditional Logit: Test of the mechanisms

RESULTS

TABLE B.7 Effects of ideological distance and viability on party choice

	(1)		(2)	
ideoldist	-1.826***	(0.432)	-1.779*	(1.028)
opposition	-0.823	(1.003)	-0.784	(1.650)
opposition × ideoldist	0.454	(0.546)	0.434	(0.978)
corruption × ideoldist	1.710***	(0.490)	1.435	(1.259)
opposition × corruption	5.036***	(1.187)	3.913	(2.586)
opposition × corruption × ideoldist	-2.207***	(0.645)	-2.295	(1.447)
viability	0.013	(0.020)	0.016	(0.032)
corruption × viability	0.063***	(0.023)	0.041	(0.050)
ideoldist × pragmatism			-0.005	(0.228)
opposition × pragmatism			-0.007	(0.444)
opposition × ideoldist × pragmatism			0.000	(0.247)
corruption × ideoldist × pragmatism			0.072	(0.265)
opposition × corruption × pragmatism			0.251	(0.587)
opposition × corruption × ideoldist × pragmatism			0.002	(0.319)
viability × pragmatism			-0.001	(0.009)
corruption × viability × pragmatism			0.005	(0.011)
Pseudo R^2	0.501		0.506	
Log lik.	-1819.302		-1771.800	
Chi-squared	672.418		676.501	
Observations	11630		11426	

Dependent variable: party choice. Standard errors clustered on respondents in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure B.4 depicts the predicted probability of voting for an opposition party depending on ideological distance and parties' viability and distinguishing between ideologues and pragmatic voters. As we can see, when ideological distance equals one, the probability of voting for the alternative and thus punishing the incumbent are very high in the case of both ideologues and pragmatic voters. However, when ideological distance increases up to four, ideologues seem to be significantly less likely to punish the incumbent and vote for an opposition party, showing that these voters are more sensitive to ideological distance and, consequently, to the degree of opposition fragmentation. Although the effect of party viability seems to be larger for pragmatic voters, the difference is not statistically significant.

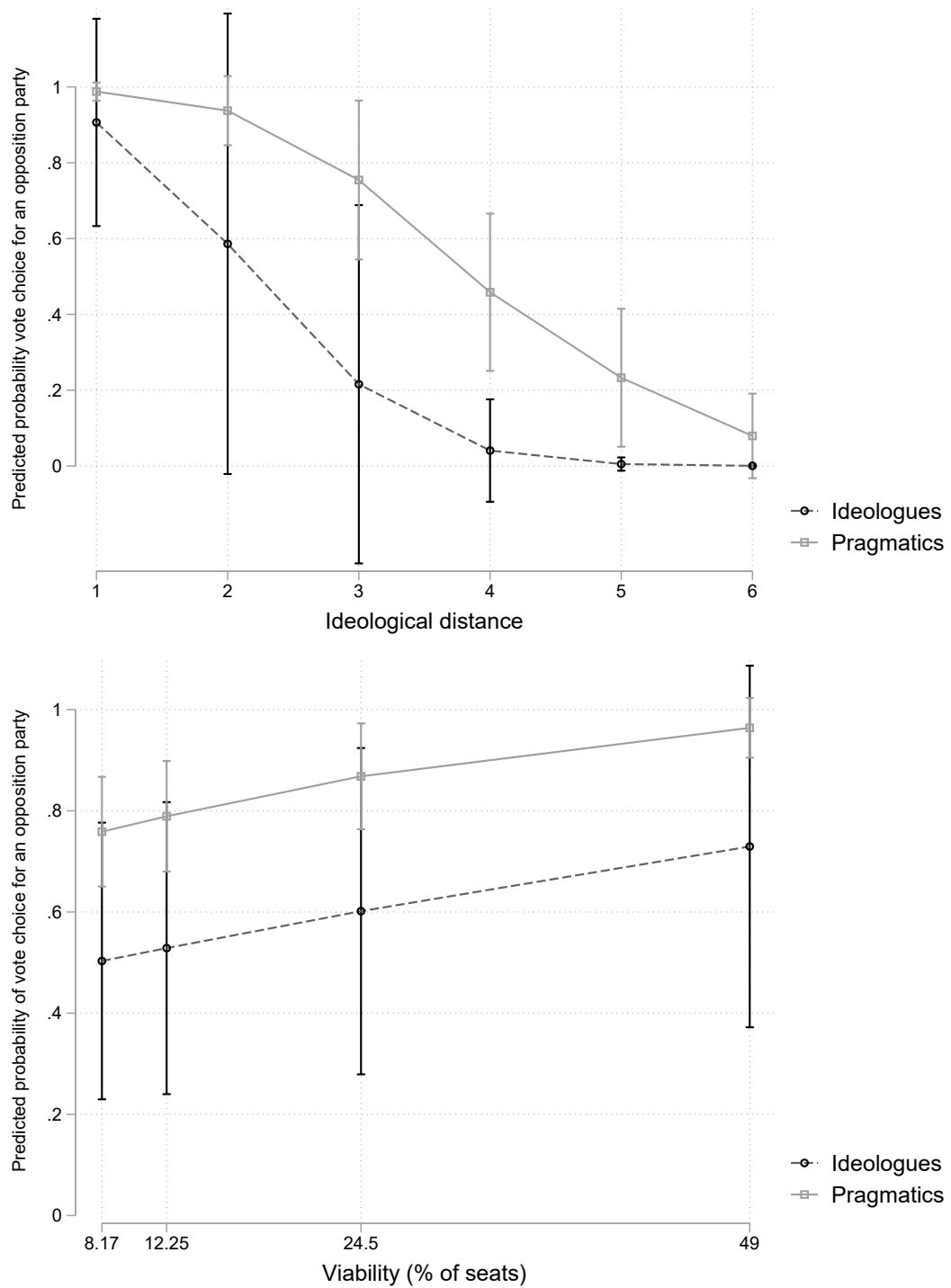


FIGURE B.4 Predicted probabilities of voting for an opposition party conditional on ideological distance and viability by type of voter, with 95% CIs

Note: Predicted values computed when the incumbent has been accused of corruption.

DATA STRUCTURE

TABLE B.8 Data structure for the Conditional Logit

Resp.ID	Ideology	Pragmat.	Treatment	Opp. Fragmentation	Party	Opposition	Ideol. dist.	Size	Choice
I	2	4	Valence	1	Left	0	0	51	1
I	2	4	Valence	1	Right	1	4	49	0
I	2	4	Valence	2	Left	0	0	51	1
I	2	4	Valence	2	Center	1	2	24.5	0
I	2	4	Valence	2	Right	1	4	24.5	0
I	2	4	Valence	4	Left	0	0	51	0
I	2	4	Valence	4	Ctr. left	1	1	12.25	1
I	2	4	Valence	4	Center	1	2	12.25	0
I	2	4	Valence	4	Ctr. right	1	3	12.25	0
I	2	4	Valence	4	Right	1	4	12.25	0
I	2	4	Valence	6	Extr. left	1	1	8.17	0
I	2	4	Valence	6	Left	0	0	51	0
I	2	4	Valence	6	Ctr. left	1	1	8.17	1
I	2	4	Valence	6	Center	1	2	8.17	0
I	2	4	Valence	6	Ctr. right	1	3	8.17	0
I	2	4	Valence	6	Right	1	4	8.17	0
I	2	4	Valence	6	Extr. right	1	5	8.17	0
...									
1008	1	1	Ideological	1	Left	0	1	51	NA
1008	1	1	Ideological	1	Right	1	5	49	NA
1008	1	1	Ideological	2	Left	0	1	51	1
1008	1	1	Ideological	2	Center	1	3	24.50	0
1008	1	1	Ideological	2	Right	1	5	24.50	0
1008	1	1	Ideological	4	Left	0	1	51	1
1008	1	1	Ideological	4	Ctr. left	1	2	12.25	0
1008	1	1	Ideological	4	Center	1	3	12.25	0
1008	1	1	Ideological	4	Ctr. right	1	4	12.25	0
1008	1	1	Ideological	4	Right	1	5	12.25	0
1008	1	1	Ideological	6	Extr. left	0	0	51	1
1008	1	1	Ideological	6	Left	1	1	8.17	0
1008	1	1	Ideological	6	Ctr. left	1	2	8.17	0
1008	1	1	Ideological	6	Center	1	3	8.17	0
1008	1	1	Ideological	6	Ctr. right	1	4	8.17	0
1008	1	1	Ideological	6	Right	1	5	8.17	0
1008	1	1	Ideological	6	Extr. right	1	6	8.17	0

B.9 Robustness checks

LOGIT MODELS

The main results are estimated using OLS regressions to facilitate the interpretation of coefficients and the comparison among varying levels of fragmentation. As a robustness check I present here a replication of the main analyses using logit specifications.

TABLE B.9 Fragmentation and pragmatism effects on corruption voting

	(1)		(2)	
	(Fragmentation)		(Pragmatism)	
corruption	-0.802***	(0.291)	-0.032	(0.888)
opp.fragmentation 2	-0.685**	(0.296)	-2.104**	(0.847)
opp.fragmentation 4	-0.345	(0.318)	-1.477*	(0.851)
opp.fragmentation 6	-0.517*	(0.314)	-1.824**	(0.893)
opp.fragmentation 2 × corruption	-0.228	(0.324)	0.197	(0.992)
opp.fragmentation 4 × corruption	-0.944***	(0.344)	-1.248	(0.990)
opp.fragmentation 6 × corruption	-0.969***	(0.342)	-1.353	(1.026)
pragmatism			-0.323**	(0.134)
opp.fragmentation 2 × pragmatism			0.281*	(0.165)
opp.fragmentation 4 × pragmatism			0.220	(0.159)
opp.fragmentation 6 × pragmatism			0.266	(0.173)
corruption × pragmatism			-0.170	(0.164)
opp.fragmentation 2 × corruption × pragmatism			-0.089	(0.192)
opp.fragmentation 4 × corruption × pragmatism			0.068	(0.186)
opp.fragmentation 6 × corruption × pragmatism			0.077	(0.198)
Constant	2.363***	(0.262)	3.940***	(0.727)
Pseudo R^2	0.089		0.115	
Log lik.	-1504.461		-1434.933	
Chi-squared	214.479		223.465	
Observations	2718		2664	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

TABLE B.10 Fragmentation and framing effects on corruption voting by pragmatism

	(3)		(4)	
	Framing		Framing × Pragmatism	
opp.fragmentation 2	-0.685**	(0.296)	-2.104**	(0.847)
opp.fragmentation 4	-0.345	(0.318)	-1.477*	(0.851)
opp.fragmentation 6	-0.517*	(0.314)	-1.824**	(0.893)
Ideologic	-0.476	(0.355)	-0.011	(1.139)
Valence	-1.028***	(0.333)	1.141	(1.220)
No frame	-0.868**	(0.340)	-0.999	(1.127)
opp.fragmentation 2 × Ideologic	-0.182	(0.409)	-0.217	(1.257)
opp.fragmentation 2 × Valence	-0.270	(0.360)	-0.664	(1.354)
opp.fragmentation 2 × No frame	-0.236	(0.363)	1.455	(1.153)
opp.fragmentation 4 × Ideologic	-0.952**	(0.408)	-1.082	(1.236)
opp.fragmentation 4 × Valence	-0.941**	(0.384)	-2.258*	(1.283)
opp.fragmentation 4 × No frame	-0.972**	(0.386)	-0.567	(1.205)
opp.fragmentation 6 × Ideologic	-1.051**	(0.415)	-0.942	(1.299)
opp.fragmentation 6 × Valence	-0.940**	(0.387)	-2.834**	(1.331)
opp.fragmentation 6 × No frame	-0.955**	(0.383)	-0.398	(1.176)
pragmatism			-0.323**	(0.134)
opp.fragmentation 2 × pragmatism			0.281*	(0.165)
opp.fragmentation 4 × pragmatism			0.220	(0.159)
opp.fragmentation 6 × pragmatism			0.266	(0.173)
Ideologic × pragmatism			-0.101	(0.208)
Valence × pragmatism			-0.472**	(0.226)
No frame × pragmatism			0.017	(0.212)
opp.fragmentation 2 × Ideologic × pragmatism			0.018	(0.244)
opp.fragmentation 2 × Valence × pragmatism			0.054	(0.259)
opp.fragmentation 2 × No frame × pragmatism			-0.343	(0.225)
opp.fragmentation 4 × Ideologic × pragmatism			0.033	(0.237)
opp.fragmentation 4 × Valence × pragmatism			0.264	(0.244)
opp.fragmentation 4 × No frame × pragmatism			-0.070	(0.228)
opp.fragmentation 6 × Ideologic × pragmatism			-0.027	(0.252)
opp.fragmentation 6 × Valence × pragmatism			0.389	(0.257)
opp.fragmentation 6 × No frame × pragmatism			-0.112	(0.226)
Constant	2.363***	(0.262)	3.940***	(0.727)
Pseudo R^2	0.095		0.128	
Log lik.	-1493.643		-1413.906	
Chi-squared	224.221		253.586	
Observations	2718		2664	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

ALTERNATIVE MEASURES OF PRAGMATISM

I asked respondents to rank the following five characteristics of politicians from more to less important: share my ideas, capacity to manage, training, honesty, and approachability to people. Then I recoded *ideas* and *management* as two independent continuous variables that took values from 1 to 5, depending on where respondents placed these characteristics in the ranking (value 5 means it is the most important characteristic). Table B.11 depicts the results using the alternative measures of pragmatism.

TABLE B.11 Alternative measures of pragmatism

	(1)		(2)	
	Ideas		Management	
opp.fragmentation 2	-0.109*	(0.060)	-0.080	(0.106)
opp.fragmentation 4	-0.038	(0.057)	-0.037	(0.092)
opp.fragmentation 6	-0.072	(0.057)	0.029	(0.085)
corruption	-0.097*	(0.054)	0.059	(0.082)
opp.fragmentation 2 × corruption	-0.058	(0.076)	-0.077	(0.128)
opp.fragmentation 4 × corruption	-0.205***	(0.074)	-0.179	(0.119)
opp.fragmentation 6 × corruption	-0.207***	(0.076)	-0.371***	(0.115)
ideas	0.016	(0.018)		
opp.fragmentation 2 × ideas	0.023	(0.030)		
opp.fragmentation 4 × ideas	0.004	(0.028)		
opp.fragmentation 6 × ideas	0.013	(0.026)		
corruption × ideas	0.003	(0.024)		
opp.fragmentation 2 × corruption × ideas	-0.024	(0.036)		
opp.fragmentation 4 × corruption × ideas	-0.013	(0.034)		
opp.fragmentation 6 × corruption × ideas	-0.029	(0.034)		
management			0.003	(0.018)
opp.fragmentation 2 × management			0.002	(0.030)
opp.fragmentation 4 × management			0.002	(0.026)
opp.fragmentation 6 × management			-0.024	(0.025)
corruption × management			-0.044*	(0.024)
opp.fragmentation 2 × corruption × management			-0.006	(0.037)
opp.fragmentation 4 × corruption × management			-0.014	(0.034)
opp.fragmentation 6 × corruption × management			0.034	(0.034)
Constant	0.886***	(0.040)	0.905***	(0.066)
R^2	0.104		0.109	
Adjusted R^2	0.099		0.105	
Observations	2718		2718	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses.

* p<0.1, ** p<0.05, *** p<0.01.

ALTERNATIVE LABELLING OF IDEOLOGUES AND PRAGMATICS

In Figure B.5 I label as *Ideologues* and *Pragmatics* those respondents who placed themselves in positions 2 and 6 respectively in the original question about pragmatism. In Figure B.6 the conditional marginal effects are estimated at positions 3 (ideologues) and 5 (pragmatics) in the 7-point scale. As we can see the results depicted in B.5 are similar to those in Figure 3.2 in the main text.

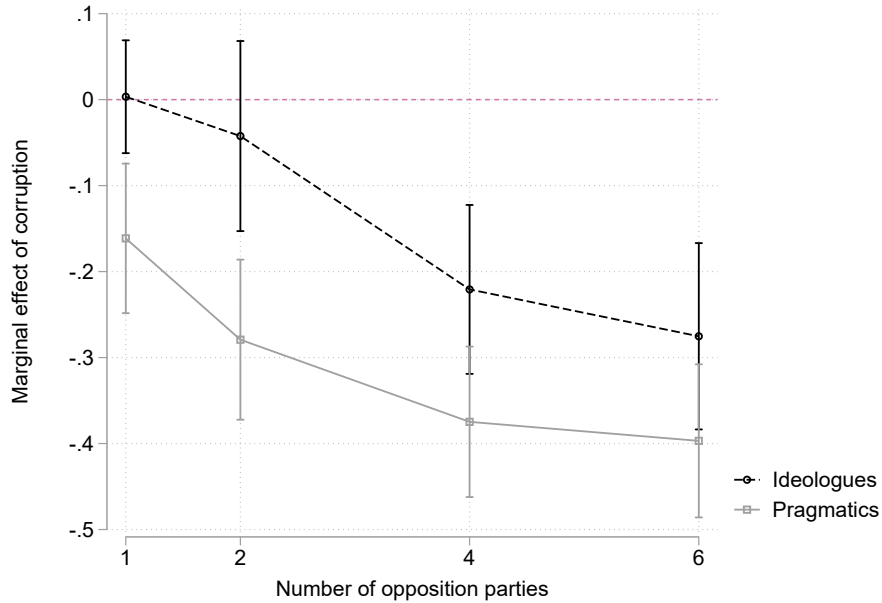


FIGURE B.5 Marginal effects of corruption on the probability of voting for the incumbent conditional on opposition fragmentation and type of voter (II), with 95% CIs

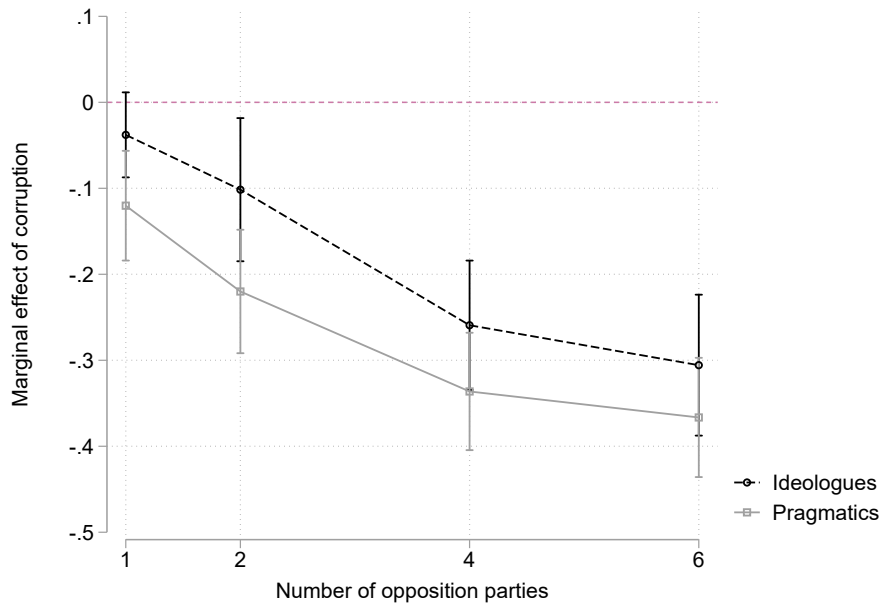


FIGURE B.6 Marginal effects of corruption on the probability of voting for the incumbent conditional on opposition fragmentation and type of voter (III), with 95% CIs

OLS REGRESSIONS (EXCLUDING RANDOM ASSIGNATIONS OF INCUMBENCY STATUS)

Here I present a replication of the main OLS analyses excluding those cases in which it was not possible to assign the incumbency status to the respondents' closest party because, by design, respondents were provided with two equally distant parties. The excluded cases consist of centrist voters in the two party system, and center-left / center-right voters in the three party system ($n = 453$). The results shown below do not deviate significantly from those in the main text.

TABLE B.12 Fragmentation and pragmatism effects on accountability

	(1)		(2)	
	Fragmentation		Pragmatism	
opp.fragmentation 2	-0.037*	(0.020)	-0.030	(0.048)
opp.fragmentation 4	-0.087***	(0.022)	-0.065	(0.049)
opp.fragmentation 6	-0.106***	(0.025)	-0.098	(0.062)
corruption	-0.053***	(0.020)	0.080*	(0.041)
opp.fragmentation 2 × corruption	-0.127***	(0.031)	-0.095	(0.081)
opp.fragmentation 4 × corruption	-0.263***	(0.032)	-0.224***	(0.080)
opp.fragmentation 6 × corruption	-0.292***	(0.034)	-0.295***	(0.091)
pragmatism			-0.006	(0.005)
opp.fragmentation 2 × pragmatism			-0.002	(0.011)
opp.fragmentation 4 × pragmatism			-0.005	(0.010)
opp.fragmentation 6 × pragmatism			-0.001	(0.014)
corruption × pragmatism			-0.032***	(0.011)
opp.fragmentation 2 × corruption × pragmatism			-0.009	(0.020)
opp.fragmentation 4 × corruption × pragmatism			-0.007	(0.018)
opp.fragmentation 6 × corruption × pragmatism			0.001	(0.020)
Constant	0.970***	(0.013)	0.993***	(0.021)
R^2	0.153		0.171	
Adjusted R^2	0.151		0.166	
Observations	2417		2368	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

TABLE B.13 Framing effects on corruption voting by pragmatism

	(3)		(4)	
	Frame		Frame x Pragmatism	
opp.fragmentation 2	-0.037*	(0.020)	-0.030	(0.048)
opp.fragmentation 4	-0.087***	(0.022)	-0.065	(0.050)
opp.fragmentation 6	-0.106***	(0.025)	-0.098	(0.062)
Ideological	-0.016	(0.023)	0.045	(0.050)
Valence	-0.076**	(0.031)	0.205***	(0.066)
No frame	-0.069**	(0.030)	-0.006	(0.084)
opp.fragmentation 2 × Ideological	-0.074*	(0.039)	-0.088	(0.113)
opp.fragmentation 2 × Valence	-0.175***	(0.051)	-0.150	(0.121)
opp.fragmentation 2 × No frame	-0.130***	(0.047)	0.042	(0.139)
opp.fragmentation 4 × Ideological	-0.224***	(0.043)	-0.157	(0.111)
opp.fragmentation 4 × Valence	-0.294***	(0.047)	-0.313**	(0.126)
opp.fragmentation 4 × No frame	-0.270***	(0.046)	-0.202	(0.125)
opp.fragmentation 6 × Ideological	-0.269***	(0.046)	-0.161	(0.125)
opp.fragmentation 6 × Valence	-0.318***	(0.049)	-0.495***	(0.134)
opp.fragmentation 6 × No frame	-0.289***	(0.048)	-0.211	(0.130)
pragmatism			-0.006	(0.005)
opp.fragmentation 2 × pragmatism			-0.002	(0.011)
opp.fragmentation 4 × pragmatism			-0.005	(0.011)
opp.fragmentation 6 × pragmatism			-0.001	(0.014)
Ideological × pragmatism			-0.014	(0.014)
Valence × pragmatism			-0.072***	(0.021)
No frame × pragmatism			-0.014	(0.020)
opp.fragmentation 2 × Ideological × pragmatism			0.006	(0.026)
opp.fragmentation 2 × Valence × pragmatism			-0.012	(0.032)
opp.fragmentation 2 × No frame × pragmatism			-0.042	(0.033)
opp.fragmentation 4 × Ideological × pragmatism			-0.014	(0.025)
opp.fragmentation 4 × Valence × pragmatism			0.009	(0.030)
opp.fragmentation 4 × No frame × pragmatism			-0.013	(0.027)
opp.fragmentation 6 × Ideological × pragmatism			-0.024	(0.028)
opp.fragmentation 6 × Valence × pragmatism			0.044	(0.031)
opp.fragmentation 6 × No frame × pragmatism			-0.017	(0.028)
Constant	0.970***	(0.013)	0.993***	(0.021)
R^2	0.163		0.189	
Adjusted R^2	0.157		0.178	
Observations	2417		2368	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses

* p<0.1, ** p<0.05, *** p<0.01.

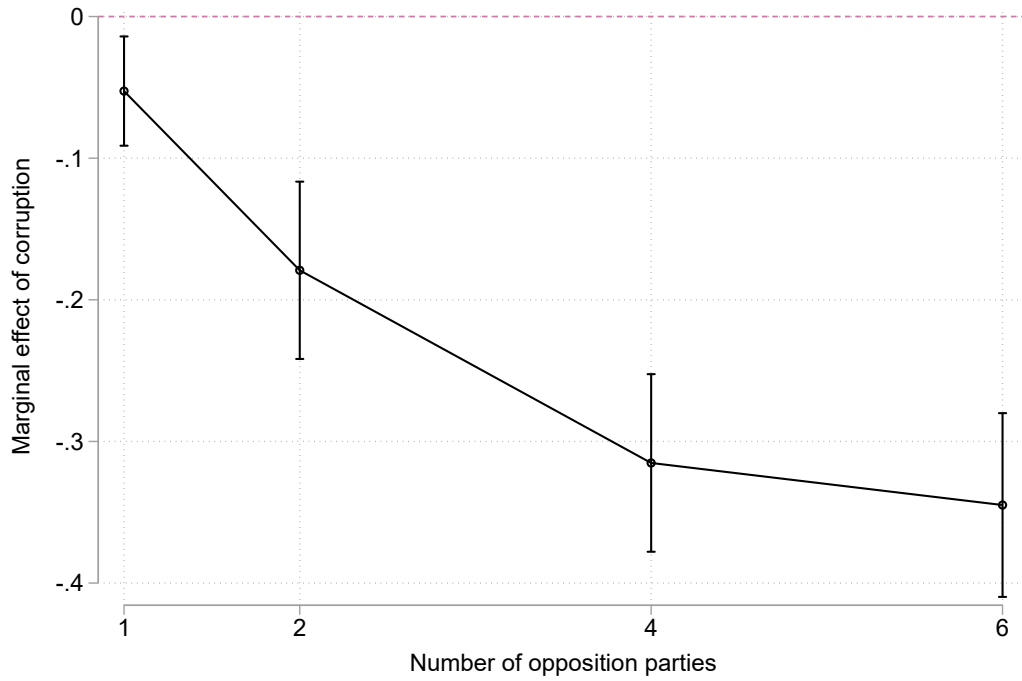


FIGURE B.7 OLS. Marginal effect of corruption conditional on opposition fragmentation, with 95% CIs

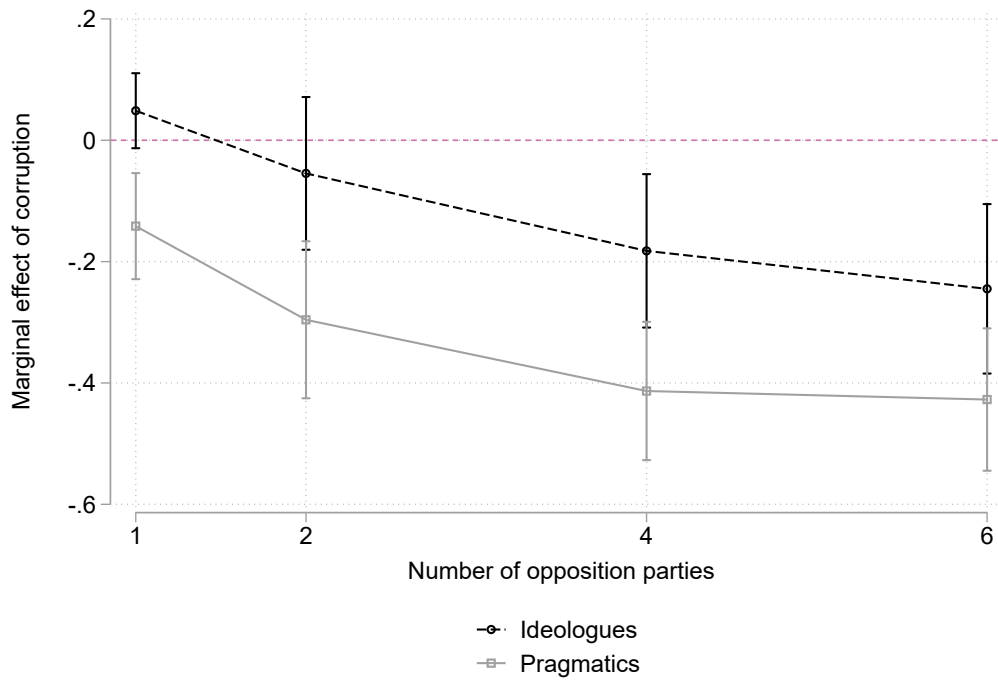


FIGURE B.8 OLS. Marginal effect of corruption conditional on opposition fragmentation and type of voter, with 95% CIs

OLS REGRESSION: RESPONDENTS' FIRST CHOICES

In the experiment, respondents were presented with four different parliaments and each time were asked which party they would vote for. In order to prevent respondents from biasing the results by figuring out what the main aim of the experiment was I randomized the order in which the parliaments were presented. Nonetheless, here I present a replication of the two main regressions in which I only analyze respondents' first choices. Note that excluding 75% of responses brings about a loss of statistical power that enlarges confidence intervals, making it more difficult to obtain statistically significant results. As we see in Figures B.9 and B.10 the point estimates are similar to those in the main text. More concretely, Figure B.9 shows that the marginal effect of corruption when there is only one alternative available. As can be seen, respondents seem not to punish corruption at all. However, when the number of alternatives increases, respondents become less tolerant of corruption. As for the distinction between ideologues and pragmatics, the marginal effect of corruption at low levels of fragmentation is close to zero for the ideologues, while it is clearly negative for the pragmatics. As fragmentation rises, the gap between these two groups of voters narrows, with this effect mainly being driven by ideological voters (see Figure B.10).

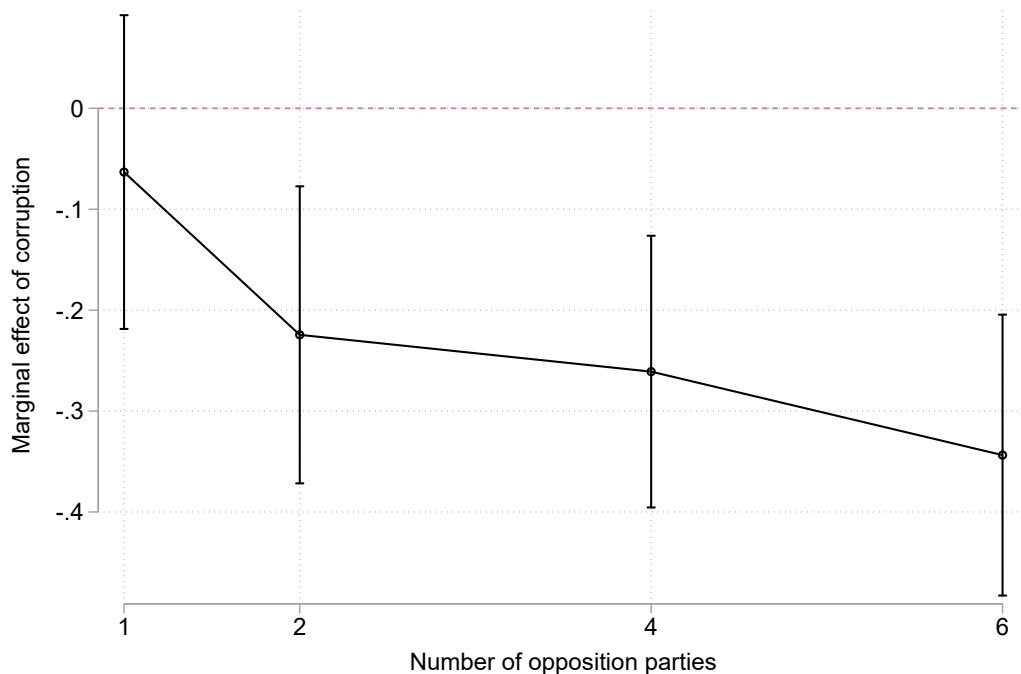


FIGURE B.9 Marginal effect of corruption on the probability of voting for the incumbent conditional on opposition fragmentation, with 95% CIs

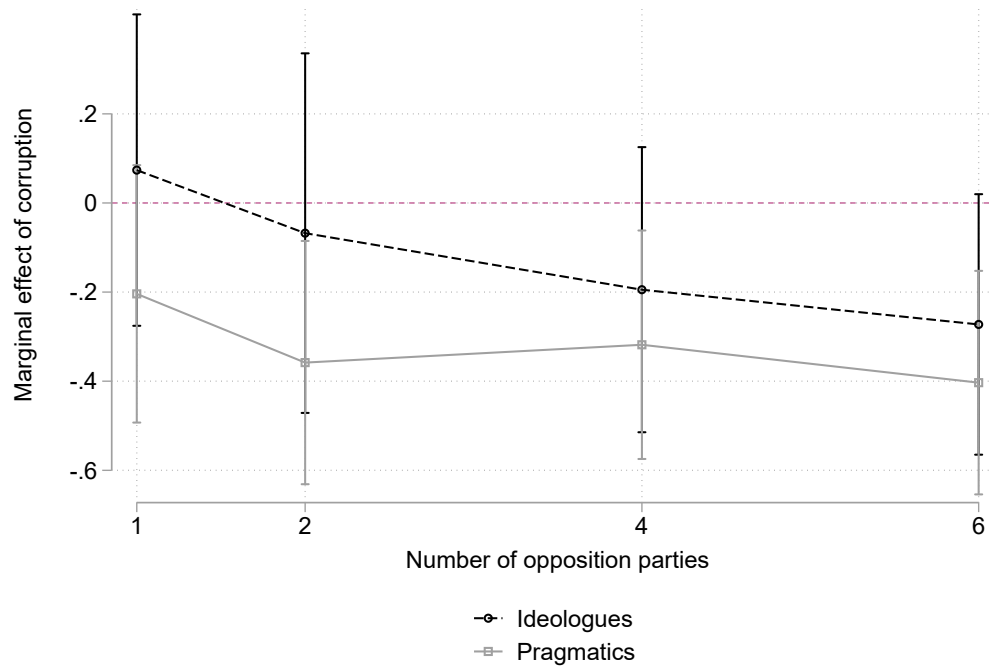


FIGURE B.10 Marginal effect of corruption on the probability of voting for the incumbent conditional on opposition fragmentation and type of voter, with 95% CIs

TABLE B.14 Fragmentation and pragmatism effects on accountability

	(1)		(1)	
	Fragmentation		Pragmatism	
opp.fragmentation 2	-0.076	(0.093)	-0.061	(0.298)
opp.fragmentation 4	-0.006	(0.089)	-0.019	(0.254)
opp.fragmentation 6	-0.051	(0.090)	-0.223	(0.242)
corruption	-0.063	(0.079)	0.120	(0.221)
opp.fragmentation 2 × Corruption	-0.161	(0.109)	-0.139	(0.337)
opp.fragmentation 4 × Corruption	-0.198*	(0.105)	-0.294	(0.300)
opp.fragmentation 6 × Corruption	-0.281***	(0.106)	-0.371	(0.288)
pragmatism			-0.026	(0.041)
opp.fragmentation 2 × pragmatism			-0.006	(0.062)
opp.fragmentation 4 × pragmatism			-0.002	(0.054)
opp.fragmentation 6 × pragmatism			0.034	(0.052)
corruption × pragmatism			-0.046	(0.047)
opp.fragmentation 2 × Corruption × pragmatism			-0.002	(0.070)
opp.fragmentation 4 × Corruption × pragmatism			0.026	(0.064)
opp.fragmentation 6 × Corruption × pragmatism			0.025	(0.062)
Constant	0.902***	(0.068)	1.038***	(0.190)
R^2	0.101		0.140	
Adjusted R^2	0.091		0.120	
Observations	685		669	

Dependent variable: vote for the incumbent. Standard errors clustered on respondents in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

MULTINOMIAL LOGISTIC REGRESSION

Since abstaining rather than voting for an opposition party may be a potential choice for respondents who are willing to punish the incumbent but do not find an attractive alternative, I run a multinomial logistic regression as a robustness check including the respondents who answered ‘*I wouldn’t vote*’ in the experiment. In this analysis the dependent variable *choice* takes the value 0 if the respondents voted for the incumbent, 1 if they voted for an opposition party and 2 if they chose to abstain. Then, voting for the incumbent is the reference category.

Figures B.11 and B.12 depict the conditional marginal effects of corruption on the three potential outcomes (vote incumbent, vote opposition and abstention) conditional on the degree of fragmentation and on type of voters. Overall these results provide further support for the main findings of this paper. Figure B.11 shows that fragmentation enhances accountability: the negative marginal effect of corruption on the probability of voting for the incumbent rises as the number of alternatives increases. Moreover it shows that at low levels of fragmentation the marginal effect of corruption on the probability of voting for the opposition is not statistically different from its effect on the probability of abstaining. However, as the number of alternatives increases the respondents become more likely to vote for an opposition party. As it shows, this effect is non-linear: increasing the fragmentation of the opposition when multiple alternatives already exist does not have any significant effect on the vote for the incumbent. Regarding abstention, increasing the number of alternatives seems to make respondents less likely to abstain, although the effect is not as strong as for voting for the opposition. This result makes it clear that when fragmentation rises, voters become more likely to punish the corrupt incumbent and that they do so by voting for an opposition party.

If we distinguish between ideologues and pragmatic voters, in Figure B.12 we see that the conditional marginal effect of corruption on the probability of abstaining seems to be very similar for both ideologues and pragmatic voters: they become less likely to abstain as fragmentation increases. The main difference between these two groups of voters stands out when we compare those who did not choose to abstain. For the ideologues corruption does not have any effect on the probability of voting for the opposition when the number of alternatives is limited. In fact, when there are only two alternatives available corruption doesn’t seem to affect ideologues’ choices at all. Yet, when these voters are provided with more alternatives their probability of voting for an opposition party and consequently

punish corrupt incumbents increases significantly. By contrast, pragmatic voters, who punish corrupt incumbents regardless of the number of alternatives, seem to find acceptable alternatives more easily (i.e., the probability of voting for an opposition party is significantly different from zero both at low and high levels of fragmentation). The formal estimates can be found in Tables B.15, B.16, and B.17.

TABLE B.15 Mlogit. Corruption and fragmentation effects on choice.

	(1)		(2)	
	opposition	abstention	opposition	abstention
opp.fragmentation 2	0.685** (0.296)	-0.143 (0.127)	2.161** (0.865)	0.297 (0.780)
opp.fragmentation 4	0.345 (0.318)	-0.185 (0.120)	1.522* (0.876)	-1.052 (0.806)
opp.fragmentation 6	0.517* (0.314)	-0.086 (0.130)	1.872** (0.920)	0.140 (0.552)
corruption	0.802*** (0.291)	0.838*** (0.199)	0.056 (0.909)	1.538** (0.753)
opp.fragmentation 2 × corruption	0.228 (0.324)	-0.140 (0.149)	-0.196 (1.004)	-0.959 (0.831)
opp.fragmentation 4 × corruption	0.944*** (0.344)	-0.033 (0.146)	1.265 (1.010)	0.646 (0.873)
opp.fragmentation 6 × corruption	0.969*** (0.342)	-0.099 (0.156)	1.348 (1.050)	-0.521 (0.651)
pragmatism			0.334** (0.139)	0.346*** (0.129)
opp.fragmentation 2 × pragmatism			-0.293* (0.168)	-0.122 (0.146)
opp.fragmentation 4 × pragmatism			-0.229 (0.165)	0.115 (0.144)
opp.fragmentation 6 × pragmatism			-0.276 (0.178)	-0.075 (0.111)
corruption × pragmatism			0.165 (0.168)	-0.060 (0.143)
opp.fragmentation 2 × corruption × pragmatism			0.088 (0.194)	0.171 (0.158)
opp.fragmentation 4 × corruption × pragmatism			-0.072 (0.190)	-0.108 (0.158)
opp.fragmentation 6 × corruption × pragmatism			-0.076 (0.203)	0.078 (0.131)
Constant	-2.363*** (0.262)	-1.472*** (0.178)	-3.996*** (0.752)	-3.673*** (0.689)
Pseudo R ²	0.051		0.086	
Log lik.	-3210.544		-2702.030	
Chi-squared	267.065		318.652	
Observations	3418		3140	

Reference category: vote for the incumbent. Standard errors clustered on respondents in parentheses

* p<0.1, ** p<0.05, *** p<0.01.

TABLE B.16 Mlogit. Framing effects on choice

	(3)			
	opposition		abstention	
opp. fragmentation 2	0.685**	(0.296)	-0.143	(0.127)
opp. fragmentation 4	0.345	(0.318)	-0.185	(0.120)
opp. fragmentation 6	0.517*	(0.314)	-0.086	(0.130)
Ideological	0.476	(0.355)	0.700***	(0.236)
Valence	1.028***	(0.333)	0.895***	(0.237)
No frame	0.868**	(0.340)	0.923***	(0.235)
opp. fragmentation 2 × Ideological	0.182	(0.409)	-0.151	(0.186)
opp. fragmentation 2 × Valence	0.270	(0.360)	-0.253	(0.189)
opp. fragmentation 2 × No frame	0.236	(0.363)	-0.031	(0.181)
opp. fragmentation 4 × Ideological	0.952**	(0.408)	-0.006	(0.179)
opp. fragmentation 4 × Valence	0.941**	(0.384)	0.020	(0.201)
opp. fragmentation 4 × No frame	0.972**	(0.386)	-0.099	(0.184)
opp. fragmentation 6 × Ideological	1.051**	(0.415)	-0.074	(0.197)
opp. fragmentation 6 × Valence	0.940**	(0.387)	-0.070	(0.204)
opp. fragmentation 6 × No frame	0.955**	(0.383)	-0.142	(0.197)
Constant	-2.363***	(0.262)	-1.472***	(0.178)
Pseudo R^2	0.055			
Log lik.	-3198.474			
Chi-squared	284.400			
Observations	3418			

Reference category: vote for the incumbent. Standard errors clustered on respondents in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

TABLE B.17 Mlogit. Framing effects on choice conditional on pragmatism.

	(4)			
	opposition		abstention	
opp. fragmentation 2	2.162**	(0.865)	0.297	(0.780)
opp. fragmentation 4	1.522*	(0.876)	-1.052	(0.806)
opp. fragmentation 6	1.872**	(0.920)	0.140	(0.552)
Ideological	0.077	(1.159)	1.622*	(0.871)
Valence	-0.979	(1.173)	1.364	(0.867)
No frame	0.967	(1.174)	1.517*	(0.871)
opp. fragmentation 2 × Ideological	0.189	(1.264)	-0.606	(0.901)
opp. fragmentation 2 × Valence	0.502	(1.290)	-1.628*	(0.988)
opp. fragmentation 2 × No frame	-1.451	(1.187)	-0.805	(0.894)
opp. fragmentation 4 × Ideological	1.074	(1.248)	0.015	(0.982)
opp. fragmentation 4 × Valence	2.148*	(1.236)	1.228	(1.029)
opp. fragmentation 4 × No frame	0.607	(1.247)	0.665	(0.950)
opp. fragmentation 6 × Ideological	0.948	(1.313)	-0.355	(0.737)
opp. fragmentation 6 × Valence	2.687**	(1.290)	-0.206	(0.863)
opp. fragmentation 6 × No frame	0.402	(1.222)	-1.039	(0.817)
pragmatism	0.334**	(0.139)	0.346***	(0.129)
opp. fragmentation 2 × pragmatism	-0.293*	(0.168)	-0.122	(0.146)
opp. fragmentation 4 × pragmatism	-0.229	(0.165)	0.115	(0.144)
opp. fragmentation 6 × pragmatism	-0.276	(0.178)	-0.075	(0.111)
Ideological × pragmatism	0.087	(0.212)	-0.117	(0.167)
Valence × pragmatism	0.439**	(0.216)	0.018	(0.171)
No frame × pragmatism	-0.010	(0.222)	-0.049	(0.166)
opp. fragmentation 2 × Ideological × pragmatism	-0.012	(0.244)	0.085	(0.176)
opp. fragmentation 2 × Valence × pragmatism	-0.021	(0.246)	0.290	(0.192)
opp. fragmentation 2 × No frame × pragmatism	0.342	(0.232)	0.176	(0.173)
opp. fragmentation 4 × Ideological × pragmatism	-0.032	(0.238)	0.018	(0.178)
opp. fragmentation 4 × Valence × pragmatism	-0.243	(0.234)	-0.223	(0.197)
opp. fragmentation 4 × No frame × pragmatism	0.062	(0.237)	-0.121	(0.177)
opp. fragmentation 6 × Ideological × pragmatism	0.025	(0.253)	0.058	(0.151)
opp. fragmentation 6 × Valence × pragmatism	-0.359	(0.249)	0.004	(0.175)
opp. fragmentation 6 × No frame × pragmatism	0.111	(0.236)	0.173	(0.162)
Constant	-3.996***	(0.752)	-3.673***	(0.689)
Pseudo R^2	0.094			
Log lik.	-2678.194			
Chi-squared	370.448			
Observations	3140			

Reference category: vote for the incumbent. Standard errors clustered on respondents in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

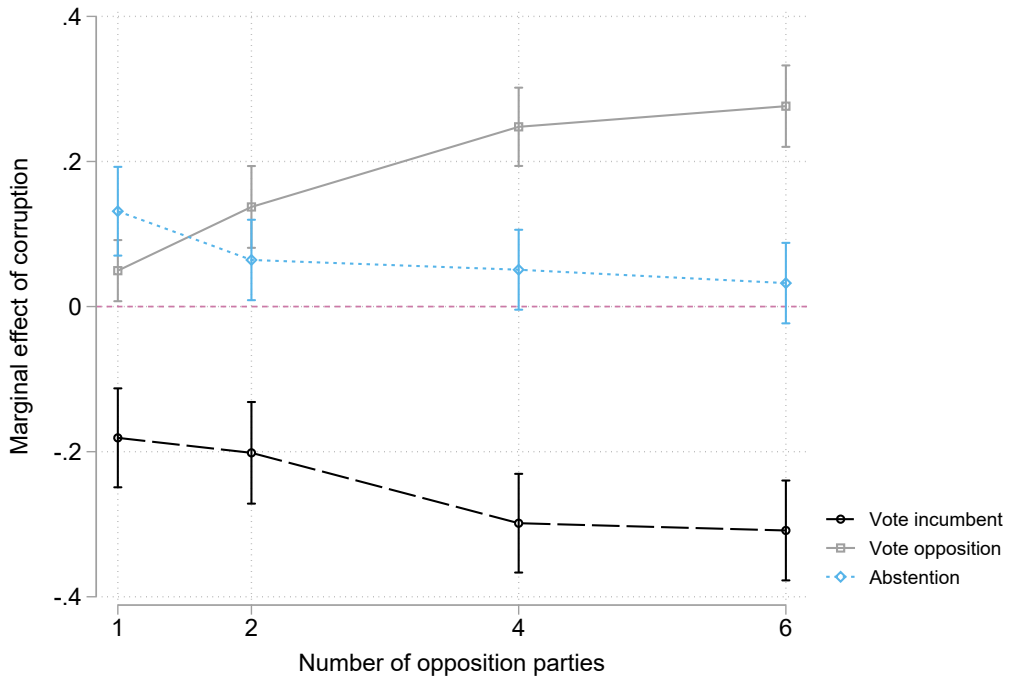


FIGURE B.11 Mlogit. Marginal effect of corruption on choice conditional on opposition fragmentation, with 95% CIs

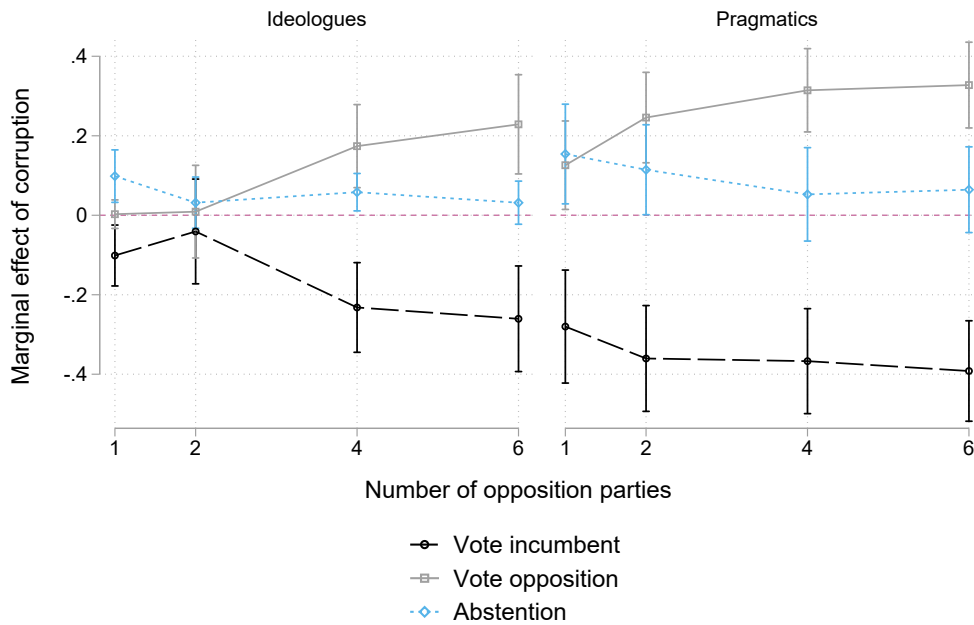


FIGURE B.12 Mlogit. Marginal effect of corruption on choice conditional on opposition fragmentation and type of voter, with 95% CIs

4

Paper 3

The political consequences of polarization: Quasi-experimental evidence from runoff elections

4.1 Introduction

One of the most important changes in many advanced democracies over recent decades has been the increase in levels of political polarization and the emergence of extreme parties (Banda & Cluverius, 2018; Casal Bértoa & Rama, 2021). Scholars have analyzed the consequences of growing polarization on a variety of outcomes that are relevant to our understanding of democracy, such as voters' ability to penalize politicians' undemocratic behavior (Graham & Svobik, 2020; Svobik, 2019), accountability (Hellwig, 2010; Stiers & Dassonneville, 2020), consistency between voters' attitudes and behavior (Levendusky, 2010), and turnout (Hetherington, 2008).

This paper contributes to this literature by analyzing the effect of polarization on a defining feature of democracy: incumbent turnover. As noted by Przeworski (1999, 2019), the assumption that incumbents may be replaced by the opposition is implicit in any definition of democracy and has several implications for its functioning: it serves as an effective tool that prevents incumbents from using their position for their own benefit, and it incentivizes incumbents to pay attention to voters' demands (Gouglas et al., 2018; Matland & Studlar, 2004).

In this paper, I argue that polarization among candidates may condition how democracies work by favoring voters' coordination around the incumbent, thereby reducing turnover. Two mechanisms drive this result: ideological distance and uncertainty. First, for citizens to be able to replace the incumbent, runner-up candidates must be seen as potentially acceptable alternatives. In a polarized scenario where, by definition, candidates tend to be ideologically distant from one another, the increased distance between the incumbent and the runner-up reduces the chance that the incumbent is replaced because the cost of abandoning the incumbent and voting for the runner-up is greater.

Moreover, high levels of polarization may also induce voters to coordinate their votes on incumbent candidates by increasing uncertainty about the consequences that incumbent turnover may have. Since polarization entails greater ideological distance between the incumbent and other candidates, it expands the potential room for policy change and makes it more difficult to anticipate what the alternatives would do if they reached office. This mechanism is expected to be most prevalent when polarization occurs due to the presence of extreme runner-up candidates in the election, since voters may perceive that, if elected, these candidates will implement an unpredictable set of policies that may have undesired consequences for the stability of the system.

These hypotheses are tested by applying a Regression Discontinuity Design (RDD) to data from the French legislative and cantonal elections between 1981 and 2021. The French context is particularly suitable for two main reasons. First, the degree of polarization between incumbents and runner-up candidates in the French legislative and cantonal elections has varied greatly over recent decades. Parties of all sides and ideologies (including candidates from the extreme left and extreme right) have run for election and have been in a position to reach office.

Second, the fact that both legislative and cantonal elections are held under a two-round plurality voting system is particularly convenient because it makes it possible to use the results of the first round to exogenize the degree of polarization in the second round. This empirical strategy enables me to treat polarization as a truly exogenous variable and overcome issues of endogeneity (e.g., polarization may be a function of parties' strategic behavior in an attempt to reach office) and of omitted variables (e.g., more- and less-polarized systems are likely to be systematically different in a number of observable and unobservable characteristics).

The results show that candidate polarization decreases the probability of incumbent turnover by improving incumbents' electoral results. A one standard deviation increase in the ideological distance between the incumbent and the runner-up increases the share of registered voters that vote for the incumbent by 2 percentage points (pp), which decreases the probability of an incumbent turnover by 4.5 pp. This effect is stronger when polarization occurs due to the presence of candidates from extreme parties in the second round. When that is the case, incumbents receive a vote increase of 5 pp among registered voters, which allows them to secure reelection in almost 100% of cases. These results suggest that extreme runner-up candidates are perceived by voters as particularly unappealing and that voters' coordination around incumbents prevents extreme candidates from reaching office.

These findings have important implications for our understanding of the consequences of polarization. First, the results show that voters take advantage of the information provided by the first round to update their behavior in the second round, which benefits the incumbent in contexts of high polarization. Second, the results also underscore the importance of electoral institutions in shaping voters' decisions. In contexts where voters are provided with high-quality information, such as French runoff elections, the chances of potentially disruptive candidates reaching office for are rather limited.

In addition, by inducing voters to coordinate their votes on the incumbent, polarization reduces turnover. A reduction of turnover may enhance policy congruence and stability, allowing incumbents to further develop their agendas and implement the policies for which they had been elected. At the same time, if polarization fosters the vote for incumbent candidates and prevents them from losing office, it may also hamper accountability by increasing the cost of sanctioning the incumbent, as noted by Graham and Svobik (2020). In other words, in polarized contexts, voters may be more prone to trade ideological proximity for bad performance, exonerating ideologically-close incumbents for their wrongdoings and refraining from voting for an alternative (Rundquist et al., 1977). These and other questions are discussed in the Conclusions section.

The remainder of the paper is organized as follows. In the next section, I review the literature with which this paper engages and discuss the main theoretical perspectives and expectations. In the third section, I provide information about the context in which I test my main hypotheses. In the fourth section, I describe the data and the empirical strategy used to test them. In the fifth section, I

present the main results and provide additional tests to better elucidate how voters behave in contexts of high polarization. Finally, in the last section, I discuss the key findings and their implications.

4.2 The argument

Party systems have become increasingly complex in recent decades. A growing variety of political parties and leaders have appeared and divisions among existing parties have grown deeper, contributing to increased levels of polarization (Casal Bértoa & Rama, 2021; Funke et al., 2016; Svulik, 2019). It is not surprising that scholars have turned their attention to this process and have analyzed its consequences on relevant outcomes related to the functioning of democracy. For instance, Graham and Svulik (2020) and Svulik (2019) have shown that polarization undermines voters' ability to hold governments who violate democratic principles accountable. Similarly, polarization may alter the legislative process by hindering cooperation among parties (Barber et al., 2015).

Although polarization may harm some aspects of democracy, other authors have depicted a less pessimistic view of polarization. In fact, some scholars have shown that polarization may increase turnout by raising the stakes of elections and increasing the meaningfulness of the choices (Hetherington, 2008; Hobolt & Hoerner, 2020). Moreover, polarization may help improve consistency between voters' beliefs and behavior by clarifying party cues (Levendusky, 2010), which may, in turn, translate into more policy-oriented votes (Layman et al., 2006).

In this paper, I argue that in scenarios in which an incumbent faces a runner-up candidate, polarization will make citizens more willing to react by rallying around the incumbent, which will decrease turnover rates. Here polarization is understood as the degree of ideological differentiation between the incumbent and the runner-up. According to my argument polarization initially conditions incumbent turnover by raising the stakes of elections. Since citizens perceive that their vote is more likely to make a difference (Hetherington, 2008; Hobolt & Hoerner, 2020), polarization incentivizes them to participate in the election, and it shapes their vote choice through two mechanisms: ideological proximity and uncertainty.

First, polarization entails that candidates are ideologically distant from one another. Under most distributions of voters' preferences (with the exception of those that are skewed to the extremes), po-

larization induces voters to coordinate their votes on the incumbent by increasing the average distance between voters and the runner-up and by making this ideological difference more salient (Green & Hobolt, 2008; Lachat, 2008; Smidt, 2017). Increased ideological distance, and the salience of this distance hampers the conditions in which defecting from the incumbent and voting for the runner-up is more likely. In other words, the expected disutility of an anti-incumbent vote will be higher in contexts of high polarization since voting for an alternative is more likely to deviate from citizens' ideal policy outcome.

In fact, some voters who would not even consider voting for the incumbent may become more amenable to this option as polarization increases. For example, consider a voter who is ideologically placed between the incumbent and the runner-up and who has not decided whether they would vote, and if so, whom they would vote for. In a context of low polarization, even if their vote may decide the election, its potential effects on policy outcomes would be rather limited, since the choices are quite similar. However, voting for the runner-up becomes costlier the further this candidate moves to the fringes, due to the increased ideological distance between them. Consequently, in such a context of high polarization, voting for the incumbent is likely to become the 'lesser evil' option for many citizens, including some voters who may not have even considered voting for the incumbent in less polarized contexts.

Citizens' coordination around the incumbent on the basis of ideological proximity may not only be driven by voters' preferences but also by parties' strategic coordination. The parties and candidates with lower chances of reaching office may try to influence the final results of the election and future policy outcomes by mobilizing their voters for ideologically similar alternatives who have more favourable electoral prospects. Although coordination among parties may be present in contexts of low polarization, I expect it to be of particular relevance in contexts of high polarization, as the potential costs that may derive from an ideologically distant candidate reaching office are significantly larger.

Secondly, polarization may lead voters to coordinate their votes on the incumbent due to citizens' aversion to the uncertain and potentially disruptive consequences that may occur due to the presence of a significantly different candidate holding office. In any political system, incumbent turnover is associated with uncertainty about which policies may be delivered in the future (Baker et al., 2020;

Eckles et al., 2014; Kam & Simas, 2012) and the potential consequences for the system. That is, in races between incumbents and challengers, incumbents are generally better known and thus viewed with more certainty compared to challengers (Eckles et al., 2014; Kam & Simas, 2012). Voters have experience with how the incumbent has behaved when holding that office and have an approximate idea of what they intend to do in subsequent years. In contrast, voters generally have to make an uncertain prospective judgment about how the challenger will behave if elected. Therefore, voting for the runner-up as opposed to the incumbent entails a certain degree of uncertainty that may benefit the incumbent.

This “uncertainty” effect will be arguably larger in polarized contexts, since the potential room for change in policies is, by definition, broader. While citizens may not be aware of what the runner-up will do if elected (Eckles et al., 2014), in a context of low polarization the room for change is, in essence, limited, which reduces the scope of uncertainty about potentially disruptive effects. In contrast, as polarization increases, so does the potential room for change, which increases uncertainty about what to expect from an incumbent turnover. Therefore, I expect that the uncertainty mechanism triggered by increased polarization will facilitate coordination around the incumbent, since it makes it harder for voters to anticipate the changes and consequences that may occur as the result of the runner-up candidate holding office. This mechanism rests on the assumption that the median voter dislikes disruptive changes. As noted by Kam (2012), Kam and Simas (2010), and Oshri et al. (2022), this is a reasonable assumption, since most voters tend to take risk-averse positions and value political stability as a desirable outcome (Wike et al., 2017).

In this puzzle, a specific case of high uncertainty in a context of deep polarization is the emergence of extreme candidates, which I expect to intensify the effect of polarization on incumbent turnover (or lack thereof). As has been shown, when extreme candidates become more successful in electoral terms the degree of ideological polarization across the political spectrum deepens (Bischof & Wagner, 2019). Moreover, these parties increase uncertainty, since they tend to be relatively unknown, have limited parliamentary experience and aim to challenge the status quo (Steenbergen & Siczek, 2017). Under these conditions, polarizing candidates, especially those belonging to an extreme party, are likely to be perceived as potentially unpredictable holders of political office.

In this vein, Lewis-Beck et al. (2012) showed in the French context that the presence of the extreme right candidate Jean-Marie Le Pen from the *Front National* in the second round of the 2002 presidential election boosted turnout. Their main explanation for the unprecedentedly high turnout was that Le Pen extremely polarized the election since many citizens perceived that the integrity of the French democracy was at stake.

Although Lewis-Beck et al. (2012) established this correlation only for extreme right candidates, it seems reasonable to expect that, in the event of an extreme left runner-up candidate reaching the second round, right-wing voters would also mobilize against the candidate, thus favouring the incumbent¹. As Bischof and Wagner (2019) state, when an extreme candidate succeeds in electoral terms, voters of the opposite side of the ideological spectrum react negatively against the perceived threat this candidate may pose to them. It is clear, then, that when a candidate from an extreme party has a chance to gain office, some of the mechanisms triggered by polarization may intensify, such as uncertainty about what to expect from the runner-up and a feeling of the system facing a threat.

To sum up, I hypothesize that polarization, by increasing the disutility of voting for the runner-up and increasing the uncertainty about future policy outcomes and the potential consequences for the system, will make voters more prone to mobilize in favor of the incumbent, thus decreasing the probability of incumbent turnover.

4.3 The case

To test the effect of polarization on incumbent turnover, I focus on the case of France. France is a particularly suitable scenario for this study, for several reasons. First, since the 1980s the degree of polarization between the French parties and candidates that have run for office has varied greatly in different electoral arenas. For example, for the period under study, ParlGov provides measures of the ideological position of more than 40 political parties (see Appendix C.1). These parties vary greatly in ideological terms, ranging from extreme left (e.g., *Ligue Communiste Révolutionnaire*) to extreme right (e.g., *Front National*). However, most important for this paper is the fact that many

¹ In this study French parties' political orientations are attributed according to the classification made by Pons and Tricaud (2018).

of these parties have gained or have been in a position to gain a representative in either the National Assembly or the Departmental Council, generating a rich sample of elections involving parties with highly differentiated ideological positions running for office.

Moreover, polarization in France has been related to the rise and success of parties from the extreme right and the extreme left. A particularly relevant example is the rise of the *Front National* (FN). Since its founding in 1972, this party has been characterized by strong anti-immigration sentiment and the protection of what they define as ‘French identity’ (Davies, 2012). After the defeat of the mainstream right in the 1981 presidential election, the FN has gained steady and considerable support at legislative, regional and local levels (Hainsworth, 2008). For instance, after obtaining 0.3% of valid votes in the 1978 legislative election, the FN obtained a remarkable 15% of the vote in the first round of the 1997 election. Since then the support for the FN has hovered at 11-13% (except for 2007 when it dropped down to 4%). In presidential elections, things have gone even better for the FN. The party has regularly won more than 15% of the vote in the first round and qualified for the second round on three occasions (2002, 2017, and 2022). This feature of the French context is important since it allows me to test whether qualitatively different aspects of polarization may condition incumbent turnover.

The second reason the French institutional setting is particularly useful for this paper is that members of the National Assembly and Departmental Councils are all elected in a two-round system with single-member districts. As I will show in more detail in subsequent sections, this specific characteristic of the French electoral system allows me to apply a Regression Discontinuity Design to the results of the first round so as to exogenize the degree of candidate polarization in the second round.

For legislative elections, France is divided into 577 constituencies, each of which elects a member of the National Assembly for a period of five years. Before 2000, presidential elections took place every seven years, which means that legislative and presidential elections sometimes took place in different years. A constitutional referendum in 2000 changed the calendar, and now presidential elections are held every five years, one month before the legislative elections. The primary functions of the National Assembly are to discuss, amend, and pass the laws proposed by its members or the government. Additionally, the National Assembly may force the resignation of the Prime Minister by a motion of no confidence (Auberger & Dubois, 2005). Contrary to expectations, the passage from

the Fourth to the Fifth Republic and the transition from a proportional representation system to a majority system with single-member districts did not foster a personal vote. Indeed, studies on the topic show quite the opposite: within-party cohesion and discipline have dramatically increased in recent decades (Godbout & Foucault, 2013; Sauger, 2009) as a consequence of the reinforcement of the left-right cleavage and the government vs. opposition dynamic of competition (Sauger, 2009).

Between the municipal and national levels of governance France has two additional administrative divisions: departments and regions. Of these, the most deeply embedded in French territory are the departments, which are administered by departmental councils (Shields, 2016), and the members of which are elected in cantonal elections. Departments have been traditionally defined as local extensions of the central government, in which prefects appointed by Paris represent the national government in the local prefecture. While prefects oversee the provision of state services in the departments such as the police and *gendarmerie*, the elected departmental councils have authority over a wide range of areas, including social assistance, education, housing, culture and transportation among others.

Before 2013, cantonal elections took place every three years, wherein each department only elected half of their members, who served for a period of six years. However, in 2013 the electoral law that set out the basic elements of cantonal elections was reformed. Applying for the first time in the 2015 cantonal elections, the reform drastically reduced the number of cantons (from 4,035 to 2,054) and introduced some changes in the representation of cantons in the departmental councils. Since then, all cantons hold elections every six years, and each canton elects a single ticket composed of a woman and a man. Therefore, although the number of cantons was significantly decreased by the reform, the total number of seats to be assigned in the elections remained almost unaltered. This system was introduced to improve gender equality in the composition of departmental councils. Although the dynamics of competition in cantonal elections are strongly shaped by local forces and a non-negligible number of candidates are non-partisan, these elections have become increasingly influenced by the same partisan dynamics as legislative and national elections (Bol & Ivandic, 2022; Gougou & Labouret, 2011).

Since 1978, legislative and cantonal elections have both been held under a two-round plurality voting system (with the exception of the 1986 legislative election, which used a proportional system). To be able to win in the first round, candidates must obtain at least 50% of the candidate votes and

25% of votes among registered citizens². If no candidate reaches these thresholds a second round takes place one week later. The two candidates that win the most votes automatically qualify for the second round, independent of their exact vote shares. Other candidates who have won a share of votes higher than the qualifying threshold also qualify for the second round. For legislative elections, the qualifying threshold is 12,5% of registered citizens; for cantonal elections the qualifying threshold was 10% of registered citizens until 2011, when it was increased to 12,5% (except for the cantons belonging to the Mayotte department, for which the threshold remained unchanged). The candidates who qualify for the second round may decide to drop out of the race between the two rounds. In the second round, the candidate that receives a simple majority of votes is elected.

4.4 Research design

To analyze whether candidate polarization conditions the electoral fortunes of incumbent candidates, I rely on a close-races RDD in which I will essentially compare elections wherein the second candidate barely qualifies for the second round and increases the level of polarization with cases in which the second candidate barely qualifies for the second round and decreases the level of polarization. The identification assumption is that elections in which the presence of the runner-up in the second round barely increases or decreases the level of polarization are in practice very similar, except for the level of polarization. Therefore observable differences in the support for incumbent candidates can be attributed to the differences in the level of polarization.

This identification strategy is important because it allows me to avoid potential issues related to unobserved differences between units, endogeneity or reverse causality. For instance, studies on polarization often involve a concern that the level of polarization may be endogenous to the electoral cycle. That is, if candidates perceive that polarization may bring them electoral gains, they may adopt specific strategies of differentiation to intentionally raise the level of polarization (Arbatli & Rosenberg, 2021). In such conditions, the estimation would be biased since polarization would be the consequence rather than the cause of the expected incumbent electoral results.

² The term ‘candidate votes’ refers to the number of citizens that vote for a candidate as opposed to voting blank or null.

Moreover, simple comparisons between more and less polarized elections using over-time observational data may also result in biased estimations, since elections may be systematically different, not only in the degree of polarization but also in many other characteristics. For one thing, when elites become increasingly polarized, they can change the frame of the issues or shift their attention to new social concerns (Levendusky, 2010). For another thing, differences in the aggregate level of polarization may be also a function of the characteristics of the elements of a political system such as the parties' capacity to compromise, the intensity of the social divisions within a society or the degree of socioeconomic inequalities (Garand, 2010; McCarty et al., 2016). In these cases, isolating the effect of polarization from any potential confounder becomes particularly difficult, and the results are only credible as long as all relevant variables that may account for confounding effects are included in the analyses.

In sum, by applying an RDD to close races in French cantonal and legislative elections in which the level of polarization in the second round is determined as good as *random*, we can be confident that the only difference between treated and control units is the degree of polarization and that a certain degree of polarization is not conditioned by candidates' strategic campaigns. Moreover, by focusing on two-candidate electoral contests in a single country, we can be confident that the polarization levels are comparable and easy to interpret.

4.4.1 Data

I use data from legislative and cantonal elections in France, between 1981 and 2021. The analyses are restricted to cases in which the current incumbent ranks first in the first round and only two candidates qualify for and compete in the second round. There are good reasons for establishing these criteria. First, these restrictions allow me to ensure that when I compute the forcing variable, I am identifying whether the presence of a runner-up candidate polarizes an election in which an incumbent seeks reelection, as opposed to what would have happened if the incumbent had qualified for the second round but the level of polarization had been different due to the presence of other candidates in the second round instead of the runner-up candidate. Additionally, including races in which the incumbent ranks second would be inaccurate, since I would be comparing cases in which a certain level of polarization is determined by the presence or absence of incumbent candidates.

Moreover, although the two candidates with the most votes in the first round automatically qualify for the second round, they may decide to drop out between rounds. In my dataset, this applies to 171 districts, or 3.2% of the sample. In these conditions, one has to decide whether to remove these cases or keep them in the dataset. Since the decision to drop out is unlikely to be random, removing the cases in which a candidate decides to quit may bias the results, as noted by Pons and Tricaud (2018) and Bol and Ivandic (2022). In fact, in 99% of cases dropouts occur when the incumbent and the runner-up candidate belong to the same ideological space.

Although there are good reasons to include these cases in the analysis, for the purpose of this paper keeping them in the dataset may bias the results and raise additional questions. First, keeping the dropouts in the dataset means that in the analysis I will consider second rounds with only a single candidate (the incumbent). Naturally, this may bias the results by artificially boosting incumbents' vote share and dropping turnover rates for other reasons rather than the degree of polarization: every single incumbent who does not face a runner-up will automatically be reelected with the 100% of the valid votes, regardless of the number of voters. And most importantly, analyzing polarization in situations in which only one candidate competes in the second round election runs counter to the main logic of the concept of polarization. Although several studies present different measures of polarization (see Schmitt (2016) for an excellent review of the different conceptualizations of polarization) all agree that polarization entails differentiation among actors within a system. A condition that can hardly be met in districts in which only one candidate participates in the second round. For these reasons, I exclude from the analysis districts in which a candidate decides to drop out before the second round. Still, as a robustness check, in Tables C.17 and C.18 in the Appendix I replicate the main analyses while including these cases and I find that the results do not deviate from those in the main text.

The dataset includes a total of 5,305 observations (see Table 4.1): 1,600 from legislative elections and 3,705 from cantonal elections³. The data for all legislative elections between 1981 and 2012 was obtained from Pons and Tricaud (2018), while data from the 2017 legislative election and data from the cantonal elections were obtained directly from the French Ministry of the Interior.

³ As mentioned above, in 1986 the legislative election was held under proportional rule; consequently, it has been excluded from the dataset. The 2015 cantonal election has also been excluded, since the drop in the number of cantons and the changes in district boundaries makes it impossible to determine who are the incumbents seeking reelection.

TABLE 4.1 Observations per type of election and year

Type of election	Year	Obs	Type of election	Year	Obs
Legislative	1981	122	Cantonal	1992	14
	1993	202		1994	571
	1997	291		1998	454
	2002	274		2001	437
	2007	353		2004	509
	2012	296		2008	285
	2017	63		2011	976
			2021	458	
	Total	1,600		Total	3,705

Table 4.2 presents some descriptive statistics of the sample. It includes statistics for turnout, number of candidates running for election, vote for incumbent candidates (i.e., the holder of the seat when the election took place) for both the first and second rounds and the rate of incumbent turnover. As it shows, on average, 57% of registered citizens cast a vote in the first round of elections, although this varied greatly between electoral districts – as becomes clear when looking at the standard deviation and the lowest and highest values. In the second round, the percentage of citizens that turned out to vote was slightly lower than in the first round (56%).

TABLE 4.2 Summary statistics

	Mean	Sd	Min	Max	Obs
<i>1st Round</i>					
Turnout	0.567	0.123	0.167	0.877	5,305
Number of candidates	7.502	3.657	3	29	5,305
Incumbent vote	0.411	0.072	0.148	0.743	5,305
Incumbent registered vote	0.224	0.064	0.031	0.437	5,305
Runner-up vote	0.265	0.066	0.107	0.483	5,305
Runner-up registered vote	0.147	0.057	0.025	0.409	5,305
<i>2nd Round</i>					
Turnout	0.558	0.128	0.181	0.891	5,305
Number of candidates	2	0	2	2	5,305
Incumbent vote	0.584	0.074	0.306	1	5,305
Incumbent registered vote	0.303	0.068	0.081	0.527	5,305
Runner-up vote	0.416	0.074	0.001	0.694	5,305
Runner-up registered vote	0.222	0.075	0	0.461	5,305
Incumbent turnover	0.123	0.328	0	1	5,305

As one would expect, there was a sharp decrease in the number of candidates between rounds due to the electoral system and the restrictions imposed by the definition of the forcing variable. In

my sample, only two candidates competed in the second rounds while an average of 7.5 candidates competed in the first rounds. In terms of the electoral fortunes of incumbent candidates, we see that on average they gained about 17 pp of support between rounds, increasing their vote share from 41% to 58%. This rise in support meant they lost their seats in only 12% of cases⁴. In the table, it is also worth noting that, despite the small decrease in the number of citizens casting a vote between rounds, incumbent candidates received more support in the second round in terms of registered voters. Finally, I am also interested in runner-up candidates' shares of votes, as they were the candidates that incumbents faced in the second round. Looking at the table, we see that while these candidates received an average of 27% of candidate votes in the first round, their support climbed to 42% in the second round (8 pp in terms of registered voters). Although this represents a substantial increase, it is still slightly smaller than the increase for incumbent candidates.

4.4.2 Definition of the forcing variables

The French electoral context enables me to exogenize the degree of polarization in a way that can hardly be achieved in other contexts, since I can use the results of the first round to exogenize the degree of polarization in the second round. Although the aggregate nature of the data does not allow me to test the micromechanisms driving citizens' behavior, it does allow me to compute two forcing variables that best capture the two elements posited in the theoretical section: proximity and uncertainty.

As we will see below, the first forcing variable is computed to exogenize the degree of ideological distance between the incumbent and the runner-up, which best captures the 'proximity' mechanism. If polarization decreases incumbent turnover, as I argue, we should see that the larger the ideological distance between the incumbent and the runner-up, the higher the support for the incumbent. Moreover, even if most measures of polarization take into account candidates' ideological positions on the left-right axis (e.g., Duclos et al. (2004), Dalton (2008) and Ezrow (2008)), in recent years some scholars have pointed out that the rise and success of far-right candidates has brought about an increase in polarization due to the extreme nature of the ideology these candidates represent in demo-

⁴ Although the turnover rate seems quite low remember that I only consider in this paper those incumbents who ranked first in the first round.

cratic systems (Schmitt, 2016). In France, the presence of this candidates was perceived as potentially threatening to the system (Lewis-Beck et al., 2012). Consequently, I compute an additional forcing variable to exogenize the presence/absence of extreme candidates in the second round, which relates better to the ‘uncertainty’ mechanism.

POLARIZATION AS THE DEGREE OF IDEOLOGICAL DIVERGENCE BETWEEN CANDIDATES

In the first forcing variable, I use the results of the first round to exogenize the degree of ideological distance between the incumbent and the runner-up in the second round. Since runner-up and third candidates always belong to different parties that are located at varying positions on the left-right axis, the presence of runner-up candidates instead of candidates who ranked third in the first round determines the ideological distance between incumbents and runner-up candidates.

To establish candidates’ ideological stances on the left-right ideological scale and to measure the relative ideological distances between candidates, I use data from ParlGov (Döring & Manow, 2020), which provides measures of party positions on the left-right axis for most French parties (see Appendix C.1 for more detail). I then identify whether the presence of runner-up candidates in the second round polarizes the electoral contest as follows: if the absolute ideological distance between the ideological positions of the incumbent and the runner-up is greater than the absolute distance between the ideological positions of the incumbent and the third candidate, then the ‘polarizator’ candidate is the runner-up. In contrast, if the absolute ideological distance between the incumbent and the third candidate is greater than the absolute distance between the incumbent and the runner-up, then I label the candidate who ranked third as the polarizator.

Once I identify whether the presence of the runner-up candidate polarizes the second round, I apply the logic of ‘close race elections’ and define the forcing variable X_i as the difference between the vote share of the runner-up in the first round and the vote share of the candidate that ranks third in that round. Specifically, if the polarizator candidate is the runner-up, the forcing variable is equal to their vote share minus the vote share of the candidate that ranked third. In contrast, if the polarizator candidate ranked third in the first round, the forcing variable is equal to their vote share minus the vote share of the runner-up candidate:

$$X_i = \begin{cases} V_{\text{polarizator}} - V_{\text{3rd candidate}} & \text{if polarizator is the runner-up} \\ V_{\text{polarizator}} - V_{\text{runner-up}} & \text{if polarizator ranked 3rd} \end{cases}$$

Note that as opposed to previous studies taking advantage of runoff elections in France – (see Bol and Ivandic (2022) and Pons and Tricaud (2018)) – in this paper I use a relative threshold as the discontinuity that determines the treatment status of the units. This design, in which a relative share of votes is the threshold that determines the treatment status of the units has already been applied by Fujiwara and Sanz (2020) and Huidobro and Falcó-Gimeno (2021). Given that in France the two candidates with the most votes automatically qualify for the second round, the vote share of the runner-up candidate represents the threshold that the third candidate would need to reach to qualify for the second round. For the runner-up candidate, the difference in vote share with the third candidate represents the votes the former would need to lose to not qualify for the second round. Therefore, treated constituencies are those where the polarizing candidate barely ranked second in the first round and consequently, qualified for the second round, while control constituencies are those in which the polarizing candidate ranked third and narrowly missed qualification for the second round.

In standard ‘sharp’ RDDs, the discontinuity perfectly determines whether a given unit is treated or not. However, in this case the discontinuity does not deterministically define the treatment status, but rather changes the intensity of the treatment, that is, the degree of polarization between the incumbent and the runner-up candidate. Following Angrist and Pischke (2014), who state that ‘fuzzy’ designs are preferable when discontinuities in the forcing variable change treatment average characteristics, I estimate a ‘fuzzy’ RDD, in which the discontinuity around the threshold becomes an instrument for the ideological distance between the incumbent and the runner-up (i.e., the degree of polarization). In the first stage, the treatment $Distance_i$ is instrumented with $Polarizator_i$ as follows:

$$Distance_i = \alpha_0 + \gamma Polarizator_i + \delta_1 X_i + \delta_2 X_i Polarizator_i + \varepsilon_i \quad (4.1)$$

where $Polarizator_i$ is a dummy variable that equals 1 if the polarizator candidate qualifies for the second round ($X_i > 0$), and equals 0 otherwise, X_i is the forcing variable, and ε_i is an error term. The results of the first stage 2SLS are depicted in Figure 4.1. The formal estimates are provided in Ap-

pendix C.2. As can be seen, the presence of polarizing candidates in the second round increases the ideological distance between the incumbent and the runner-up by 2.55 points compared to situations in which the polarizator candidate ranks third in the first round and does not qualify for the second round. This is a sizable effect, since it represents 1.76 standard deviations of the dependent variable (i.e., polarization, measured in terms of ideological distance). The effect is statistically significant at the 0.1% level.

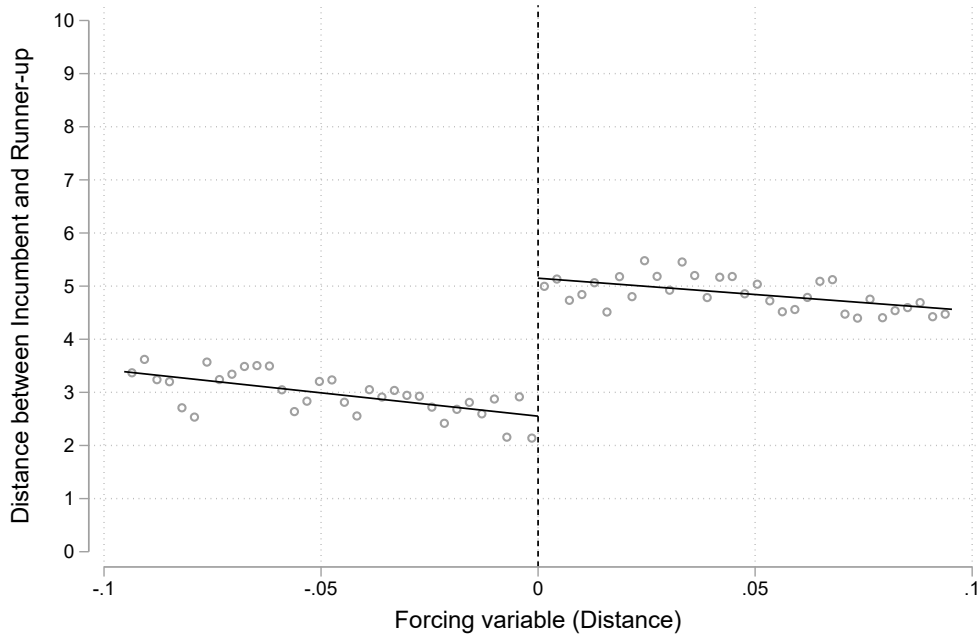


FIGURE 4.1 First Stage

Note: Continuous lines are estimated using a linear fit. Bandwidths are derived under the MSERD procedure and weights are determined using a triangular kernel function. The dependent variable is measured on a left-right 10-point scale.

In the second stage, I analyze the effect of ideological distance on the outcomes of interest with the following specification:

$$Y_i = \alpha_1 + \tau \widehat{Distance}_i + \beta_1 X_i + \beta_2 X_i Polarizator_i + \mu_i \tag{4.2}$$

in which Y_i is the outcome of interest, τ is the effect of ideological distance and $\widehat{Distance}_i$ is the first-stage fitted value produced by estimating equation (4.1). This equation uses a non-parametric approach, which involves choosing a small neighborhood, or *bandwidth*, to the left and the right of the cutoff and fitting a linear regression to each side of the cutoff (Calonico et al., 2014; Imbens

& Lemieux, 2008). The main analyses are computed using the Stata package *rdrobust* developed by Calonico et al. (2014). The optimal bandwidths are determined using the MSERD method developed by Calonico et al. (2019) and the standard errors are clustered at the district level. In the Appendix I also test the robustness of the main results using alternative bandwidths and kernel functions.

POLARIZATION AS THE PRESENCE OF EXTREME RUNNER-UP CANDIDATES

As I stated before, polarization may also condition turnover by increasing the feeling of threat to the system and the degree of uncertainty about what to expect in the near future. Taking this line of reasoning, I use the results of the first round to compute an alternative forcing variable that enables me exogenizing the presence/absence of extreme candidates in the second round. Thus, I measure polarization in terms of the presence/absence of extreme candidates in the second round, which is expected to condition turnover by increasing the degree of uncertainty about what to expect from turnover.

In this case, treated constituencies are those where the most voted extreme candidate barely ranked second in the first round and, consequently, qualified for the second round while control constituencies are those in which the most voted extreme candidate narrowly ranked third or lower, and thus did not qualify for the second round. As in the previous case, if the extreme candidate ranks second, the forcing variable is equal to their vote share minus the vote share of the third candidate. If the extreme candidate ranks third or lower, the forcing variable is equal to their vote share minus the vote share of the runner-up candidate. In sum, the forcing variable X_i is now computed as follows:

$$X_i = \begin{cases} V_{\text{extreme}} - V_{\text{3rd candidate}} & \text{if extreme ranked 2nd} \\ V_{\text{extreme}} - V_{\text{runner-up}} & \text{if extreme ranked 3rd or lower} \end{cases}$$

While in the previous case the nature of the treatment variable required the application of a ‘fuzzy’ RDD, the dichotomous nature of the current treatment and the exclusion of dropouts ensures that districts above the threshold always get treated and districts below the threshold never get treated ($Extreme_i = 1$ if $X_i > 0$ and $Extreme_i = 0$ if $X_i < 0$). Therefore, for the extreme candidate measure

of polarization, I apply a ‘sharp’ RDD, in which I estimate the effect of the presence of an extreme candidate in the second round on the vote for the incumbent and on turnover following this specification:

$$Y_i = \alpha_1 + \tau \text{Extreme}_i + \beta_1 X_i + \beta_2 \text{Extreme}_i X_i + \varepsilon_i \quad (4.3)$$

in which Y_i is the outcome of interest, Extreme_i is a dummy variable that equals 1 if the extreme candidate with the most votes qualified for the second round ($X_i > 0$), and equals 0 otherwise, and ε_i is an error term. As in the previous specification, in the main analyses the bandwidths are estimated using the MSERD procedure developed by (Calonico et al., 2019) and the standard errors are clustered at the district level.

4.4.3 Validity and assumptions

To be valid, both ‘sharp’ and ‘fuzzy’ RDDs require that potential outcomes and other predictors of the outcome move continuously around the cutoff and that the only ‘jump’ occurring at the threshold is the shift in the treatment status of the units (Valentim et al., 2021). Therefore, a potential threat to the validity of this design could be the sorting of candidates across the threshold. It seems unlikely that this would be the case because it would require a given candidate to be extremely accurate in predicting the outcome of the first round and then to allocate all their resources to those constituencies in which the candidate predicted they would narrowly fail to qualify for the second round. In contexts of abundant information sorting of candidates would already be hard to achieve, but in a context of scarcity of information, in which local surveys are rare, it seems extremely implausible (Granzier et al., 2021; Pons & Tricaud, 2018). Nonetheless, as it is customary in RDDs, in order to test whether any sorting of candidates may occur around the threshold that could compromise the forcing variable, in Figure 4.2 I plot the results of the McCrary density test (McCrary, 2008) for the two forcing variables. As the figure shows, there seems to be a small jump around the threshold in the left panel, although it is not statistically significant. These results confirm the implausibility of candidate sorting.

A second assumption underlying these designs is that cases just below a pre-determined threshold are similar to those just above the threshold. In this case, this assumption would mean that the

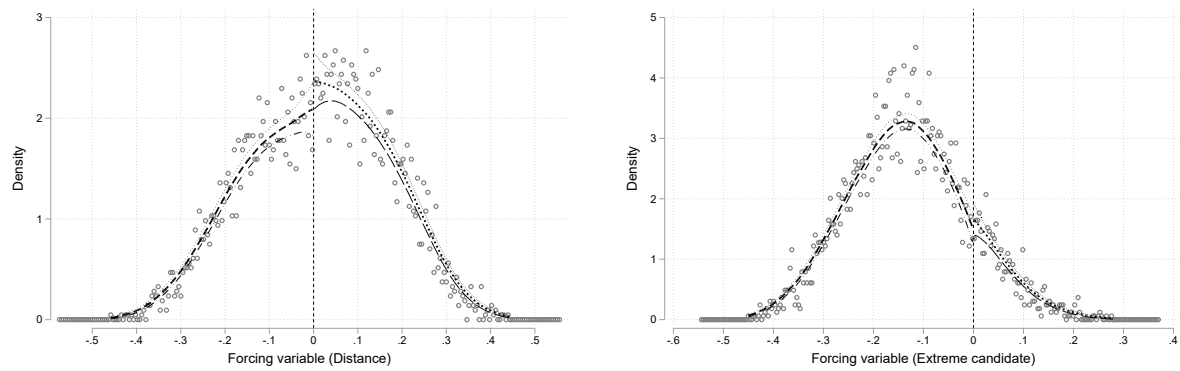


FIGURE 4.2 Density plot of the forcing variables

Note: The thick dashed lines represent the density of the forcing variable. Confidence intervals are represented by thin lines. For the forcing variable computed using ideological distances, the log difference in height and the standard error are 0.121 and 0.091 respectively. When polarization is measured as the presence of extreme candidates, the log difference in height is 0.106 and the standard error is 0.117.

treatment assignment does not correlate with elections’ and districts’ characteristics. To further examine the suitability of the two forcing variables, I perform a series of covariate balance tests to analyze whether treated and control units near the cutoff are similar in a set of first round variables: number of registered voters, turnout, number of candidates that run for office and the share of registered voters that vote for the incumbent. I also include the lagged dependent variable, that is, the share of registered voters that voted for the incumbent in the second round of the previous election, to see whether current levels of polarization might be a function of previous electoral results. Table C.2 in the Appendix presents the main results, which are depicted in Figures C.1 and C.2. As can be seen, the analyzed variables show no significant discontinuities at the threshold, which confirms that treated and controls units around the threshold are statistically indistinguishable.

4.5 Results

Table 4.3 presents the main results of the effect of polarization on two outcomes that are closely related to the functioning of democracy: the vote for the incumbent and turnover. The vote for the incumbent is measured as the proportion of registered voters that votes for them, and consequently it takes values between 0 and 1. Although measurement of the support for the incumbent as the proportion of candidate votes (instead of using the number of registered voters as the denominator) could also be interesting, the latter is preferable for the purpose of the current analyses, since it al-

lows us to see whether polarization brings about actual pro-incumbent mobilization, independent of the number of voters who decide to turn out⁵. *Turnover* is a dummy variable for which 1 indicates that the incumbent loses the second round (and is, consequently, replaced) and 0 indicates that the incumbent is reelected. Since the dynamics of competition at legislative and cantonal levels are mostly shaped by parties' strategies, and given that measures of ideology and political orientation of candidates are only available at the party level, incumbent results (i.e., support in the second round and turnover) are measured at the party level. As a robustness check, in Appendices C.20 and C.21 I replicate the main analyses while defining as *incumbent* the individual who holds a departmental or legislative seat. The results are very similar to those presented in Table 4.3.

TABLE 4.3 Main results.

	Incumbent _{R2}	Incumbent _{R2}	Turnover	Turnover
RDD Estimate	0.011*** (0.003)	0.048*** (0.009)	-0.025* (0.010)	-0.073*** (0.018)
Measure	Distance	Extreme cand.	Distance	Extreme cand.
Observations	4,591	4,908	4,591	4,908
Eff. observations	1,818	1,280	1,938	1,891
Polyn. order	1	1	1	1
Bandwidth	0.093	0.074	0.099	0.108
Mean, left of the cutoff	0.286	0.280	0.095	0.076

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. Weights are determined by a triangular kernel function. *, ** and *** indicate significance at 5, 1 and 0.1% respectively. The degree of ideological distance is instrumented by the assignment variable, that is, the distance between the vote share of the polarizator candidate and the relative qualifying threshold.

According to my expectations, increasing the degree of polarization should foster coordination around the incumbent and, consequently, decrease turnover. In Table 4.3 we can see that, on average, as the ideological distance between the incumbent and the runner-up increases the share of registered voters who vote for the incumbent in the second round grows. Specifically, a one standard deviation increase in the ideological distance between the incumbent and the runner-up raises the vote for the former by 2 pp. At the same time, such an increase in distance is associated with a decrease in the turnover rate of 4.5 pp.

⁵ In Appendix C.5 I replicate the analyses computing the support for the incumbent using candidate votes as the denominator. As one may expect, the magnitude of the positive shift in support for incumbents is larger than when results are computed in terms of registered voters.

When polarization occurs due to the presence of an extreme candidate in the second round, its effect on the two outcomes under consideration is remarkably larger. In fact, when an extreme candidate qualifies for the second round, incumbents see their share of registered votes increase by 4.9 pp. Not only does the presence of extreme candidates benefit incumbents in terms of votes, but it also dramatically decreases their turnover rates: almost every single incumbent who faces an extreme candidate in the second round gets reelected. All these effects are statistically significant and are depicted in Figure 4.3. Looking at this figure, we observe a significant jump around the threshold for each of two outcomes when polarization occurs due to the presence of an extreme runner-up candidate in the second round. When polarization is measured in terms of ideological distance, a significant jump at the cutoff is also found for both outcomes, albeit at a lower degree.

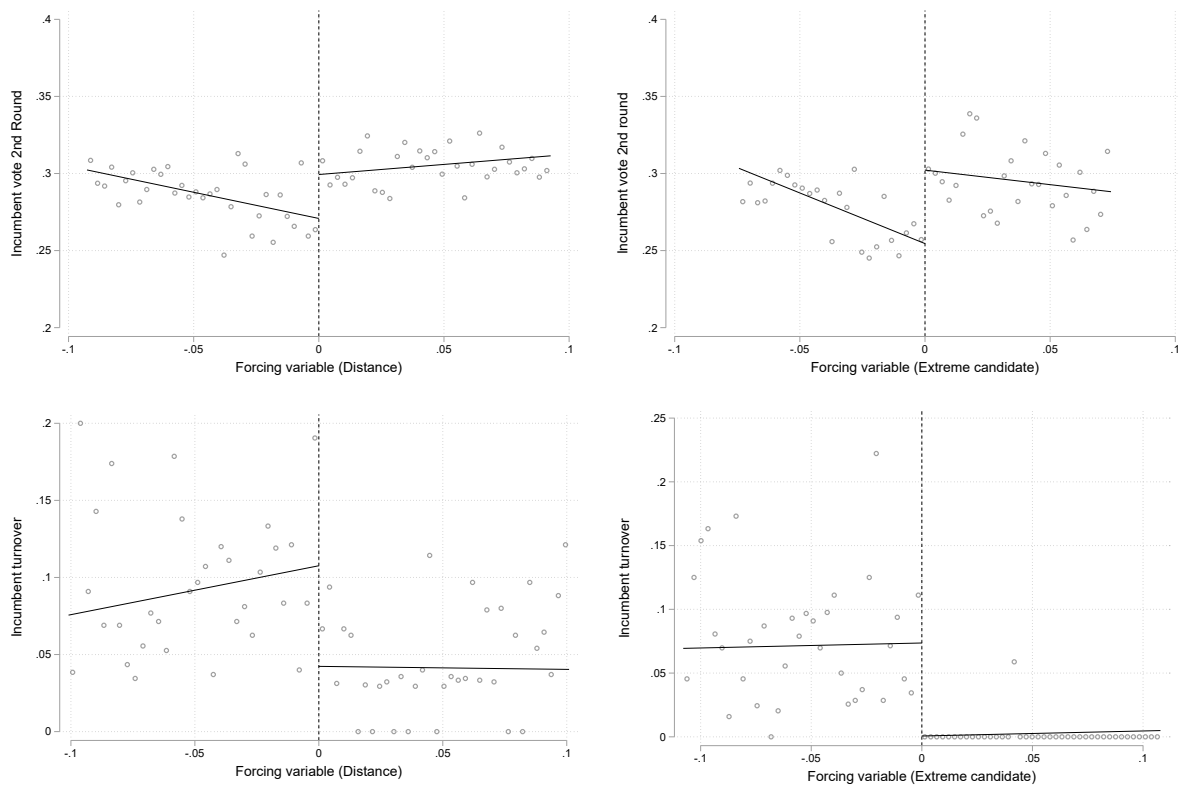


FIGURE 4.3 Main results

Note: Continuous lines are estimated using a linear fit. Bandwidths are derived under the MSERD procedure and weights are determined by a triangular kernel function.

According to these results, it seems clear that facing a polarizing runner-up candidate in the second round induces voters to coordinate their votes on the incumbent, which sharply decreases turnover. This pro-incumbent mobilization brought about by polarization affects the functioning

of political systems, since it fosters incumbent reelection and prevents polarizing candidates from reaching office.

Moreover, the main results depicted in Figure 4.3 suggest that larger spans of ideological distance account for these results, but only to some extent. The fact that the presence of extreme candidates exerts a stronger effect on support for the incumbent is indicative. Even if the presence of such candidates has a more limited effect on the degree of ideological divergence between the candidates that qualify for the second round, it boosts incumbents' electoral prospects. In fact, the presence of extreme candidates in the second round only increases the ideological distance between the incumbent and the runner-up in 0.76 points, which represents approximately one-third of the effect brought about by the other specification of the forcing variable (see Appendices C.2 and C.6).

It seems obvious that when extreme candidates are the ones who polarize an election other mechanisms are activated. While incumbents may not always be positively evaluated by citizens, they represent continuity, and provide clear cues about what to expect should they hold on to office. In contrast, extreme runner-up candidates, due to the extreme nature of their platforms, are more likely to be perceived as a threat to the normal functioning of the system, increasing the uncertainty about what to expect from their presence in office.

4.5.1 Channels

Thus far, the results have shown that candidate polarization decreases turnover by increasing the support for incumbent candidates. While the negative effect of polarization on incumbent turnover is driven by a rise in popular support for incumbents, it seems obvious that in a two-candidate competition these results could be compatible with alternative explanations. For instance, even if incumbents are more likely to be reelected in polarized scenarios, polarization may also foster the vote for runner-up candidates to a lesser degree, which would run counter to the main argument of this paper.

Even though the particular setting in which the main hypotheses are tested enables me to exogenize the level of polarization, it is not well-suited to testing individual patterns of behavior. Nevertheless, in this section I run additional analyses to better understand how different groups of voters behave in contexts of varying levels of polarization. The results are depicted in Figure 4.4. According to this figure, when polarization is measured in terms of ideological distance, it does not exert any

effect on the vote for the runner-up. In contrast, when polarization comes from the presence of an extreme runner-up candidate in the second round, we see that the good results obtained by the incumbent are associated with a significant loss in support for the extreme candidate. If we compare the share of registered voters that vote for extreme runner-up candidates with those who vote for non-extreme runner-up candidates, we can see that the former are far less successful: they receive 4.6 pp less on average than the latter⁶. Therefore, there seems to be a non-negligible number of voters who defect from the runner-up candidate when they belong to an extreme party.

These results, along with the fact that polarization does not seem to condition turnout are indicative in different ways. First, if increased ideological distance favors voting for the incumbent without decreasing the support for the runner-up or increasing turnout, it seems reasonable to expect that changes in the share of null and blank votes might be driving the results⁷. Indeed, a one standard deviation increase in the degree of polarization decreases the share of registered blank and null votes by 0.6 pp and increases the share of votes directed to candidates by 1.4 pp (see Table C.7 in the Appendix for the formal estimates). Therefore, as polarization increases a non-negligible number of voters are forced to choose side and cast a candidate vote, typically, an incumbent vote.

In contrast, when polarization comes from the presence of candidates from extreme parties, the results show that the good results obtained by the incumbent and the drop in support for the runner-up candidate are followed by neither an increase in turnout nor an increase in the share of candidate votes. Moreover, the number of blank or null votes significantly increases when an extreme candidate qualifies for the second round. As shown in the figure, when such candidates qualify for the second round, the share of registered blank and null votes increases by 1.3 pp. Contrary to the expectations of the “high stakes” theory, these results demonstrate that in these contexts, those voters who consider neither the incumbent nor the runner-up acceptable choices prefer to show their dissatisfaction by casting a blank or null vote. In sum, the increased support for the incumbent candidate, together with the increase in blank/null votes and the poor performance of the extreme runner-up candidate show that voters coordinate around the incumbent and reject extreme candidates. Among those voters

⁶ Formal estimates can be found in Appendix C.7

⁷ In legislative and cantonal elections it is not possible to distinguish between blank and null votes since they are counted together.

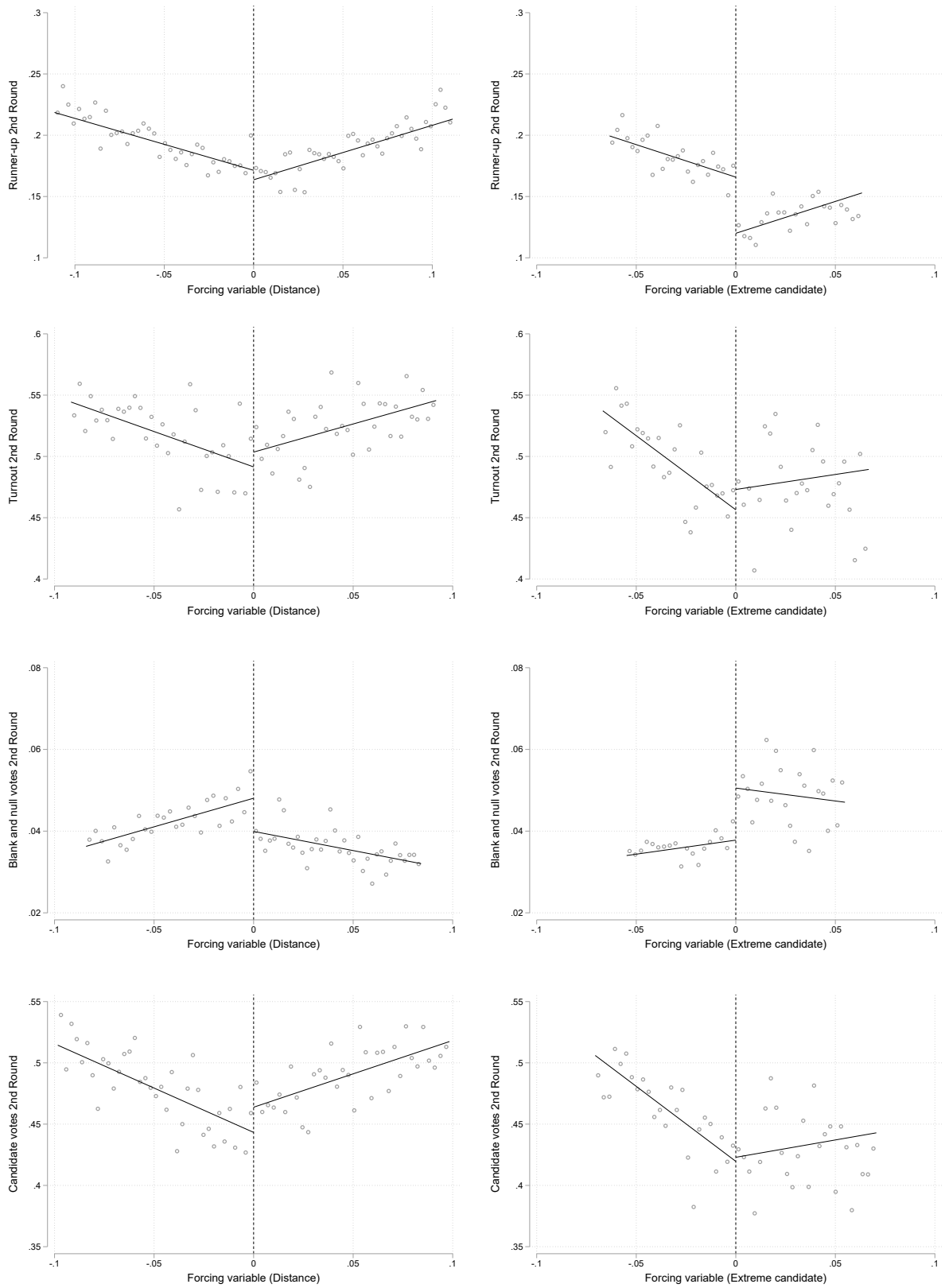


FIGURE 4.4 Channels
Notes as in Figure 4.3

who dislike the incumbent, the results suggest that some prefer to cast a blank or null vote rather than abstaining or voting for the runner-up when the latter comes from an extreme party.

Finally, if polarization conditions the vote for the incumbent through ideological proximity as theorized, I would expect polarization to particularly mobilize around the incumbent those citizens who voted in the first round of the election for a party that comes from the same ideological space as the incumbent. As shown in Appendices C.5 and C.6, in districts in which parties of the ideological bloc represented by the incumbent do relatively well in the first round, the positive effect of polarization on the vote for the incumbent is significantly larger. In those districts in which such parties perform best, a one standard deviation increase in ideological distance between the incumbent and the runner-up increases the vote for the incumbent (+3 pp) and decreases the probability of turnover by 9 pp. When the incumbent faces an extreme candidate in the second round, the magnitudes of the effect increases to 6.3 and -12.2 pp, respectively. These results provide some evidence that the growth in support for the incumbent that is driven by growing polarization may come from supporters of ideologically similar parties. This highlights the importance of ideological proximity as one of the main mechanisms through which polarization conditions the electoral results of incumbents and, consequently, turnover.

4.5.2 Robustness

To probe the robustness of these results to different specifications, I run several additional analyses in the Appendix section. In Appendix C.8 I replicate the main analyses using different weights and alternative bandwidths. As shown in Tables C.11 and C.12 the magnitudes of the results obtained using uniform and Epanechnikov kernels are quite similar to those in the main text and remain statistically significant at the 0.1% level. The only substantive change can be seen in the turnover rate of incumbent candidates when polarization is measured in terms of ideological distance and the weights are not determined by a triangular kernel. In these cases the effect of polarization becomes significant at the 1% level. These results suggest that polarization may have a greater effect in districts far from the cutoff, that is, districts in which polarizing candidates easily qualify for the second round.

This is precisely what it is shown in Figures C.7 and C.8, which display the tests of the sensitivity of the main results to different bandwidths. Specifically, if we look at the left panel of Figure C.8

we can see that when districts further from the cutoff are included in the analysis by increasing the bandwidth, the effect of polarization on incumbent turnover becomes statistically significant. For the other estimates, the tests using alternative bandwidths return expected results. While confidence intervals decrease as the bandwidth increases due to the larger sample size, the magnitude of the estimates are not significantly different from those in the main text.

In Tables C.13, C.14, C.15, and C.16, I run several placebo tests using artificial cutoffs to see whether there may be jumps in the outcome variables at points other than the true cutoff. Following the recommendations by Cattaneo et al. (2019), in order to avoid contamination between treated and control units I restrict the analysis to control units for artificial cutoffs below the threshold. For cutoffs above the threshold I include only treated observations. As can be seen in the tables, the alternative estimates do not reach conventional levels of statistical significance.

Moreover, in earlier sections of this paper I discussed the convenience of excluding the districts in which a candidate decides to drop out between the first and second rounds. As a robustness test, in Tables C.17 and C.18 I replicate the main tests including these districts. As can be seen, including these cases does not substantively modify the main results when they are measured in terms of registered voters. By contrast, when support for the incumbent is measured using the share of candidate votes as the denominator, we see that the estimates are smaller (Extreme candidate model) or lose statistical significance (Distance). This fact can be explained by the presence, left of the cutoff, of about 170 incumbents who do not face any competitor in the second round, which ensures their reelection with 100% of valid votes. With regard to the effect of polarization on turnover, the inclusion of dropouts decreases the significance of the estimate when polarization is measured in terms of ideological distance. A fact that can be explained by the larger bandwidth derived under the MSERD procedure when these cases are included and by the presence to the left of the cutoff of some incumbents who get reelected due to the dropout of runner-up candidates.

Finally, following Bol and Ivandic (2022), in Table C.22 in the Appendix I test whether the results hold when the sample is split by type of election. It could be argued that the mechanisms proposed in the study may not apply to legislative and cantonal elections with the same intensity since these elections may follow very different dynamics of competition. If that is the case, we should observe a more limited effect of polarization in cantonal elections given that these elections may provide more

room for the emergence of a personal vote. As can be seen, most of the results remain similar to those in Table 4.3 in terms of magnitude, although in some cases they lose statistical significance. Moreover, the results are relatively stronger in cantonal elections, which supports the idea that ideological proximity and uncertainty drive the results, even at a local level.

In summary, the series of robustness tests shown in the Appendix support the main findings of this paper and demonstrate that the results do not depend on the selection of specific bandwidths or weights.

4.6 Conclusion

In recent years scholars, have paid attention to growing levels of polarization and have analyzed their effects on different outcomes that relate to the functioning of democracy, such as the quality of the legislative process (Barber et al., 2015); the dynamics of party competition (Ezrow & Xezonakis, 2011); the degree of satisfaction with democracy (Hoerner & Hobolt, 2020); turnout (Hetherington, 2008; Hobolt & Hoerner, 2020); consistency between voters' attitudes and behavior (Layman et al., 2006; Levendusky, 2010) and citizens' ability to hold underperforming governments accountable (Graham & Svobik, 2020).

In this study I contribute to the literature on the political consequences of polarization and provide causal evidence that polarization decreases incumbent turnover by favoring voters' coordination around them. By applying a RDD to data from the French legislative and cantonal elections between 1981 and 2021, I show that as polarization increases, incumbents' electoral results improve significantly, which decreases turnover. While this effect is present for both measures of polarization, it is particularly strong when polarization occurs due to the presence of an extreme runner-up candidate in the second round. In fact, when this is the case, the share of registered citizens that vote for the incumbent increases by 5 pp, which ensures their reelection in almost 100% of cases. These results highlight that both ideological distance and uncertainty about the effects that may derive from the presence of polarizing candidates in office are important mechanisms that help explain how polarization conditions turnover.

To better understand how voters behave in contexts of varying polarization I carried out additional analyses that show that extreme runner-up candidates are particularly unappealing to those voters who do not support the incumbent. Polarization does not exert any effect on the vote for the runner-up when it is measured in terms of ideological distance. In contrast, when polarization occurs due to the presence of an extreme runner-up candidate in the second round, we see that extreme runner-up candidates are less successful in electoral terms than non-extreme runner-up candidates.

While the RDD used in this study enabled me to establish a causal relationship between polarization and turnover and to overcome potential issues such as endogeneity and omitted variables, one may wonder about the generalization of the results. Indeed, to be able to exogenize the level of polarization, I restricted the sample to districts in which the incumbent ranks first in the first round and only two candidates compete in the second round. Therefore the study shows what happens to support for the incumbent when the runner-up increases or decreases the level of polarization in a two-candidate election. While the two-candidate setting is interesting in itself, adding an extra challenger (i.e., having three candidates in the second round) may also condition the overall degree of polarization and, consequently, the support for the incumbent. If that is case, it is reasonable to expect that the main results of this study would hold as long as the presence of a third candidate increases the mean ideological distance between the incumbent and the alternatives and exacerbates uncertainty for the system.

Additionally, this study takes advantage of runoff elections in France to determine the effect of polarization on incumbent turnover. Of course, when data is used from such a particular context, concerns may arise as to whether the main results can be generalized to other countries and elections, as noted by Bol and Ivandic (2022). As shown in the Table C.22 in the Appendix, most of the results hold even when I split the sample by type of election. Therefore we can be confident that the results may be generalizable to other elections in France and to other countries that use two-round electoral systems. Moreover, the mechanisms that drive the results are arguably applicable to plurality systems with few candidates if credible and trustworthy information on voting intention is available before the election. Reliable electoral polls published before an election in a plurality system may provide voters with the information needed to determine whether a particular candidate may pose a threat to the normal functioning of the system, thereby conditioning their voting choice.

In summary, the findings of this paper have important implications for our understanding of the consequences of polarization and the role of citizens' behavior in preventing polarizing options from achieving office. To start, I show that voters take advantage of the information provided by the results of the first round to update their behavior in the second round. While polarization favors coordination around the incumbent, it also hampers the conditions under which voting for the runner-up is more likely, especially when the latter belongs to an extreme party. Moreover, the results emphasize the role of electoral settings and information quality in shaping voting behavior. As can be seen, in contexts in which voters are provided high-quality information, such as the runoff elections in France, the chances of potentially destabilizing candidates reaching office are rather limited.

Finally, the results also have important normative implications for our understanding of elections as a means to decide the policies that must be delivered and as a tool to hold incumbents accountable. On the one hand, polarization may enhance policy congruence, at least in the short term, since it reduces the chances of turnover. In a context of high polarization, incumbents may have the chance to further develop their policies in subsequent legislature sessions. Moreover, under certain circumstances, such as the presence of an extreme runner-up candidate, the lack of turnover and the lack of abrupt change in policies during periods of political turmoil can also be interpreted in terms of "stability". On the other hand, if polarization fosters voters' coordination around the incumbent, as shown by this paper, it may also hamper accountability by increasing the cost of sanctioning the incumbent, as noted by Graham and Svobik (2020). In other words, in polarized contexts, voters may be more prone to trade ideological proximity for good performance, thus exonerating ideologically-close incumbents for their wrongdoings. It remains for future research to investigate whether this might be the case, and if so, under what conditions.

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Appendix C: Supplementary materials

C.1 ParlGov dataset: ideological stances of French parties

Party name	Ideology	Party name	Ideology
Un. Démocratie Française	6.10	Parti Unité Proletarienne	1.30
Démocratie Libérale	7.06	Rass. Dem. Africain	1.30
Chasse, Pêche, Nature, Traditions	7.80	Alliances des outre-mers	1.30
Parti Socialiste	3.25	Centre Dem. et progres	5.87
Parti Communiste Française	1.37	Centre-gauche	3.30
Parti Radical de Gauche	4.08	Centre-droit	7.40
Front National	9.69	Centre democrates sociaux	6.20
L. Communiste Révolutionnaire	0.07	Mouvement des citoyens	1.30
Verts	3.15	Consevateurs	7.40
Rassemblement Pour la Répub.	7.50	Parti Republicaine de la liberte	7.56
Mouv. National Républicain	8.28	Centre Democrat	5.72
Rassemblement Pour la France	7.40	Gauche Democrate et Repub.	1.30
UDSR	3.30	Generation ecologie	3.64
Parti socialiste francais	3.30	Gaulliste	8.20
Mouvement Pour la France	8.17	Generations le mouvement	3.30
Union Mouvement Populaire	7.50	Radicaux independants	7.40
Nouveau Centre	6.00	Socialistes independants	1.30
Mouvement Démocrate	6.10	Republicaine gauche	6.00
Action liberale populaire	6.20	Parti Majorite Presidentielle	1.30
CNIP	7.56	Parti des forces nouvelles	9.80
Parti democrate populaire	6.20	Mouv. Republicaine Populaire	8.20
U. Populaire Republicaine	7.40	Republicains progressistes	7.40
Alliance Centriste	6.00	Parti radical-socialiste	3.99
Les Républicains	7.50	RCV	1.30
La France Insoumise	1.30	Rass. Gauches Republicans	7.40
Mouvement reformatteur	5.87	Parti Republicain Socialist	3.30
La République En Marche	6.00	Union republicaine	8.80
Debout la France	7.40	Action republicaine et sociale	7.40
Republicans	6.00	PSF-Union Jean Jaures	3.30
Trpartisme-Troisieme force	3.30	Parti socialiste unifie	1.30
UDCA	7.40	U. pour la cinquieme republique	7.40
U. des forces democratiques	3.30	Union Democats Independents	7.40
Lutte ouvriere	0.00	Divers ecologistes	2.50
Extreme gauche	1.30	Extreme droite	8.80
Divers gauche	3.30	Divers droite	7.66

Ideological stances measured on a 0-10 point scale, where 0 means Extreme Left and 10 means Extreme Right

C.2 First stage

TABLE C.1 First stage. Formal estimates.

	Distance	Distance	Distance
RDD Estimate	2.553 ^{***} (0.163)	2.572 ^{***} (0.158)	2.600 ^{***} (0.148)
Kernel	Triangular	Epanechnikov	Uniform
Observations	4,591	4,591	4,591
Eff. observations	1,864	1,862	1,862
Polyn. order	1	1	1
Bandwidth	0.095	0.095	0.095

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. *, ** and *** indicate significance at 5, 1 and 0.1% respectively. The dependent variable is the degree of polarization between the incumbent and the runner-up, which is measured on a 0-10 point scale. The optimal bandwidth is determined by the MSERD procedure when the kernel is triangular. The second and third columns report the results from a different kernel function.

C.3 Covariate balance test

TABLE C.2 Covariate balance test. Polarization as ideological distance.

	Registered _{R1}	Turnout _{R1}	Nº of candidates _{R1}
RDD Estimate	995 (1,062)	0.001 (0.005)	0.175 (0.127)
Observations	4,591	4,591	4,591
Eff. observations	1,875	1,847	1,778
Polyn. order	1	1	1
Bandwidth	0.096	0.094	0.091
	Incumbent _{R1}	Incumbent _{R2, T-1}	Incumbent _{R1, T-1}
RDD Estimate	0.002 (1,062)	-0.001 (0.004)	0.000 (0.002)
Observations	4,591	3,891	4,591
Eff. observations	2,115	922	2,094
Polyn. order	1	1	1
Bandwidth	0.109	0.051	0.108

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. Weights are determined by a triangular kernel function. *, ** and *** indicate significance at 5, 1 and 0.1% respectively. The variable of interest, the degree of polarization, is instrumented by the assignment variable, that is, the distance between the vote share of the polarizator candidate with respect to the relative qualifying threshold.

TABLE C.3 Covariate balance test. Polarization measured as the presence of an extreme runner-up candidate in the second round.

	Registered _{R1}	Turnout _{R1}	Nº of candidates _{R1}
RDD Estimate	4,326 (3,424)	0.008 (0.019)	0.235 (0.431)
Observations	4,908	4,908	4,908
Eff. observations	1,093	1,071	960
Polyn. order	1	1	1
Bandwidth	0.064	0.063	0.057
	Incumbent _{R1}	Incumbent _{R2, T-1}	Incumbent _{R1, T-1}
RDD Estimate	0.012 (0.008)	0.014 (0.010)	0.000 (0.008)
Observations	4,908	4,190	4,908
Eff. observations	1,236	882	1,473
Polyn. order	1	1	1
Bandwidth	0.072	0.058	0.085

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. Weights are determined by a triangular kernel function. *, ** and *** indicate significance at 5, 1 and 0.1% respectively.

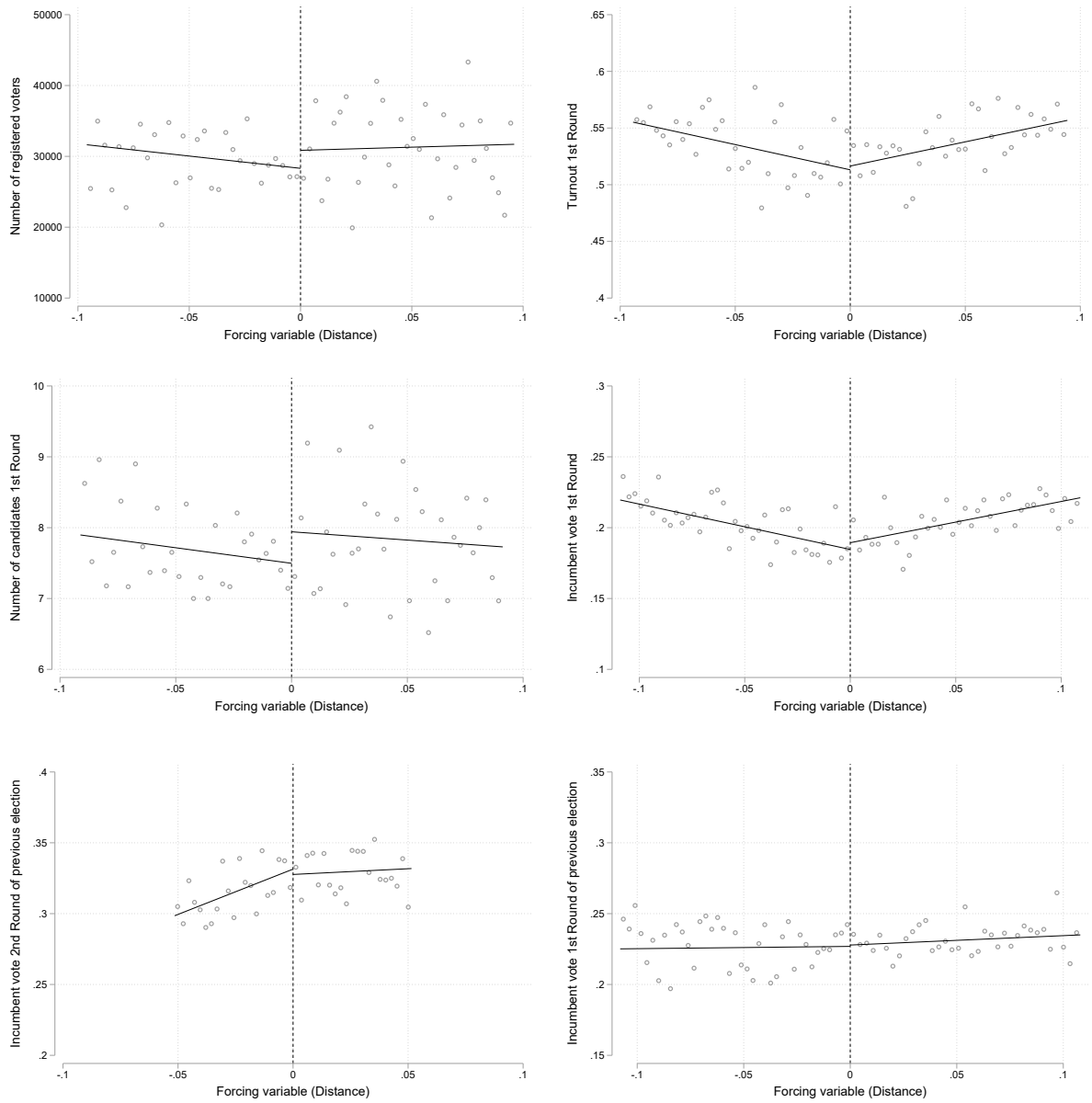


FIGURE C.1 Covariate balance test. Polarization measured as ideological distance

Note: Continuous lines are estimated using a linear fit. Bandwidths are derived under the MSERD procedure and weights are determined by a triangular kernel function.

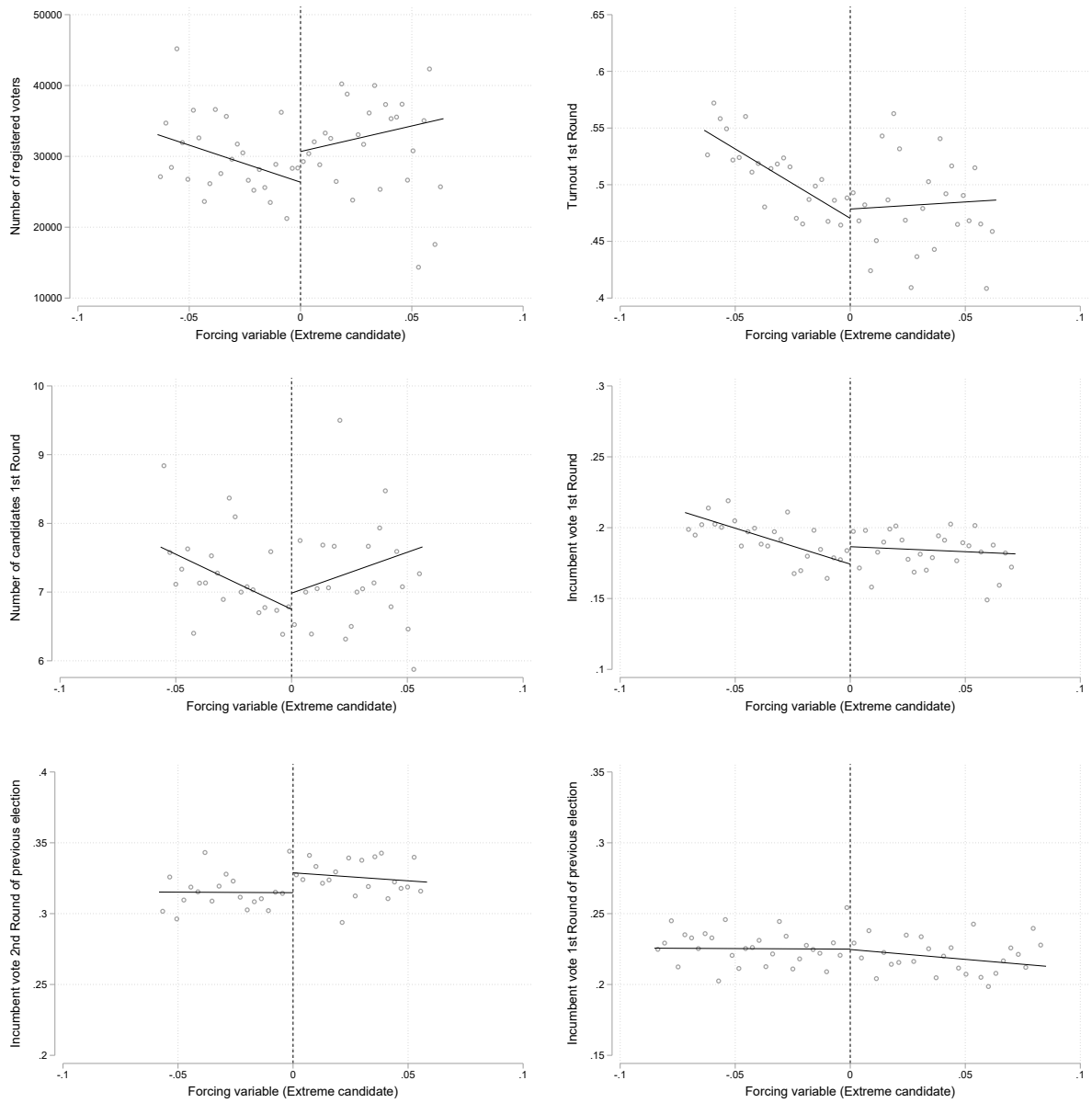


FIGURE C.2 Covariate balance test. Polarization measured as the presence of extreme runner-up candidates in the second round

Notes as in Figure C.1

C.4 Pairs of candidates

TABLE C.4 Frequencies of incumbents and runner-up candidates, by party

Incumbent party	Runner-up	Observations (<i>% total</i>)
RPR/UMP/LR	SOC	967 (18.23)
SOC	RPR/UMP/LR	964 (18.17)
UDF	SOC	389 (7.33)
SOC	DVD	268 (5.05)
SOC	FN	264 (4.98)
SOC	UDF	237 (4.48)
DVD	SOC	178 (3.36)
RPR/UMP/LR	FN	164 (3.09)
...		

TABLE C.5 Most frequent pairs of incumbents and runner-up candidates, by political orientation

Incumbent party	Runner-up	Observations (<i>% total</i>)
Right	Left	1,828 (34.46)
Left	Right	1,802 (33.97)
Left	Far right	372 (7.01)
Right	Far right	316 (5.96)
Center	Left	222 (4.18)
Left	Center	191 (3.60)
Right	Right	186 (3.51)
Left	Left	156 (2.94)
...		

Political orientations are attributed according to Pons and Tricaud (2018).

C.5 Results using the number of candidate votes as the denominator

This Appendix presents a replication of the main results using the number of candidates votes instead of the number of registered voters as the denominator.

TABLE C.6 Vote for the incumbent and the runner-up

	Incumbent _{R2}	Incumbent _{R2}
RDD Estimate	0.015*** (0.004)	0.110*** (0.009)
Measure	Distance	Extreme cand.
Observations	4,591	4,908
Eff. observations	1,611	960
Polyn. order	1	1
Bandwidth	0.082	0.057
Mean, left of the cutoff	0.604	0.604

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. Weights are determined by a triangular kernel function. *, ** and *** indicate significance at 5, 1 and 0.1% respectively. The degree of ideological distance is instrumented by the assignment variable, that is, the distance between the vote share of the polarizator candidate with respect to the relative qualifying threshold

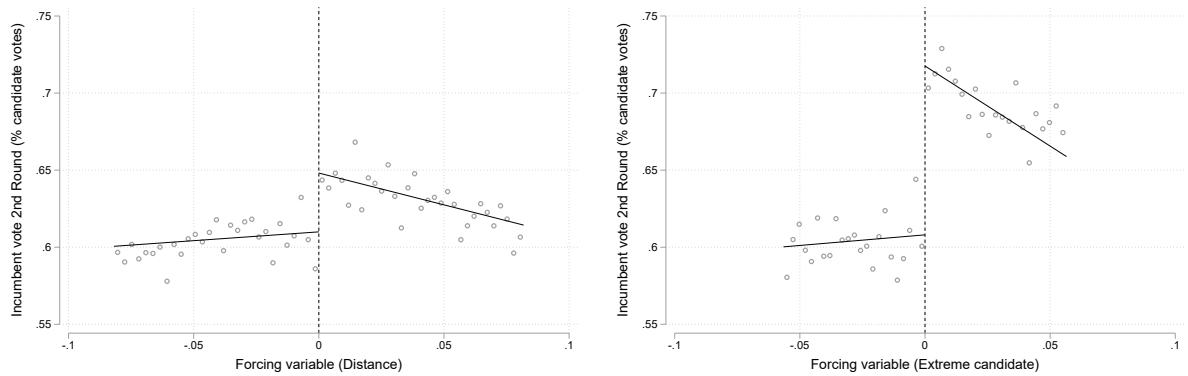


FIGURE C.3 Main results using % of candidate votes as the denominator
Notes as in Figure C.1.

C.6 Effect of the presence of an extreme candidate in the second round on ideological distance

TABLE C.7 Effect of the presence of an extreme candidate in the second round on ideological distance.

	Distance	Distance	Distance
RDD Estimate	0.761** (0.277)	0.755** (0.268)	0.604* (0.251)
Kernel	Triangular	Epanechnikov	Uniform
Observations	4,531	4,531	4,531
Eff. observations	1,064	1,059	1,059
Polyn. order	1	1	1
Bandwidth	0.070	0.070	0.070

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. *, ** and *** indicate significance at 5, 1 and 0.1% respectively. The dependent variable is the degree of polarization between the incumbent and the runner-up, which is measured on a 0-10 point scale. The optimal bandwidth is determined by the MSERD procedure when the kernel is triangular. The second and third columns report the results from a different kernel function.

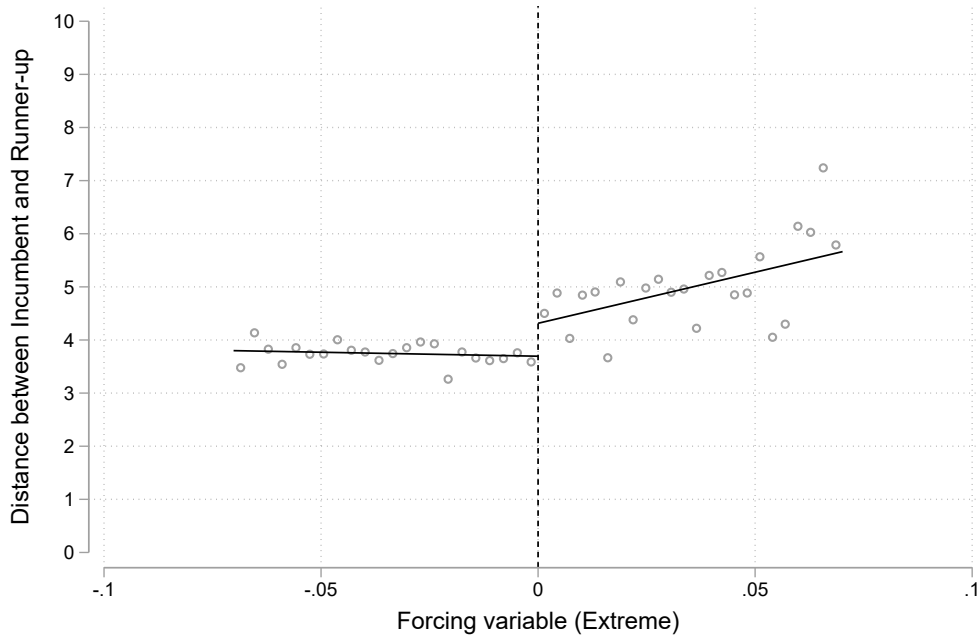


FIGURE C.4 Effect of the presence of an extreme candidate in the second round on ideological distance

Note: The optimal bandwidth is determined by the MSERD procedure and the kernel is triangular.

C.7 Channels

VOTE FOR THE RUNNER-UP, TURNOUT, BLANK/NULL VOTES AND CANDIDATE VOTES

In Table C.8 I estimate the effect of the two measures of polarization on four outcomes: the % of registered citizens that vote for the runner-up; the % of registered citizens that participate in the second round, that is, turnout; the % of registered citizens that cast a blank or null vote; and the % of registered citizens that vote for a candidate in the second round.

TABLE C.8 Turnout, blank/null votes and candidate votes

A) Distance	Runner-up _{R2}	Turnout _{R2}	Blank/Null _{R2}	Cand. votes _{R2}
RDD Estimate	-0.003 (0.002)	0.005 (0.004)	-0.003*** (0.001)	0.008* (0.004)
Observations	4,591	4,591	4,591	4,591
Eff. observations	2,149	1,793	1,648	1,918
Polyn. order	1	1	1	1
Bandwidth	0.111	0.092	0.084	0.098
Mean, left of the cutoff	0.196	0.517	0.042	0.478
B) Extreme candidate	Runner-up _{R2}	Turnout _{R2}	Blank/Null _{R2}	Cand. votes _{R2}
RDD Estimate	-0.046*** (0.007)	0.017 (0.016)	0.013*** (0.004)	0.003 (0.014)
Observations	4,908	4,908	4,908	4,908
Eff. observations	1,070	1,132	931	1,213
Polyn. order	1	1	1	1
Bandwidth	0.063	0.067	0.055	0.071
Mean, left of the cutoff	0.185	0.500	0.036	0.466

Notes as in Table C.6.

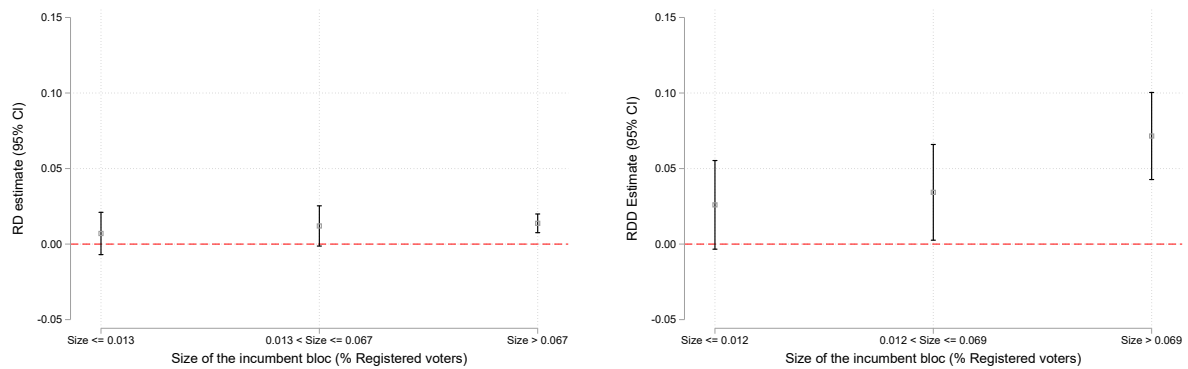
MOBILIZATION OF VOTERS FROM THE IDEOLOGICAL BLOC REPRESENTED BY THE INCUMBENT

Figures C.5 and C.6 depict the effect of polarization and the presence of an extreme candidate in the second round on two outcomes: the vote for the incumbent in the second round and the turnover rate of incumbent candidates. In these analyses I split the sample in three different subgroups depending on the degree of support in the first round for candidates that belong to the same ideological bloc as the incumbent. The subgroups are determined by terciles. In the first subgroup, I include cases for which the sum of the support in the first round for candidates that share the same ideological orientation as the incumbent is less than 1.3% of registered voters (0.9% when polarization is measured through the presence of extreme candidates). In the second subgroup, I include cases where non-incumbent candidates that share the same ideology as the incumbent obtain between 1.3 and 6.7% of registered voters (between 0.9 and 6.3% in the case of extreme candidates). Finally, in the third subsample, I include districts in which the sum of the support for those candidates from the same ideological bloc as the incumbent is greater than 6.7% (6.3% for the extreme candidate measure of polarization). The variable 'vote for the incumbent' is measured using the % of registered voters as the denominator.

TABLE C.9 Test of ideological proximity. Dependent variable: vote for the incumbent.

A) Distance	Sample 1	Sample 2	Sample 3
RDD Estimate	0.007 (0.007)	0.012 (0.007)	0.014*** (0.003)
Observations	1,441	1,439	1,711
Eff. observations	731	703	770380
Polyn. order	1	1	1
Bandwidth	0.145	0.129	0.081
B) Extreme candidate	Sample 1	Sample 2	Sample 3
RDD Estimate	0.029* (0.014)	0.037* (0.019)	0.063*** (0.014)
Observations	1,542	1,542	1,824
Eff. observations	483	386	409
Polyn. order	1	1	1
Bandwidth	0.098	0.076	0.056

Notes as in Table C.6.



(A) Distance

(B) Extreme candidate

FIGURE C.5 Test of ideological proximity. Dependent variable: vote for the incumbent

TABLE C.10 Test of ideological proximity. Dependent variable: incumbent turnover.

A) Distance	Sample 1	Sample 2	Sample 3
RDD Estimate	0.029 (0.032)	-0.019 (0.034)	-0.042** (0.013)
Observations	1,441	1,439	1,711
Eff. observations	495	441	798
Polyn. order	1	1	1
Bandwidth	0.100	0.089	0.085
B) Extreme candidate	Sample 1	Sample 2	Sample 3
RDD Estimate	-0.045 (0.025)	-0.047 (0.033)	-0.122*** (0.031)
Observations	1,636	1,636	1,636
Eff. observations	589	431	886
Polyn. order	1	1	1
Bandwidth	0.113	0.077	0.131

Notes as in Table C.6.

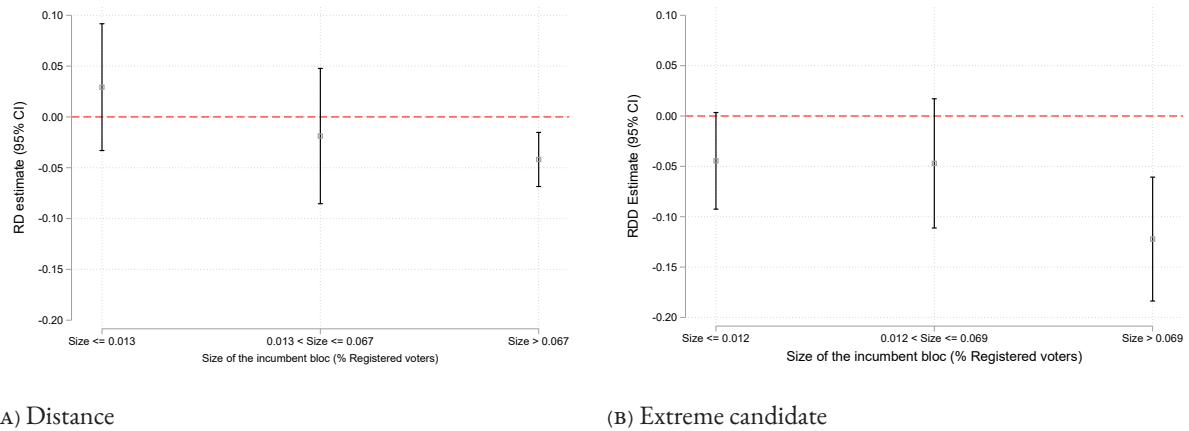


FIGURE C.6 Test of ideological proximity. Dependent variable: incumbent turnover

C.8 Robustness checks

SENSITIVITY TO ALTERNATIVE KERNELS

TABLE C.11 Sensitivity to alternative kernels: vote for the incumbent

	Incumbent _{R2}	Incumbent _{R2}	Incumbent _{R2}	Incumbent _{R2}
RDD Estimate	0.011*** (0.003)	0.012*** (0.002)	0.048*** (0.009)	0.045*** (0.008)
Measure	Distance	Distance	Extreme cand.	Extreme cand.
Kernel	Epanechnikov	Uniform	Epanechnikov	Uniform
Observations	4,591	4,591	4,908	4,908
Eff. observations	1,825	1,825	1,273	1,273
Polyn. order	1	1	1	1
Bandwidth	0.093	0.093	0.074	0.074
Mean, left of the cutoff	0.286	0.286	0.280	0.280

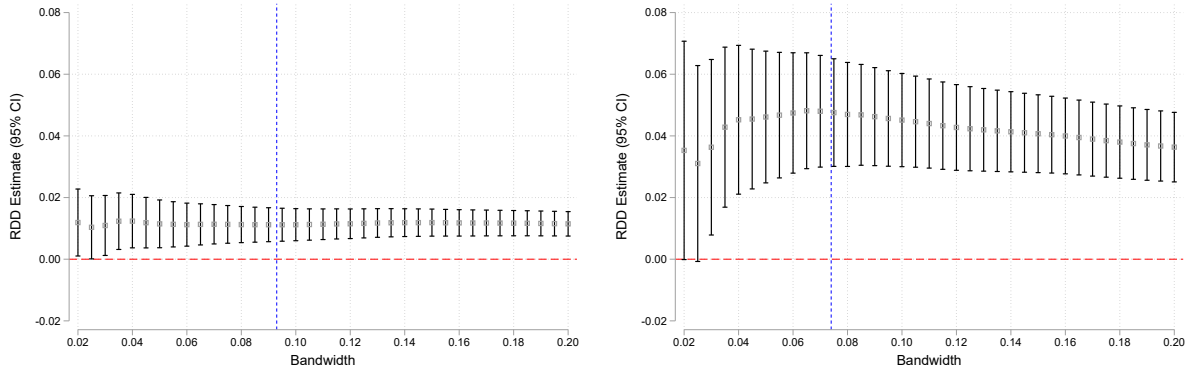
Notes as in Table C.6.

TABLE C.12 Sensitivity to alternative kernels: incumbent turnover

	Turnover	Turnover	Turnover	Turnover
RDD Estimate	-0.026** (0.010)	-0.026** (0.009)	-0.071*** (0.017)	-0.061*** (0.017)
Measure	Distance	Distance	Extreme cand.	Extreme cand.
Kernel	Epanechnikov	Uniform	Epanechnikov	Uniform
Observations	4,591	4,591	4,908	4,908
Eff. observations	1,931	1,931	1,895	1,895
Polyn. order	1	1	1	1
Bandwidth	0.099	0.099	0.108	0.108
Mean, left of the cutoff	0.095	0.095	0.076	0.076

Notes as in Table C.6.

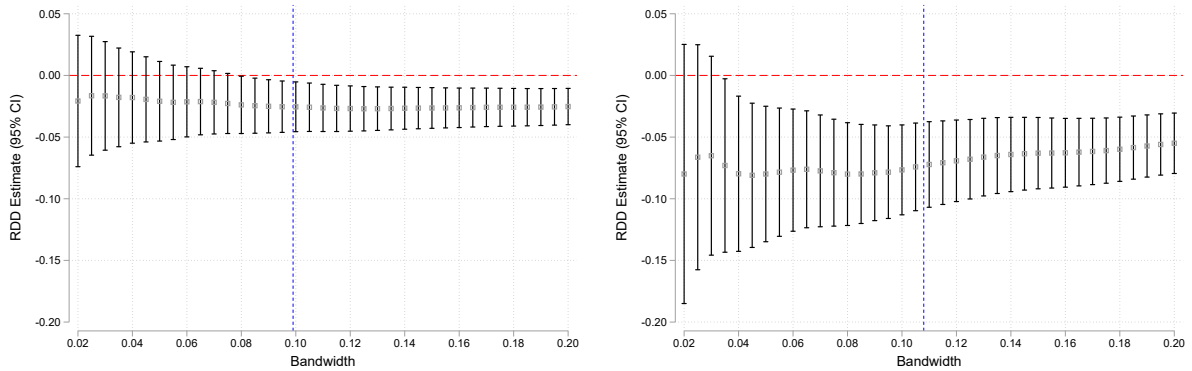
ROBUSTNESS OF THE MAIN RESULTS TO ALTERNATIVE BANDWIDTHS



(A) Distance

(B) Extreme candidate

FIGURE C.7 Robustness of the main results to alternative bandwidths. Dependent variable: vote for the incumbent
Note: Effect of polarization on the incumbent vote using different bandwidths for the two measures of polarization. Bandwidths range from 2 to 20 percentage points, in steps of 0.5 percentage points. The estimates are obtained by using a local linear regression with a triangular kernel. The vertical blue line gives the value of the optimal bandwidth derived under the MSERD procedure.



(A) Distance

(B) Extreme candidate

FIGURE C.8 Robustness of the main results to alternative bandwidths. Dependent variable: incumbent turnover
Note: Effect of polarization on incumbent turnover using different bandwidths for the two measures of polarization. Other notes as in figure C.7.

PLACEBO CUTOFFS

In this appendix I run several placebo tests to examine treatment effects at fake cutoff values. Following Cattaneo et al. (2019), in order to avoid contamination between treated and control units, for fake cutoffs below the real threshold I restrict the analyses to control observations and for fake cutoffs above the threshold I use only treated observations. RDD estimates are obtained using a local linear regression with a triangular kernel, and the optimal bandwidths are derived under the MSERD procedure.

TABLE C.13 Placebo cutoffs. Effect of ideological distance on the vote for the incumbent

Alternative cutoff	MSERD Bandwidth	RDD Estimate	p-value	Conf. Int.	Observations
-0.10	0.037	0.016	0.940	[-0.110, 0.141]	625
-0.08	0.033	0.010	0.732	[-0.046, 0.066]	571
-0.06	0.025	0.006	0.864	[-0.068, 0.081]	423
-0.04	0.019	-0.115	0.595	[-0.539, 0.309]	345
-0.02	0.021	-0.049	0.573	[-0.218, 0.120]	387
0	0.093	0.011	0.000	[0.006, 0.017]	1,818
0.02	0.018	0.439	0.907	[-6.938, 7.815]	370
0.04	0.017	-0.275	0.773	[-2.146, 1.596]	366
0.06	0.024	0.053	0.237	[-0.035, 0.141]	495
0.08	0.032	0.316	0.974	[-18.475, 19.106]	646
0.10	0.061	0.047	0.546	[-0.105, 0.199]	1,222

TABLE C.14 Placebo cutoffs. Effect of ideological distance on incumbent turnover

Alternative cutoff	MSERD Bandwidth	RDD Estimate	p-value	Conf. Int.	Observations
-0.10	0.034	-0.229	0.643	[-1.198, 0.740]	573
-0.08	0.029	-0.272	0.157	[-0.649, 0.105]	493
-0.06	0.024	-0.236	0.388	[-0.773, 0.300]	415
-0.04	0.019	0.453	0.590	[-1.193, 2.099]	351
-0.02	0.024	-0.025	0.923	[-0.544, 0.493]	413
0	0.099	-0.025	0.014	[-0.046, -0.005]	1,938
0.02	0.022	-0.182	0.840	[-1.954, 1.589]	444
0.04	0.030	-0.606	0.841	[-6.537, 5.324]	657
0.06	0.020	0.062	0.580	[-0.157, 0.280]	429
0.08	0.032	-6.755	0.981	[-551.046, 537.535]	652
0.10	0.045	0.060	0.847	[-0.549, 0.670]	894

TABLE C.15 Placebo cutoffs. Effect of extreme candidate on the vote for the incumbent

Alternative cutoff	MSERD Bandwidth	RDD Estimate	p-value	Conf. Int.	Observations
-0.10	0.042	0.004	0.612	[-0.013, 0.021]	1,341
-0.08	0.019	0.006	0.635	[-0.018, 0.030]	573
-0.06	0.022	0.019	0.105	[-0.004, 0.041]	563
-0.04	0.017	-0.002	0.874	[-0.033, 0.028]	397
-0.02	0.014	0.042	0.037	[0.002, 0.081]	248
0	0.074	0.048	0.000	[0.030, 0.065]	1,280
0.02	0.013	-0.016	0.544	[-0.064, 0.021]	192
0.04	0.012	-0.022	0.320	[-0.062, 0.013]	156
0.06	0.018	0.002	0.924	[-0.048, 0.052]	169
0.08	0.031	-0.012	0.489	[-0.045, 0.022]	223
0.10	0.039	0.016	0.331	[-0.017, 0.049]	217

TABLE C.16 Placebo cutoffs. Effect of extreme candidate on incumbent turnover

Alternative cutoff	MSERD Bandwidth	RDD Estimate	p-value	Conf. Int.	Observations
-0.10	0.028	0.036	0.471	[-0.061, 0.133]	906
-0.08	0.019	0.004	0.942	[-0.096, 0.104]	568
-0.06	0.021	0.076	0.1045	[-0.016, 0.168]	538
-0.04	0.012	-0.005	0.955	[-0.165, 0.155]	293
-0.02	0.016	-0.090	0.334	[-0.271, 0.092]	296
0	0.108	-0.073	0.000	[-0.108, -0.038]	1,891
0.02	0.025	-0.004	0.317	[-0.117, 0.004]	321
0.04	0.058	0.017	0.314	[-0.016, 0.051]	535

MAIN RESULTS INCLUDING DROPOUTS OF CANDIDATES. IDEOLOGICAL DISTANCE.

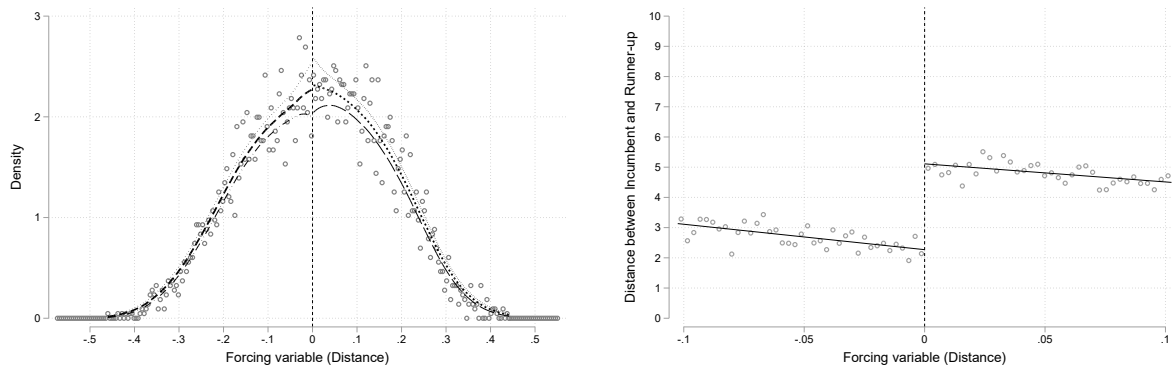


FIGURE C.9 McCrary test and validity of the forcing variable when dropouts are included: Ideological distance
Note: In the left panel, the thick dashed lines represent the density of the forcing variable. Confidence intervals are represented by thin lines. The log difference in height and the standard error are 0.016 and 0.088 respectively. In the right panel, the estimation of the first stage shows the presence of polarizing candidates in the second round increases the degree of polarization in 2.79 points. The effect is statistically significant at the 0.1% level.

TABLE C.17 Main results including dropouts. Ideological distance.

	Incumbent _{R2}	Inc _{R2} (% valid votes)	Turnover
RDD Estimate	0.009*** (0.002)	-0.001 (0.004)	-0.020* (0.008)
Observations	4,750	4,750	4,754
Eff. observations	2,017	1,948	2,251
Polyn. order	1	1	1
Bandwidth	0.098	0.094	0.110
Mean, left of the cutoff	0.289	0.640	0.087

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. Weights are determined by a triangular kernel function. *, ** and *** indicate significance at 5, 1 and 0.1% respectively. The variable of interest, the degree of polarization, is instrumented by the assignment variable, that is, the distance between the vote share of the polarizator candidate with respect to the relative qualifying threshold.

MAIN RESULTS INCLUDING DROPOUTS OF CANDIDATES. EXTREME CANDIDATES.

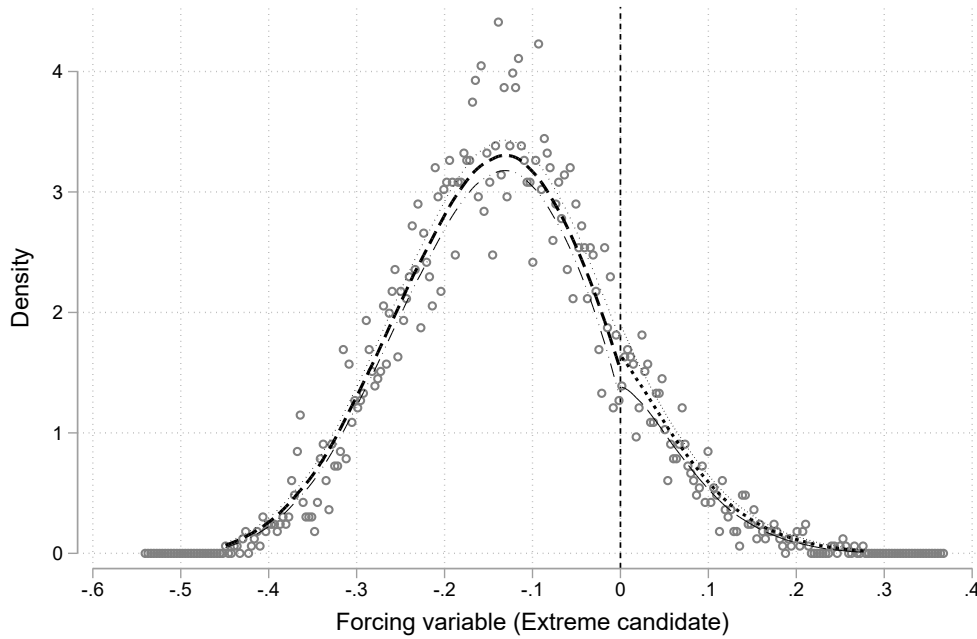


FIGURE C.10 McCrary density test when dropouts are included: Extreme candidates

Note: The thick dashed lines represent the density of the forcing variable. Confidence intervals are represented by thin lines. The log difference in height and the standard error are 0.075 and 0.116 respectively

TABLE C.18 Main results including dropouts. Extreme candidates.

	Incumbent _{R2}	Inc _{R2} (% valid votes)	Turnover
RDD Estimate	0.045*** (0.009)	0.084*** (0.011)	-0.073*** (0.018)
Observations	5,066	5,066	5,069
Eff. observations	1,274	1,260	1,833
Polyn. order	1	1	1
Bandwidth	0.071	0.070	0.100
Mean, left of the cutoff	0.281	0.625	0.070

Standard errors clustered at the district level are in parentheses. The bandwidths are derived under the MSERD procedure. Weights are determined by a triangular kernel function. *, ** and *** indicate significance at 5, 1 and 0.1% respectively.

EXTREME CANDIDATES WHO QUALIFY 2ND OR 3RD IN THE FIRST ROUND

For the extreme candidate measure of polarization, the forcing variable computed as the difference between the vote share of the extreme candidate with most votes and the relative qualifying threshold. Although negative values mean that the extreme candidate did not qualify for the second round, the forcing variable does not allow me to differentiate between extreme candidates who rank very low in the first round and extreme candidates that perform relatively better. To demonstrate that the inclusion of these candidates does not modify the integrity of the forcing variable by increasing the density of observations in areas far from the cutoff, in Table C.19 I replicate the analyses restricting the sample to districts in which an extreme candidate qualifies second or third in the first round. Figure C.11 depicts the results of the McCrary test.

TABLE C.19 Robustness: subsample including only the extreme candidates who qualified 2nd or 3rd in the first round

	Incumbent _{R2}	Inc _{R2} (% valid votes)	Turnover
RDD Estimate	0.044*** (0.009)	0.109*** (0.009)	-0.081*** (0.021)
Observations	2,752	2,752	2,752
Eff. observations	1,151	869	1,347
Polyn. order	1	1	1
Bandwidth	0.082	0.060	0.098
Mean, left of the cutoff	0.281	0.601	0.067

Notes as in Table C.18.

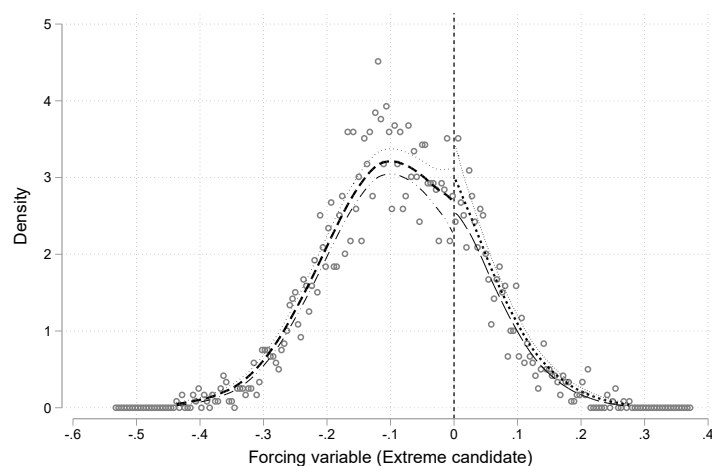


FIGURE C.11 McCrary density plot: Extreme candidates who ranked 2nd and 3rd in the first round

Note: The thick dashed lines represent the density of the forcing variable. Confidence intervals are represented by thin lines. The log difference in height is 0.114 and the standard error is 0.114.

INCUMBENT AS THE INDIVIDUAL WHO HOLDS A SEAT

Given that I only possess measures of ideology at the party level, and that for some legislative elections data on candidates' first and last names is not available, in the main text the term *incumbent* refers to the party that holds a legislative or departmental seat at the time elections take place. Consequently, the electoral results of incumbent candidates, including whether they are reelected, are computed at the party level. In this appendix I replicate the main analyses defining *incumbent* as the individual who holds a departmental or legislative seat.

For the analyses I follow the same coding of the variables as in the main text. However, it should be noted that since the 2013 cantonal reform each canton elects a single electoral ticket composed of one woman and one man. Of course, pairs of candidates may not be stable over time which means that sometimes only one of the two cantonal incumbents run for reelection. I have decided to code the cases in which one of the incumbents secures reelection as *turnover* = 0 since their presence in the electoral ticket can be read in terms of continuity / lack of alternation in office. As it shows, results in Tables C.20 and C.21 are very similar to those in the main text.

• Ideological distance

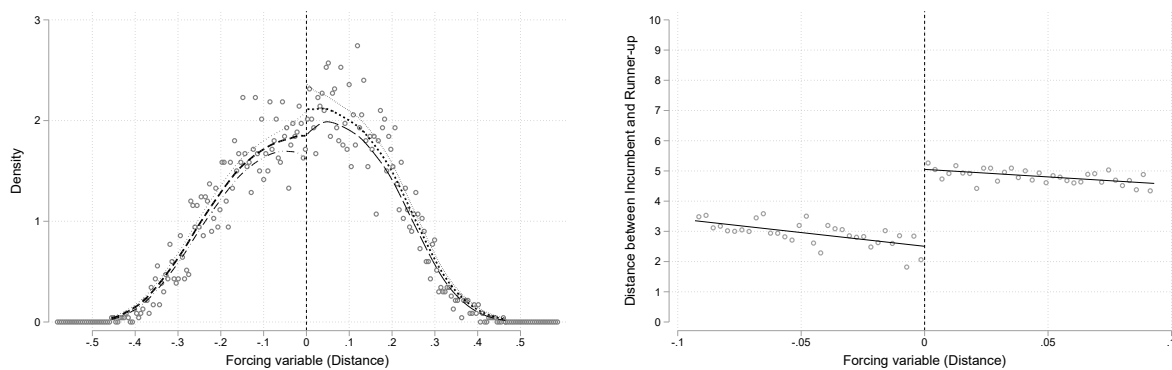


FIGURE C.12 Density test and first-stage of the forcing variable with incumbents as individuals: Ideological distance
Note: In the left panel, the thick dashed lines represent the density of the forcing variable. Confidence intervals are represented by thin lines. The log difference in height and the standard error are 0.130 and 0.091 respectively. In the right panel, the estimation of the first stage shows the presence of polarizing candidates in the second round increases the degree of polarization by 2.57 points. The effect is statistically significant at the 0.1% level.

TABLE C.20 Main results with incumbents as individuals: Ideological distance

	Incumbent _{R2}	Inc _{R2} (% valid votes)	Turnover
RDD Estimate	0.007** (0.003)	0.012*** (0.004)	-0.026* (0.011)
Observations	4,793	4,793	3,830
Eff. observations	1,668	1,588	1,496
Polyn. order	1	1	1
Bandwidth	0.088	0.084	0.089
Mean, left of the cutoff	0.283	0.611	0.091

Notes as in Table C.17.

• Extreme candidate

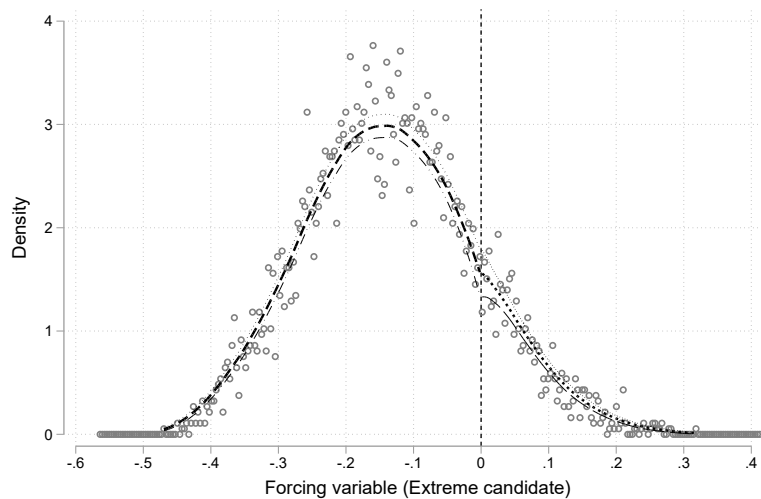


FIGURE C.13 McCrory density plot with incumbents as individuals: Extreme candidates

Note: The thick dashed lines represent the density of the forcing variable. Confidence intervals are represented by thin lines. The log difference in height is 0.017 and the standard error is 0.109.

TABLE C.21 Main results with incumbents as individuals. Extreme candidates.

	Incumbent _{R2}	Inc _{R2} (% valid votes)	Turnover
RDD Estimate	0.036*** (0.008)	0.102*** (0.008)	-0.044** (0.014)
Observations	5,525	5,525	4,651
Eff. observations	1,530	1,053	2,064
Polyn. order	1	1	1
Bandwidth	0.079	0.056	0.111
Mean, left of the cutoff	0.263	0.613	0.067

Notes as in Table C.18.

MAIN RESULTS BY TYPE OF ELECTION

TABLE C.22 Main results by type of election

A) Legislative elections	Incumbent _{R2}	Incumbent _{R2}	Turnover	Turnover
RDD Estimate	0.011* (0.006)	0.037 (0.019)	-0.050 (0.026)	-0.086* (0.043)
Measure	Distance	Extreme cand.	Distance	Extreme cand.
Observations	1,474	1,557	1,474	1,557
Eff. observations	520	204	595	501
Polyn. order	1	1	1	1
Bandwidth	0.097	0.048	0.110	0.111
Mean, left of the cutoff	0.286	0.272	0.094	0.077
B) Cantonal elections	Incumbent _{R2}	Incumbent _{R2}	Turnover	Turnover
RDD Estimate	0.010*** (0.002)	0.044*** (0.009)	-0.019 (0.012)	-0.069*** (0.020)
Measure	Distance	Extreme cand.	Distance	Extreme cand.
Observations	3,117	3,351	3,117	3,351
Eff. observations	1,701	931	1,285	1,377
Polyn. order	1	1	1	1
Bandwidth	0.123	0.073	0.091	0.105
Mean, left of the cutoff	0.291	0.280	0.094	0.077

Notes as in Table C.6.

5

Concluding remarks

This dissertation has analyzed the relationship of party system fragmentation and polarization with two outcomes that are closely related to the functioning and quality of democracy: accountability and incumbent turnover. This is a relevant topic because party systems, one of the cornerstones of liberal democracies, have become increasingly complex in the last decades. Yet, little consensus has been reached in the literature as to how these changes have affected the functioning of democracy. For instance, some authors argue that increased fragmentation may improve the democratic process by providing voters with more options (Charron & Bågenholm, 2016) while others contend that fragmentation may harm democracy by blurring attribution of responsibility and fueling instability (Hellström & Walther, 2019).

Similarly, in some cases party polarization is said to make choices more meaningful and clarify parties' ideological stances (Levendusky, 2010), while in other cases polarization is considered to be one of the major threats faced by democracies today (Svolik, 2019). These points motivate the questions of how do the fragmentation of the government and the fragmentation of the opposition shape accountability? What are the mechanisms that may account for these correlations? And how does polarization condition incumbent turnover?

In this dissertation, I have tackled all these questions using a multi-method approach (observational, experimental, and quasi-experimental) and data from different sources and contexts. In this concluding section, I provide an overview of the main findings and contributions of this dissertation, discuss their implications, point to potential limitations, and outline avenues for future research.

5.1 Overview of the main findings and contributions

5.1.1 Fragmentation of the government and accountability

In the first empirical chapter of the dissertation, titled “*Responsibility attribution for corruption scandals*”, I have analyzed the effect of government fragmentation on the vote for the incumbent when it has been accused of corruption. Previous studies on accountability typically assumed that voters punish all kinds of governments, regardless of the number of parties that form it. The main contribution of this chapter has been to challenge this assumption by distinguishing between single-party majority governments and coalition/minority governments and between welfare-enhancing corruption and welfare-decreasing corruption.

Building on previous work on the topic I have argued that there are good theoretical reasons to expect both single-party majority governments and coalition/minority governments to enhance accountability. On the one hand, according to theories of “clarity of responsibility” (Powell Jr & Whitten, 1993), we should expect voters to more severely punish single-party majority governments when they engage in corruption practices, because voters can more easily identify who is responsible for policy outcomes when only one party holds the absolute majority of seats. On the other hand, I have contended that coalition and minority governments may also enhance accountability, because in these cases opposition parties enjoy a greater relative power, which allows them to better police government’s behavior (Strøm, 1990). Moreover, coalition governments may incentivize accountability if coalition partners perceive that blaming other members of the coalition for the wrongdoings may bring themselves electoral benefits (Lupia & Strøm, 1995).

I have tested these hypotheses using electoral data from Spanish municipalities between 2007 and 2011. For the analyses I only considered corruption cases in which the scandal affected individuals belonging to the municipal executive, the criminal charges were always brought by a credible and reliable non-partisan actor (e.g. judges, prosecutors, or the police), and the scandals were reported by the press before the elections. Given that the analyses only considered credible indictments and that the scandals always affected individuals belonging to the local executive branch, I consider this paper to be a hard test of the “clarity of responsibility” theory.

The results have shown that citizens punished single-party majority governments more severely than coalition/minority governments when they had been accused of corrupt practices. However, this was only the case when corruption scandals had clear negative economic externalities for the municipality. When corruption was associated with positive economic consequences in the short term, voters were more prone to forgive governments for their behavior, regardless of the government's status. In conclusion, this chapter has highlighted that fragmentation of governments is an important institutional factor shaping accountability and, consequently, the functioning of democracy. Even in an arguably hard setting, in which citizens should be aware of corruption and should easily link the scandal with the actors behind it, single-party governments are more punished than governments who need the support of other parties.

5.1.2 Fragmentation of the opposition and accountability

In the second empirical chapter of the dissertation, titled "*Opposition fragmentation facilitates electoral accountability. Evidence from a survey experiment*", I have shifted the attention to the role of the opposition and have analyzed how its fragmentation conditions the vote for the incumbent when the latter has been charged with corruption.

Previous literature on the topic has primarily focused on the characteristics of the incumbent (Dassonneville & Lewis-Beck, 2017; Schwindt-Bayer & Tavits, 2016). Yet, the expectation that governments will be held accountable if their performance does not live up to voters' expectations implicitly assumes that disappointed voters will either vote for an opposition party or abstain. While this is a reasonable expectation, the extent to which voters switch to an opposition party may not only depend on the characteristics of the government but also on the fragmentation of the opposition (Maeda, 2010). This chapter has argued that the fragmentation of the opposition shapes accountability through two mechanisms, ideological proximity and the parties' viability, and that the relative importance of each mechanism may be conditioned by voters' demands and by contextual factors.

Drawing on data from a survey experiment in which I manipulated the exposure to and the framing of a corruption scandal, this chapter has shown that as fragmentation increases, the vote for the incumbent decreases. This means that corrupt incumbents are more likely to be held accountable when voters have multiple options in the opposition. Delving deeper into the mechanisms, I have shown

that the overall positive effect of opposition fragmentation on accountability can be explained because the marginal gains in proximity driven by an increase in fragmentation offset the ensuing losses in viability.

The chapter has further shown that voters may not respond equally to opposition fragmentation. While more pragmatic voters always punish corruption, regardless of the degree of fragmentation, ideologue voters only hold governments accountable when they can find an ideologically close alternative, which makes them more sensitive to the level of fragmentation.

With regard to the distinction between valence and ideological issues, the results have neither confirmed nor rejected the validity of this mechanism. Overall, corruption frames did not condition the effect of fragmentation on accountability. However, in a more careful analysis of the results, it has been shown that ideologue voters behaved in a very similar way regardless of corruption frames, whereas pragmatic voters, who severely punished incumbents when corruption was framed as a valence issue, became more tolerant when the scandals were debated in ideological terms, particularly when the degree of fragmentation was low. These results partially confirm my hypotheses regarding the distinction between valence and ideological issues, and provide additional evidence supporting my claim that voters are not homogeneous when they decide whom to vote for.

This chapter has made several relevant contributions to the literature on party systems and accountability. First, this chapter has focused on the opposition and has shown that fragmented party systems may be more effective in holding governments accountable than previously thought. Although fragmented party systems may foster the formation of coalition and single-party minority governments, thus blurring attribution of responsibilities, this chapter has shown that they may also enhance accountability by providing voters with a greater range of ideological alternatives. Furthermore, this chapter has also tried to reconcile extant contradictory results regarding the effect of fragmentation on accountability, theorizing that fragmentation poses a tradeoff between ideological proximity and parties' viability and incorporating voters' demands and contextual factors into the analyses.

Finally, this chapter has also contributed by highlighting the role of the characteristics of the opposition in shaping accountability. While most studies have typically analyzed the characteristics of the government, to my knowledge this paper is one of the first studies that disentangles the mechanisms through which the fragmentation of the opposition conditions accountability.

All in all, the first two chapters of the dissertation have provided a theoretical framework for analyses of fragmentation at the government and the opposition levels. Although previous literature on the topic had analyzed the relationship between fragmentation and accountability, this dissertation has disentangled the various mechanisms through which the fragmentation of the government and the fragmentation of the opposition may condition accountability. As the results have shown, fragmentation may, under certain conditions, be good news for the functioning of democracy.

5.1.3 Polarization and incumbent turnover

The third empirical chapter, titled “*The political consequences of polarization: Quasi-experimental evidence from runoff elections*”, has focused on the political consequences of another essential feature that characterizes party systems, polarization. Specifically, this paper has analyzed how polarization conditions two outcomes that are related to the functioning of democracy: vote for the incumbent and turnover.

Building on previous literature on the consequences of polarization, in this chapter I have argued that polarization may prevent incumbents from losing office by fostering voters’ mobilization around them. According to my argument this occurs because polarization increases the average ideological distance between voters and runner-up candidates and because it raises uncertainty about to what expect from an incumbent turnover.

The hypotheses have been tested through the application of a Regression Discontinuity Design to data from the French legislative and cantonal elections between 1981 and 2021. This strategy has enabled me to overcome potential issues of endogeneity and omitted variables. Overall, the results have shown that polarization brings about a significant increase in support for incumbent candidates, which helps them secure reelection most times. These effects are particularly strong when polarization occurs due to the presence of runner-up candidates that come from extreme parties. When that is the case, almost every single incumbent is able to secure reelection.

Moreover, the results have shown that extreme runner-up candidates are particularly unappealing to voters who are looking for an alternative to the current incumbent. Polarization did not seem to have any effect on the electoral results of runner-up candidates that do not belong to an extreme party. In contrast, extreme runner-up candidates lost 5 pp in support, on average. The results have

also provided support for the mechanisms proposed in the theory. The fact that polarization exerted a stronger effect when it occurred due to the presence of an extreme runner-up candidate supports the idea that feelings of uncertainty and threat play a role in shaping vote decisions, although further analyses have also provided support for the ideological distance mechanism. In fact, in those districts in which parties of the ideological bloc represented by the incumbent did well in the first round, the positive effect of polarization on the vote for the incumbent and the subsequent decrease in turnover was significantly larger.

This chapter has made two relevant contributions to the literature on the democratic consequences of polarization. First, it has shown that polarization may condition how democracies work by inducing voters to coordinate their votes on the incumbent, thus decreasing turnover. These effects are particularly strong when polarization is associated with the presence of an extreme runner-up candidate in the second round. In these cases, the rate of turnover is close to zero. Second, although there has been a recent surge in the literature on the political consequences of polarization, most of them face important challenges regarding causality. In fact, levels of polarization are likely to be endogenous to several societal and institutional characteristics, which limits the extent to which results can be read in causal terms. This paper makes a substantive contribution to identifying the effects of polarization since the specific Regression Discontinuity Design used here has allowed me to exogenize the degree of polarization between candidates in a way that, to my knowledge, has not been done before.

5.2 Implications of the main findings

The findings and contributions outlined in this dissertation have several theoretical and political implications. First, this dissertation underscores the role of institutions in shaping accountability. More specifically, the results of the first empirical chapter help reveal why underperforming incumbents sometimes escape electoral punishment. As shown here, the extent to which voters can hold governments accountable depends on how easy it is for them to link actors with political outcomes. In terms of “clarity”, single-party majority governments outperform minority and coalition governments because when only one party holds the absolute majority of seats, voters can more easily link actors with

outcomes (Anderson, 2000; Powell Jr & Whitten, 1993; Schwindt-Bayer & Tavits, 2016). These results are crucially important to the functioning of democratic systems since the lack of punishment may generate perverse incentives: if rulers are aware that their actions have no consequences, why should they be responsive to citizens' demands?

To avoid such a scenario, some works on the "clarity of responsibility" theory have contended that reducing institutional complexity by introducing majoritarian electoral rules could make it easier for voters to hold governments accountable (see Schwindt-Bayer and Tavits (2016) and Tavits (2007)). In fact, if we assume that "clarity" is the only mechanism through which fragmentation conditions accountability, the adoption of rules that foster the formation of single-party governments may be especially useful in countries in which governments tend to escape electoral punishment for their wrongdoings.

However, this dissertation has shown that when we shift the focus from "clarity" to the provision of alternatives, fragmented party systems become more effective in holding governments accountable than previously thought. Voters' ability to hold governments accountable depends not only on how much they blame the government but also on how much they like the opposition. In this sense, fragmented oppositions provide voters with a wider range of alternatives. If alternatives are few, voters who do not approve of the government's performance may decide to keep voting for the incumbent anyways, rather than switching to an opposition party. Therefore, even if reducing complexity facilitate attribution of responsibility, any reform adopted to this end should also consider the costs of limiting the number of alternatives.

Related to the previous points, the results obtained in the first chapters of this dissertation also indicate the importance of information. The extent to which voters are able to identify who is responsible for policy outcomes is likely to depend not only on institutional rules but also on other conditions such as availability and credibility of information (Chong et al., 2015; Muñoz et al., 2016; Winters & Weitz-Shapiro, 2013). While this hypothesis has not been directly tested in this dissertation, the results imply that in contexts of credible and reliable information being available, the potential negative effects of institutional complexity should be less acute. Promoting transparency and giving more tools to the media to check governmental performance may be useful for clarifying the link between political actors and policy outcomes.

In terms of the causal mechanisms at play, this dissertation has posited that analyzing the interaction between party system and individual characteristics is important for a better understanding of how party systems shape accountability. While previous research on the topic almost exclusively focused on the features of the party system (Maeda, 2010; Schwindt-Bayer & Tavits, 2016), I have shown that voters' characteristics play an important role, since they establish what voters need in order to hold underperforming governments accountable. The primary implication is that a certain degree of fragmentation may not be equally efficient in fostering accountability across different contexts if voters' demands and preferences are radically different. Any attempts to enhance accountability, including those mentioned above, should not be indifferent to this finding.

The results of the third empirical chapter also have important implications for our understanding of the consequences of polarization. I have shown that voters take advantage of the information provided by the results of the first round of elections to update their behavior in the second round. Polarization favors coordination around the incumbent and hampers the conditions in which voting for the runner-up is more likely, specially when the latter belongs to an extreme party. Again, these results speak directly to the role of electoral settings and information quality in shaping voting behavior. As they show, in contexts of rich information, such as French runoff elections, extremely polarizing candidates have little chance of reaching office.

Moreover, in many definitions of democracy, elections are seen as a tool through which voters signal the policies they want to be delivered (Stokes, 1999). This ideal can hardly be achieved in highly unstable contexts, since many policies require time to be implemented. Paradoxically, by preventing governments from losing office, polarization may act as a stabilizing force that gives governments the chance to further develop their policy agendas.

Finally, the results of the third empirical chapter also have implications for theories of accountability. As I have been shown, if polarization favors coordination around incumbents, it may also hamper accountability by increasing the cost of sanctioning the incumbent, as noted by Graham and Svobik (2020). Therefore, in contexts of high polarization voters may face a tradeoff between ideological proximity and performance: as the ideological distance between voters and the alternatives increases, as is likely to happen in a polarized context, voters may prefer to forgive ideologically-close incumbents for wrongdoings and keep voting for them (Rundquist et al., 1977).

5.3 Limitations and directions for future research

This dissertation has indicated the consequences that different configurations of party systems can have for two outcomes crucial to democracy: accountability and incumbent turnover. Overall, I have found empirical support for the hypotheses put forward in each chapter. However, this work also contains a number of limitations that should be taken into account and that can serve as a starting point for future work.

First, the articles that make up this dissertation are each based on a single case. Spain in the first two articles, and France in the third article. Using data from subnational units within a single country has its advantages (e.g. it facilitates keeping institutional, social and cultural variables constant, as noted by Laver et al. (1987) and Pepinsky (2019)), but it may also limit the extent to which the results can apply to other contexts. Although this potential limitation has been thoroughly addressed in the specific chapters, further research should certainly analyze how the proposed theory and mechanisms generalize to other contexts.

This point may be of particular relevance in the case of the third article. The runoff system under which the French legislative and cantonal elections are held has been particularly useful for the purpose of the paper, since it has allowed me to use the results of the first round to exogenize the degree of polarization in the second round. However, first rounds also provide voters with high-quality information on the distribution of preferences among the electorate. Therefore, it would be interesting to investigate the extent to which the current results hold in contexts in which voters lack the information provided by a first round such as Proportional Representation systems and majority systems with only one round.

Also related to the third article of this dissertation, another promising avenue for future research would be continued probing into the mechanisms triggered by polarization. Although ideological distance and uncertainty have been analyzed as two separate sub-dimensions of polarization, it may well be the case that the ideological disutility yielded by polarization is not constant along the ideological axis. In other words, one unit of ideological distance towards the extremes may yield a greater loss in utility than one unit of distance towards the center. Exploiting individual-level data and conjoint experiments could contribute to a better understanding of the mechanisms behind polarization.

Understanding how these mechanisms are activated may also shed light on the consequences of polarization for accountability. Perhaps surprisingly, studies on the topic are relatively few, and conflicting explanations exist. As mentioned above, Graham and Svobik (2020) show that in polarized contexts citizens are particularly benevolent to co-partisans who violate democratic principles. The main explanation for this finding is that polarization increases the costs of defecting from preferred candidates, even when they do not perform well. This result seems to be in line with one of the main findings of this dissertation: polarization decreases turnover by fostering voters' coordination around incumbents. In contrast, Hellwig (2010) and Stiers and Dassonneville (2020) argue that a polarized set of alternatives fosters retrospective voting, because it clarifies where parties stand on various issues. In other words, polarization facilitates attribution of responsibility and makes it easier to find an alternative. Future research should investigate whether the potential benefits of polarization in terms of "clarity" outweigh other associated costs, such as the disutility yielded by vote switching.

Similarly, more work is needed on the contextual factors that can condition accountability. In this dissertation I have argued that the effect of opposition fragmentation may depend on whether the main issues in the campaign are debated in valence vs. positional terms. Although the results have not been conclusive, I have found some evidence that voters change the importance of their preferences as a function of the issues in the campaign. A potential idea for future work on this topic could be to enforce accountability by using an economic crisis rather than corruption. That would make it easier for researchers to develop credible valence and positional frames. Alternatively, it could be also interesting to use shocks of various natures (e.g. economic crises, corruption and natural disasters) to see how the type of shock interplays with the degree of fragmentation and with voters' preferences.

On a separate issue, in the first empirical chapter I have not been able to differentiate between coalition governments and single-party minority governments due to data availability. Although the mayors leading these types of government share some characteristics such as the need for support from other parties, it would be interesting to analyze whether they may differ in terms of responsibility attribution and accountability. In the end, the number of parties that form a government and the majority/minority status of a government are two separate dimensions that may differ in their influence on how voters attribute blame or credit. While some studies have explored this possibility (Dassonneville & Lewis-Beck, 2017), we still do not have a comprehensive understanding of which

components are key to “clarity”. Further work on these components that takes into account differences between parliamentary and majoritarian systems is needed.

Moreover, parties may not only be held accountable for their performance in office but also for their behavior when operating in the opposition. Although some studies have already explored this possibility (see Plescia and Kritzinger (2017) and Stiers and Dassonneville (2020)), further research is needed to provide a more nuanced picture of when and why parties in the opposition are held accountable. Do opposition parties that support governmental policies follow the same electoral fortunes as the incumbent? Does the support depend on whether they followed their own election pledges? Or is it rather the case that these parties receive the votes of those who are dissatisfied with the government’s performance? Seeking an answer to these questions is a promising topic for future research.

In terms of the methods used in this dissertation, in the first empirical chapter I have analyzed real-world data from Spanish municipalities by running a series of multivariate OLS regressions. Although this may have certain advantages in terms of external validity, the extent to which the results can be interpreted in causal terms is limited. A potential avenue for future research could be the use of (quasi-)experimental methods to exogenize the number of parties that form a government (see, for instance, Schwindt-Bayer and Tavits (2016)). Although his work deals with the prevalence of corruption rather than corruption voting, the research strategy used by Puigmulé-Solà (2020) is promising.

Related to the previous point, in the second empirical chapter I have analyzed the effect of opposition fragmentation on accountability through a survey experiment. In the experiment, respondents were asked to consider a hypothetical situation in which elections were to be held in a foreign country and with fictitious parties. Moreover, they were provided with reliable information about a corruption scandal affecting the government and the available alternatives. My aim in doing so was twofold. First, using hypothetical situations is said to enhance the precision of the treatment by discouraging voters to respond based on specific situations they may have experienced (Anduiza et al., 2013; Schwindt-Bayer & Tavits, 2016). Second, information about the scandal and the alternatives was provided to keep the first stages of accountability constant. While using such a stylized design has its advantages, in future works it would be interesting to see how citizens respond to less stylized designs.

In summary, in a context of growing complexity and uncertainty, the papers that make up this dissertation make a valuable contribution to the literature on party systems and the functioning of democracy. As I have shown, fragmentation and polarization, two defining characteristics of party systems, are relevant to understanding how democracies work. In terms of accountability, single-party governments facing fragmented oppositions are best for democracy, while polarization feeds electoral support for incumbent candidates and prevents them from losing office.

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