

Old friends and new enemies, parties in changing time and space

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To my loving parents

André Laroze and Doris Prehn

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Summary

Political parties are the cornerstone of modern democracies and the decisions they make can have important consequences for citizens' well-being. This dissertation studies two different types of party behaviour. The first is coalition building and how social-identity concerns can help predict which parties form alliances. The second is the decision of potential new parties to enter electoral competition.

The effect of social-identity on coalition formation is tested using an experiment on the 'pure effect' of gender, race and political ideology on who is selected as a coalition partner. The findings showed that gender and race did not affect participants' decisions. By contrast, ideology had a strong effect. Substantively, the results provide evidence that a preference for similar coalition partners can help predict which coalitions form, even when there are no policy benefits from this alliance to be gained.

Party entry behaviour is analysed through two incentive structures. The first paper measures the impact of public subsidies on new-party presidential candidates in Latin America. The results show that campaign subsidies can increase the relative costs of a campaign and create a barrier for new-party candidate entry. On the other hand, campaign funding for everyday party activities has the opposite effect. This study contributes to the understanding of the cost-benefit incentives for new party entry and the consequences of party finance regulations.

The second paper on new parties addresses the dynamic process of party exit and entry into politics. The study argues that the collapse of a political party opens policy space that can lead to the successful entrance of new parties. The results provide robust evidence that the size of the collapsed party has a positive effect on the vote shares for new parties. However, this is moderated by the permissibility of the electoral formula.

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Chapter 1

Introduction

Modern democracies are a far cry from the public discussions of the ancient Greek Agora where all free men could take part in decisions. Today the principal actors in the political stage are parties and their leaders. But parties do not simply aggregate their voters' opinions; they have interests and biases of their own that shape the decisions they make. Who to form alliances with? When to run as an independent body? What policy position to take? The answers parties give to these questions, the way they behave, have substantive consequences for the functioning of a democratic system. Not surprisingly, political science has a long history of research into party behaviour (Duverger 1959, Riker 1962, 1982, Axelrod 1970, de Swann 1973, Laver & Schofield 1990, Laver & Budge 1992, Cox 1997, Baron & Diermeier 2001, Hug 2001, among many others).

The research presented in this dissertation contributes to this field by studying the impact of incentives that alter two types of party behaviour: i) coalition building and ii) the entry of potential new parties into electoral competition. These two decision making processes have distinct outcomes and procedures, however, they share an underlying principle: both are implemented by party leaders who are subject to varying costs, benefits and non-monetary incentives.

Starting from a common rational choice approach, the three papers in the dissertation focus on different aspects of party behaviour, each making a unique contribution to their area of research. Chapter 2 tests the impact of (non-monetary) social identity

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on coalition formation, eliminating all office or policy seeking benefits that could otherwise explain the behaviour. The results provide evidence that social identity concerns can affect coalition formation, suggesting that the inclusion of this variable in formal models could help resolve the differences between predicted and observed coalitions. Chapter 3 addresses the impact of party financing on new party entry. The results highlight the contrasting effects of different types of party financing on the stability of the party system and, consequently, the trade-offs faced by policy makers. Chapter 4 focuses on the impact of opportunities for new party entry created by an opening in the policy space after a party collapse. In doing so, it is the first paper to empirically test spatial arguments of party entry from a dynamic exit-entry perspective. Together all three papers add to the broader understanding of how decisions made by political parties are affected by the circumstances under which they are made and personal biases.

The first paper (Chapter 2) looks at coalition building behaviour. Political coalitions are an integral part of modern politics. It is therefore important to understand the process through which coalitions emerge. There is a large empirical and game theoretic literature on this topic. Typically, game-theoretic models cannot predict a unique equilibrium and, when they do, results suggest alliances between the largest party and weakest partner (or partners) that produce a sustainable coalition (see Austen-Smith & Banks 1988, Baron & Diermeier 2001). However, these outcomes can imply coalitions between parties at different sides of the policy spectrum, which are not supported by empirical evidence. On the contrary, studies of parliamentary democracies indicate that coalitions (and pre-electoral alliances) are less likely to form as the ideological distance between potential partners increases (Martin & Stevenson 2001, Golder 2006*b*). An example is the current German government. Although the party alliance of the conservative CDU/CSU was just five seats short of an absolute parliamentary majority it formed a coalition with the second largest party, the social-democratic SPD. The alternative was forming a coalition with one of the two smaller parties (the Greens and the Left). However, they were deemed too ideologically distant and unacceptable partners.

The study presented in Chapter 2 suggests that one factor that may improve theo-

retical predictions about coalition formation is membership in predefined groups. Experimental and formal research finds that social identity is relevant for individuals' decision making processes, including political biases, policy preferences, cooperation and the number of candidates (Tajfel et al. 1971, Tajfel & Turner 1986, Chen & Li 2009, Akerlof & Kranton 2000, 2010, Bartels 2002, Green et al. 2004, Iyengar et al. 2012, Charness et al. 2007, Fershtman & Gneezy 2001, Dickson & Scheve 2010, among many others). The argument is tested using a laboratory experiment to measure the effect of social identity in a coalition building game. Results indicate that ideological distance has a strong effect on who is selected as a coalition partner.

Chapters 3 and 4 of the dissertation concentrate on new political parties. Studies on new party entry have a relatively short history. One line of research analyses the impact of institutions and how they alter the costs and benefits of entry (cf. Cox 1997). The insights from this literature highlight the level of permissiveness in electoral systems as one of the strongest enablers of (or limitations to) new party entry (see Harmel & Robertson 1985, Cox 1997, Tavits 2006). Another relevant factor is the amount of party regulation, where more rules are associated with lower a number of new parties (van Biezen & Rashkova 2014). The empirical evidence also shows that country characteristics, such as the time since democratization, the level of ethnic heterogeneity and size of the population are associated with the number of new parties (Hug 2001, Tavits 2006, 2008*a*, van Biezen & Rashkova 2014).

The investigation in Chapter 3 contributes to understanding how public subsidies for parties alter the costs and benefits of entry. The paper provides a disaggregated analysis on how the allocation of subsidies for campaigns and on-going party activities affect new party entry. Previous literature on party finance finds evidence of the importance of these regulations on the party system (Hug 2001, Hooghe et al. 2006, Scarrow 2007, Tavits 2006, 2008*a*, among many others). However, with the notable exception of Potter & Tavits (2013), many studies estimate an aggregate effect of the presence/absence of public funding for political parties.¹ In contrast to that approach, this chapter ar-

¹Potter & Tavits (2013) measure the effect of inequality in the distribution of public funds among different types of parties (e.g. large, small, old and new) on the size of the party system.

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gues that different types of subsidies have opposite effects on entry, depending on what stage of the electoral cycle the funding is designated for and, therefore, these should be studied independently. The hypothesis tested in the paper proposes that monetary and media subsidies for campaigns, allocated based on past electoral results, generate higher relative costs for presidential candidates running for new parties, decreasing the number of entries. On the other hand, funding for on-going party activities, distributed as a function of upcoming electoral results, are assumed to generate incentives for new parties to sponsor a presidential candidate. Empirical results on Latin American presidential elections provide evidence in favour of these hypotheses.

A second strand of literature on new parties concentrates on the impact of policy supply. Laver & Schilperoord (2007) use an agent based approach to create an endogenous model of party birth and death, using the dynamics of supply and demand to observe new party entry. Their results identify the threshold of survival as the key limitation to party birth. Zons (2013) and Lago & Martínez (2011), on the other hand, focus on variations in the characteristics of the party system that change within a country over time. Zons (2013) indicates that new parties are more likely to enter when policies offered by existing parties are less diverse. That is, when voters are not appropriately represented by existing parties. Lago & Martínez (2011) measure the effect of turnout (market failures), seat threshold and volatility (voter elasticity) on successful new party entry. Their study of Spanish sub-national elections finds that higher volatility is associated with a higher probability of a successful entry. However, they also argue that the electoral threshold to obtain a seat in the legislature conditions the likelihood that new parties can take advantage of market failures.

The research in Chapter 4 makes a contribution to the literature on the impact of policy supply on new party entry. It is, to my knowledge, the first paper to empirically measure the impact of party exit on new party entry. In doing so it identifies when opportunities for new party entry are created within a country's institutional and cultural setting. The study tests the hypothesis that possibilities for successful entry are created after an existing political party collapses. The paper argues that a party collapse, un-

derstood as a loss of more than 50% of a party's vote share, leaves a group of voters without adequate representation, thus creating space for new parties to enter in the next election. Consequently, the larger the space opened by a collapse the higher the new party vote shares one can expect. However, the study proposes that this effect is conditioned by the permissibility of the electoral formula. Empirical results on data from 33 parliamentary democracies produce robust evidence in favour of these arguments.

1.1 The impact of group identity on coalition formation

This first paper addresses the question of *whether social identity impacts the selection of coalition partners*. However, an important problem with measuring the effect of social identity is that *expressed* identities are created by group members in reaction to what they can *observe* about others within existing political environments (cf. Michelitch 2015, Posner 2004, Jenkins 1996). This makes it impossible to disentangle the effect of identity using conventional observational data approaches. To account for this problem the study uses a laboratory experiment.

The experiment consists of a divide-the-dollar game where participants must decide how to split a £17.00 'pie' among three group members (including themselves). The game includes ten coalition-building periods, each of which is composed of a maximum of five rounds. After each round the pie is discounted by a factor of $\delta = 0.7$ if no coalition is agreed, thus generating a cost for delaying the negotiation. If the offer is rejected in the fifth round, all players in the group get zero and move on to a new period. Each negotiation group is composed of three participants and subjects are re-grouped in every period with players from their matching group (known as stranger design in experimental literature).

A baseline and two experimental treatments (identified as 'Main' and '2Dictator') are used to test the effect of group identity on participants' coalition-building decisions. In baseline sessions, participants go through the experimental procedure without any information about who they are interacting with. In the 'Main' treatment sessions participants are informed of the gender, race, and ideological positions of their group

members. Gender and race data is shown by giving each participant an on-screen avatar that matches the characteristics they provide in a pre-treatment survey. The ideological position of each group member is displayed on screen on a left-right scale that indicates the location of each member. The ‘2Dictator’ treatment maintains the same structure but adds two dictator games (with social identity information), one before and another after the ten coalition-building periods. This allows us to explore whether majority bargaining can increase group identity concerns (see Posner 2004).

The experiment is structured in such a way that an ‘offer’ simply consists of a division of material benefits between the participants. Coalitions are then formed only on the basis of these monetary offers, minimizing any concerns partners may have about future policy outputs from coalition bargaining. This design allows one to test for a ‘pure effect’ of group identity. Results show that gender and race do not affect participants’ decisions. By contrast, ideology has a strong effect. Participants offer less, and are less likely to offer any positive amount, to those who are more distant from them ideologically. The results provide evidence that preference for similar coalition partners can help predict which coalitions form, even in the absence of policy concerns. This implies that coalition formateurs are not purely rational actors pursuing policy goals and/or the benefits of office. Rather, they also care about the identity of their partners, preferring others who are more like themselves.

1.2 Party financing and the entrance of new-party candidates

The second paper analyses the question of *how party financing regulations affect the entrance of new-party candidates in presidential elections Latin America*. There have been a substantial number of new-party candidates in recent Latin American elections. Among noteworthy examples are, presidents Rafael Correa and Lucio Gutiérrez in Ecuador, Alberto Fujimori in Peru and Hugo Chávez in Venezuela.

The paper argues that one reason new-party candidates enter are the incentives in-

1.2. Party financing and new-party candidates

troduced by regulations regarding the public financing of political parties. Campaign-period subsidies (allocated based on past electoral results), are hypothesised to increase the relative costs of the campaign, creating a potential barrier to entry that can reduce the number of presidential candidates sponsored by new parties. On the other hand, performance based subsidies for inter-election (i.e. on-going) party activities are suggested to have the opposite effect. As subsidies for on-going activities are obtained as a consequence of a successful campaign, when these funds are available new parties would have incentives to run the most competitive election campaigns possible. An efficient way of doing this is by running a presidential candidate and using his or her ‘coattail’ effects (cf. Golder 2006a, West & Spoon 2015, among others) to improve the party’s overall results.

To test this argument the study uses a Time-Series Cross-Section estimation on the number of new-party candidates participating in 113 democratic elections in 18 Latin American countries between 1978 and 2013. A novel dataset on new-party candidates and party finance regulations was coded specifically for this purpose. It includes an adaptation of the concept of ‘new parties’ defined by Hug (2001) that accounts for the predominance of presidential elections in the region. Furthermore, this operationalisation focuses the analysis on new parties that appeal to a national audience, excluding regional parties that don’t aspire to represent voters outside a local constituency. To the best of my knowledge this is the first dataset of its kind, and creates opportunities to test the generalizability of new party theories on a broader institutional, economic and cultural setting. Additionally the dataset includes the first time-series categorization of party finance regulations in Latin America.

The empirical results corroborate the hypotheses indicating a strong impact of public funding for political parties on the number of new-party presidential candidates that enter. Substantively, the study highlights the importance of looking at the effects of specific public funding provisions and carefully considering their impacts for future institutional reforms. In the case presented here, increases in costs for new-party candidates, produced by unequal monetary and media funding for campaigns, reduce the

incentives for entry. This, in turn, corresponds with a more stable electoral arena, where the number of new entries is small and the *status quo* tends to prevail. On the other hand, public subsidies for political parties' inter-election (on-going) activities increase the incentives to participate in the election, other costs being constant. Consequently, these types of benefits can lead to more variation in the actors and policy offers available to the electorate.

1.3 Party collapse and new party entry

The third paper studies *when new parties emerge*. The main hypothesis is that opportunities for successful entry are created after a large political party collapses. However, endogeneity in the process of party entry and exit limits the reliability of contemporaneous empirical estimations of causal effects (cf. Laver & Schilperoord 2007). Take, for example, the Spanish 2015 general elections. The governing *Partido Popular* (PP) lost its parliamentary majority, while at the same time the new party *Podemos* obtained 20.66% of the votes in its first general election.² The rise of *Podemos* can be explained by PP supporters dissatisfied with the party's corruption scandals or by *Podemos*' anti-austerity message, or most likely a bit of both.³ If one were to estimate the effect of exit on entry at one point in time it would be impossible to identify which of the scenarios explains the new party's result.

To address the endogeneity issue this paper measures the effect of party collapse in the previous election on the vote share for new parties in the current one. Since, the entrance of a new party in an election cannot cause a party to crash in the previous one, this approach allows one to identify the impact an opening in the policy space, without the contamination of the new party's behaviour. One concern would be that time trend could explain both the crash of a party in one election and the success of a new party in the next. However, this is minimised by focusing on the characteristics of

²Election results obtained from the newspaper El País http://elpais.com/tag/elecciones_generales_2015/a/on-07-01-2016

³Data on corruption in Spain obtained from <http://www.elperiodico.com/es/temas/corrupcion-partido-popular-270> on Feb 1, 2016. Data on *Podemos* was obtained from <http://podemos.info/programa/> the same day.

the collapsed party in the election before the crash occurred, introducing a two election interval between the values of the dependent and independent variables of interest.

To test the hypothesis, empirical estimations are conducted on a broad dataset of 33 developed democracies between 1945 and 2011. The results provide strong evidence that the size of the collapsed party (a measure of the space created) is associated with new party electoral success. But the magnitude of the effect of size on new party vote share is conditioned by the permissibility of the electoral system. The results are robust to multiple methods of estimation, controls for outliers in the data and different operationalisations of the dependent variable.

1.4 Plan of the study

The study proceeds with three self-contained papers. Chapter 2 presents an experimental study on the impact of social identity in coalition formation. Chapter 3 evaluates the effect of party financing on the entry of new political parties. Chapter 4 investigates how changes in a country's party system, caused by a collapse of a political party, can generate opportunities for new party entry. Chapter 5 summarizes the results and provides an overview of implications and further research questions that are raised by this dissertation.

Chapter 2

The impact of group identity on coalition formation

This study is co-authored with David Hugh-Jones, University of East Anglia, and Arndt Leininger, Hertie School of Governance

Abstract

Bargaining and coalition building is a central part of modern politics. Typically, game-theoretic models have difficulties predicting a unique equilibrium. In this paper we argue that the predictions could be improved by incorporating group-identity preferences in coalition formation. We test the effect of gender, race and ideological distance on coalition formation in a majority-rule bargaining experiment. Despite the absence of any incentives to do so, we find that ideological distance significantly affects offers made to potential coalition partners. As a result, coalitions tend to be ideologically coherent, even though there is no ideological policy output. We conclude that social identity considerations can determine equilibria in coalition formation.

Keywords— Coalition Formation, Laboratory Experiments, Baron and Ferejohn Model, Legislative Bargaining, Social Identity

2.1 Introduction

Coalitions are an integral part of modern politics. They play a fundamental role in government formation and legislation. It is therefore important to understand the process by which coalitions emerge. There is a large empirical and game theoretic literature on the topic; however, typically, game-theoretic models cannot predict a unique equilibrium.

One factor that may help predict coalition formation is membership in predefined groups. In some countries, political coalitions and parties are formed on the basis of ethnicity (cf. Horowitz 1993, Posner 2004, Madrid 2008). In others, parties are based on shared ideological positions. Empirically, coalitions in parliamentary democracies are less likely to form as the ideological distance between potential partners increases (Martin and Stevenson 2001). Similarly, pre-election coalitions are more likely to form, and are more acceptable to voters, if they include ideologically congruent parties (Golder 2006, Gschwend and Hooghe 2008). As a consequence, ‘oversized’ coalitions are frequently observed in actual politics. A particularly striking example is the current German government. Although the party alliance of the conservative CDU/CSU was just five seats short of an absolute parliamentary majority it formed a coalition with the second largest party, the social-democratic SPD. The alternative was forming a coalition with one of the two smaller parties (the Greens and the Left). However, they were deemed too ideologically distant and unacceptable partners. Social identity could also limit the possibility of forming a coalition altogether. Take for example the Spanish 2015 election, for the first time since the transition to democracy in 1978 no party won a clear majority of votes forcing parties into coalition negotiations.¹ After several months of talks the largest parties were not able to form a working coalition and new elections are scheduled for June 2016.² One reason that could explain this unwillingness of parties to form alliances, despite negotiations over office and policy benefits,

¹For data on the Spanish transition see <http://www.systemicpeace.org/polity/Spain2010.pdf> retrieved May 25, 2016. Election results obtained from the newspaper El País http://elpais.com/tag/elecciones_generales_2015/a/ on 07-01-2016.

²Electoral calendar in <http://www.elmundo.es/espana/2016/02/15/56c225f722601d07128b45a9.html>, obtained May 25, 2016.

is social identity. In the Spanish case, the four parties that could form a government were on opposite sides of a left-right and a new (anti establishment) vs. old party distinctions, with no majority coalition on any side of these cleavages. For a coalition to form, parties would have needed to incur in strong social identity concessions.

Thus far, theoretical models have successfully incorporated policy and office seeking preferences into coalition formation. However, their results tend to predict coalitions will form between the largest party and the one with the smallest bargaining power, which may or may not produce ideologically coherent alliances (Austen-Smith and Banks 1988, Baron and Diermeier 2001). We believe that the incorporation of group-identity preferences can help improve the predictions and bring them closer to the patterns observed in empirical data (e.g. ideological coherence) (Martin and Stevenson 2001).

There are two reasons that groups could matter in coalition formation. Firstly, if government outputs include policy decisions (as opposed to distributive benefits, a.k.a. the ‘spoils of office’), and if negotiating actors have preferences over these policy outputs, then groups may reflect these preferences. For example, in many countries, members of political parties have shared ideological positions on the left–right dimension. Ethnic group membership may also correlate with policy preferences if, say, groups have different income levels, or if groups living in different geographic areas want to tilt spending towards their homeland. Some models of coalition bargaining incorporate policy preferences (see Axelrod 1970, de Swann 1973, Austen-Smith and Banks 1988, Baron and Diermeier 2001, among others). However, these ‘policy-seeking’ models can be complex and make strong assumptions about the trustworthiness of negotiation results (cf. McKelvey and Schofield 1986, Laver and Schofield 1990, Laver and Budge 1992, Laver 1997, Bandyopadhyay and Chatterjee 2006).

A second reason is that actors may simply prefer to have others like themselves, or fellow members of their group, as coalition partners, irrespective of any policy outputs. According to social identity theory, a person’s membership in a group may form an important part of their personal identity (Tajfel et al. 1971, Tajfel and Turner 1986, Akerlof

and Kranton 2010). They may then behave more altruistically towards, and preferentially associate with, in-group members (see Chen and Li 2009, Akerlof and Kranton 2010, Charness et al. 2007, Fershtman and Gneezy 2001, among others). Political allegiance is itself a form of group identity (Campbell et al. 1960, Green et al. 2004). Similarly, ethnic group membership often induces strong feelings of group identity. As well as preferences for their own group, actors may have emotions about particular out-groups. Aneurin Bevan, a British Labour party politician, stated: “No amount of cajolery, and no attempts at ethical or social seduction, can eradicate from my heart a deep burning hatred for the Tory Party. So far as I am concerned they are lower than vermin.” An example of how both in-group preferences and out-group aversion might affect coalition bargaining even in the absence of policy concerns.

An important problem with measuring the effect of social identity is that expressed identities are created by group members in reaction to what they can *observe* about others and within existing political environments (cf. Michelitch 2015, Posner 2004, Jenkins 1996). This makes it impossible to disentangle the effect of identity using conventional observational data approaches. To do so, we use a laboratory experiment, a standard divide-the-dollar majority bargaining game where policy is purely distributive (Baron and Ferejohn 1989).³ In this paradigm, an offer simply consists of a division of material benefits between the participants. Thus, we remove or minimize any concerns about future policy outputs of coalition bargaining, allowing us to test for a ‘pure effect’ of group identity in the experiment. Participants are informed of their potential coalition partners’ gender, race and political ideology. Our results show that gender and race does not affect participants’ decisions. By contrast, ideology has a strong effect. Participants offer less, and are less likely to offer any positive amount, to those who are more distant from them ideologically.

Of course students in a lab cannot be equated to professional politicians who make decisions in representation of larger groups. However, political parties are not strictly outcome-oriented black boxes either. Parties are formed by individuals, leaders, sup-

³With the exception of Tremewan (2010), who uses exogenous stimuli to induce group identity, there is no other research known to us addressing the impact of group identity on coalition-building.

porters, grass-roots campaigners, and donors, among others, all of whom can have personal biases. The experiment shows that, even in a stylized environment where choices don't have policy consequences or affect future political results, people express preferences for those that are ideologically closer to them. We argue that these concerns can also be relevant for party leaders. For one, they can have personal biases that limit their willingness to initiate negotiations with 'opposition' parties. However, even if professional politicians are pragmatic and outcome-oriented with no social identity concerns, they must reckon with the preferences of their selectorate, which may have strong partisanship and group-based emotions (cf. Green et al. 2004, Iyengar et al. 2012, Lehrer 2012, among many others). They may therefore be forced to internalize their supporters' dislikes of other parties and groups, as forming alliances with ideologically opposing parties can have important electoral consequences. An example of this is the loss in support for the Liberal Democrats after the 2010-15 coalition government with the Conservatives in Britain.

2.2 Literature: Coalition-building and social identity

Coalition building behaviour has been studied within the game theoretic literature. Good summaries can be found in Laver (1997), Bandyopadhyay and Chatterjee (2006), Martin and Stevenson (2001). Broadly speaking there are two main strands in this line of research: one that only includes 'office-seeking' incentives (von Neumann and Morgenstern 1953, Riker 1962, Baron and Ferejohn 1989, among many others) and another that adds 'policy-seeking' benefits to the utility calculation (Axelrod 1970, de Swann 1973, Baron and Diermeier 2001, among many others). Both perspectives include cooperative and non-cooperative game theoretic approaches.

Office-seeking models typically predict some form of minimal winning coalitions (i.e. coalitions that have just enough voting power to pass legislation). These models, though better than random, have not performed well empirically (Laver and Schofield 1990) and do not always yield unique predictions. For example, if many actors have equivalent voting power, then there are many possible minimal winning coalitions and

2.2. Literature: Coalition-building and social identity

any of these may emerge in equilibrium, including ones that consist of parties at different extremes of the policy space. Ideologically incoherent coalitions are, however, not regularly observed empirically (Martin and Stevenson 2001).

Experimental research using office-seeking models of coalition building (e.g. Baron and Ferejohn (1989)) has provided important insights on how rules alter coalition formation behaviour (see also Gamson 1961, McKelvey 1991, Drouvelis et al. 2010, Tsai 2009, Fréchette et al. 2003, 2005, Tremewan 2010, Diermeier and Morton 2005). Experimental results tend to confirm the general intuitions of the theoretical models: the importance of the relative power of partners with different voting weights in coalition formation; the (in)equality in division of spoils and duration of the negotiations caused by different approval rules (unanimity vs simple majority) and size of the discount factor. However, experimental results have also produced a smaller than predicted proposer advantage and a substantive number of ‘Grand’ coalitions (i.e. those that include more than the minimum necessary number of coalition partners). Equal distributions of the pie (or equal among ‘coalition partners’), though not the majority of cases, are a fairly regular occurrence (cf. Diermeier and Morton 2005). Experience also plays a role and actions tend to get closer to equilibrium predictions as participants have more experience with the game (Fréchette et al. 2005, Drouvelis et al. 2010).

Policy-seeking models, add a second ‘policy’ dimension to actors’ preferences. The earlier models in this tradition argued in favour of minimal-connected coalitions (Axelrod 1970) or minimal-winning coalitions with the smallest ideological range (de Swann 1973). More recently Austen-Smith and Banks (1988) and Baron and Diermeier (2001) have updated these types of models to incorporate institutional structures to the negotiation procedures. However, in this process, they tend to make strong assumptions about the credibility of coalition agreements and the possibility of separating office and policy benefits. These assumptions lead to predictions of coalition formation between the largest party and the one with the smallest bargaining power (i.e. continuation value) that can form a winning coalition. “For example, if an incumbent party were selected as formateur, it would prefer to form a government with the party that was previously

in the opposition” (Baron and Diermeier 2001, p.936). Baron and Diermeier (2001) hint at some limitations regarding how ideologically distant the potential partner can be, but overall their model emphasises partner selection on the basis of weakness rather than policy similarity.

One aspect that coalition building theories have ignored is the potential impact of social identity. Theoretical and experimental research has found that social identity is relevant for individuals’ decision making processes, including effects on preferences for social outcomes, policy and re-distribution (Chen and Li 2009, Cohen 2003, Akerlof and Kranton 2000, 2010, Kranton et al. 2012), cooperation and punishment (Tajfel et al. 1971, Tajfel and Turner 1986, Goette et al. 2006), as well as trust and discrimination (Charness et al. 2007, Fershtman and Gneezy 2001, Hargreaves Heap and Zizzo 2009). Social identity is also present in partisanship, with party members expressing in- and out-group biases regarding actions and opinions of members of the opposition (Campbell et al. 1960, Bartels 2002, Green et al. 2004, Iyengar et al. 2012, among others).

Coalitions are formed by individuals and the groups they represent, as such, they poses an identity —a sense of self (Akerlof and Kranton 2000). Coalition formation, thus, can be influenced by a formateurs’ preference for working with a party (or parties) that are similar to their own (or a dislike of those that are different). These preferences could explain coalition formation among similar types of parties, despite those coalitions being more costly for the proposer in terms of office and policy concessions.

We believe that the predictions of coalition models could be improved if they incorporate group-identity preferences into the calculations. By accounting for the cost of forming a coalition with a political party at a different extreme of the ideological spectrum, the models could better predict the types of coalitions observed empirically. An example of this type of adjustment can be found in Dickson and Scheve (2010), who adds social-identity to theoretical models of numbers of candidates.

2.3 Experimental design and treatments

Our experiment, as much of the experimental literature on coalition-building, is based on the seminal Baron and Ferejohn (1989) model. In it, n members of a legislature vote by majority rule on proposals to divide a fixed unit of income. In each period, one legislator is randomly selected to make a proposal. If a proposal is accepted, the game ends; if it is rejected, the pie is multiplied by a positive discount rate $\delta \leq 1$ and the game continues with a new round of proposals. In the version we used, each legislator was equally likely to be selected as a proposer. In the natural, symmetric equilibrium focused on by Baron and Ferejohn (1989), the proposer offers

$$\frac{\delta}{n}$$

to $(n - 1)/2$ group members, and keeps

$$1 - \frac{\delta(n - 1)}{2n}$$

to herself. The proposal is accepted by a majority and the game ends in the first round.

In our implementation of the model, experiments started with a short questionnaire on demographics and political identity. For the coalition building stage, participants played ten rounds of a divide-the-dollar game in three-person groups (description below). After that, subjects played a one shot three-person dictator game (pie of £3.00), that was used to measure participants' pro-social orientation. Finally, participants filled out a short survey regarding their experience in the experiment.

In the coalition-building stage participants decided how to split £17.00 among the three group members (including themselves). There were ten negotiation periods, each of which was composed of a maximum of five rounds. In the first round all group members submitted a proposal (a division of the £17.00 pie). One proposal was randomly selected and presented to all group members, who then voted to accept or reject it. If the offer was accepted, it was recorded as the result of that negotiation period and par-

ticipants went on to the next period. If it was rejected, members went on the next round (within the same period). The second round had the same structure as before, but the pie was discounted by a factor of $\delta = 0.7$ (i.e. in each round $pie = 17.00 * \delta^{round-1}$). The process was repeated if the proposal was disapproved a second time. In each round participants were shown the exact size of the pie in pounds and pence.⁴ If the offer was rejected in the fifth round, every player in the group got zero and moved on to a new period. Subjects were informed of the results of the negotiation at the end of each period.

We implemented this design to make the delay in forming a coalition costly and because it is an integral part of the original Baron and Ferejohn (1989) model. This set-up is similar to that used by Drouvelis et al. (2010) and allowed us to collect data on all participants' proposals in each period.

Each negotiation group was composed of three participants and subjects were re-grouped in every period with players from their matching group (composed of six subjects), in a stranger design.⁵ This design was used to reduce any incentives for participants to choose partners of their same type and avoid any consequences of the outcomes of coalition formation for following periods. Subjects were randomly assigned into each matching group and the answers to survey question had no influence on group formation.⁶

Experiment instructions were read out loud (with printed and on-screen versions available) and questions were answered in private (details in Appendix.) This process took no more than ten minutes. There were no trial periods. Participants were paid for the outcome of one randomly selected negotiation period, plus their earnings from the dictator game and a £2.50 show-up fee.

⁴To make it easier for the participants, the discounted pies were rounded to the nearest ten pence and subjects were provided with pen, paper and a calculator.

⁵Subjects were informed that in each period they would be rematched into a different group, but the size of the matching group was not mentioned. Instructions in Appendix.

⁶The experiment was coded using the `betr` package for R (code available upon request). `betr` is an R package for conducting social science experiments (<https://github.com/hughjonesd/betr>). All code is available for replication.

Session Type	# Sessions	Total Indiv Obs	Participants per session	Total Participants
Baseline	4	12	18	72
Main Treatment	10	30	18	180
2Dictator Treatment	2	5	12 & 18	30
Total	16	47		282

Table 2.1: Summary of experimental treatments and sessions .

2.3.1 Treatments

To test the effect of group identity on participant’s coalition-building decision we conducted a ‘Baseline’ and two experimental treatments (identified as ‘Main’ and ‘2Dictator’, see Table 2.1). In ‘Baseline’ sessions, participants went through the experimental procedure described above without any information about who they were interacting with. Each group member was randomly identified with a number from 1–3, which was reallocated in every period with each new group. The data from these sessions is used as a base for evaluating subject’s behaviour under the specific experimental procedures, but it is not used for hypotheses testing, so the number of sessions is low.

In the ‘Main’ treatment sessions participants were informed of the gender, race, and ideological positions of their group members in the coalition-building stage. The gender and race data was shown by giving each participant an on-screen avatar that matched the data they provided in the survey, where subjects were asked their race and gender. The alternatives for gender were “Male” and “Female”, for race were “White Caucasian”, “Black”, “Latin American” and “South Asian”.⁷ After the survey, the participants were shown the complete set of avatars (Figure 2.1) and informed that each participant would be allocated one based on what they stated in the survey. Participants who indicated they were “Latin American” or “South Asian” both got the same ‘brown’ skinned avatar, as it was not possible to create specific avatars that were sufficiently

⁷Other races were excluded from the sample by limiting the nationalities of the eligible participants from the subject pool. As a control we also asked the subjects their nationality in the survey. Out of the 210 subjects in treatment groups, two indicated they had a nationality that was different from the list originally intended. Participants were also given an opportunity to provide comments about the experiment at the end and there were no complaints about the avatar allocation. The wording of the survey can be found in the Appendix, as well as a list of all nationalities accepted in the sample.

different from each other to produce meaningful treatments. The ideological position of each group member was shown on a left-right scale (Figure 2.1). The information was also taken from the survey, where subjects were asked to place themselves on an 11-point scale from 0 (left) to 10 (right).⁸ Because the dictator game at the end of the experimental session was intended as a general measure of the individual's pro-social behaviour, subjects played that stage without any information about the other participants.

The design and information provided to participants was selected in the interest of testing (social-identity) factors that may influence an individual's coalition-building behaviour, independent of policy or office concerns. Gender and race represent classic social-identity traits that affect human behaviour (Jenkins 1996). In certain countries political parties are formed on the basis of ethnicity (cf. Horowitz 1993, Posner 2004) and same gender groups can cut across party lines to address in-group concerns (e.g. the Women's Caucus in the United States). There is also observational evidence suggesting that, in the United States, Women, Latino and African American legislators exhibit different legislative behaviour than white males (cf. Barrett 1997, Bratton 2006). Ideological self-placement, on the other hand, is a prominent aspect of politics, yet, has the advantage of a lower social-desirability bias, as people are less ashamed to discriminate against political out-groups (e.g. Aneurin Bevan). Furthermore, by including information on all three characteristics we avoid simply adding one obvious focal point and allowing participants to use the information that is most relevant to them.

The '2Dictator' treatment included two dictator games (with social identity information) in the experimental procedure, one before and another after the ten coalition-building periods. This allowed us to explore whether majority bargaining can increase group identity concerns (see Posner 2004). The dictator games had the same structure as the negotiation rounds but without voting: there was a £17.00 pie, all participants proposed a distribution, one was randomly selected as the 'offer' and the result was displayed to the group. Subjects were shown the avatars and ideological positions of

⁸Research by Kroh (2007) suggests that using an 11-point scale with natural mid-point is superior to other alternatives.

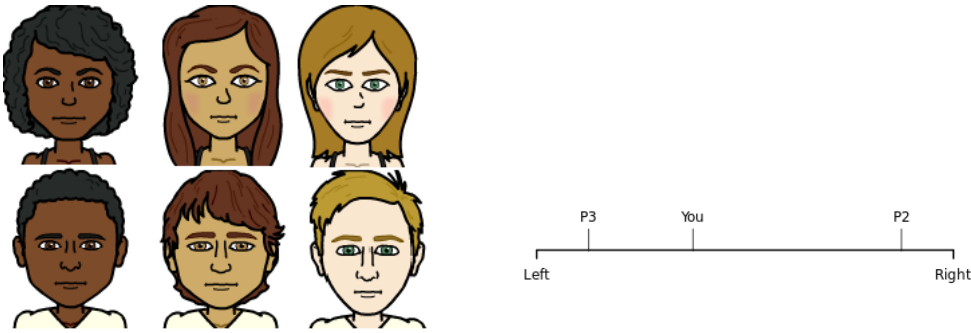


Figure 2.1: Avatar set and political self-placement scale presented to the treatment groups in the experiment. A screen-shot of the treatment is available in the Appendix.

the group-members. Instructions for the different games were provided right before the change occurred.⁹

2.4 Hypotheses

The theoretical predictions of the Baron and Ferejohn (1989) model indicate one would expect subjects to offer $3.966\bar{7} \approx 4.00$ pounds to one of the group members and keep the rest. However, experimental research on this model suggests this result is unlikely and one should expect a smaller proposer advantage (see Fréchet et al. 2005, Diermeier and Morton 2005). Regarding partner selection, pure rational choice perspectives predict coalitions between the formateurs and the weakest (a.k.a. cheapest) group member. However, in this experimental design all group members have equal probabilities of being selected as formateurs and the same voting power, so one would expect partner selection to be random, unless other factors mattered.

On the other hand, building on the literature on social-identity and coalition-building we argue that social identity co-determines coalition formation, even if it plays no role in a game's payoff function. Our hypotheses then are as follows:

⁹In a slight variation from the 'Main' treatment, in '2Dictator' one of the, now twelve periods (including the two dictator games) was randomly chosen for payment. As this design eliminated the extra earnings from the dictator game, we increased the show-up fee to £5.00 to maintain similar average payments.

- H1 Offers to same gender and/or race group members will be higher than the offers made to group members of different gender and/or race.
- H2 Offers to other group members will be higher when the ideological distance between the proposer and receiver is smaller.
- H3 Holding offers constant, group members will be more likely to accept offers from a proposer of the same gender/race, and from proposers who are closer to them ideologically.
- H4 As a result, coalitions of those voting yes on a proposition will be more likely to be ideologically ‘connected’, and more likely to be composed of same-race and same-gender members, than would happen by chance.

2.5 Data

All experimental sessions were conducted at the University of Essex Social Science Experimental Laboratory (ESSEXLab) in December 2014, February and May 2015. We ran four ‘Baseline’ group sessions, ten ‘Main’ treatment group sessions and two sessions of the ‘2Dictator’ treatment. Each session consisted of 18 individuals (see Table 2.1).¹⁰ The participants were recruited from the ESSEXLab subject pool, who declared their nationality to be of a stable democracy according to Polity IV measures (Marshall and Cole 2014). Participation was also limited to subjects that had taken part in less than five experiments overall, none of which were bargaining experiments.¹¹ Sessions lasted between 50-80 minutes. Subjects were paid a mean of £11.01, with a minimum of £4.00 and maximum of £17.40.¹² Participants in ‘Main’ treatment sessions were predominantly female (138, 66%) and white (150, 71%). Nevertheless, all of the combinations of gender and race were represented. Due to the small number of

¹⁰One of the ‘2Dictator’ treatments was conducted with 12 participants due to low turnout.

¹¹East Asian nationalities were excluded from the sample as there are very few countries within the stable democracy category and, consequently, low numbers of subjects in the pool.

¹²In sessions that lasted more than 70 minutes (three cases) subjects were paid an extra pound for their time.

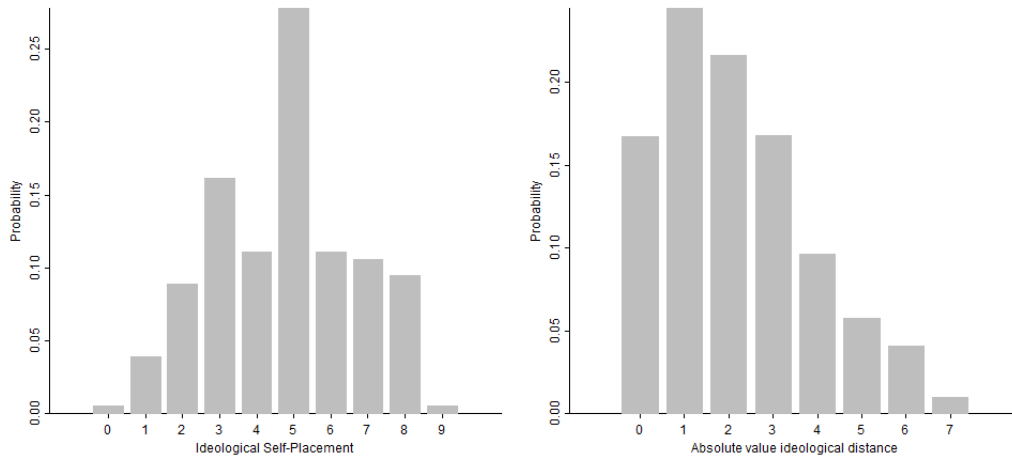


Figure 2.2: Self-placement and ideological distance in ‘Main’ treatment. Left panel: Distribution of self-placements of participants on the ideological scale - 0 meaning extreme left and 10 extreme right (not observed). Right panel: Distribution of absolute differences in self-placements within participants-dyads.

participants that were ‘Black’, ‘Latin American’ or ‘South Asian’, we pool their races into a non-white ‘others’ category for the empirical analysis.¹³

Figure 2.2 shows the distribution of ideological self-placement, as well as the distribution of distances between all pairs of participants who interacted with each other in ‘Main’ treatment groups. Most participants are in the centre of the spectrum.¹⁴

2.6 Empirical analysis

To analyse proposal behaviour (H1 and H2) we looked at first round offers, of all participants, to each of the other group members in the ‘Main’ treatment sample.¹⁵ Figure 2.3 shows the smallest and largest offers made by the proposer to the other two group members. As can be expected, given other experimental results, there are very few offers near the symmetric equilibrium (bin (4,0)) identified with the letters ‘NE’ on the graph. The largest amount of offers corresponds with a three way equal split, at the

¹³Empirical analyses using the disaggregated race categories produce the same substantive conclusions, however the small number of cases does not allow a reliable estimation of effects. Results in Appendix.

¹⁴The ‘2Dictator’ treatment presents similar patterns.

¹⁵This makes it easier to compare behaviour across groups. Conclusions are substantively unchanged if we included all offers.

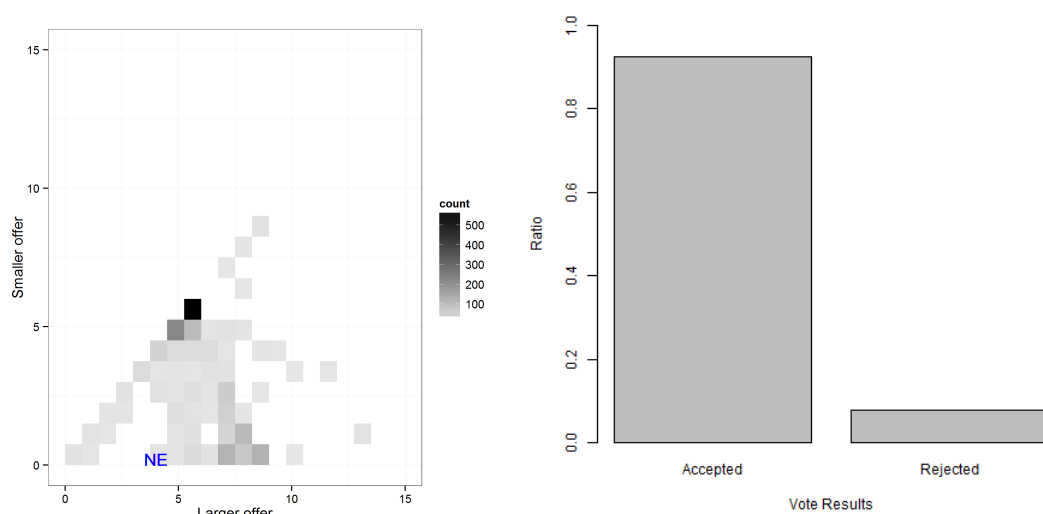


Figure 2.3: Distribution of offers and votes in ‘Main’ treatment. Left panel: Joint distribution of largest and smallest offer made by the proposer to the other two group members. ‘NE’ indicates the Nash Equilibrium of the Baron-Ferejohn game. Right panel: Share of first round offers to the group that were accepted and rejected by a majority of group members. In the ‘Main’ treatment 7.66% of proposals were rejected, slightly more than the zero theoretically predicted.

(5.60 – 5.70, 5.60 – 5.70) intersection.¹⁶ There is also a substantial number of cases along the diagonal, where the proposer offers equal amounts to the other two group members, but keeps a larger portion of the pie for him/herself, and many cases of ‘minimal coalitions’ where one group-member is offered zero. In particular, many offers are between (7,0) and (9,0) corresponding to a roughly equal split between proposer and one other group member.

The unit of analysis is the dyadic offer of each proposer to one of the other two group members (the amount kept by the proposer is excluded). Our independent variables are: ‘Same Gender’ and ‘Same Race’ dummies, indicating whether the receiver shared the same characteristics with the proposer. We also include the distance between the ideological self-placement of the proposer and receiver, denoted ‘Diff SP P-R’. As control variables we add the gender, race and self-placement of the proposer, and the similarities between the proposer and the third group member, the person excluded from a proposer-receiver dyad: ‘Diff SP P-3rd’, ‘Same Gender P-3rd’, ‘Same Race P-

¹⁶ A proposal of £5.70, £5.70, £5.60, was the most equal possible split, as the minimum divisibility was in 10 pence.

3rd'. These latter variables account for strategic decisions made by the proposers when they are in a majority or minority condition in the group.

	M1 Offer	M2 Offer	M3 Offer	M4 Partner	M5 Vote	M6 Vote
Intercept	5.13*** (0.15)	5.10*** (0.15)	5.29*** (0.17)	3.30*** (0.53)	1.49*** (0.33)	-3.02*** (0.75)
Diff SP P-R	-0.13** (0.04)	-0.16** (0.05)	-0.16** (0.05)	-0.22** (0.07)	-0.15** (0.05)	-0.04 (0.07)
Same Gender	0.10 (0.13)	0.16 (0.14)	0.16 (0.13)	0.29* (0.15)	-0.02 (0.19)	-0.30 (0.28)
Same Race	-0.09 (0.12)	-0.14 (0.13)	-0.15 (0.13)	-0.27 (0.15)	0.18 (0.18)	0.20 (0.19)
Diff SP P-3rd		0.06* (0.03)	0.06* (0.03)	0.08 (0.04)		
Same Gender P-3rd		-0.13 (0.14)	-0.12 (0.12)	0.01 (0.19)		
Same Race P-3rd		0.12 (0.10)	0.10 (0.09)	0.20 (0.22)		
Self-Placement			-0.05* (0.02)	-0.04 (0.06)	-0.06 (0.04)	-0.08 (0.08)
Proposer-Male			-0.01 (0.11)	-0.79** (0.26)	0.05 (0.23)	-0.08 (0.37)
Proposer-White			0.06 (0.08)	-0.18 (0.26)	-0.25 (0.17)	-0.17 (0.33)
Amount Offered						1.00*** (0.12)
Num. obs.	3600	3600	3600	3600	1200	1200
R ²	0.01	0.01	0.01			
Adj. R ²	0.01	0.01	0.01			
L.R.	37.06	46.69	52.92	105.40	20.60	634.57
Pseudo R ²				0.07	0.02	0.58

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ All models include matching-group clustered s.e.

Table 2.2: Regression models on amount offered to other participant (Offer), whether a participant was chosen as coalition partner by giving more than zero (Partner), and whether a participant chose to accept the offer they received (Vote).

Models M1-M3 present a linear analysis on the amount offered to each group member.¹⁷ In line with H2, the models indicate a strong negative effect of proposer-receiver ideological distance ('Diff SP P-R') on how much money is offered. For every one

¹⁷The models include the offers and votes for the first negotiation round, as these are comparable across groups. Including all rounds does not change the conclusions. Results in Appendix.

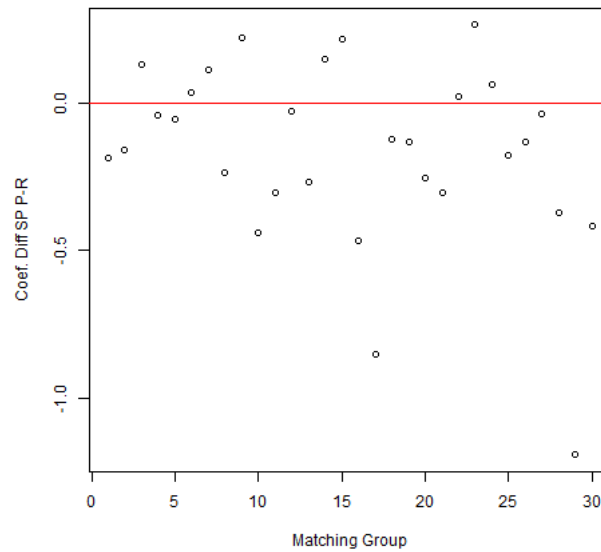


Figure 2.4: Coefficients for ‘Diff SP P-R’ from regressions of type M1 run separately within each of the 30 treatment matching groups.

point increase in absolute ideological distance, proposers offered, on average, 13 pence less to a receiver, *ceteris paribus*. M1 shows the results without including any of the control variables, while M2 and M3 add controls for the characteristics of the third group member and the proposer, respectively. The strong negative effect for ideological distance is substantively unaltered. However, M2 and M3 also indicate that the amount offered to one group member depends on the ideological distance between the proposer and the third player (‘Diff SP P-3rd’); when the third person is further away the receiver is offered more, *ceteris paribus*.

Contrary to what we expected (H1), the coefficients for ‘Same Gender’ and ‘Same Race’ are not statistically significant in the models. Neither are the coefficients for racial and gender similarities between the proposer and the third group member.

The significance of effects for ideological distance in M3 are robust to using fixed and random-effects panel estimations. Group composition is randomly assigned and all other coalition building concerns are controlled for in the experimental design, therefore the treatment variables are independent of any other factors. In addition to this, the fixed effects estimation controls for all constant individual specific characteristics

that could be correlated with the selection of an ideological position. Tables in the Appendix indicate these methods of estimation do not alter the conclusions. To account for variations in the effects caused by the sample, we estimated bootstrapped coefficients (randomized over matching groups). Once again, the negative effect of ideological distance is significant.¹⁸ We also ran analyses at the matching group level, since matching groups are independent observations. To do this we estimated coefficients for M1 for each matching group separately. Figure 2.4 displays the coefficients for ‘Diff SP P-R’ for each individual matching group regression. The median of these is significantly less than zero (two-tailed Wilcoxon test, p-value 0.005). These circumstances lead us to believe in the causal interpretation of the results.

A different way of addressing H1 and H2 is by looking at the probability of offering more than zero to another group-member, as shown in model M4. In other words, the probability of including the other as a coalition partner. Results are similar to the previous models. The likelihood of being a partner (i.e. being offered a non-zero amount), decreases as the ideological distance to the proposer increases. The position of the third group member, only significant at the 90% confidence level (p-value 0.0515), has the same positive association as before, with higher distances to the third person increasing the likelihood of the receiver being included in a coalition. ‘Same Gender’ appears to be significant and positively associated with being part of the coalition, however, this is not robust to all model specifications (see Appendix). Race is not statistically significant.

A second aspect of the negotiation process is voting behaviour. According to our hypothesis (H3), we expected participants that were similar to the proposer to be more likely to vote in favour of a given offer. In contrast to proposal behaviour, we can only evaluate the results for the proposal that was randomly selected and displayed to the group in each round, that is, one in every three offers (hence the smaller number of observations in the models). Fig 2.3 displays the share of first round offers to the group that were accepted and rejected by a majority of group members. As can be seen,

¹⁸Results of robustness tests in Appendix.

7.66% of proposals were rejected, slightly more than the zero theoretically predicted.

For the empirical analysis of voting, we used a logistic regression on the vote of each participant to accept or reject the offer they received. We exclude the proposer's own vote from the analysis. Model M5 shows a significant effect for 'Diff SP-R', indicating that offers were more likely to be rejected by people that were ideologically further away from the proposer. However, this is probably caused by the lower offers to those people in the first place. Once we control for the amount offered (M6), social identity traits are no longer significant predictors of voting behaviour. Thus, social identity has no independent effect on voting behaviour, rejecting hypothesis H3.

One concern is that our results might be driven by right-wing subjects making more selfish or more unequal offers to all recipients irrespective of ideology. However, subjects' ideological position does not correlate with the inequality of their offers in treatment or 'Baseline' sessions (correlation coefficients between 0.01 and 0.038 depending on the treatment). Also, the probability of voting in favour does not depend on the proposer's ideological position (see 'Self-Placement' in M5-M6). Therefore, we believe that proposers' ideology affects their offers via social identity, rather than via inequality concerns in general.

Strategic concerns (e.g. coalition- or reputation-building) are also unlikely to explain our results, since subjects were rematched after every period, and were not aware of the size of matching groups. Another possibility is that proposers simply use ideological closeness as a tie-breaking heuristic to select a coalition partner, and are really indifferent between the two alternative partners. This seems unlikely. For one, gender is an easier cue on which to coordinate as, in this experimental setting, there are only two alternatives to choose from. Second, if subjects were simply using ideological distance as a tie-breaker, then we would expect subjects to always offer the same amount to the ideologically closest recipient. In fact, they make higher offers as this recipient gets closer to them. Thus, ideological closeness appears to matter for itself and not just as a heuristic.

A final analysis on the 'Main' treatment has to do with the types of coalitions

	Treatment			Baseline	
	Number	%	%	Number	%
Minimal-Connected	140	23.33	45.90		
Minimal-Disconnected	97	16.17	31.80	124	51.67
Minimal-Equal	68	11.33	22.30		
Grand	295	49.17	–	116	48.33

Table 2.3: Types of coalitions formed in ‘Main’ treatment and ‘Baseline’ samples.

formed by those voting yes on a proposition.¹⁹ According to H4 we expected that minimal winning coalitions (those where two out of three group-members voted in favour) would be ideologically connected. Contrary to conventional theory, 49% of cases were ‘Grand’ coalitions, where all three participants accepted the offer (Table 2.3). This is reasonable considering the large number of three-way equal split offers (Figure 2.3). Out of the minimal coalitions, 46% are ideologically ‘Connected’ and 32% ‘Disconnected’ (i.e. leap-frogged a member that was ideologically closer). In 22% of cases, the two other group-members were equally distant to the proposer: these cases are not informative, since any possible coalition would be connected. There are no more connected coalitions than the 2/3 we would expect by chance. This result is probably due to our small number of observations; the evidence from the empirical models, particularly M4, suggests that people did try to form coalitions with the closer person.

2.6.1 Comparison of ‘Main’ treatment with ‘Baseline’ and ‘2Dictator’ treatments

When we compare the results of the ‘Main’ treatment and ‘Baseline’ groups without information we do not find any strong differences. The types of coalitions that are formed are equivalent, with 48% of Grand coalitions and the rest Minimal. In terms of the inequality in the accepted offers, the mean is not significantly different across the two samples (p-value 0.126). The only significant difference is that in the ‘Baseline’ groups, members were willing to tolerate higher variance in the inequality of offers

¹⁹An alternative measure of coalitions, defined by those receiving a non-zero offer, produce substantively the same results.

and still vote in favour (variance test p-value 0.005). In other words, profit maximizing offers were accepted more often in the ‘Baseline’ sample. Overall behaviour does not vary substantially across the ‘Baseline’ and ‘Main’ treatment samples.

There is a concern among political scientists’ that democratic politics can sometimes exacerbate intergroup tension (cf. Posner 2004). The ‘2Dictator’ treatment, with one dictator game at the beginning and another at end of the coalition-bargaining stage, allows us to explore whether majority bargaining can increase group identity behaviour.

	M7 Offer	M8 DG-1	M9 DG-2
Intercept	5.52*** (0.19)	4.85* (2.08)	4.57** (1.49)
Diff SP P-R	-0.17** (0.06)	-0.14 (0.13)	-0.34 (0.23)
Same Gender	0.00 (0.05)	0.01 (0.19)	1.53*** (0.42)
Diff SP P-3rd	0.11*** (0.03)	-0.23 (0.15)	-0.31 (0.20)
Same Gender P-3rd	0.00 (0.07)	0.16 (0.23)	1.19 (0.61)
Self-Placement	-0.01 (0.01)	0.05 (0.31)	-0.33 (0.22)
Proposer-Male	-0.17 (0.11)	0.35 (0.93)	-0.74 (0.40)
Num. obs.	600	60	60
R ²	0.05	0.08	0.20
Adj. R ²	0.04	-0.02	0.11
L.R.	31.15	5.26	13.72

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$

Table 2.4: Regression models on amount offered to other participant in the coalition bargaining game (Offer), the first dictator game (DG-1) and the second dictator game (DG-2) – in ‘2Dictator’ treatment group.

Overall, participants’ behaviour in the coalition-building periods of the ‘2Dictator’ and ‘Main’ treatments are similar (figures depicting offers and votes in Appendix). Table 2.4 shows the results for the ‘2Dictator’ treatment. Model M7 mirrors M3, but excludes the race variables as only four people in the ‘2Dictator’ treatment were non-white and the estimations would be unreliable (including race does not alter the con-

clusions). As can be observed, the same patterns appear, with a significant negative effect for ideological distance on the amount being offered and a positive effect of the distance to the third group member. Again, same gender is not a significant predictor of offers.

Table 2.4 also shows the results for the first and second dictator games, M8 and M9 respectively. Both are linear models on the amount given to other group members. The unit of analysis is dyadic, where one observation is the amount given to one of the two group-members. Again, participants' allocations to themselves were excluded. The logic in these decisions was different from the negotiation periods, as there was no voting. Proposers didn't have to give any amount away, but could choose to do so if they wanted.

In the first dictator game (M8) social identity traits do not predict giving behaviour. However, in the second dictator game (M9), group-identity traits significantly predicted behaviour. Subjects gave substantively more to group members of the same gender, significantly increasing the average payment to the receiver by £1.52 (and to the same gender third person by £1.00) in the second dictator game. Furthermore, the ideological distance between the proposer and receiver, indicates participants on average gave less to group members that were ideologically further away from them. These results are not significant at conventional levels, however, one can observe a substantive increase in the magnitude of the effect between the first and second dictator game (from -0.14 to -0.34). These results should be interpreted with caution as the number of observations is low and there are only five matching groups. However, they provide suggestive evidence that majoritarian bargaining situations can lead to increased group discrimination.

2.7 Conclusions

Coalition theories have a long history in political science. Yet, experimental research addressing the social dynamics involved in coalition building is still relatively scarce. In this paper we tested for the effect of social identity on the selection of coalition partners. Our results show that participants systematically favour group members that are

closer to them ideologically, offering them more, and making them fewer zero offers. Thus, social identity can create coalitions of ideologically like-minded actors, even in the absence of a policy dimension. We suggest that this may also occur in coalition formation outside the laboratory, either when political actors themselves have a social identity, or when they are constrained by the social identity of their supporters.

We found no evidence for in-group bias based on race or gender. One reason could be that social desirability reduces the effect of these variables. In some countries' political coalitions do form based on ethnicity (Posner 2004, Madrid 2008). This may happen in contexts where racial and/or gender discrimination is more socially acceptable. Alternatively, ethnic coalitions may occur because in these countries, ethnic patronage is a strategically important resource for winning elections.

In conclusion, our results show that preferences for similar coalition partners can help predict which coalitions form, even in the absence of policy concerns. This implies that coalition formateurs are not purely rational actors pursuing policy goals and/or the benefits of office. Rather, they also care about the identity of their partners, preferring others who are like themselves. Of course, ideologically connected coalitions may also form due to similar preferences over policy.

In the context of majoritarian coalition-building, small biases can lead to large intergroup differences, since a marginally less-preferred partner will be wholly excluded from the coalition. The evidence from our 'Dictator' treatment suggests that this context can exacerbate group discrimination, perhaps by embittering intergroup relations. We see this as an important topic for future research.

Another line of future research would be to test the impact of social identity in an empirical setting. To do this it would be necessary to identify cases where politicians differ only with respect to one relevant characteristic (e.g. gender or race), keeping constant all other incentives that can affect coalition making decisions, such as policy outcomes and constituency preferences. One such circumstance could be observed by comparing voting behaviour of male and female legislators on issues that are proposed by members of their same/different gender and testing if they express any willingness to

vote along gender lines. To isolate the effect of social identity, the observed legislators would have to be equivalent in every aspect except for gender (same party, constituency, political competence, etc.). One possibility would be to compare incumbents who narrowly lost an internal party primary to a challenger of the opposite gender who went on to win the seat. The issues voted on could only include laws with outcomes that are equivalent to both genders, to avoid any interference of policy benefits in alliance formation. To control for constituency preferences only the votes in a short period before and after the challenger gets into office could be included in the empirical analysis. Meeting these criteria is not impossible and, given a sufficient number of cases, would provide evidence of the generalizability of the impact of social identity on coalition formation.

2.8 Appendix: Group identity and coalition formation

2.8.1 Data

	Black	Latin American South Asian	White
Female	27	14	78
Male	12	3	46

Table 2.5: Frequences of Gender and Race in Main treatment sample.

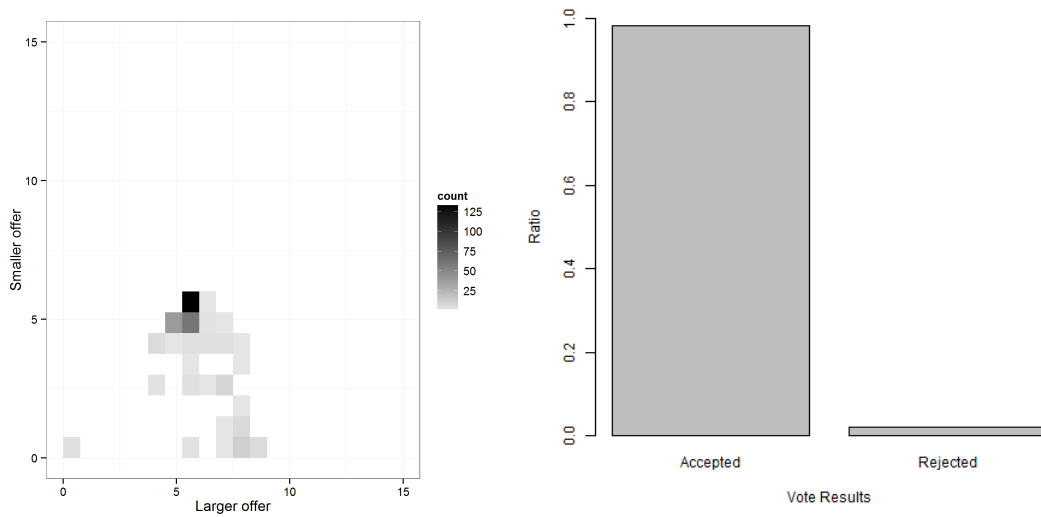


Figure 2.5: Distribution of offers and votes for '2Dictator' sample.

2.8. Appendix: Group identity and coalition formation

	A.M1 RE	A.M2 FE
Intercept	5.29*** (0.19)	
Diff SP P-R	-0.17*** (0.04)	-0.18*** (0.05)
Same Gender	0.19 (0.12)	0.22 (0.13)
Same Race	-0.18 (0.13)	-0.22 (0.14)
Diff SP P-3rd	0.06* (0.03)	0.05* (0.02)
Same Gender P-3rd	-0.12 (0.08)	-0.11 (0.06)
Same Race P-3rd	0.13 (0.08)	0.15* (0.08)
Self-Placement	-0.05 (0.03)	
Proposer-Male	0.00 (0.11)	
Proposer-White	0.06 (0.12)	
R ²	0.01	0.01
Adj. R ²	0.01	0.01
Num. obs.	3600	3600

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 2.6: Random and Fixed Effects models with Arellano-Bond s.e. on proposal behaviour.

	A.M3 Offer	A.M4 Offer	A.M5 Offer	A.M6 Partner	A.M7 Vote	A.M8 Vote
Intercept	5.15*** (0.15)	5.11*** (0.16)	5.44*** (0.16)	3.78*** (0.67)	1.69*** (0.35)	-2.93*** (0.77)
Diff SP P-R	-0.13** (0.04)	-0.16** (0.05)	-0.15** (0.05)	-0.21** (0.06)	-0.14** (0.05)	-0.04 (0.07)
Same Gender	0.09 (0.13)	0.16 (0.14)	0.15 (0.13)	0.28 (0.16)	-0.02 (0.19)	-0.29 (0.28)
Same Race All	-0.14 (0.12)	-0.22 (0.13)	-0.25 (0.13)	-0.32* (0.15)	0.12 (0.21)	0.21 (0.19)
Diff SP P-3rd		0.07* (0.03)	0.07* (0.03)	0.10 (0.05)		
Same Gender P-3rd		-0.14 (0.14)	-0.13 (0.12)	-0.00 (0.19)		
Same Race P-3rd All		0.17 (0.12)	0.12 (0.11)	0.17 (0.25)		
Self-Placement			-0.04* (0.02)	-0.02 (0.06)	-0.05 (0.04)	-0.08 (0.08)
Proposer-Male			-0.03 (0.11)	-0.86** (0.28)	0.03 (0.23)	-0.09 (0.37)
Proposer-LA or SA			-0.54* (0.23)	-1.33* (0.64)	-0.62 (0.42)	-0.23 (0.65)
Proposer-White			-0.05 (0.10)	-0.68 (0.39)	-0.44* (0.22)	-0.26 (0.33)
Amount Offered						1.00*** (0.12)
Num. obs.	3600	3600	3600	3600	1200	1200
R ²	0.01	0.01	0.02			
Adj. R ²	0.01	0.01	0.02			
L.R.	39.14	50.40	70.49	135.36	26.51	635.21
Pseudo R ²				0.08	0.03	0.58

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ All models include matching-group clustered s.e.

Table 2.7: Statistical models on proposal and voting behavior using a disaggregated race category.

2.8. Appendix: Group identity and coalition formation

Models including all the proposals in the data

	A.M9 Full Offer	A.M10 Full Offer	A.M11 Full Offer	A.M12 Full Partner	A.M13 Full Vote	A.M14 Full Vote
Intercept	4.98*** (0.15)	4.93*** (0.16)	5.07*** (0.19)	3.26*** (0.54)	1.42*** (0.32)	-2.70*** (0.63)
Diff SP P-R	-0.14*** (0.04)	-0.17*** (0.05)	-0.17*** (0.05)	-0.22** (0.07)	-0.16*** (0.05)	-0.06 (0.06)
Same Gender	0.13 (0.14)	0.20 (0.14)	0.20 (0.14)	0.28 (0.15)	0.04 (0.17)	-0.28 (0.24)
Same Race	-0.07 (0.12)	-0.13 (0.12)	-0.14 (0.12)	-0.24 (0.14)	0.14 (0.17)	0.18 (0.17)
Diff SP P-3rd		0.07* (0.03)	0.07* (0.03)	0.10* (0.05)		
Same Gender P-3rd		-0.14 (0.13)	-0.14 (0.11)	0.01 (0.18)		
Same Race P-3rd		0.17 (0.10)	0.16 (0.09)	0.18 (0.23)		
Self-Placement			-0.03 (0.02)	-0.03 (0.06)	-0.05 (0.04)	-0.07 (0.07)
Proposer-Male			-0.01 (0.11)	-0.79** (0.25)	0.03 (0.22)	-0.12 (0.34)
Proposer-White			0.04 (0.08)	-0.24 (0.26)	-0.16 (0.18)	-0.09 (0.29)
Amount Offered						0.95*** (0.10)
Num. obs.	3900	3900	3900	3900	1300	1300
R ²	0.01	0.01	0.02			
Adj. R ²	0.01	0.01	0.01			
L.R.	43.84	57.08	60.89	113.08	23.77	676.72
Pseudo R ²				0.06	0.03	0.57

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ All models include matching-group clustered s.e.

Table 2.8: Models M1-M6 in main text, but including all rounds.

Bootstrapped coefficients proposal behaviour, model M3

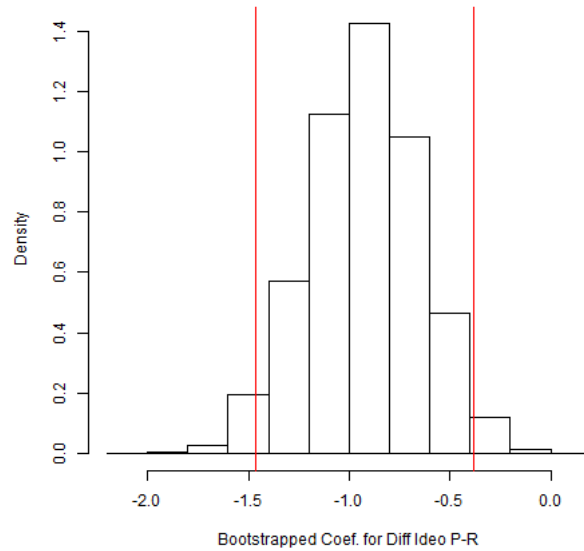


Figure 2.6: M3 Bootstrapped coefficients of 'Diff SP P-R' for 10,000 iterations, red lines at ± 1.96 sd from the mean.

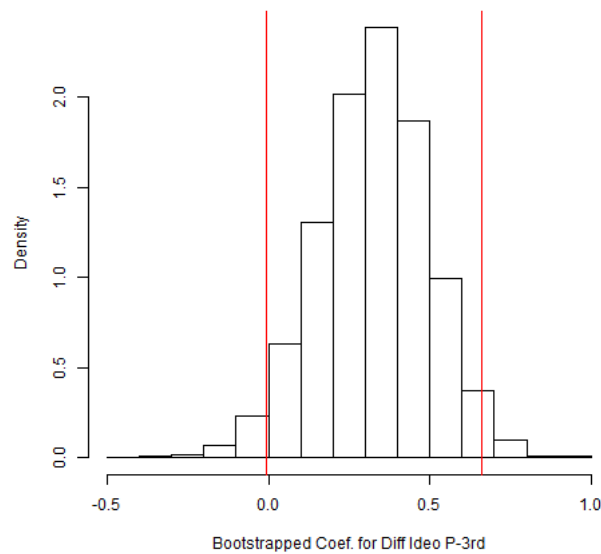


Figure 2.7: M3 Bootstrapped coefficients of 'Diff SP P-3rd' for 10,000 iterations, red lines at ± 1.96 sd from the mean.

Bootstrapped coefficients partner selection, model M4

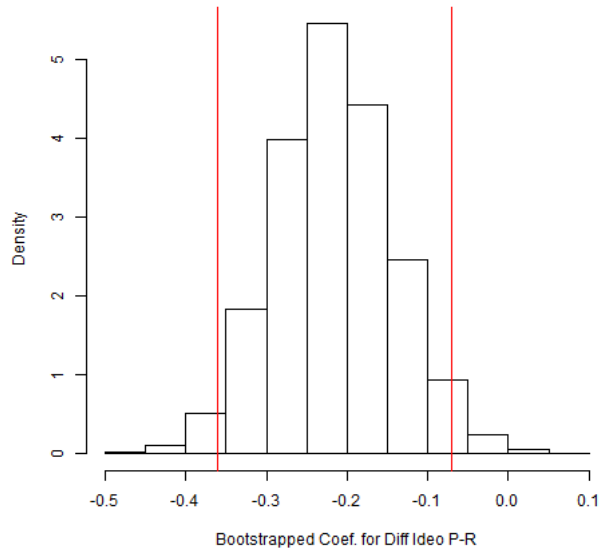


Figure 2.8: M4 Bootstrapped coefficients of 'Diff SP P-R' for 10,000 iterations, red lines at ± 1.96 sd from the mean.

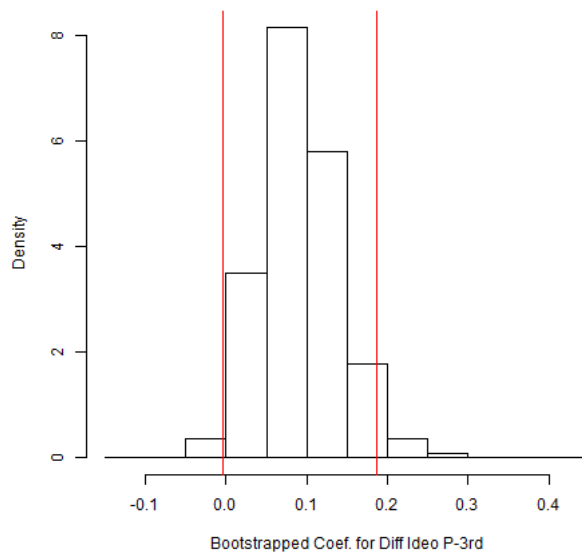


Figure 2.9: M4 Bootstrapped coefficients of 'Diff SP P-3rd' for 10,000 iterations, red lines at ± 1.96 sd from the mean.

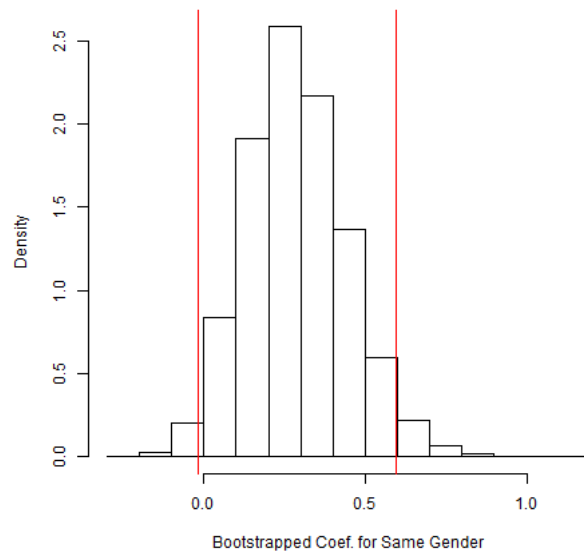


Figure 2.10: M4 Bootstrapped coefficients of 'Same Gender' for 10,000 iterations, red lines at ± 1.96 sd from the mean.

Matching group level statistics

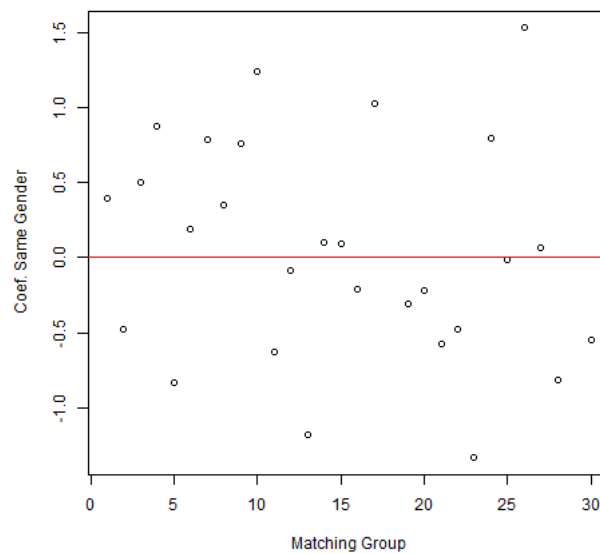


Figure 2.11: Coefficients for 'Same Gender' in matching group level regressions of model M1.

2.8. Appendix: Group identity and coalition formation

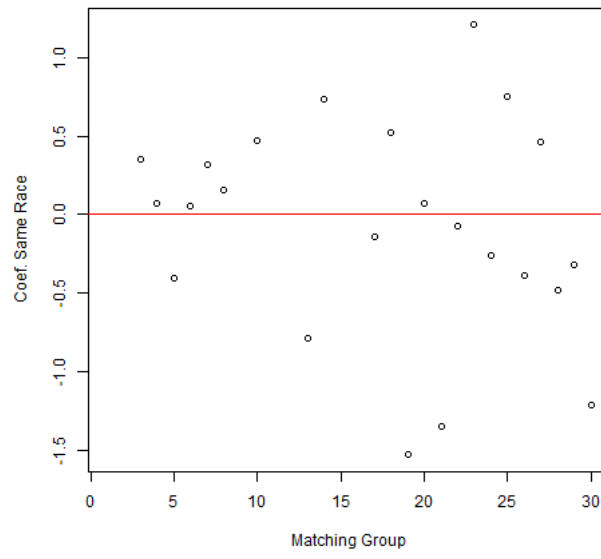


Figure 2.12: Coefficients for 'Same Race' in matching group level regressions of model M1.

Interaction with level of variation in the self-placement of group members

	A.M15	A.M16	M3 A.17	A.M18	A.M19	A.M20
Intercept	4.91*** (0.21)	4.94*** (0.22)	5.11*** (0.25)	3.24*** (0.63)	1.52*** (0.45)	-2.77** (0.86)
Diff SP P-R	-0.21** (0.06)	-0.22*** (0.07)	-0.22** (0.07)	-0.26*** (0.07)	-0.17* (0.07)	-0.01 (0.09)
Same Gender	0.13 (0.26)	0.20 (0.26)	0.19 (0.26)	0.24 (0.48)	-0.16 (0.44)	-0.59 (0.61)
SD SP Group	0.23* (0.11)	0.21* (0.10)	0.20 (0.11)	0.09 (0.14)	0.02 (0.15)	-0.19 (0.21)
Same Race	-0.12 (0.12)	-0.15 (0.13)	-0.16 (0.13)	-0.27 (0.15)	0.17 (0.18)	0.21 (0.20)
Same Gender * SD SP Group	-0.01 (0.12)	-0.01 (0.12)	-0.01 (0.12)	0.03 (0.22)	0.08 (0.18)	0.17 (0.25)
Diff SP P-3rd		0.04 (0.03)	0.04 (0.02)	0.08 (0.04)		
Same Gender P-3rd		-0.15 (0.13)	-0.14 (0.12)	-0.00 (0.19)		
Same Race P-3rd		0.09 (0.09)	0.08 (0.09)	0.19 (0.22)		
Self-Placement			-0.04 (0.02)	-0.04 (0.06)	-0.05 (0.04)	-0.08 (0.08)
Proposer-Male			-0.02 (0.11)	-0.80** (0.26)	0.04 (0.23)	-0.08 (0.38)
Proposer-White			0.06 (0.08)	-0.18 (0.27)	-0.25 (0.17)	-0.16 (0.33)
Amount Offered						1.00*** (0.12)
Num. obs.	3600	3600	3600	3600	1200	1200
R ²	0.01	0.02	0.02			
Adj. R ²	0.01	0.01	0.01			
L.R.	52.70	58.45	63.64	106.50	21.33	635.62
Pseudo R ²				0.07	0.02	0.58

***p < 0.001, **p < 0.01, *p < 0.05 All models include matching-group clustered s.e.

Table 2.9: Statistical models on proposal and voting behaviour with interaction of Gender and Standard Deviation of Self-Placement in Groups.

	A.M21	A.M22	A.M23	A.M24	A.M25	A.M26
Intercept	Offer Int. 4.89*** (0.18)	Offer Int. 4.92*** (0.21)	Offer Int. 5.09*** (0.24)	Partner Int. 3.09*** (0.59)	Vote Int. 1.44*** (0.36)	Vote Int. -2.80*** (0.77)
Diff SP P-R	-0.21** (0.06)	-0.22*** (0.07)	-0.22** (0.07)	-0.26*** (0.07)	-0.17* (0.07)	-0.00 (0.09)
Same Gender	0.12 (0.13)	0.18 (0.14)	0.17 (0.13)	0.30* (0.15)	-0.02 (0.19)	-0.32 (0.29)
Same Race	-0.08 (0.23)	-0.11 (0.23)	-0.11 (0.22)	-0.07 (0.37)	0.14 (0.33)	-0.17 (0.36)
SD SP Group	0.24 (0.12)	0.22 (0.11)	0.21 (0.11)	0.17 (0.14)	0.05 (0.17)	-0.22 (0.19)
Same Race * SD SP Group	-0.02 (0.12)	-0.02 (0.12)	-0.03 (0.12)	-0.11 (0.18)	0.02 (0.20)	0.23 (0.21)
Diff SP P-3rd		0.04 (0.03)	0.04 (0.03)	0.08 (0.04)		
Same Gender P-3rd		-0.15 (0.14)	-0.14 (0.12)	-0.00 (0.19)		
Same Race P-3rd		0.09 (0.09)	0.08 (0.09)	0.19 (0.22)		
Self-Placement			-0.04 (0.02)	-0.04 (0.06)	-0.05 (0.04)	-0.07 (0.08)
Proposer-Male			-0.02 (0.11)	-0.79** (0.26)	0.05 (0.23)	-0.08 (0.38)
Proposer-White			0.06 (0.08)	-0.18 (0.26)	-0.25 (0.17)	-0.16 (0.33)
Amount Offered						1.00*** (0.12)
Num. obs.	3600	3600	3600	3600	1200	1200
R ²	0.01	0.02	0.02			
Adj. R ²	0.01	0.01	0.01			
L.R.	52.76	58.52	63.75	107.11	21.04	636.25
Pseudo R ²				0.07	0.02	0.58

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ All models include marching-group clustered s.e.

Table 2.10: Statistical models on proposal and voting behaviour with interaction of Race and Standard Deviation of Self-Placement in Groups.

2.8.2 Experiment materials

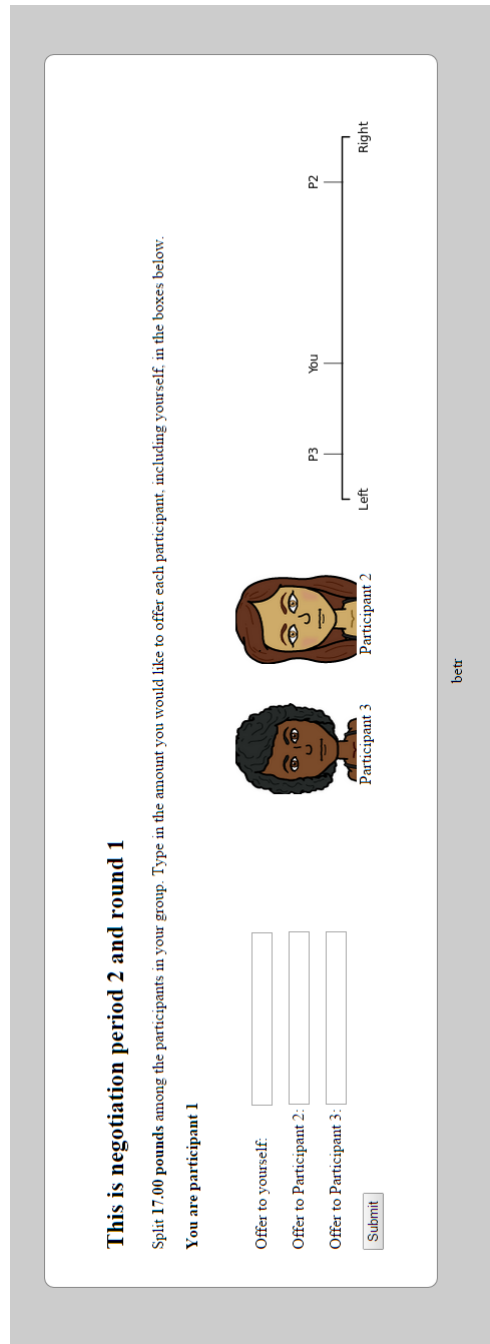


Figure 2.13: Screen shot of treatment sessions.

Experimenter Instructions

On the day of the experiment

1. Open two screens of putty, one for the expt and another to watch the cpu (access it typing *top*)
2. Open each computer on the right kiosk mode
3. Adjust code to match the right number of people. **MAKE SURE YOU ARE USING THE RIGHT CODE**, $N = 18$, $T = 10$
4. Upload the code to putty and run it.
5. Make sure all the computers have
 - * paper
 - * pencil
 - * calculator
 - * instructions
 - * consent form
 - * information sheet
 - * Receipt

Experimenter instructions

Bring to the lab:

1. Instructions, consent forms, info sheets, receipts, calculators.
2. Signed up subjects sheet

Come to the lab. Distribute consent forms/information sheets receipts and calculators to all seats. Open putty and winscp. `source(R_script)` and `ready(expt)`. Then open Chrome Kiosk windows on computers 1-N. When everyone is seated `start(expt)`.

At experiment time

At the door ask “*Has everyone got university ID or another form of ID?*” Those who haven’t will only be used if we have insufficient of those who have; warn them, in future bring ID.

Randomize over subjects using the lab tokens (Sara knows where these are). Surplus subjects given £2.50 and sent off.

You need 18 participants. (The can only run using 18 participants, on the Factor Analysis won’t work and matching groups are of size 6). Only use the chrome kiosk pages for the 18 people

If you get number 1-18, come in and sit quietly at that desk. Please do not talk or communicate with other participants while you are in the room. Keep mobile phones and other communication devices silent, and do not use them while in the room. If you get a 13 or higher, wait outside.

Subjects 1-18 come in with ID checked at the door.

When everyone is seated, say

“Welcome to this experimental session.

Your behaviour in this experiment will be confidential. Data is collected based on your computer number, which was assigned randomly. Personally identifying information about you will never be linked to this computer number. At the end of the experiment, you will be paid privately, so that no other participants will know how much you have earned.

You may have heard about experiments in which participants were deceived. Experiments in ESSEXLab never involve deception by the experimenters. That is, everything the experimenter tells you, and all on-screen instructions, are true and accurate. If you have any questions about this, please email essexlab@essex.ac.uk.

Fire exits are here and here [point them out]. Is there anyone who will have difficulty exiting the lab in an emergency? If so, please put your hand up.” [If so, ask if they have a Personal Emergency Plan; if they do not, use your judgement as to whether

2.8. Appendix: Group identity and coalition formation

it is safe for them.]

“On your desk there is a consent form for this experiment, as well as an information sheet. There is also a receipt. At the end of the experiment you will be asked to fill it out with the amount you have won, and return it with the signed consent form to the experimenter. You may keep the information sheet if you wish. Lastly there are experiment instructions and a number of blank papers for you to take notes on during the experiment.

I will now read out experiment instructions. At the end you will have an opportunity to ask questions. If at any time you have a question or a problem with your computer, please put your hand up, and an experimenter will help you privately.”

Start the corresponding treatment on putty using `start(expt)`. The participants will see the instructions screen.

Read the instructions

When you finish reading the instructions, *“Once you finish reading the instructions please press the ‘Continue’ button to start the experiment”*

When the experiment is over:

“Please sign and date your receipts with the amount shown on your screen, and then click “Payment” on screen to show that you have done so.”

While this is happening prepare payment envelopes.

“The experiment is now over. I will come round to each of you in turn with your payment in an envelope. Check that you have received the correct payment. Note that amounts have been rounded to the nearest 10 pence. Please hand over your receipt and consent form when I do so. After you have received payment, please quietly leave the laboratory.”

“Please check the amount and if it’s wrong, raise your hand.”

Go round swapping envelopes for receipts. To each individual:

Email the results to me and store them safely somewhere, then delete them from the server.

Instructions

Welcome to the experiment.

During this experiment, please follow the instructions of the experimenters at all times. Please do not communicate with any other participants or anyone outside the lab, either directly or via mobile devices. If you do not follow these rules, you may be removed from the experiment without payment and you may not be allowed to participate in future experiments.

Please switch off your mobile phones and other electronic devices.

Once you have finished reading the instructions, please sign the **consent form** on your desk.

Experiment

The experiment starts with a short survey on general demographics and your views about some political topics. All the data that you enter are completely anonymous and no personal information will be recorded.

Later on, you will take part in a series of group decision-making periods in which each of you will propose how to divide £17.00 amongst the members of your group. Participants will be randomly allocated to groups of 3 by the computer. You will complete 10 periods and in each period you will be rematched into a different group. All of the interaction with your group will be conducted via your computer.

Each period will happen as follows:

1. In the **Proposal Stage** you will make an offer to each participant in your group. You can offer any quantity, by increments of 10 pence, to each player. The offers must add up to a 'pie' of £17.00.
2. Once all offers have been made, the computer will choose **one** of the proposals randomly and present it to all of the group members. If you **accept** the offer, then press the 'Accept' button. If you do not want to accept the offer, then **reject** it by

pressing the 'Reject' button.

3. If more than half of the group members 'Accept' the offer it will be approved and each group member will be allocated that amount for the current period. If more than half of the group members 'Reject' the offer, it will be rejected by the group and all group members will be asked to propose a new division of the 'pie', but this time you will only have £11.90 to divide. Again, one proposal will be chosen randomly and presented to all group members. If the new proposal is rejected you will repeat the process, but the 'pie' will again be reduced, this time to £8.30. Each of these steps is called a 'round' and you can play up to 5 rounds per period, but in each round the 'pie' will get smaller. If the proposal is rejected in the fifth round, all group members will be allocated £0.00 for that period and you will all pass on to a new negotiation with a new group.
4. When you finish the 10 periods, you will be asked to complete a final decision making process. This time you will have to divide £3.00 amongst three group members and, in this section, whatever you allocate to each person is what they will get. In this section there will be **no voting**.
5. At the end of the experiment we will ask you to fill in a few questions regarding your experience in the lab. Once again, all the data that you enter are completely anonymous and no personal information will be recorded. After you finish the survey, a screen will appear indicating which period was chosen for payment and how much you will be paid.

Payment

In this experiment you will be paid according to the decisions that you have made. One of the ten negotiation periods will be chosen at random, and each will have a 1/10 chance of being chosen. You will also be paid for the decisions you make in the 'decision' section and a £2.50 show-up fee. At the end of the experiment you will be

informed of how much you have earned in each section and your total payment.

Treatment Information - Provided after the survey

The information you have provided has been used to allocate each participant one of the following avatars.



There are only 6 avatars, so more than one participant will be allocated the same image, based on the race and gender each person stated in the survey.

The survey data has also been used to calculate a score that places each participant and their political views on the left right political spectrum.

Bargaining Experiment Survey

Survey Questions

Please answer the following questions. As indicated in the instructions, personal data will not be disclosed and all information you provide is anonymous.

- What year were you born?
- What gender do you identify with?
 - Male
 - Female
- What is your nationality? (*Drop-down menu with all countries accepted in the sample plus and 'other' option*)
- What race do you identify with? If you are mixed race, please state the one you feel closest to.
 - White Caucasian
 - Black
 - Latin American
 - South Asian
- Are you a student at the University of Essex?
 - Yes
 - No
- If Yes, are you an undergraduate or graduate student?
 - Undergraduate

Graduate

Does not apply

- If you are a student, in what academic year did you start your course/degree?

(Drop-down menu with a list of academic years)

- If you are a student, what is the name of your course/degree?

————— Next Screen —————

Survey Questions Continued

Could you please state how strongly you agree or disagree with the following statements

- There is one law for the rich and one law for the poor.

Strongly Disagree

Disagree

- There is no need for strong trade unions to protect employees' working conditions and wages.

Strongly Disagree

Disagree

- Major public services and industries ought to be in state ownership.

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Strongly Disagree

Disagree

- Ordinary people get their fair share of the nation's wealth.

Strongly Disagree

Disagree

- Government should reduce the taxes paid by higher-income citizens.

Strongly Disagree

Disagree

- Same sex couples should enjoy the same rights as heterosexual couples to marry.

Strongly Disagree

Disagree

- Women should be free to decide on matters of abortion.

Strongly Disagree

Disagree

- The government should try to reduce the income differences between rich and poor citizens.

Strongly Disagree

Disagree

- The UK should be allowed to set quotas on the number of EU immigrants entering the country.

Strongly Disagree

Disagree

- Free market competition makes the health care system function better.

Strongly Disagree

Disagree

- An Orange is orange.

Strongly Disagree

Disagree

- Have you ever participated in any economics, government or psychology experimental studies before?

Yes

No

- Please specify the number of times. If you have not participated in any experiment please indicate it with a zero.

————— Next Screen —————

Survey Questions Continued

In politics people sometimes talk of 'left' and 'right'. Where would you place yourself on a scale from 0 to 10 where 0 means extreme left and 10 means extreme right?

Extreme Left 0 10 Extreme Right

You have selected:

2.8. Appendix: Group identity and coalition formation

—— At the End of the Experiment ——

Please take a few minutes and to answer the following questions

- From your experience, what did you think the experiment was about?

Empty for participants to fill in

- What was your overall impression of the experiment?

Empty for participants to fill in

2.8.3 Countries of origin

The sample was restricted to participants who were in the [omitted for anonymity] subject pool and stated their country of origin as one of the following 42: Albania, Argentina, Australia, Austria, Belgium, Botswana, Bulgaria, Canada, Chile, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Jamaica, Latvia, Lithuania, Luxembourg, Macedonia, Mauritius, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States, Uruguay. Checks were included in the experiment and only two participants in treatment sessions indicate they came from a country that was not in this original list.

Chapter 3

Party financing and the entrance of new-party candidates

Abstract

The literature on party finance regulations has increasingly found evidence of its impact on the structure and characteristics of the party system. This paper extends the literature by disaggregating the effect of different types and timing of funding (campaign vs on-going), and their allocation mechanisms, on the number of new-party candidates that compete in presidential elections. The paper argues that subsidies for campaigns based on past electoral results create a barrier to the entrance of candidates sponsored by new political parties. However, this effect can be counteracted by the potential to access post-election benefits in the form of on-going party funding. The empirical results provide evidence in favour of these arguments and are robust to a wide range of model specifications and definitions of new-party candidates. Substantively, the findings indicate that the design of party funding regulations can have significant consequences for the stability of the party system.

Keywords— New Parties, Latin America, Party Finance, Presidential Candidates

3.1 Introduction

A substantial number of candidates in Latin America now compete using a new-party logo. These ‘new-party presidential candidates’ include a wide range of political actors, starting from a standard bearer of a small issue party, to strong ‘outsiders’ that compete for the presidency (cf. Barr 2009, Carreras 2012, Kenney 1998). Among noteworthy examples are presidents Rafael Correa and Lucio Gutiérrez in Ecuador, Alberto Fujimori in Peru and Hugo Chávez in Venezuela.

There are multiple reasons for a new party to enter by sponsoring a presidential candidate. This paper tests the hypotheses that one of those reasons are the incentives introduced by regulations regarding the public finance of political parties. Campaign-period subsidies (allocated based on past electoral results), are argued to increase the relative costs of the campaign, creating a potential barrier to entry and that could reduce the number of new-party candidates in presidential elections. On the other hand, performance based subsidies for inter-election (i.e. on-going) party activities are hypothesised to have the opposite effect. As subsidies for on-going activities are obtained as a consequence of a successful campaign, when these funds are available new parties would have incentives to run the most competitive elections possible (assuming that more funds are always preferable). An efficient way of doing this is by running a presidential candidate and using his or her visibility to improve the party’s overall results (see Ferejohn and Calvert 1984, Golder 2006, West and Spoon 2015, among others).

To test this argument the study uses a time-series cross-section Poisson estimation on the number of new-party candidates participating in 113 democratic presidential elections in 18 Latin American countries between 1978 and 2013. The paper focuses on the incentives introduced by the different allocation mechanisms for monetary and media subsidies for campaigns, as well as post-election funding for on-going party activities. The empirical results corroborate the hypotheses, suggesting a strong impact of public funding on the number of new-party candidates that enter. These findings are robust to the inclusion of a standard battery of covariates, different methods of estimation, varying definitions of the dependent variable and concerns of endogeneity.

This study contributes to the literature on party financing and its effects on the party system by differentiating between consequences produced by resources allocated to campaigns from those destined for on-going party activities. Until now, the literature has focused on aggregate effects, only distinguishing between the presence (or absence) of some type of funding, without distinguishing between when and how these resources are allocated (Hug 2001, Hooghe et al. 2006, Scarrow 2007, Tavits 2006, 2008a, among others).¹ The results in this research highlight the impact of different types of campaign funding on the stability of the party system and the trade-offs policy makers face when choosing an institutional design. On the one hand, equal funding for campaigns and funding for on-going party activities can help increase representation by creating conditions for new parties to enter. On the other, they can add instability and reduce governance, by enabling a constant stream of new parties into the system. This latter aspect is especially important as too many parties can limit policy making capabilities of the party system in general, potentially rendering ineffective the increase in representation by reducing each party's power to influence policy (cf. Sartori 1976, Lijphart 1984, Powell 1982).

Whether it is preferable to introduce barriers to entry (e.g. through past-performance based campaign funding) or to encourage a more dynamic party system (through on-going funding) is a decision each country has to make based on its unique circumstances. What is important is that these effects are considered when the policies are designed. Up to now, this does not appear to be the case in Latin America, where party funding has been mainly introduced to address the issue of private money in politics (Zovatto and Orozco 2008, Zovatto 2008, Potter and Tavits 2013)

This research also contributes to the expansion of data on new political parties to developing countries with presidential systems which, to my knowledge, has not been previously coded. Following Hug (2001, p.172) the present research adapts the coding

¹One exception to this is the research conducted by Potter and Tavits (2013), who measure the effect of *fund parity* and identify that the more unequal the funding (between small and large parties) the lower the effective number of parties in the system. Potter and Tavits (2013), describe *fund parity* as the level of (in)equality in the distribution of public funds between political parties in the system (large, small, old and new) (see also Scarrow 2006, Hogan 2001, Hooghe et al. 2006).

criteria used for new legislative parties in parliamentary system to account for the predominance of the chief executive in presidential systems. In doing so, the study creates a comparable dataset on new party entry, and generates opportunities to test the generalizability of theories on new parties in a broader institutional, economic and cultural setting. As a complement, the study also codes the first longitudinal dataset (1978-2013) on party finance regulations for Latin America. This data can be used for various research agendas, including comparative studies on the effects of money in politics. All the data will be made publicly available upon publication.

The next two sections provide a definition of new-party candidates and the incentives produced by party finance laws. These are followed by an operationalisation of the variables of interest and the model specifications. The final two sections present results and conclusions.

3.2 New-party candidates

The appearance of new political parties and their leaders is studied from a wide range of perspectives in Latin America, including ‘populism’ or ‘neopopulism’ (Roberts 2006, 2007, Seligson 2007, Weyland 2001, 2003) and ‘insiders’ vs. ‘outsiders’ with respect to the party system (Barr 2009, Corrales 2008, Carreras 2012, Kenney 1998). These studies are insightful and contribute to the empirical models and theory used in this paper. However, operationalising these definitions for large cross-national studies can be complicated and unintentionally biased by the (un)availability of data. An alternative is to look at the emergence of relevant new political actors from the perspective of the literature on the entry and success of new parties (cf. Harmel and Robertson 1985, Hug 2001, Mustillo 2009, Tavits 2008a,b, 2006).

The ‘new party’ approach characterizes political parties (and, consequently, their candidates) as ‘new’ on the basis of when they enter the electoral arena and how they were formed. A ‘new party’ is defined as one that presents candidates to the general election for the first time and a) has no previous affiliation to other existing parties, or b) is the result of a split or fission from an existing party (Sjöblom 1968, Hug 2001,

Mustillo 2009, Tavits 2008a). With this definition, new parties add an actor to the electoral competition, altering the dynamics of the election. Other possible categories, such as alliances and mergers, are not counted as new parties, as they maintain their party structures and political histories without adding a new player to the competition.

3.3 Party finance and the decision to enter

From a rational choice perspective, one can expect new-party presidential candidates to emerge when the probability of obtaining benefits outweighs the costs of running (see Feddersen et al. 1990, Osborne and Slivinski 1996, Cox 1997, Tavits 2006). Among the potential benefits of competing is, obviously, the possibility of winning the presidency. But there can also be long term benefits such as contributing to the consolidation of their political party, getting an issue on the political agenda, or establishing the credibility of their party as a contender (Cox 1997, West and Spoon 2013). While these different benefits are not observationally identifiable, all require the party to survive the election.

In terms of costs, new parties and their candidates face important obstacles to entry. In order to compete they must incur the organizational and economic costs of legally registering the political party, as well as the costs of the campaign itself. Furthermore, new parties have lower levels of grass-roots or long-term supporters than existing parties, giving their presidential candidates less access to volunteers and making them more dependent on subsidies and monetary resources.

A review of the party finance laws in Latin America shows that countries in the sample have either relied exclusively on private funding for political parties, or have mixed sources of funding, with the state providing some subsidies. Overall, the main sources of public funding include monetary and television subsidies for political campaigns and/or funding for inter-election ‘on-going’ party activities. The allocation mechanisms by which the funds are distributed are predominantly a) based on past electoral results, or b) distributed equally between all contending parties.² The next sections present an

²A dataset containing specific regulations for all countries and years will be made public upon publication.

argument as to why the different types of public subsidies can alter the incentives for new-party candidates to enter.

3.3.1 Campaign subsidies

As indicated above, public subsidies for political campaigns are predominantly composed of a) monetary transfers to the party and b) subsidies for (or free) time on television. On their own, these funds should not, *per se*, increase the costs of an election, but they can increase the relative costs for a new-party candidates, if they are allocated on the basis of past electoral performance. That is, new-party candidates would face relatively higher campaign costs, in addition to the costs of registering a new party (which existing parties do not have to pay).

New party candidates, by definition, do not have a previous electoral history, hence they would not get access to any resources allocated based on past results. To level up, the new-party candidates would need to obtain equivalent funds from the private sector. However, that requires fund-raising capabilities that newly formed parties may not have, given their inherently weak institutional structure.

In cases where fund-raising capabilities do exist, economic disadvantages at an early stage of a campaign can still have knock-on effects later on. Political candidates, in general, need to build a narrative of success around their candidacy early in the campaign cycle in order to succeed. Campaigns are costly enterprises that require large and constant influxes of funds. However, private donors only have incentives to fund candidates that (they believe) have a reasonable possibility of success; otherwise they would be throwing away money. If candidates don't present themselves as viable contenders from the beginning, they are less likely to raise the necessary funds to run an effective campaign. One way of signalling competitiveness for any kind of candidate, is through the use of, expensive, media campaigns from early on in the campaign cycle.³ Of course, this requires access to funds for media in the initial stages of the campaign where new-party candidates are at an economic disadvantage.

³For literature on the importance of media in Latin American elections see Levitsky and Cameron (2003), Boas (2005), Mainwaring (2006).

Chapter 3. Party financing and new-party candidates

Access to resources is especially important for new-party candidates given the diminishing returns of spending on the number of votes obtained (cf. Samuels 2001, Jacobson 1990, Gerber 1998, Levitt 1994). Monetary and media funding at the beginning of a campaign can help build name recognition and visibility for the candidate. While some new-party candidates may be known to the electorate, the parties they represent do not have a policy or executive histories that voters can rely on as cues for governmental capabilities. The candidate has to convince voters of the viability of his or her government, which requires physical and media contact with voters. Public subsidies can be an important source of initial endowment from which to start this process, but only for those that have access to it. If funds are allocated based on past-performance, candidates from existing parties will start the campaign at a substantial advantage.

Monetary funds and media subsidies do not necessarily produce the same magnitude of effects on the likelihood of a successful new-party candidate. Monetary resources are, indeed, more flexible and can be used for multiple purposes; while media subsidies are limited to a time, space and use predefined by the corresponding legislation. However, both resources leave the new-party candidate at a relative disadvantage with respect to other candidates (if the funds are past performance-based) and thus increase the costs for a new-party candidate. When the funding is allocated equally, or there is no funding, new-party candidates would find themselves in an equivalent position to candidates from existing parties and, thus, should not alter their decision to enter. Hence, one would expect:

H1 Past performance-based public funding for campaigns to be associated with a lower number of new-party candidates, *ceteris paribus*.

H2 Public subsidies for media access, allocated as a function of past electoral results, to be associated with a lower number of new-party candidates, *ceteris paribus*.

If this is the case, past performance based subsidies would contribute to maintaining the party system *status quo* and potentially reducing volatility and fostering party system institutionalization –two aspects where Latin American party systems are weak

(Remmer 1991, Mainwaring and Scully 1995). However, the trade-off would imply limiting the possibilities of new actors entering and addressing new policy concerns that are relevant to the population, potentially jeopardising the representativeness of political parties (Kitschelt 1988, Hug 2001, Meguid 2008).

One important caveat to this argument would be the existence of upper limits on campaign spending, as these restrictions could counteract the original funding differential by putting a ceiling on the overall costs of the campaign. However, in Latin America the limitations on spending, when they exist, are weak and rarely fully enforced (cf. Gutiérrez and Zovatto 2011, Zovatto and Orozco 2008). Even so, the existence of spending limits is accounted for in the empirical models.

3.3.2 Post-election subsidies for on-going party activities

Public funds for on-going party activities are resources that are made available to subsidize a party's operational costs (e.g. recruitment of members, maintenance of party offices, etc.). Among the countries in the sample, these funds (when available) are predominantly allocated as a function of the votes or seats obtained by the party in the previous election. A new party would therefore only get access to those funds after their first election.

When funding is available, the new party has strong incentives to maximize their votes/seats shares (depending on country specific criteria) in the up-coming election. More votes/seats will allow them to gain access to a greater amount funds for the next inter-election period and, thus, make it easier to institutionalize the new party and establish grass-roots for the next campaign. This paper argues that presidential candidates can help the new party achieve this objective through his or her 'coattail effects' (cf. Ferejohn and Calvert 1984, Campbell and Sumners 1990, Golder 2006, West and Spoon 2015).

Before a general election a potential new party can choose between entering a) with presidential candidate, b) only in legislative elections, or c) staying out. If the party enters without a new-party candidate it will have to distribute its resources among multiple

legislative candidates. However, with a new-party candidate the party can concentrate organizational and monetary resources on one individual and use its visibility to inform the voters of the party's policy offers. Presidential candidates get more free media attention, access to national debates and have higher fund-raising capabilities than legislative candidates (cf. Cox 1997, Ferejohn and Calvert 1984, West and Spoon 2013). The 'coattail effects' of his or her campaign can improve the new party's overall legislative results (relative to not having a new-party candidate) and help secure higher on-going funding for the next period. As Golder (2006, p. 35) indicates "the fortunes of electoral parties are tied to the fate of their party's presidential candidate." Furthermore, West and Spoon (2015) find evidence that the electoral benefits of sponsoring a presidential candidate are higher for small parties than they are for large ones, as it adds visibility to their policies and highlights their potential as a national competitor. The authors' results suggest that joining a pre-electoral coalition, without running a presidential candidate of their own, does not enhance a party's legislative outcomes. Therefore, if a new party decides to enter, it is more efficient to do so with a new-party candidate.

Staying out is always an alternative. As campaign costs are high, new-party candidates need to obtain substantial benefits to justify running. Getting into office would yield the highest returns, yet income from public subsidies for future on-going party activities can help cancel out the costs of a campaign. If the extra visibility and votes associated with running a presidential candidate can improve the likelihood of recovering the money spent on the campaign, through monetary subsidies for the next inter-election period, the new party would be better off doing so. One would therefore predict that:

H3 The existence of public funds for on-going party activities allocated based on electoral results, *ceteris paribus*, to be positively associated with the number of new-party candidates.

If these hypotheses are correct, party finance legislation intended to regulate the impact of private money on politics (and its relationship with corruption), can also affect

the structure of the party system. On the one hand, public funding for campaigns (based on past electoral results) can introduce barriers to entry and limit the emergence of new political actors. On the other, performance-based funding for on-going party activities can increase the incentives for new parties to compete in presidential elections, even when barriers to entry are high. Independently of whether an increase in party system stability or enhancing representation is preferable, it is important to acknowledge the potentially unintended consequences of these regulations on the political system.

3.4 Variable operationalisation and measures

Following the influential research conducted by Hug (2001) a new-party candidate is operationally defined as a first round presidential candidate that a) he/she is the candidate of a political party that does not have links with parties with a past electoral history; or b) is the candidate of a party that has resulted from a split in an existing party. A 'political party' is defined as an organization that legally presents candidates to the country's representative assembly.⁴ In congruence with new party literature in parliamentary systems, this coding focuses on new parties that appeal to a national audience and excludes regional parties that don't aspire to represent voters outside a local constituency. Examples of new-party candidates include Keiko Fujimori in Peru (2011), Hugo Chávez in Venezuela (1998), Fernando Collor de Melo in Brazil (1989).

To control for voter's the level of information, candidates are only considered 'new' the first time they compete in an election, if that first election was as a candidate for an existing party he or she can never be considered a new-party candidate.⁵ For example Ollanta Humala is not counted as a new-party candidate in 2011, because he had been a presidential candidate for *Unión por el Perú* (UPP) in 2006. The UPP was founded in 1994 and had participated in legislative elections before 2006.⁶ Furthermore, parties

⁴Political organizations that have only presented candidates to local or other non-national elections can, later on, present a new-party candidate.

⁵Tests on alternative coding of new-party candidates that did not include this restriction criterion produced substantially equivalent empirical results.

⁶Data on UPP was obtained from http://www4.congreso.gob.pe/grupo_parlamentario/upp/_historia.htm on Feb 05, 2016.

that simply change their name but keep their policy positions and main members are not counted as new parties. This criterion is included to differentiate between simple re-branding efforts by existing parties from new actors. Independents are also excluded from the status of new-party candidates, as they don't have a party affiliation. A candidate that is sponsored by a coalition of parties is a new-party candidate if the main party in the coalition is 'new' under the above criteria, because it adds a relevant new actor to the electoral competition. The coding was done by the author and a full list of new-party candidates is presented in the Appendix.

This paper focuses on 'relevant' new-party candidates, given that incentives for 'relevant' and 'non-relevant' actors differ (Adams et al. 2006, Ezrow et al. 2011). This decision reduces the heterogeneity that has to be accounted for in the statistical models and allows comparability with similar literature (Carreras 2012, West and Spoon 2013). For simplicity of operationalisation (and comparability), a 'relevant' candidate is defined as one that obtained a minimum of 5 per cent of the valid votes in a presidential election. However, as this is an arbitrary decision, the main empirical model is also estimated using a definition of new-party candidates at: no-threshold, 0.5 and 10 per cent thresholds. For further robustness, estimations are conducted on Carreras' (2012) definition of 'Full Outsiders', which only includes relevant presidential candidates from outside the mainstream parties, excluding splinter-party candidates.

The new-party candidates included in the dataset participated in democratic presidential elections in 18 Latin American countries from 1978–2013.⁷ A list of the elections included in the dataset can be found in the Appendix. Figure 3.1 presents a histogram of the number of new-party candidates per election with a 5 and 0.5 per cent threshold. The dependent variable is discrete and consistent with a Poisson distribution. The means and standard deviation of all versions of the dependent variable are equivalent (see Table 3.1). However, for robustness, the main empirical model is also estimated using a negative binomial distribution. This does not produce substantive differences (see Appendix).

⁷Democratic elections are those for which Polity IV catalogued the country with an overall mark of at least 5 (Marshall and Jaggers 2013).

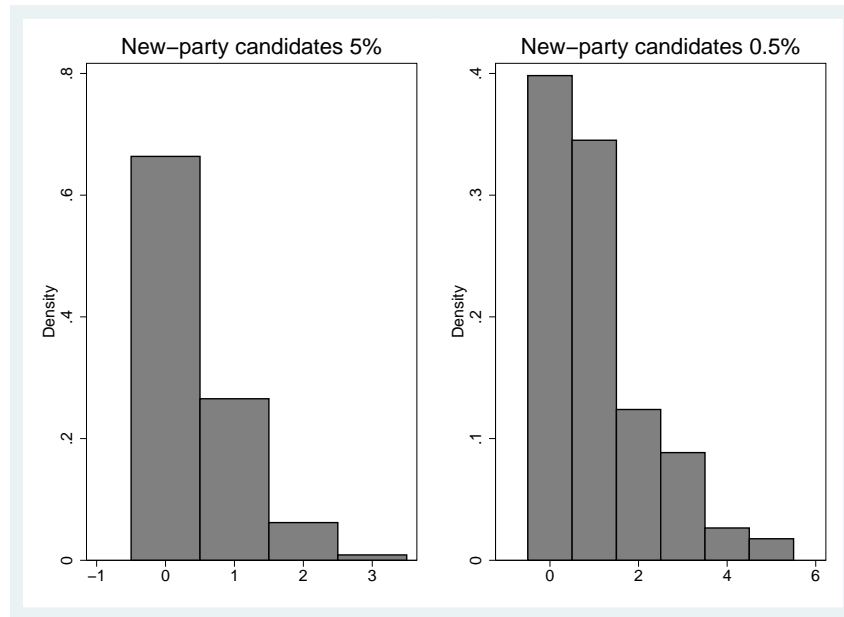


Figure 3.1: Distribution of new-party candidates.

The structure of government funding for political parties is measured by a set of categorical variables coded by the author. The variables included in the measurement are public subsidies for: a) media (during the campaign), b) monetary campaign spending and c) post-election on-going party activities. The allocation mechanisms for these subsidies have been categorised into the following groups:

- Vote: when the resources were allocated solely based on past electoral results.
- Mixed: when the allocation mechanism included a mix of vote and equal distribution of funds among contending parties.
- Equal: when the funds were distributed equally among all candidates/parties.

The baseline category for all variables of interest is the absence of funding. Alternatively, the classification is simplified to dummy variables identifying allocation based on past electoral results (Vote or Mixed, coded as 1) vs equal or no funding (0). More nuanced categorizations are avoided because each country has particular funding criteria and empirical models would simply capture country specific differences in new-party candidate entry. A dataset including details of all the funding laws and allocation rules is available for further review and will be made public upon publication.

Chapter 3. Party financing and new-party candidates

To control for possible confounding variables, the empirical models account for a series of election and country specific characteristics that are correlated with both the dependent and independent variables of interest. Among the control variables included are: 1) the existence of limits to campaign spending, as these can create a ceiling that levels off the cost differential produced by campaign subsidies (coded by the author); 2) the time since the country (re)obtained democratic status, because countries with longer democratic histories have had more time to implement reforms to the party system (source: Polity IV); 3) the level of economic development, given that more prosperous countries have higher capabilities of financing political parties (source: IMF and World Bank); 4) concurrent elections, as this can alter the possibilities of obtaining funding for on-going party activities (source: Bormann and Golder (2013)); 5) the possibility that independents can run as candidates, as that would lower the incentives to create a new party for competing in the election by avoiding organizational costs (coded by the author); 6) the effective number of political parties in past elections, as the existence of more parties can saturate the programmatic space open for new parties to enter (cf. Zons 2013) and also alter the regulations regarding the equality in distribution of funding (source: Bormann and Golder (2013)), and; 7) relevant country and election specific characteristics, such as ethno-linguistic fractionalization, the mean district magnitude, and the size of the population (source: Fearon and Leitin (2003), Bormann and Golder (2013) and World Bank data, respectively). For literature on how these controls can affect new party entry see Lipset and Rokkan (1967), Ordeshook and Shvetsova (1994), Hug (2001), Cox (1997), Jones (1994, 2004), Tavits (2006, 2008a), Carreras (2012).

A summary of the variables used in the analysis are presented in Table 3.1. Other variables, such as open or closed lists, presidential powers, and federalism may also affect entry decisions by new-party candidates (cf. Hicken and Stoll 2008, Spoon and West 2015). However, they are not included because there is no reason to believe these institutions are correlated with party funding allocation and, therefore, would not introduce bias in the estimation of the variables of interest. This claim is corroborated

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
Non-Partisan	113	0.451	0.500	0	1
Uneq. On-going (dummy)	113	0.487	0.502	0	1
On-going fund	113	1.150	1.234	0	3
Uneq. Campaign (dummy)	113	0.779	0.417	0	1
Campaign fund	113	2	1.217	0	3
Media fund	113	0.973	0.949	0	4
Concurrent	113	0.761	0.428	0	1
Incumbent	113	0.142	0.350	0	1
NPC 0%	113	2.363	2.612	0	12
NPC 0.5%	113	1.053	1.187	0	5
NPC 5%	113	0.416	0.651	0	3
NPC 10%	113	0.336	0.592	0	2
Log Time (+1)	113	2.852	0.923	0.693	4.804
ELF	113	0.254	0.216	0.0370	0.678
Uneq. Media (dummy)	113	0.204	0.404	0	1
FPTP	108	0.343	0.477	0	1
Mean Dist. Mag.	104	6.030	4.185	1	19
Full Outsiders	92	0.380	0.644	0	2
Log GDP pc	113	7.800	0.776	5.501	9.305
Lag ENPP	93	3.592	1.645	1.970	9.320
Lag NPC dummy	95	0.358	0.482	0	1
Log Population	113	16.31	1.082	14.61	19.09

Table 3.1: Summary of variables included in the study.

by empirical tests (included in replication material).⁸

3.5 Model specification

The empirical analysis was conducted on an unbalanced election-year, time-series cross-sectional original dataset with 18 countries and an average of 6.278 elections per country, giving a total of 113 observations. For ease of comparison with the literature on new legislative parties, the main method of estimation for the statistical tests was a pooled Poisson Maximum Likelihood Estimation (MLE) (cf. Hug 2001, Tavits 2006, 2008a). Auto-correlation concerns were controlled for through a dummy variable indicating the presence of new-party candidates in the previous election (as frequentist

⁸I would like to thank Hicken and Stoll (2008) for sharing their data on presidential powers to conduct these tests.

statistics do not produce lags of latent dependent variables).⁹ To account for potential biases introduced by the coding of the dependent variable, models were also estimated on four variations of the ‘new-party candidate’ definition.¹⁰

Concerns of endogeneity between the number of new-party candidates and government funding regulations are reduced by two factors. The first is that these countries enacted party finance legislation due to pressure from the international community for the adoption of ‘normatively desirable’ institutions, instead of internal factors such as the number of parties or electoral volatility (Potter and Tavits 2013). That is to say, decisions about party funding were not explicitly designed to deter the entrance of new political parties. And second, logit estimations indicate that the past number of new-party candidates do not correlate with current funding structures, when controlling for country characteristics (results in Appendix).

3.6 Results

The findings in Table 3.2 model 1 provide support for the hypotheses. When campaign funding is allocated based on votes in a previous elections (increased relative costs), one observes a significantly lower number of new-party candidates, *ceteris paribus*. The same is true when media funding is unequally distributed, favouring existing parties over new entries. On the other hand, the allocation of funds for on-going party activities based on votes or mixed allocation criteria (benefits of good electoral results) is associated with a higher number of new-party candidates, *ceteris paribus*.¹¹

⁹Even so, a model with a lag of the dependent variable was estimated and did not substantively or significantly change the conclusions (see Appendix).

¹⁰The MLE models do not use so called ‘robust’ or ‘clustered’ standard errors, because maximum likelihood estimators such as the Poisson models include fixed assumptions about the distribution of the variance, and thus, do not present problems of heteroskedasticity (Greene 2003, Long 1997).

¹¹The baseline for on-going funding is “no-funding”, within the sample “Equal on-going” allocation was not observed.

VARIABLES	(1) NPC 5%	(2) NPC 5%	(3) NPC 5%	(4) NPC 5%	(5) NPC 5%
Campaign: Votes	-1.373** (0.692)				
Campaign: Mixed	-0.819 (0.679)				
Campaign: Equal	-13.66 (1,322)				
On-going: Votes	1.941*** (0.658)				
On-going: Mixed	1.420** (0.696)				
Uneq. Campaign (dummy)		-1.229** (0.601)	-1.515** (0.756)	-1.024 (0.629)	-1.398** (0.695)
Uneq. On-going (dummy)		1.825*** (0.616)	2.302*** (0.781)	1.723*** (0.623)	2.030*** (0.701)
Uneq. Media (dummy)	-1.273** (0.543)	-1.220** (0.478)	-1.357** (0.570)	-1.204** (0.494)	-1.165** (0.535)
Log Time (+1)	0.286 (0.217)	0.317 (0.224)	0.548* (0.323)	0.392 (0.252)	0.568* (0.316)
Log GDP pc	-0.570* (0.298)	-0.664** (0.293)	-1.110*** (0.360)	-0.621* (0.320)	-0.907*** (0.322)
Spending limits	0.248 (0.382)	0.125 (0.367)	0.341 (0.436)	0.0710 (0.399)	0.156 (0.401)
Concurrent	-0.196 (0.552)	-0.357 (0.545)	-0.419 (0.641)	-0.422 (0.605)	-0.386 (0.653)
Non-Partisan	0.339 (0.318)	0.230 (0.316)	0.196 (0.349)	0.196 (0.341)	0.221 (0.345)
Log Population	0.384* (0.228)	0.394* (0.218)	0.357 (0.295)	0.463 (0.313)	0.495* (0.267)
ELF	0.979 (0.935)	1.083 (0.959)	4.085* (2.231)	0.996 (1.567)	1.462 (1.081)
EFL*Lag ENPP			-0.760 (0.547)		
Lag ENPP			0.226 (0.203)		
Mean Dist. Mag.				-0.0282 (0.0792)	
EFL*Mean Dist. Magn.				0.0625 (0.176)	
Lag NPC dummy					-0.195 (0.338)
Constant	-3.878 (3.954)	-3.307 (3.951)	-0.878 (5.331)	-4.874 (4.791)	-3.944 (4.849)
Observations	113	113	93	104	95
Log likelihood	-75.88	-77.10	-61.09	-72.87	-62.07

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.2: Poisson models on the number of new-party candidates at the 5% threshold.

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The estimation of model 1 includes on-going and campaign funding distributions at their most disaggregated state. However, the number of observations in the dataset is limited due to the short history of democratic elections since the third wave of democracy in Latin America (Huntington 1991). The small number of observations can lead to over-fitting the models and biased results. To manage these concerns models 2–5 are estimated using dummy variables for presence/absence of performance-based subsidies. Likelihood ratio tests indicate there is no significant loss of fit between models 1 and 2, justifying the use of this simplified coding in further analyses.

The patterns in models 1 and 2 are similar, campaign ('Uneq. Campaign') and media funding ('Uneq. Media') based on performance in past elections is, as hypothesised (H1-2), negatively associate with the new-party candidates. However, one observes more of these candidates in the presence of potential funding for future on-going party activities, allocated as a consequence of current electoral outcomes ('Uneq. On-going'). This result is consistent with hypothesis H3. The coefficients in models 3–5 indicate the robustness of these inferences to the inclusion of various control variables. Model 3 accounts for the impact of the effective number of parties in the legislature and its interaction with the level of ethno-linguistic fractionalization in the country. Model 4 controls for the level of permissibility of the electoral system by including the mean district magnitude. Finally, model 5 deals with potential autocorrelation problems by including a dummy for the presence of new-party candidates in the previous election. As can be observed, the variables of interest are consistently significant and the magnitude of their effect only varies slightly. Furthermore, likelihood ratio tests indicate no significant difference of fit between most parsimonious model 2 and models 3–5. For this reason, further test are conducted using model 2 as a base.

All estimations include controls for the existence of campaign spending limits. As can be observed, spending limitations are never significant predictors of new-party candidate entry, despite their potential to level off funding inequalities among competitors. Further controls for a possible interaction effect between spending limits and types of funding are not significant either (see Appendix). This absence of a distinguishable

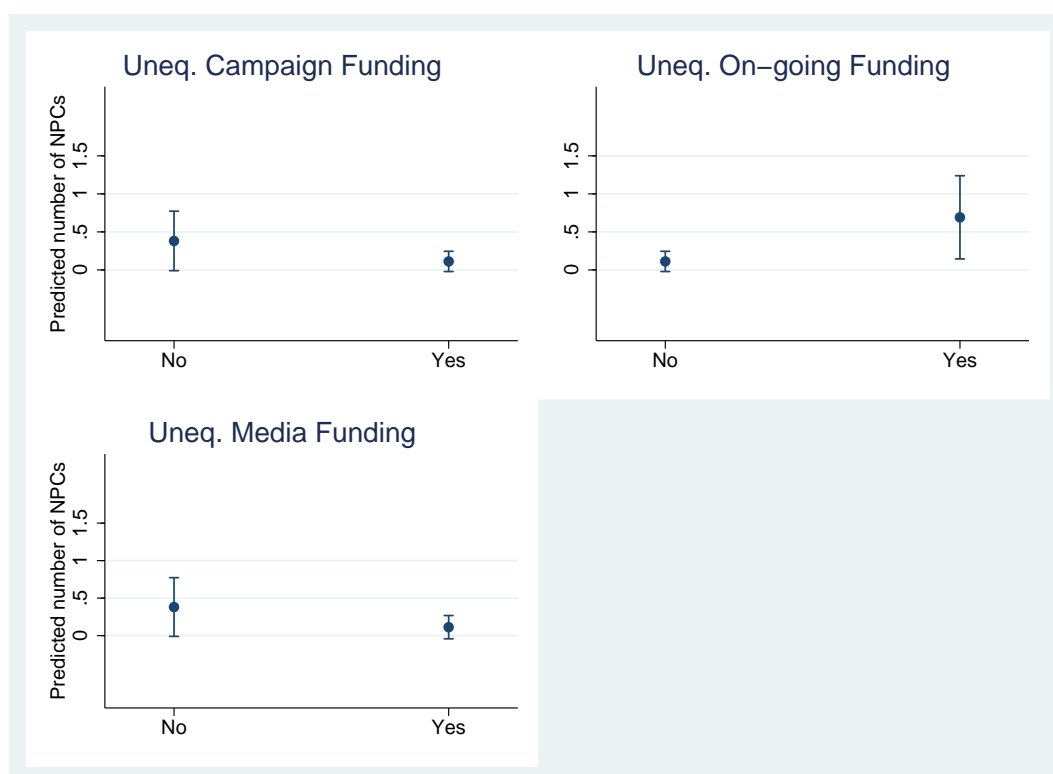


Figure 3.2: First differences on the effects of public subsidies for new-party candidates at the 5% threshold.

effect is likely caused by a weak execution of controls and sanctions by enforcement agencies (cf. Gutiérrez and Zovatto 2011, Zovatto and Orozco 2008). It is possible that spending restrictions could have an effect when adequately implemented, but further research would have to be conducted.

Overall the results in Table 3.2 indicate that the more disadvantaged new-parties are regarding funding and media during a campaign, the less likely one can observe relevant new-party candidates entering, other variables constant. On the other hand, more of these candidates are willing to take the risk if there is a increased potential for funding for their party's future activities, *ceteris paribus*. As previously indicated, these effects are robust to multiple methods of estimations and sample selection, attesting to the reliability of the inferences outlined above (tables in Appendix).

The substantive effect of public subsidies can be observed in the first difference plots in Figure 3.2.¹² The y-axis is the expected number of new-party candidates

¹²The effects are calculated from model 2, holding constant non-partisans at 0, limits to spending at 1, concurrence of elections at 1, and Log of Time, ELF, and Log GDP *per capita* at their means.

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(NPCs) and the x-axis indicates the presence or absence of performance-based funding. Figure 3.2 top-left shows that roughly in 1/4 of the elections that do not including funding for campaigns (or allocate it equally) one can expect a relevant new-party candidate entry. However, when campaign funding is allocated based on past-electoral results the mean expectation is reduced to 1/10. Nevertheless, in the absence of funding, the variation in number of candidates is large, and whether a new party sponsors a presidential candidate (or not), or avoids entering altogether will depend on other factors. The effect of campaign subsidies simply decreases the expectation of entry to a negligible number.

The predictions for media subsidies determined by past votes, Figure 3.2 bottom-left, are similar to those of campaign funding. The expected number of relevant candidates running for new parties is substantially higher when there are no media subsidies (or these are equally distributed). The size of this effect is equivalent to the one by monetary campaign funding and larger than hypothesised —given that media subsidies are earmarked for limited purposes and monetary subsidies can be used at the discretion of the candidate or party. However, it corresponds with the similarity in coefficients estimated for unequal campaign and media funding in model 2. Another factor that is important to note is the small variation in the expected number of new-party candidates when past-performance based media funds are available. As one can observe, the 95% confidence interval in the presence of media funding is roughly one third the size of those when no subsidies exist (or are equally allocated). The same goes for campaign funding. These results imply that, even if the confidence intervals overlap, the availability of unequal funding during the campaign period systematically reduces the expected number of new-party candidates. In other words, the absence of barriers to entry does not imply new-party candidates will compete. However, when they are present, one can be confident in predicting that the number of relevant new-party entries will be low.

As hypothesised, funding for on-going activities has the opposite effect. Even when campaign funding exists, the presence of potential benefits of entry is associated with a substantially higher number of relevant new-party candidates. In the absence of on-going funding one can expect a new-party candidate every ten elections. However, the

incentives introduced by funding for party activities increases that to seven out of ten. This is a substantial difference if one considers that the maximum number of new-party candidates that reach the 5% threshold is three, in Bolivia 2002.

3.6.1 Robustness tests

VARIABLES	(6) NPC 0%	(7) NPC 0.5%	(8) NPC 10%	(9) Full Outsiders
Uneq. Campaign (dummy)	-0.603*** (0.214)	-0.573* (0.330)	-1.477** (0.719)	-1.257* (0.670)
Uneq. On-going (dummy)	0.497** (0.203)	0.779** (0.311)	1.931*** (0.740)	1.160* (0.614)
Uneq. Media (dummy)	-0.214 (0.179)	-0.591** (0.296)	-1.560*** (0.554)	-1.751*** (0.660)
Log Time (+1)	0.498*** (0.0933)	0.298** (0.133)	0.404 (0.258)	0.0333 (0.219)
Log GDP pc	-0.134 (0.111)	-0.362** (0.174)	-0.664** (0.331)	-0.714* (0.377)
Spending limits	-0.150 (0.168)	0.352 (0.244)	0.138 (0.395)	-0.159 (0.504)
Concurrent	-0.161 (0.200)	-0.0547 (0.336)	-0.178 (0.624)	1.045 (0.745)
Non-Partisan	0.577*** (0.134)	0.0730 (0.193)	0.334 (0.355)	0.628* (0.357)
ELF	0.506 (0.415)	1.174** (0.592)	1.274 (1.086)	0.773 (1.042)
Log Population	0.242*** (0.0852)	0.162 (0.140)	0.574** (0.247)	0.576** (0.254)
Constant	-3.600** (1.512)	-0.970 (2.505)	-6.855 (4.463)	-5.937 (4.132)
Observations	113	113	113	92
Log likelihood	-228	-139.7	-66.51	-58.56

Standard errors in parentheses

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

Table 3.3: Poisson models on the number of new-party candidates at the 5% threshold.

For generalizability of results it is important to test the robustness of these estimations to different definitions of the dependent variable. To do this, models 6–8 alter the ‘relevance’ threshold for a new-party candidate to 0, 0.5 and 10% of valid votes. On

the other hand, model 9 uses Carreras' (2012) definition of 'Full Outsiders' as the dependent variable. His operational approach focuses on how candidates emerged (from inside or outside the mainstream parties) as the distinctive condition, excluding splinter-party candidates as they would be considered insiders despite running for a new party. Nevertheless, in practice, 'Full Outsiders' and new-party candidates at the 5% threshold overlap substantively (comparison table in Appendix).

The results are consistent with the theory. Unequal campaign and media funding are always significantly associated with a lower number of new-party candidates. As before, the association with the existence of potential monetary benefits for on-going party activities is positive. The magnitudes of these effects vary, but that is caused by differences in the operational definitions of the dependent variable. As presented in Table 3.1, new-party candidates fluctuate between 0–12 per election at 0% threshold, to 0–2 at the 10% level. On the other hand, the coefficients for 'Full Outsiders' and new-party candidates at the 10% threshold are very similar to the ones in the main models (Table 3.2).

To further test the robustness of the analysis to characteristics, structure and clustering of the sample, the estimations of models 1–5 were conducted using: a logit on the existence of new-party candidates, an ordered logit on the number of new-party candidates, Panel Poisson with Random Effects (RE) and Fixed effects (FE), a pooled ordinary least squares (OLS) with country clustered standard errors; and pooled Poisson with Jackknife and Bootstrapped standard errors. The results of these tests are included in the Appendix, and the conclusions are substantively in line with the findings presented in the paper.

3.7 Conclusions

The results provide evidence that entry decisions by new-party candidates are associated with incentives introduced by party finance regulations. As hypothesized, higher relative costs of competing (produced by past-performance based campaign and media subsidies) are associated with a lower number of presidential candidates running for

new parties. These statistically significant effects contribute to reducing the expected number of new-party candidates that enter. However, even in the absence of unequal media and monetary campaign subsidies there are elections in which new-party candidates do not compete. On the other hand, one can observe a significantly higher number of these candidates entering when there are subsidies for on-going party activities, even under unequal access to campaign funding. These results suggest that the potential to gain monetary support for a new party to institutionalize itself in the up-coming inter-election period can outweigh the extra costs of running a presidential campaign.

The observational nature of the data (and estimation strategy used) caution against a strict causal interpretation of the results. However, robustness tests provide assurance that the associations found in the data are not the product of sample selection, method of estimation, or definition of the phenomena of interest. The incentive structures have significant effects on new-party candidates, independent of the assumptions regarding the data generating process. That is to say, the effects are persistent whether one believes the incentive schemes alter the existence (or not) of candidates sponsored by new parties, or how many of them enter an election. Furthermore, the impact of public subsidies is not only associated with ‘relevant’ candidates, but also with multiple and flexible definitions of the phenomena of interest. Party subsidies can thus have an effect on the decisions of a wide range of political actors. These results corroborate Tavitt’s (2006) argument regarding the rational behaviour of new parties, and expands scientific evidence to developing countries with presidential systems.

Substantively, this study highlights the importance of looking at the effects of specific public funding provisions. Different types of subsidies and regulations can have contrasting effects on the incentive structures faced by new-party candidates. In the case presented here, increases in costs produced by unequal funding for campaigns reduce the incentives for entry. This, in turn, corresponds with a more stable electoral arena, where the number of new parties that enter sponsoring a presidential candidate is small and the *status quo* tends to prevail. On the other hand, public subsidies for political parties’ inter-election (on-going) activities increase the incentives to participate,

other costs constant. Consequently, these types of benefits can lead to more variation in the actors and policy offers available to voters.

In conclusion, while there are many reasons to regulate money in politics, this study provides empirical evidence to suggest that funding mechanisms have consequences with respect to the structure of a party system. Whether a country benefits from an increase in party entry flexibility, or would do better if they reduce the level of instability, depends on the particular circumstance in that country. All objectives are valid, as long as policy makers are aware of the consequences of their decisions. They would be wise to consider the effects shown in this paper in the institutional design of future funding policies and, thus, avoid having to deal with unintended outcomes further on.

The impact of public funding policies on the stability/flexibility of the party system reinforces the need to analyse these matters in more detail. Further research with more nuanced measures could provide insights into how or at what levels the incentives become relevant. For reasons of comparability across countries it was not possible to do so in this study. However, research at the sub-national level could address this issue in more detail. It would be particularly interesting to study changes in the number of new-party candidates across constituencies in the same country, before and after regulatory reforms.

3.8 Appendix: Party financing and new-party candidates

3.8.1 Names of new-party candidates included in the study

Table 3.4: Outsiders and new-party candidates in Latin America (1978-2013)

Country	Full Outsiders ¹³	Mavericks ¹⁴	NPCs 5% votes ¹⁵
Argentina	<p>2003: Ricardo López Murphy (RECREAR): 16.35%</p>	<p>1995: José Octavio Bordón (PJ → FREPASO): 29.2%</p> <p>1999: Domingo Cavallo (PJ → AR): 10.09%</p> <p>2003: Elisa Carrió (UCR → ARI): 14.15%</p> <p>2007: Elisa Carrió (UCR → ARI): 22.95%</p> <p>Roberto Lavagna (PJ → UNA): 16.88%</p>	<p>1995: José Octavio Bordón (FREPASO) 29.2%</p> <p>1999: Domingo Cavallo (AR): 10.09%</p> <p>2003: Elisa Carrió (ARI): 14.15%</p> <p>Ricardo López Murphy (RECREAR): 16,35%</p>
Bolivia	<p>1989: Carlos Palenque (CONDEPA): 12.25%</p> <p>1993: Carlos Palenque (CONDEPA): 14.29%</p> <p>Max Fernández (UCS): 13.77%</p> <p>1997: Ivo Mateo Kuljis (UCS): 16.11%</p>	<p>1993: Antonio Aranibar Quiroga (MIR → MBL): 5.36%</p>	<p>1989: Carlos Palenque (CONDEPA): 12.25%</p> <p>1993: Max Fernandez (UCS) 13.77%</p>

¹³Outsiders are politicians that have not had a political career and compete in presidential elections with a new party (e.g. Fujimori in Peru). Data obtained from Carreras' web page <http://miguelcarreras.com/Data.php>

¹⁴As defined by Carreras 2012 Mavericks are politicians that were political figures in already existing parties but that compete with a newly created party (e.g. Uribe in Colombia).

¹⁵As defined in the text, as a first round presidential candidate that: 1) he/she is the candidate of a political party or movement that does not have links with parties with past electoral history, or 2) is the candidate of a party or movement that results from a split of an existing party. (Justifications of all coding decisions are available on request).

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	<p>2002: Evo Morales (MAS): 20.94% Felipe Quispe (MIP): 6.09%</p>	<p>2005: Jorge Quiroga Ramírez (ADN → PODEMOS): 28.6% Samuel Doria Medina (MIR → UN): 7.8% 2009: Samuel Doria Medina (MIR → UN): 5.65%</p>	<p>2002: Evo Morales (MAS) 20.94% Felipe Quispe (MIP) 6.09% Manfred Reyes Villa (NFR) 20.91% 2005: Jorge Quiroga Ramírez (PODEMOS): 28.6% Samuel Doria Medina (UN): 7.8% 2009: Manfred Reyes Villa (PPB-CN) 26.46%</p>
Brazil	<p>1989: Fernando Collor de Mello (PRN): 28.52%</p> <p>1994: Enéas Carneiro (PRONA): 7.38%</p>	<p>2006: Heloísa Helena (PSOL): 6.8%</p>	<p>1989: Fernando Collor de Mello (PRN): 28.52% Mário Covas (PSDB) 10,78% 2006: Heloísa Helena (PSOL): 6.8%</p>
Chile	<p>1989: Francisco Javier Errázuriz (UCCP): 15.43%</p> <p>1993: José Piñera Echenique (Independent): 6.1% Manfred Max-Neef (Independent): 5.6%</p>	<p>2009: Marco Enríquez-Ominami (PS → Independent): 20.14% Jorge Arrate Mac-Niven (Concertación → Juntos Podemos Más): 6.21%</p>	<p>Hernán Büchi (pro-UDI) 29.40%</p>
Colombia	<p>1990: Antonio Navarro Wolff (Alianza Democrática M-19): 12.43%</p>	<p>1982: Luis Carlos Galán (PL → Nuevo Liberalismo): 10.9%</p>	<p>1982: Luis Carlos Galán (Nuevo Liberalismo): 10.9% 1990: Antonio Navarro Wolff (Alianza Democrática M-19): 12.43%</p>

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		<p>1990: Álvaro Gómez Hurtado (PC → MSN): 23.71%</p> <p>1998: Noemí Sanin (PC → Sí Colombia): 26.88%</p> <p>2002: Álvaro Uribe Vélez (PL → Primero Colombia): 54.51%</p>	<p>Álvaro Gómez Hurtado (MSN): 23.71%</p> <p>1998: Noemí Sanin (Sí Colombia): 26.88%</p> <p>2006: Carlos Gaviria Diaz (PDA) 22.0%</p> <p>2010: Antanas Mockus (PV) 21.5%</p>
Costa Rica		<p>2002: Ottón Solis (PLN → PAC): 26.16%</p> <p>2006: Ottón Solis (PLN → PAC): 39.8%</p>	<p>1986: Rafael Angel Calderon Fournier (USC) 46%</p> <p>2002: Ottón Solis (PAC): 26.16%</p>
Dominican Republic	NA	NA	<p>1986: PLE 5.33%</p> <p>1990: PRI 7.01%</p>
Ecuador	<p>1988: Abdala Bucaram (PRE): 17.61%</p> <p>Frank Vargas Pazzos (APRE): 12.63%</p> <p>1996: Freddy Ehlers (Movimiento Nuevo País): 20.61%</p> <p>1998: Freddy Ehlers (Movimiento Nuevo País): 14.75%</p> <p>2002: Lucio Gutiérrez (PSP): 20.32%</p> <p>2006: Rafael Correa (Alianza País): 22.84 %</p>	<p>1982: Francisco Huerta Montalvo (PL → PD): 6.64%</p> <p>1992: Sixto Durán Ballén (PSC → PUR): 31.88%</p> <p>1998: Rosalía Arteaga (PRE → MIRA): 5.07%</p> <p>2002: Álvaro Noboa (PRE → PRIAN): 17.4%</p>	<p>1992: Sixto Durán Ballén (PUR): 31.88%</p> <p>1996: Freddy Ehlers (Movimiento Nuevo País): 20.61%</p> <p>2002: Álvaro Noboa (PRIAN): 17.4%</p> <p>Lucio Gutiérrez (PSP): 20.32%</p> <p>2006: Rafael Correa (Alianza País): 22.84%</p>

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	Gilmar Gutiérrez (PSP): 17.42%		
El Salvador			
Guatemala	NA	NA	1999: Álvaro Colom Caballeros (URNG) 12.3% Óscar Berger Perdomo (GANA) 34.46% 2007: José Eduardo Suger Cofiño (CASA) 07.5% 2011: Manuel Antonio Baldizón Méndez (LIDER) 23.2%
Honduras	NA	NA	
Mexico	NA	NA	
Nicaragua	1990: Violeta Chamorro (UNO): 54.73% 2006: Edmundo Jarquín Calderón (MRS): 6.3%	2006: Eduardo Montealegre (PLC → ALN-PC): 28.3%	
Panama	1994: Rubén Blades (Movimiento Papa Egoró): 17.1%	1999: Alberto Vallarino (PA → PRC): 17.38% 2004: Guillermo Endara Galimany (PA → PS): 30.86% Ricardo Martinelli (PRD - PA → PCD): 5.31%	1994: Rubén Blades (Movimiento Papa Egoró): 17.1% 2004: Ricardo Martinelli (PCD): 5.31%
Paraguay	1993: Guillermo Caballero (EN): 23.04% 2003: Pedro Fadul (MPQ): 21.96% 2008: Fernando Lugo (APC): 42.3% Lino Oviedo (UNACE): 22.8%	2003: Guillermo Sánchez Guffanti (PC → UNACE): 13.9%	2003: Pedro Fadul (MPQ): 21.96% 2003: Guillermo Sánchez Guffanti (UNACE): 13.9%

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Peru	<p>1990: Mario Vargas Llosa (FREDEMO): 33%</p> <p>Alberto Fujimori (Cambio 90): 29%</p> <p>2001: Alejandro Toledo (PP): 36.5%</p> <p>2006: Ollanta Humala (UPP): 30.06%</p>		<p>1990: Alberto Fujimori (Cambio 90): 29%</p> <p>2001: Alejandro Toledo (PP): 36.5%</p> <p>2011: Keiko Fujimori Higuchi (F2011) 23.5%</p>
Uruguay		<p>1989: Hugo Batalla (FA → Nuevo Espacio): 9.01%</p>	<p>1989: Hugo Batalla (Nuevo Espacio): 9.01%</p>
Venezuela	<p>1993: Andrés Velásquez (La Causa Radical): 21.95%</p> <p>1998: Hugo Chávez (MVR): 56.20%</p> <p>Henrique Salas Römer (Proyecto Venezuela): 39.97%</p> <p>2000: Francisco Arias Cárdenas (LCR): 35.75%</p>	<p>1993: Rafael Caldera (COPEI → CN): 30.46%</p>	<p>1993: Rafael Caldera (CN): 30.46%</p> <p>1998: Hugo Chávez (MVR): 56.20%</p> <p>Henrique Salas Römer (Proyecto Venezuela): 39.97%</p>

Glossary of Latin American Party and Coalition Names

Argentina

PJ: Partido Justicialista
 AR: Acción por la República
 RECREAR: Recrear para el Crecimiento
 ARI: Afirmación para una República Igualitaria
 UCR: Unión Cívica Radical
 UNA: Una Nación Avanzada
 FREPASO: Frente País Solidario

Bolivia

CONDEPA: Conciencia de Patria
 UCS: Unión Cívica Solidaridad
 MIR: Movimiento de la Izquierda Revolucionaria
 MBL: Movimiento Bolivia Libre
 MAS: Movimiento al Socialismo

MIP: Movimiento Indígena Pachakuti
 ADN: Acción Democrática Nacionalista
 PODEMOS: Poder Democrático y Social
 UN: Unidad Nacional
 NFR: Nueva Fuerza Republicana
 PPB – CN: Plan Progreso por Bolivia - Convergencia Nacional

Brazil

PRN: Partido da Reconstrução Nacional
 PRONA: Partido de Reedificação da Ordem Nacional
 PSOL: Partido Socialismo e Liberdade
 PSDB: Partido da Social Democracia Brasileira

Chile

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UCCP: Unión del Centro Centro Progre-
sista

PS: Partido Socialista

UDI: Unión Demócrata Independiente

Colombia

PL: Partido Liberal

PC: Partido Conservador

MSN: Movimiento de Salvación Nacional

PDA: Polo Democrático Alternativo

PV: Partido Verde

Costa Rica

PLN: Partido Liberación Nacional

PAC: Partido Acción Ciudadana

USC: Unidad Social Cristiana

Ecuador

PL: Partido Liberal

PD: Partido Democrático

PRE: Partido Roldosista Ecuatoriano

APRE: Acción Popular Revolucionaria
Ecuatoriana

PSC: Partido Social Cristiano

PUR: Partido Unión Republicana

MIRA: Movimiento Independiente para
una República Auténtica

PSP: Partido Sociedad Patriótica 21 de En-
ero

PRIAN: Partido Renovador Institucional
de Acción Nacional

Dominican Republic

Names not found in data of origin
JCE.gob.do

Guatemala URNG: Unidad Revolu-
cionaria Nacional Guatemalteca

GAN: Gran Alianza Nacional

UNE: Unidad Nacional de Esperanza

CASA: Centro de Acción Social

LIDER: Libertad Democrática Renovada

CREO: Compromiso Renovación y Orden

Nicaragua

UNO: Unión Nacional Opositora

PLC: Partido Liberal Constitucionalista

ALN-PC: Alianza Liberal Nicaragüense

MRS: Movimiento de Renovación San-
dinista

Panama

PA: Partido Arnulfista

PRC: Partido Renovación Civilista

PS: Partido Solidaridad

PRD: Partido Revolucionario Democrático

PCD: Partido Cambio Democrático

Paraguay

EN: Encuentro Nacional

MPQ: Movimiento Patria Querida

PC: Partido Colorado

UNACE: Unión Nacional de Ciudadanos
Éticos

APC: Alianza Patriótica para el Cambio

Peru

FREDEMO: Frente Democrático

PP: Perú Posible

UPP: Unión por el Perú

F2011: Fuerza 2011

Uruguay

FA: Frente Amplio

Venezuela

COPEI: Partido Social Cristiano de
Venezuela

CN: Convergencia Nacional

MVR: Movimiento Quinta República

LCR: La Causa Radical

3.8.2 Elections included in empirical models

This section presents data on the elections included in the study and results of the robustness test. Table 3.5 presents all the elections that were included in the analysis. As can be noted, there is a mean of 6.28 elections per country, with a standard deviation of 1.87. The dataset is unbalanced, with four out of 18 countries with 9 elections and 2 with only 4 elections. All of the countries, except Peru, are democratic throughout the full period. However, the Peruvian elections of 1995 and 2000 are not included because Peru was not considered democratic at the time according to Polity IV (Marshall and Jaggers 2013).

Countries	Years	Total
Argentina	1983 1989 1995 1999 2003 2007 2011	7
Bolivia	1985 1989 1993 1997 2002 2005 2009	7
Brazil	1989 1994 1998 2002 2006 2010	6
Chile	1989 1993 1999 2005 2009	5
Colombia	1978 1982 1986 1990 1994 1998 2002 2006 2010	9
Costa Rica	1978 1982 1986 1990 1994 1998 2002 2006 2010	9
Dominican Rep.	1982 1986 1990 1994 1996 2000 2004 2008 2012	9
Ecuador	1984 1988 1992 1996 1998 2002 2006 2009 2013	9
El Salvador	1984 1989 1994 1999 2004 2009	6
Guatemala	1999 2003 2007 2011	4
Honduras	1985 1989 1993 1997 2001 2005 2009	7
Mexico	2000 2006 2012	3
Nicaragua	1990 1996 2001 2006 2011	5
Panama	1994 1999 2004 2009	4
Paraguay	1993 1998 2003 2008 2013	5
Peru	1980 1985 1990 2001 2006 2011	6
Uruguay	1989 1994 1999 2004 2009	5
Venezuela	1978 1983 1988 1993 1998 2000 2006	7
Total		113
Mean		6.278
SD		1.873

Table 3.5: Elections Included in the study.

3.8.3 Robustness of model specification

VARIABLES	(A.1) NPC 5% Lag NPC	(A.2) NPC 5% Logit entry	(A.3) NPC 5% Ologit	(A.4) NPC 5% Panel Poisson RE	(A.5) NPC 5% Panel Poisson FE
Uneq. Campaign (dummy)	-1.403** (0.697)	-1.819** (0.796)	-1.689** (0.790)		-0.430 (0.867)
Uneq. On-going (dummy)	2.053*** (0.702)	2.055*** (0.758)	2.499*** (0.787)	0.609** (0.274)	0.838 (0.885)
Uneq. Media (dummy)	-1.194** (0.535)	-1.376** (0.676)	-1.931*** (0.692)	0.0329 (0.359)	-0.730 (0.707)
Log Time (+1)	0.613* (0.323)	0.456 (0.312)	0.549* (0.309)	0.0230 (0.135)	-0.0302 (0.459)
Log GDP pc	-0.934*** (0.318)	-0.735* (0.427)	-1.034*** (0.441)	-0.102 (0.183)	-2.077*** (0.659)
Spending limits	0.105 (0.406)	0.429 (0.646)	0.276 (0.623)	0.343 (0.294)	0.304 (0.681)
Concurrent	-0.352 (0.646)	-0.379 (0.748)	-0.510 (0.767)	0.510 (0.345)	-0.986 (0.883)
Non-Partisan	0.294 (0.357)	0.210 (0.504)	0.389 (0.488)	-0.131 (0.233)	0.335 (0.535)
ELF	1.572 (1.088)	2.060 (1.468)	1.964 (1.433)	-1.211* (0.694)	
Log Population	0.533* (0.275)	0.383 (0.309)	0.620* (0.318)	-0.131 (0.139)	5.300* (2.777)
Lag NPC	-0.200 (0.217)				
Constant cut1			4.393 (5.599)		
Constant cut2			6.802 (5.640)		
Constant cut3			9.176 (5.736)		
Constant Camp. (dummy)				2.144 (2.480)	
Constant lnalpha				-17.76 (790.8)	
Constant	-4.564 (4.935)	-2.470 (5.564)			
Observations	95	113	113	113	92
Log likelihood	-61.80	-57.46	-76.42	-104.1	-46.29
Number of countries				18	14

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.6: Robustness tests for method of estimation.

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VARIABLES	(A.6) NPC 5% OLS Clustered SE	(A.7) NPC 5% Neg Binomial	(A.8) NPC 5% Bootstrap SE	(A.9) NPC 5% Jackknife SE
Uneq. Campaign (dummy)	-0.252 (0.175)	-1.229** (0.601)	-1.229** (0.590)	-1.229** (0.614)
Uneq. On-going (dummy)	0.524*** (0.160)	1.825*** (0.616)	1.825*** (0.659)	1.825*** (0.662)
Uneq. Media (dummy)	-0.557*** (0.152)	-1.220** (0.478)	-1.220** (0.510)	-1.220*** (0.462)
Log Time (+1)	0.135* (0.0681)	0.317 (0.224)	0.317 (0.254)	0.317 (0.239)
Log GDP pc	-0.236** (0.0936)	-0.664** (0.293)	-0.664** (0.302)	-0.664** (0.295)
Spending limits	0.0470 (0.120)	0.125 (0.367)	0.125 (0.402)	0.125 (0.363)
Concurrent	-0.194 (0.154)	-0.357 (0.545)	-0.357 (0.624)	-0.357 (0.586)
Non-Partisan	0.0870 (0.116)	0.230 (0.316)	0.230 (0.338)	0.230 (0.312)
ELF	0.691 (0.407)	1.083 (0.959)	1.083 (1.065)	1.083 (1.012)
Log Population	0.151** (0.0599)	0.394* (0.218)	0.394 (0.276)	0.394 (0.252)
Constant	-0.610 (0.906)	-3.307 (3.951)	-3.307 (4.622)	-3.307 (4.460)
Constant NB		-15.74 (891.9)		
Observations	113	113	113	113
R-squared	0.298			
Log likelihood		-77.10	-77.10	-77.10

Standard errors in parentheses (robust s.e. for OLS model)

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

Table 3.7: Robustness tests for method of estimation (cont.).

VARIABLES	(A.10) NPC 5%	(A.11) NPC 5%	(A.12) NPC 5%
Uneq. Campaign (dummy)	-1.328** (0.629)	-1.340** (0.649)	-1.325** (0.636)
Uneq. On-going (dummy)	1.821*** (0.626)	1.882*** (0.634)	1.845*** (0.623)
Uneq. Media (dummy)	-1.279*** (0.486)	-1.470** (0.694)	-1.270*** (0.488)
Spending limits	-0.348 (0.839)	0.0485 (0.398)	-0.252 (0.865)
Limits*On-going	0.603 (0.937)		
Limits*Media		0.496 (0.933)	
Limits*Campaign			0.474 (0.966)
Log Time (+1)	0.349 (0.229)	0.312 (0.223)	0.344 (0.230)
Log GDP pc	-0.731** (0.313)	-0.661** (0.293)	-0.721** (0.315)
Concurrent	-0.337 (0.546)	-0.274 (0.576)	-0.347 (0.546)
Non-Partisan	0.214 (0.318)	0.228 (0.316)	0.218 (0.318)
ELF	0.947 (0.980)	1.029 (0.959)	0.979 (0.982)
Log Population	0.418* (0.222)	0.401* (0.220)	0.415* (0.223)
Constant	-3.168 (3.958)	-3.394 (3.954)	-3.200 (3.954)
Observations	113	113	113
Log likelihood	-76.88	-76.96	-76.98

Standard errors in parentheses

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

Table 3.8: Robustness tests for interaction between the independent variables of interest and limits to campaign spending.

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VARIABLES	(A.13) Campaign Fund	(A.14) On-going Fund	(A.15) Media Fund
Lag NPC	-0.193 (0.516)	0.366 (0.401)	-0.680 (0.545)
Log Time (+1)	2.008** (0.879)	0.639 (0.400)	0.379 (0.752)
Log GDP pc	0.976 (0.685)	1.251*** (0.433)	1.008 (0.646)
Spending limits	2.396** (1.143)	0.475 (0.719)	-0.879 (0.885)
Concurrent	4.499*** (1.383)	-0.119 (0.701)	-3.297** (1.325)
Non-Partisan	-2.094** (1.024)	-0.463 (0.548)	0.933 (0.850)
ELF	-6.227** (2.539)	3.741** (1.696)	6.299** (2.978)
Log Population	-1.665** (0.670)	0.575* (0.305)	2.354*** (0.605)
Constant	15.25* (8.587)	-21.97*** (6.292)	-49.41*** (12.30)
Observations	95	95	95
Log likelihood	-27.16	-47.43	-25.12

Standard errors in parentheses

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

Table 3.9: Robustness tests for endogeneity.

Chapter 4

Party collapse and new party entry

Abstract

The entry and success of new parties has become a regular event in modern democracies. From the emergence of green to protest parties, new movements have entered the electoral arena. This paper addresses one of the less studied aspects of new parties: the dynamic process of party exit and entry into politics. The paper argues that changes to the party system, produced by the collapse of a political party, can lead to the successful entrance of new parties in the next election. The premise is that one party's loss is a future one's gain. The empirical results provide strong evidence that the size of the policy space created by a party collapse has a substantive impact on the level of new parties' success.

Keywords— New Political Parties, Party Supply, Open Policy Space, Party Collapse

4.1 Introduction

Political parties and party systems, while ideally stable (cf. Mainwaring and Scully 1995), need to evolve in order to accommodate changes in society. If parties don't adapt fast enough, shifts in social demands can create programmatic space which new parties can enter (Hug 2001, Zons 2013). Of course parties adapt to changes in society (Adams et al. 2006, Ezrow et al. 2011, Spoon and Klüver 2014). If one looks at, for example, the British Labour party's manifestos during the Tony Blair government (1997-2007) and compare them to those of Clement Attlee (Prime Minister 1945–1951), it is evident that the party's policy proposals changed substantially (Volkens et al. 2015). However, adaptation by mainstream parties may not be enough to accommodate all new social demands and new parties may still emerge. Such has been the case with environmental, anti-immigrant and regional autonomy parties, among others, in Europe (cf. Meguid 2005, 2008).

When do new parties emerge? This paper argues that an opportunity for successful entry is created when a party collapses (i.e. loses more than 50% of the vote share it held in the previous election). A party collapse leaves a group of voters without adequate representation, creating space for new parties to enter in the next election. If this is the case, a larger space created by a collapse could lead to higher vote shares for new parties. But this effect would depend on the permissibility of electoral formula. In proportional systems the threshold for getting into the legislature is relatively low, making it easier for new parties to transform opportunities into seats. However, in countries with plurality formulas barriers to entry are high, potentially discouraging new entries even when space is open.

The study contributes to the spatial literature on political parties and the understanding of how changes in the party system can generate opportunities for new parties to enter, focusing on within country variations to explain these transformations. Starting with spatial arguments on the number of parties and their location, there is a broad literature that argues that new parties enter when there is open policy space that has been neglected (or inadequately represented) by existing parties (see Downs 1957, Kitschelt

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1988, Rohrschneider 1993, Cox 1997, Hug 2001, Meguid 2008, among others). This study extends the argument by testing the impact of opportunities created after a party collapses. In other words, when policy space (that was once occupied) opens because of errors committed by an existing party. To my knowledge the current study is the first to empirically measure the effect of party exit on new party entry using data for multiple countries over time. The research also complements existing studies on new parties by focusing on within country variations to explain when new parties enter. Until recently a large majority of the literature has focused on cross-country variations, such as institutions and social cleavages (see Cox 1997, Harmel and Robertson 1985, Hug 2001, Tavits 2006, 2008, among others). These studies provide important insights, but cannot explain under what circumstances new parties emerge within a given institutional and social structure.

One limitation of using an empirical approach is the endogeneity of party exit and entry (cf. Laver and Schilperoord 2007). A party can lose votes because of their actions or policy failures. But vote loss can also be caused by new parties coming in and actively competing for electors. Think of the Spanish 2015 general elections, the governing *Partido Popular* (PP) lost its parliamentary majority while at the same time *Podemos* obtained 20.66% of the votes in its first general election.¹ The rise of *Podemos* could be caused by corruption scandals in the PP or by *Podemos*'s anti-austerity message, or both.² If one looked at the exit-entry process at one point in time (say at t) the empirical models would pick up both the effect of the collapsing party's errors and the new party's efforts in gaining votes. This situation would, therefore, make it impossible to clearly associate a new party's results to an opening in the policy space.

To address the identification problem (endogeneity) this paper measures the effect of party collapse in the previous election on the vote share for new parties in the current one. A new party in the present (t_0) cannot cause a party to collapse in the past

¹Election results obtained from the newspaper El País http://elpais.com/tag/elecciones_generales_2015/a/on-07-01-2016.

²Data on corruption in Spain obtained from <http://www.elperiodico.com/es/temas/corrupcion-partido-popular-270> on Feb 1, 2016. Data on Podemos was obtained from <http://podemos.info/programa/> the same day.

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(t_{-1}). By estimating the impact of a party collapse (t_{-1}), one can identify the effect of an opening in the policy space on the results of a new party (or parties) (t_0) without the contamination of the new party's behaviour. One concern would be that party collapse (t_{-1}) and new party entry (t_0) are caused by the same time trend. However, what is important for the argument are the characteristics of the collapsed party (e.g. its vote share), which are measured in the election before the crash occurred (t_{-2}). A two election interval between the values of the dependent and independent variables substantively reduce this concern. An example of how a party collapse can lead to a future party entry is the crash of the Christian Democracy in Italy 1992 and the rise to power of Silvio Berlusconi's *Forza Italia* in 1994.

The empirical estimations use a broad dataset on new party entry in 33 developed democracies between 1945 and 2011. The results provide strong evidence that the size of the collapsed party (a measure of the space created) is associated with new party electoral success. But the magnitude of the effect of size on new party vote share is conditioned by the permissibility of the electoral system. The results are robust to multiple methods of estimation, different operationalisations of the dependent variable and controls for outliers in the sample.

The next section provides a short summary of the literature on new party entry and a theoretical argument as to why a policy space is created when a party collapses. This is followed by a description of the empirical strategy. The final sections of the paper include a discussion of the empirical results and conclusions.

4.2 Literature and theories on new party entry

A first line of research on new party entry studies the impact of institutions and how they alter the costs and benefits for new parties (cf. Cox 1997). This research identifies permissive electoral systems as a strong enabler of new party entry (Harmel and Robertson 1985, Cox 1997, Tavits 2006). It also states that certain types of public funding for political parties are associated with a higher number of new parties (Tavits 2008, Laroze 2016). On the other hand, high levels of party regulation are associated

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with lower numbers of new parties (van Biezen and Rashkova 2014). There is further empirical evidence that country characteristics, such as the time since democratization, the level of ethnic heterogeneity and the population are associated with the number of new parties (Hug 2001, Tavits 2006, 2008, van Biezen and Rashkova 2014).³

A complementary perspective, and the one used in this study, centres the analyses on policy supply. Spatial literature on political parties states that parties will emerge when there is open policy space (see Downs 1957, Kitschelt 1988, Rohrschneider 1993, Hug 2001, Meguid 2008, among others). If acting rationally, parties will only enter when and where they have opportunities to gain enough votes (benefits) to counteract the costs of competing (Cox 1997, Osborne and Slivinski 1996). This situation occurs when enough voters are located in a policy position that is not occupied by existing parties. One example of this is the emergence of green/environmentalist parties (Kitschelt 1988, Meguid 2008, Spoon 2009a). Following this argument, Zons (2013) states that new parties are more likely to enter when there is less diversity in programmatic offers. In other words, when the voters are not represented (or satisfied) with the policies offered by existing parties.

In a variation on this argument, Laver and Schilperoord (2007) and Lago and Martínez (2011) have looked at changes in policy supply. Laver and Schilperoord (2007) use an agent based approach to create an endogenous model of party birth and death. The driving mechanism they use for change is dissatisfaction with the policies offered by existing parties in the system. The dynamics of supply and demand allow them to observe under what circumstances, within a given institutional structure, new parties enter. As a result, the model identifies the threshold of survival as the key limitation to party birth. Lago and Martínez (2011) measure the effect of electoral market failures (measured as level of turnout), seat threshold and voter elasticity (i.e. volatility) on new party entry. In their case study of Spanish sub-national or regional elections, they find that higher volatility is associated with a higher probability of a successful entry. On the other hand, the threshold for getting into the legislature conditions the likelihood

³For a broader description of these findings see Lago and Martínez (2011).

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that a potential new party can take advantage of market failures (low turnout).

Lago and Martínez (2011, p.7) argue that “market failures occur when a significant number of individuals are left dissatisfied by the partisan choices available to them” and that this leads to successful new party entry if there are permissible electoral formulas. As they explain, dissatisfaction can occur because *a*) voters don’t perceive that parties represent their preferences, or *b*) parties don’t have the flexibility to quickly adapt to changes in society. One could add that a mismatch between voter preferences and party offers can occur for at least two reasons. The first is the appearance of relevant new issues. Hug (2001, p.89-99) suggests parties emerge when there are new issues that have not been adequately covered by existing parties. A well-known example of this is the appearance of environmental parties in Europe (and abroad) in the 1970s (cf. Meguid 2005, Adams et al. 2006, Spoon 2009b, among others). The second is because of errors committed by existing parties that leave voters dissatisfied and open to alternatives or choosing not to vote. A party can lose support for multiple reasons: involvement in a political scandal, corruption, an economic crisis, among many others (see for example Nadeau and Lewis-Beck 2001, Duch and Stevenson 2008, Anderson 2006, Maier 2011).

Lago and Martínez’s (2011) use of low turnout as a proxy for market failures controls for circumstances that can reduce opportunities for new parties to successfully enter. However, high turnout in previous elections does not imply a market failure has occurred. Turnout can be altered for reasons which can also correlate with successful new party entry, including canvassing efforts, institutional changes, and relevance of elections, among many others (Gerber and Green 2000, John G. Matsusaka 1999, Blais 2006, Feddersen 2004). This paper argues that a better way of assessing the impact of voter dissatisfaction is by identifying substantive reductions in votes for existing parties. Of course, turnout levels need to be controlled for, but the collapse of a political party empirically expresses a change in voter preference. Furthermore, as will be argued in the next section, vote collapse in one election can have knock-on effects, generating opportunities for new parties to enter in the future.

4.2.1 Viability caused by a collapsed party

Other than changes in turnout, party collapses occur when *a*) a large share of a party's former voters switch to a different party; or *b*) the party decides to drop out of electoral competition. For example, if it loses confidence in being able to obtain enough votes to compensate for campaign costs. For which ever reason it occurs, the existence of a party collapse identifies a change in voter behaviour. This does not imply that a new party will gain those votes; both existing and new parties are in a position to compete for them. Nevertheless, it is argued that the existence of a party collapse can generate space for new parties to enter in future elections.

The decision of voters to switch parties ('swing voters') in one election does not imply they will keep on voting for that alternative in the future. Political identity and biases against other parties can limit a citizen's willingness to vote for an opposing party, even if they are dissatisfied with the party they usually vote for (see Green et al. 2004, Iyengar et al. 2012, Bartels 2002, Tajfel et al. 1971, among others). Biases against existing opposition parties can make a new party attractive, by giving voters an alternative to their unsatisfactory party without generating social identity costs. Furthermore, when a party loses more than 50% of its vote share, doubts can be created about its future viability. Supporters of a collapsed party can be expected to question the likelihood of the party achieving satisfactory results in the future. If so, any voters still loyal to the party would have incentives to look around for a more viable alternative.

For a party crash to open viable opportunities for a new party to enter, the collapsed party would need to have held a large vote share in the past, or at least been attractive to many voters. Larger collapsed parties can inject higher shares of swing voters into the system. For example, a party who used to control 30% of the votes would need to have lost, at least, 15% of the total vote share to classify as a collapsed party, leaving a large group of people with unsatisfactory representation. On the contrary, small parties (e.g. 3% vote share) would not generate as many dissatisfied voters, even if it lost all of its support.

The problem is that, even if the collapse of a party can open policy space, both new

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and existing parties have incentives to compete for those voters. New parties can be expected to appeal to swing voters in an attempt at a successful entry. But existing parties have incentives to cater to the same group in order to increase their current vote share and drive away new competition. However, a complete policy shift by existing parties may or may not be feasible (cf. Robertson 1976, Zons 2013). Internal party politics can limit the magnitude of the shift, especially if it affects party members' probabilities of re-election. A move too far into the collapsed party's location can alienate voters on the other extreme of the party and threaten current legislators' seats. Active party members could become disaffected with the new policy pledges and stop working for the campaign. Large party donors could also withdraw financial support if the policy shifts go beyond their preferences. Furthermore, a large shift in the policy position of a party with a long-standing policy tradition may not be credible to voters (Tavits 2007). Take, for example the disaffection of some traditional Labour voters with the more centrist New Labour policies, and the effect this had (among other factors) on the collapse of the Labour vote in the 2015 General Election in Scotland where voters turned to the more left-wing Scottish Nationalist Party (Volkens et al. 2015).⁴ A party collapse can thus open space for new parties to enter. This space is between the mean location of the collapsed party and the closest to that position that the existing party or parties are able to relocate.

A party crash can also have an effect on new party entry through the collapsed party's location on the policy space. Assume any non-flat voter distribution over a left-right scale. If a party collapses in a location where there are a large proportion of voters this would leave them without adequate representation. As preference distributions do not necessarily match vote distributions, the inadequately represented voters would include potential and effective former collapsed party supporters. A new party can come in and attempt to capture all voters at that location, including those that did not previously support the collapsed party.

⁴For public opinion data see the British Election Study <http://www.britishelectionstudy.com/data>, last accessed October, 26 2015. Information of the British General Election results can be found in <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7186> last accessed October, 26 2015.

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Identifying true preference distributions is a complex task. Past electoral results only provide expressed voter preferences that are dependent on the parties in competition. Results from surveys can get closer, but it is unlikely that citizens can dissociate their preferences on left–right policies from existing party supply. However, if one assumes preferences to be loosely normally distributed, one can expect more space to open when a party collapses towards the centre of the left–right ideological scale than on the extremes.

An opening of a policy space may not be enough to convince potential supporters of the viability of a new party. Electoral rules, such as the type of electoral system can limit a new party’s possibilities of transforming votes into seats. For example in a first-past-the-post (FPTP) system, a party collapse that generated a large open policy space equivalent to 15% of the national votes may not be enough to get a party into office. Unless those votes are territorially concentrated, even a new party that manages to absorb the full extent of those votes may not have enough to win a seat (because of the high entry thresholds), making the new party a risky/un-viable option (cf. Duverger 1959, Cox 1997). This would not be the case in countries with proportional electoral rules where the seat threshold is substantially lower. If one assumes that voters understand how elections work in their country to adjust their expectations accordingly, then one could expect them to react less to the opening of a policy space under FPTP than in PR.

Given the arguments stated above, one can predict:

- H1 The share of votes obtained by the collapsed party (before it crashed) to be positively associated with the electoral results for new parties, *ceteris paribus*.
- H2 The left–right location of the collapsed party to be negatively associated with the vote shares for new parties, with parties at the extremes generating less space for new party entry, *ceteris paribus*.
- H3 The effect of a collapsed party to be moderated by the type of electoral system, *ceteris paribus*. In elections with FPTP electoral rules one would expect the effect

of size and location to be lower than under PR.

4.3 Estimation strategy and data

The hypotheses are tested using panel estimations on a time-series cross-sectional dataset including elections in 33 developed democracies between 1945 and 2011. Table 4.1 presents a list of the countries and years included in the sample. The dependent and independent variables of interests are created and recoded from the Döring and Manow (2012) dataset on political parties. The original data includes information on over 1400 parties in the European Union and most parliamentary OECD countries.

The dependent variable is the sum of vote shares obtained by new parties at each election. Following the influential research by Hug (2001, p. 14), ‘new parties’ are defined as “a genuinely new organization that appoints, for the first time, candidates at a general election to the system’s representative assembly.” This definition excludes electoral alliances and fusions (party mergers), but counts as new parties those that result from fissions of existing parties or emerge independently (Tavits 2006, Zons 2013).

The independent variables of interest are: 1) The *share of votes held by the collapsed party the election before it crashed* (t_{-2}). Operationally defining a ‘collapsed party’ as one that loses more than 50% of the vote share it held in the previous election. For example if in election t_{-2} the party had obtained 30% of the valid votes and in election t_{-1} it only won 14.5% of the votes, the party would count as collapsed. This implies a party can collapse more than once in the dataset. The 50% threshold is used as it represents a substantive proportion of a party’s vote share and losing such a large amount of votes can cast doubts as to the future viability of that party. The uncertainty generated around the collapsed party’s viability is what can open policy space for new parties to enter. Robustness tests using a 70% threshold or only counting as collapsed parties that completely exited the electoral arena produce equivalent results (tables in Appendix). Parties that drop out of the electoral competition altogether are, of course, counted as collapsed, but parties that merge with others or form alliances

	Country	First	Last	Numb. Elections
1	Australia	1946	2010	26
2	Austria	1949	2008	20
3	Belgium	1946	2010	21
4	Bulgaria	1991	2009	6
5	Canada	1949	2011	21
6	Czech Republic	1996	2010	5
7	Denmark	1947	2011	25
8	Estonia	1992	2011	6
9	Finland	1948	2011	18
10	France	1946	2007	16
11	Germany	1949	2009	17
12	Greece	1974	2009	13
13	Hungary	1990	2010	6
14	Iceland	1946	2009	20
15	Ireland	1948	2011	20
16	Italy	1948	2008	16
17	Japan	1946	2009	24
18	Latvia	1993	2011	7
19	Lithuania	1992	2009	7
20	Luxembourg	1954	2009	12
21	Malta	1966	2008	10
22	Netherlands	1946	2010	20
23	New Zealand	1946	2011	23
24	Norway	1949	2009	16
25	Poland	1991	2011	7
26	Portugal	1976	2011	14
27	Romania	1990	2009	7
28	Slovakia	1994	2010	7
29	Slovenia	1992	2011	6
30	Spain	1977	2008	10
31	Sweden	1948	1998	17
32	Switzerland	1947	2011	17
33	United Kingdom	1945	2010	18

Table 4.1: Countries and elections years included in the sample.

are excluded. Political alliances, where the sum of votes for the member parties in the next election does not reach 50% of the alliance results, are counted as a party collapse, as the effect it produces is equivalent to a single party collapse.⁵ 2) The *ideological location of the collapsed party*, measured as the absolute value of the distance between the party's location and the centre of the 0–10 ideological scale. Thus, one can interpret

⁵Replication material includes information relevant for coding purposes.

higher values as being further away from the centre of the policy space. Party locations are taken from expert surveys.⁶ As more than one party can collapse at one point in time, the variable measures the mean location of the collapsed parties at each election. 3) *Permissibility of the electoral formula*, included as mean district magnitude and as a dummy variable for FPTP electoral formulas.⁷

As indicated in the introduction, if one simply looks at the co-occurrence of new party entry and parties collapsing it is very difficult to identify what causes what. New parties can introduce a new policy agenda that causes existing parties to lose votes, or they could enter because an existing party has lost support (cf. Levitsky and Cameron 2003, Roberts 1996). Both of these scenarios would look the same in terms of electoral results. For this reason, the empirical analysis focuses on the lagged effect of party collapse and its characteristics.

To control for potential confounding variables that can affect both the likelihood of a party collapsing and new party entry, the empirical models are estimated including:⁸ 1) the existence of compulsory voting (yes/no), 2) percentage of turnout,⁹ 3) a control for the effect of time, measured as the log of the number of elections since democratization (+1). This is included because Tavits (2008) argues that the number of new parties decreases as the democracies age and time can also have an effect on the stability of the party system; 4) the number of parties in competition in the past election, to control for the amount of policy supply available in the party system before the new party entered,¹⁰ 5) controls for population (logged), 6) the state of the economy (percentage change GDP per capita (with respect to the year before the election), and 7) inflation (logged)).¹¹ Robustness models were also estimated, including the legal threshold to obtain a seat in parliament (Laver and Schilperoord 2007) (data from IDEA interna-

⁶The ideological locations are provided in the Döring and Manow (2012) dataset and correspond to data obtained from expert surveys published in Castles and Mair (1984), Huber and Inglehart (1995), Benoit and Laver (2006), and Chapel Hill expert survey series (CHESS) 2010.

⁷ Obtained from Bormann and Golder (2013).

⁸Literature regarding the impact of these variables on new party entry include (Hug 2001, Tavits 2006, 2008, Zons 2013, Carreras 2012).

⁹The data for compulsory voting and turnout were obtained from <http://www.idea.int/vt/viewdata.cfm>, on October 10, 2015.

¹⁰Measured as the absolute number of parties that competed.

¹¹Data collected from the World Bank using the “WDI” package in R.

Statistic	N	Mean	St. Dev.	Min	Max
Share Votes NP	459	5.230	11.897	0.000	96.600
Successful NP (dummy)	459	0.412	0.493	0	1
N. Successful NP	459	0.795	1.725	0	27
Log % votes collapsed party (t-2)	470	1.164	1.313	0.000	4.465
Location collapsed party (t-2)	470	0.898	1.353	0.000	4.825
Log of population	387	15.998	1.503	12.132	18.668
% change in GDP	369	9.090	11.507	-46.674	47.241
Log of Inflation (+2)	362	1.938	0.813	-0.426	6.966
Number of parties	470	7.883	3.566	2	30
N. Elections	470	9.147	6.012	1	26
Mean Dist. Mag.	469	13.622	30.974	1.000	150.000
Turnout	468	79.090	12.597	39.200	97.600
Compulsory voting (dummy)	468	0.205	0.404	0	1
East Europe (dummy)	470	0.126	0.332	0	1
Threshold	217	2.542	3.576	0.000	25.000
ENEP	470	4.241	1.672	1.990	13.860

Table 4.2: Summary statistics.

tional), and the Effective Number of Electoral Parties (Bormann and Golder 2013). A summary of the variables included in the models is presented in Table 4.2.

The hypotheses are tested on a variety of model specifications. A first set includes standard panel data estimations on the share of votes obtained by new parties. For robustness, the baseline models are also estimated using different versions of the dependent variable, including a simple yes/no definition of whether a successful new party entered, and a count of the number of successful entries.

It is important to note that a majority of large party collapses occurred after the democratic transitions of former Soviet countries in the early 1990s. In order to gauge the generalizability of results, a series of robustness tests are conducted to control for outliers that may bias estimations, including controls for elections in East European countries and bootstrapped coefficients. The robustness of results presented below attest to the internal and external validity of the estimations. However, they cannot eliminate all potential sources of endogeneity, therefore one would caution against a strict causal interpretation of coefficients.

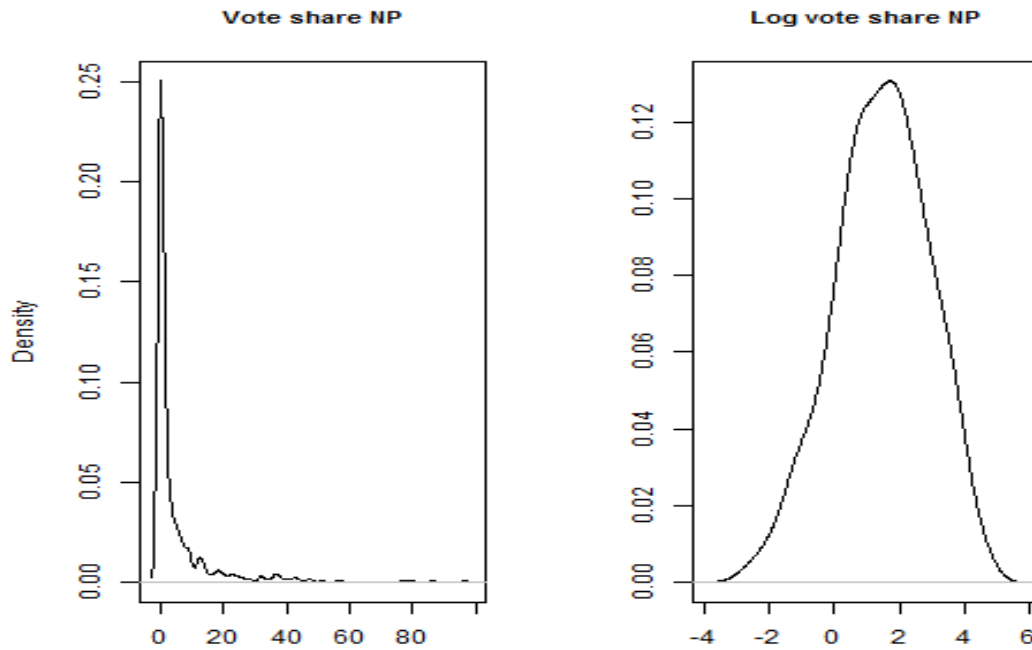


Figure 4.1: Share of votes obtained by new parties. The left panel displays the density of the share of votes. The right panel provides the density of the logged share of votes.

4.4 Data analyses

The sum of vote shares obtained by new parties in a given election (dependent variable) has a substantive level of variation. As can be observed in the left panel of Figure 4.1, in a majority of elections new parties gain a very small amount of votes. In a 50% of the elections, new parties obtain a negligible 0.16% of votes. However, at the 95th percentile new parties receive 28.82% of votes, illustrating how much impact new parties can have on a party system.

Figure 4.1 also indicates that the values of the dependent variable are not normally distributed. As with any voting model, the values can never be below zero (or above 100) and the distribution is considerably skewed to the right. The skewness in the distribution can lead to problems of heteroskedasticity in linear model estimations. For this reason, a log transformed version of the dependent variable (Figure 4.1 right panel) is used for the statistical analyses.¹²

¹²Models on the share of votes for new parties (not transformed), produced the same substantive results. However, post estimation tests confirm the presence of heteroskedasticity. Data available in replication material.

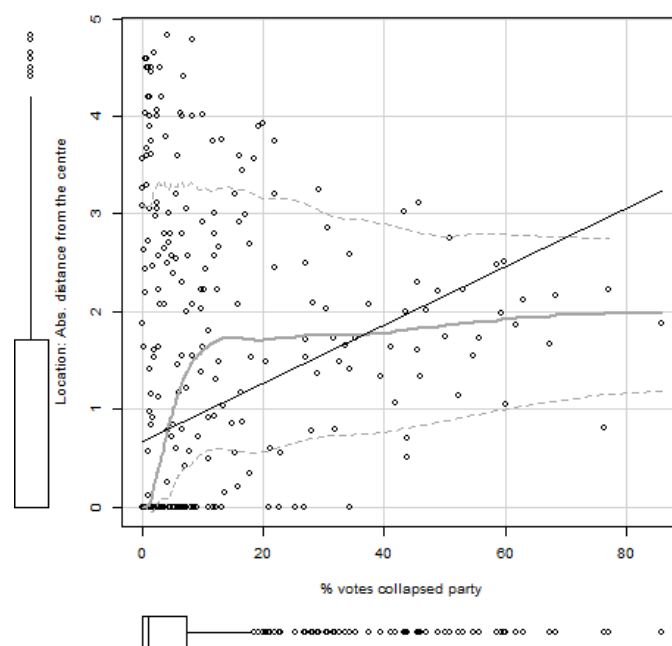


Figure 4.2: Scatter plot of the location of the collapsed party and the vote share it held before the crash. Location is the absolute distance from the centre (i.e. 5 in the 0–10 left–right ideological scale)

A potential source of concern with the empirical estimations is a correlation between the share of votes previously held by collapsed parties and their location on the left–right scale. If this is the case, the variables could be measuring the same phenomenon and including both in the model would lead to problems of multicollinearity. However, in the sample, both variables are only correlated at 0.32. Figure 4.2 presents a scatter plot of collapsed party size and location, with the black line representing the correlation coefficient. As can be observed, there is some correlation, but not enough to strongly influence the results.

Models M1-3 in Table 4.3 present the estimations for collapsed party size (log % of vote share (t_{-2})) and location (t_{-2}) with pooled and fixed effects (FE) estimations.¹³ Collapsed party size is log transformed to maintain scale equivalence with the dependent variable. The variables of interest are lagged by two elections because they indicate the location and size of the collapsed party before it crashed; and the crash occurs (t_{-1}) the election before new party entry (t_0). For robustness, these models are also

¹³Models using a first difference estimation produce the same results (see replication material).

estimated using alternative control variables including the effective number of electoral parties (t_{-1}) (in exchange from number of parties in t_{-1}), the legal threshold for obtaining a seat and a FPTP dummy instead of the mean district magnitude. The results of these robustness tests are in the Appendix and they do not alter the conclusions.

	M1	M2	M3
	Pooled	FE	FE Interaction
Log % votes collapsed party (t-2)	0.26*** (0.05)	0.13* (0.06)	0.12 (0.07)
Location collapsed party (t-2)	-0.09* (0.04)	-0.10* (0.05)	-0.11* (0.05)
FPTP (dummy - Yes)			-1.08** (0.39)
FPTP * log % collapsed party (t-2)			0.07 (0.13)
Log of population	-0.02 (0.04)	1.20 (1.01)	1.07 (1.01)
% change in GDP	-0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)
Log inflation (+2)	-0.09 (0.10)	-0.13 (0.10)	-0.11 (0.10)
Number of parties (t-1)	0.00 (0.02)	-0.10* (0.04)	-0.11** (0.04)
Log time (+ 1)	-0.16 (0.11)		
Mean Dist. Mag.	0.00 (0.00)	-0.04 (0.02)	
Turnout	-0.01 (0.01)	0.01 (0.01)	0.02 (0.01)
Compulsory voting (Yes)	0.26 (0.15)	-0.58 (0.49)	-0.87 (0.50)
Log vote share NP (t-1)	0.07 (0.05)	-0.05 (0.06)	-0.04 (0.06)
Intercept	2.46* (1.08)		
R ²	0.16	0.06	0.07
Adj. R ²	0.15	0.05	0.06
Num. obs.	333	333	334

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$ M1 has Arellano-Bond s.e. in parenthesis,

M2-3 present s.e. with White's correction AR1 and heteroskedasticity

Table 4.3: Empirical models on the association between size of party crash, its location and interaction of size with electoral system. The dependent variable is the logged vote share for new parties.

M1 presents a basic model which includes the two main variables of interest in a

pooled estimation.¹⁴ The model includes a control for the lagged dependent variable, to deal with potential problems of autocorrelation in the data. More importantly, a control for lagged new party success can account for possible confounding effects. The success of new parties in the previous elections could have caused a party to collapse and generate expectations for new party success in the future, leading to omitted variable bias if it's not included.

As predicted by hypothesis H1, M1 presents a statistically significant and positive association between collapsed party size and new party entry. New parties appear to be winning roughly one fourth of former collapsed party vote share, *ceteris paribus*. The magnitude of this effect is large and consistent with the argument that the opening of a policy space (produced by the collapse of a large political party) can generate opportunities for new parties to successfully enter. Of course these are aggregate results and it is not possible to know who the new party voters are, whether they were former collapsed party supporters or not. They do, nevertheless, suggest that the collapse of a medium to large party can have a substantive impact on the electoral outcomes of new parties.

The effect of location is negative, as predicted by H2, suggesting the share of votes for new parties are higher when party crashes occur closer to the centre of the policy space. The magnitude of its effect is low, with a one point increase in extremeness of party location associated with less than one percentage point increase in new party vote share ($e^{-0.09} = 0.91$), *ceteris paribus*. This is a small effect considering location is measured on a 0–5 scale, with parties at the centre allocated 0 and parties at either extreme of the left–right scale 5. Therefore, differences in the location of the collapsed parties do not produce substantive effects on new party vote shares, if one controls for the size of the collapsed party.

Models M2-3 re-estimate M1 accounting for unit and time fixed effects in the data,

¹⁴To adjust for country level autocorrelation, the results in models M1 include Arellano-Bond corrected standard errors. This correction is not available for M2-3 model specifications so White's correction for first order autocorrelation and heteroskedasticity are used. M1 is also estimated with White's correction and present the same patterns as in Table 4.3. The results are available in the replication material.

to control for constant country specific heterogeneity (e.g. cultural differences) and variables that affect all countries at one point in time (e.g. the fall of the Berlin wall). These models only estimate effects based on changes within a country over time, discarding cross-country variations in the data. For example, in M2 the coefficient for collapsed party size is reduced by half, because it only reflects the magnitude of effects it has on new parties emerging in that same country two elections later. Nevertheless, size is statistically significant and in line with hypothesis H1. The effect of location in M2 maintains the negative association predicted in H2, with a stable coefficient that is significant at the 95% confidence level, *ceteris paribus*. These findings provide evidence that party collapses not only reflect differences in party stability across countries, but also have consequences for new party entry within each country.

Model M3 includes a test for hypothesis H3 with an interaction between collapsed party size and the existence of a FPTP electoral formula.¹⁵ The impact of the interaction effect is represented in Figure 4.3. The slope for size of party collapse is significant for both FPTP (grey line) and PR (black line) systems. However, the line for countries with some level of PR is significantly steeper than for FPTP. This result is in line with the expectation that voters adjust their perceptions of new party viability based on the threshold for obtaining a seat and, therefore, are more willing to vote for new parties under PR. In other words, that voters would be more likely to react to openings in the policy space (steeper slope) when seat thresholds are lower.

4.4.1 Robustness tests

A series of robustness tests are conducted to control for the sensitivity of results to the characteristics of the sample. As previously mentioned, the sample includes all European Union member states and most OECD parliamentary democracies. However, a big proportion of the elections that include large party collapses occurred in the early 1990s in former Soviet countries. To account for this feature of the data, models were estimated with an interaction between a dummy variable for elections in East Euro-

¹⁵Empirical tests were also conducted on the interaction between FPTP and location without producing significant results. A figure of the non-effect is included in the Appendix.

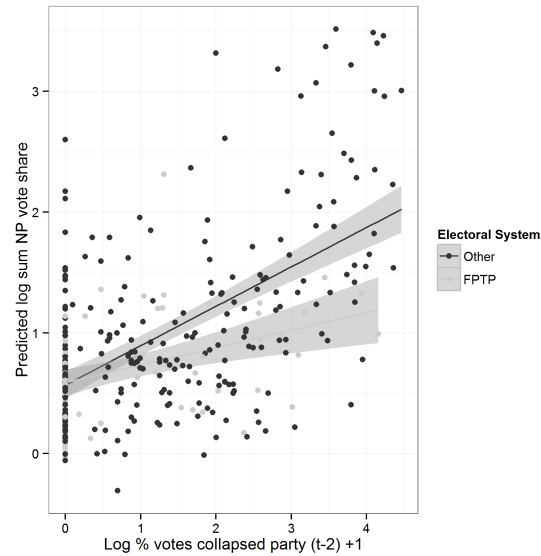


Figure 4.3: Scatter plot of the interaction effect of collapsed party size and electoral formula. The graph presents the predicted new party vote shares based on the results of model M7.

pean countries (that became democratic after 1990) and the variables of interest. The coefficient tables for these results are in the Appendix.

The interaction effect of East European elections is evident in figures 4.4 and 4.5. On the left panel (Figure 4.4) one can observe the interaction with the size of the collapsed party. The grey line represents the predicted new party vote share in East European countries and the black line represents all the rest. As can be seen, the effect of size is stronger in East European countries; nevertheless, the slope for other countries is still significant. The interaction with location is on the right panel (Figure 4.5); again the slope for East European elections is substantive and significant, but the straight black line indicates location is not a relevant predictor for other countries. One reason for this is could be that, given a shorter electoral history in newer democracies, location is a stronger cue about the potential for obtaining votes than in established democracies. In countries with longer electoral histories voters can rely on actual vote shares as a guideline for the policy space once held by a party. However, in new democracies, voters have less trustworthy information about parties' electoral trajectories and how many people they represent, and can rely on location as an estimate for a longer term vote po-

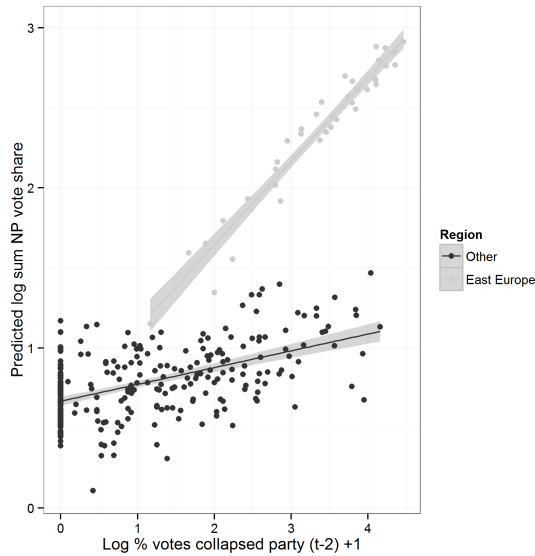


Figure 4.4: Predicted log vote share for new parties, interaction of East European country dummy with size.

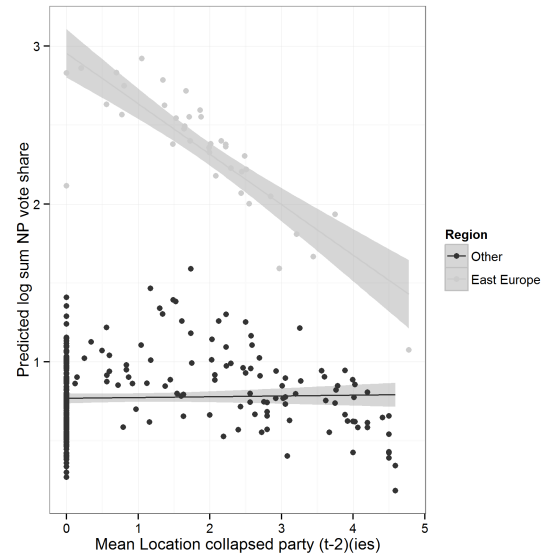


Figure 4.5: Predicted log vote share for new parties, interaction of East European country dummy with location (right).

tential.¹⁶ Nevertheless, more research including other developing countries would have to be conducted in order to fully explain this difference.

A set of bootstrapped estimations are conducted to control for any other outliers or characteristics of the sample that could bias results. Figures 4.6 and 4.7 present histograms of bootstrapped coefficients for size and location, produced by 10,000 estimations of randomly selected countries from the sample. The vertical lines in the graphs mark the 95% confidence level. The coefficients for size are systematically positive and significantly different from zero. However, that is not the case for location. Equivalent results are produced in estimations that randomly select among elections in the sample (results in Appendix). The results provide evidence of an effect for size of the collapsed party, but not for its location. It is likely that the significant effects of location in the first models are capturing its relevance in East European countries, but this is not sustained for other countries in the sample.

Further robustness tests include sensibility of the results to the operationalisation of the dependent variable. The literature on new party entry uses two other definitions, a count of the successful number of new parties in competition (Hug 2001, Tavits 2006,

¹⁶For a similar argument on the importance of clear policy positions in new democracies see Ezrow et al. (2014)

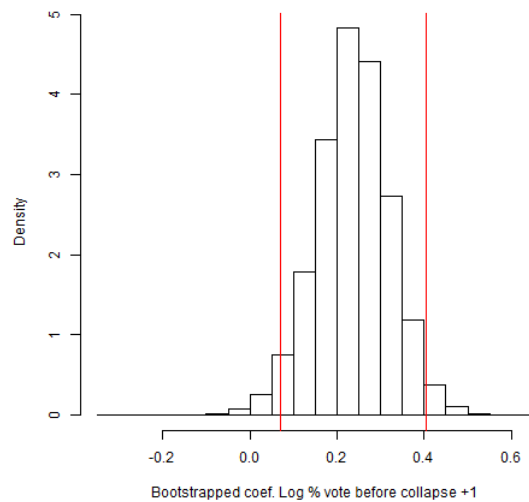


Figure 4.6: Bootstrap coef. on collapsed party size.

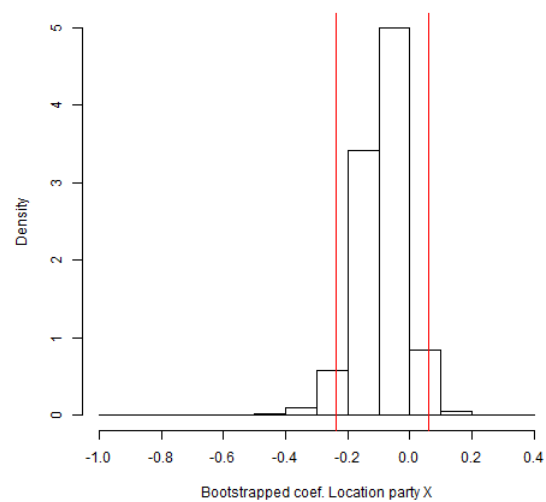


Figure 4.7: Bootstrap coef. on collapsed party location.

2008) and a binary yes/no existence of successful new parties (Lago and Martínez 2011, Zons 2013). Over all, the discrete versions of the dependent variable provide evidence in favour of the effect of collapsed party size (hypothesis H1). However, the results for location only reach standard levels of statistical significance for the number of new parties, but not in their existence (yes/no dummy). The same goes for the interaction effect of FPTP on collapse party size, which only reaches a 90% confidence level for the number of new parties (joint hypothesis p-value 0.061) and is not present for new party entry. These findings cast doubt as to the impact location (H2) and the moderating effect of FPTP (H3), on the new party entry phenomenon as a whole (results in Appendix).

4.5 Conclusions

The emergence of relevant new political parties is an important phenomenon present in most modern democracies. From ecological movements to protest parties, new political parties regularly enter electoral competition and attempt to establish themselves as viable alternatives (Hug 2001, Tavits 2008, Meguid 2008, Spoon 2009a, Zons 2013, among many others). There is strong evidence that structural factors such as electoral institutions and party financing have an impact on successful entry. However, less is

known about how the dynamics of the party system play a role in the success of new party entry. This paper sheds light on this aspect by testing the impact of changes in the viability on new party entry caused by the collapse of an existing party.

The empirical analyses present robust evidence that new parties obtain higher electoral outcomes the larger the vote share previously held by the collapsed party. The result corresponds with the hypothesis that party crashes open policy space for new parties to successfully enter an electoral competition. These effects are sustained independently of how successful new party entrance is defined, be it as the vote share for new parties, the presence of a successful new party or a count of how many entered a given election. The results are also robust to controls for outliers and specific characteristics of the sample, such as elections in young East European democracies.

In line with previous research on the impact of electoral institutions, the evidence here suggests that new party success is less likely in elections under plurality (FPTP) electoral formulas (cf. Lago and Martínez 2011). The predicted moderating effect of FPTP on the impact of the size of a party collapse is corroborated to a certain extent. However, the results indicate that there is more likely to be impact on the share of votes obtained by new parties than on new parties entering or gaining a seat in office.

The evidence in favour of an impact of the location of the collapsed party on the left–right policy space is not strong. A first set of estimations hint at a negative association, with collapsed parties at the extremes less likely to create opportunities for new party entry. However, this result is only evident for East European countries and cannot be generalized to other democracies. It is possible that the effect of location is present in countries that are less institutionalized or with a shorter democratic history, but more research would have to be conducted including new democracies from outside the former Soviet sphere.

Research into how changes in the party system can affect new party entry is still fairly scarce. Until recently most of the evidence has been based on cross-country variation that explains why some party systems are more stable while others have a regular presence of new actors. Much less is known about what conditions can lead to the

Chapter 4. Party collapse and new party entry

emergence of a relevant new actor within an existing institutional setting. This paper proposes one such situation occurring when an existing party loses a substantial number of votes, leaving a group of dissatisfied voters willing to give new alternatives an opportunity. However, there is still much to study regarding what conditions can lead to changes within a party system. One possibility is that new party success in a neighbouring country can generate contagion effects on the new party entry (cf. Zachary Elkins 2005, Gilardi 2010, 2013, Ward and Cao 2012, among others). For example Böhmelt et al. (2016) find evidence that parties adjust policy positions in reaction to foreign party results. It is possible that external influences can inform potential new parties about the viability of their policy proposals and condition their entry.

4.6 Appendix: Party collapse and new party entry

	Country	Election Date	Party Name	Vote Share (t-2)
1	Latvia	1990-04-29	Popular Front of Latvia	68.20
2	Romania	1990-05-20	National Salvation Front	66.30
3	Malta	1947-10-27	Malta Labour Party	59.90
4	Bulgaria	1997-04-19	United Democratic Forces	52.26
5	Czech Republic	1990-06-09	Civic Forum	49.50
6	Italy	2001-05-13	Freedom Pole	45.57
7	Lithuania	1992-11-25	Democratic Labour Party of Lithuania	43.98
8	Greece	2009-10-04	Panhellenic Socialist Movement	43.90
9	Bulgaria	1994-12-18	Bulgarian Socialist Party	43.50
10	Hungary	2006-04-09	Hungarian Socialist Party	43.20
11	Canada	1988-11-21	Progressive Conservative Party of Canada	42.67
12	Ireland	2007-05-24	Fianna Fail (Soldiers of Destiny)	41.60
13	Spain	1979-03-01	Union of the Democratic Centre	35.10
14	Belgium	1965-05-23	Francophone Christian Social Party and Flemish Christian People's Party	34.45
15	Poland	1997-09-21	Solidarity Electoral Action	33.83
16	Latvia	1993-06-06	Latvian Way	32.41
17	Estonia	1995-03-05	Coalition Party and Rural Union	32.23
18	Lithuania	1996-10-20	Homeland Union	31.34
19	Italy	1948-04-18	Popular Democratic Front	31.00
20	Slovenia	2008-09-21	United List – Social Democrats	30.45
21	Romania	1996-11-03	Romanian Democratic Convention	30.17
22	Italy	1992-04-05	Christian Democrats	29.70
23	Slovakia	1990-06-09	Public against Violence	29.30
24	Lithuania	2004-10-24	Labour Party	28.40
25	Japan	1996-10-20	New Frontier Party	28.04
26	Belgium	1977-04-17	Belgian Socialist Party	27.00
27	Austria	1999-10-03	Freedom Party of Austria	26.90
28	Italy	1987-06-14	Communist Party	26.60
29	Slovakia	1998-09-26	Slovak Democratic Coalition	26.30
30	France	1946-11-10	Popular Republican Movement	26.00
31	France	1973-03-04	Gaullists	26.00
32	Hungary	1990-04-08	Hungarian Democratic Forum	24.70
33	Bulgaria	2005-06-25	National Movement Simeon II	22.90
34	Slovenia	2004-10-03	Liberal Democracy of Slovenia	22.80
35	United Kingdom	1987-06-11	SDP–Liberal Alliance	22.60
36	Bulgaria	1997-04-19	Democratic Left	22.07
37	Estonia	1992-09-20	National Coalition Party "Pro Patria"	22.00
38	France	1951-06-17	Gaullists	22.00
39	Latvia	1990-04-29	Communist Party of the Soviet Union	21.50
40	Lithuania	1992-11-25	Sajudis coalition	21.17
41	Belgium	1968-03-31	Liberal Party	20.90
42	New Zealand	1981-11-28	Social Credit / Democratic Party	20.65
43	Canada	1988-11-21	New Democratic Party	20.22

Table 4.4: Table listing the largest parties that crashed in the sample. The table includes all crashed parties that previously held > 20% of the votes. Some alliances such as Freedom Pole Italy 2001 are included, because the sum of alliance members lost at least 50% of their votes in the next election.

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	A.M1	A.M2	A.M3	A.M4	A.M5	A.M6	A.M7
	Pooled	pooled	pooled	RE	FE	Two-way	Interaction
% votes collapsed party (t-2)	0.26*** (0.04)						
Log % votes collapsed party (t-2)		0.29*** (0.06)	0.26*** (0.06)	0.28*** (0.06)	0.11* (0.05)	0.13* (0.06)	0.12 (0.07)
Location collapsed party (t-2)	-0.53 (0.31)	-0.09* (0.04)	-0.09 (0.05)	-0.09* (0.04)	-0.08 (0.04)	-0.10* (0.05)	-0.11* (0.05)
FPTP (dummy - Yes)							-1.08** (0.39)
FPTP * log % collapsed party (t-2)							0.07 (0.13)
Log of population	-0.04 (0.36)	-0.03 (0.05)	-0.02 (0.04)	-0.03 (0.05)	2.26** (0.72)	1.20 (1.01)	1.07 (1.01)
% change in GDP	-0.01 (0.05)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)
Log inflation (+2)	-1.27 (0.81)	-0.09 (0.09)	-0.09 (0.10)	-0.09 (0.09)	-0.16 (0.10)	-0.13 (0.10)	-0.11 (0.10)
Number of parties (t-1)	0.15 (0.17)	0.01 (0.02)	0.00 (0.02)	0.01 (0.02)	-0.08** (0.03)	-0.10* (0.04)	-0.11** (0.04)
Log time (+ 1)	-1.78 (1.11)	-0.17 (0.11)	-0.16 (0.14)	-0.17 (0.11)	-0.27 (0.34)		
Mean Dist. Mag.	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.04* (0.02)	-0.04 (0.02)	
Turnout	-0.03 (0.07)	-0.01 (0.01)	-0.01* (0.01)	-0.01 (0.01)	0.01 (0.02)	0.01 (0.01)	0.02 (0.01)
Compulsory voting (Yes)	1.03 (1.28)	0.27 (0.16)	0.26 (0.17)	0.27 (0.16)	-0.59* (0.29)	-0.58 (0.49)	-0.87 (0.50)
Log vote share NP (t-1)			0.07 (0.06)		-0.07 (0.05)	-0.05 (0.06)	-0.04 (0.06)
Intercept	11.38 (10.79)	2.57* (1.13)	2.46* (0.97)	2.67* (1.16)			
R ²	0.19	0.15	0.16	0.15	0.07	0.06	0.07
Adj. R ²	0.18	0.15	0.15	0.15	0.06	0.05	0.06
Num. obs.	333	333	333	333	333	333	334

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$ Arellano-Bond s.e. in parenthesis M1-5. White s.e. M6-7

Table 4.5: Empirical models on the association between size of party crash, its location and interaction of size with electoral system. The dependent in M1 is the sum of votes obtained by new parties in the first legislative election they participated. Model M2-7 use a logged version of the dependent variable (+1).

4.6. Appendix: Party collapse and new party entry

	A.M8	A.M9	A.M10
	Pooled	FE	FE Interaction
Log % votes collapsed party (t-2)	0.26*** (0.07)	0.19* (0.08)	0.18* (0.08)
Location collapsed party (t-2)	-0.04 (0.06)	-0.07 (0.06)	-0.07 (0.06)
FPTP (dummy - Yes)	0.12 (0.26)	-0.39 (0.67)	-0.71 (0.67)
FPTP * log % collapsed party (t-2)			0.23 (0.22)
Log of population	0.01 (0.07)	-2.33 (1.75)	-2.39 (1.76)
% change in GDP	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Log inflation (+2)	-0.19 (0.15)	-0.07 (0.17)	-0.07 (0.17)
Log time (+ 1)	-0.37* (0.18)		
Turnout	-0.00 (0.01)	0.05** (0.02)	0.05* (0.02)
Compulsory voting (Yes)	0.24 (0.18)	-0.26 (0.88)	-0.28 (0.88)
Threshold	0.07*** (0.01)	0.04 (0.08)	0.01 (0.07)
ENEP	0.04 (0.07)	-0.13 (0.09)	-0.14 (0.09)
Log vote share NP (t-1)	0.02 (0.07)	-0.10 (0.08)	-0.09 (0.08)
Intercept	1.49 (1.29)		
R ²	0.30	0.10	0.11
Adj. R ²	0.28	0.07	0.07
Num. obs.	199	199	199

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$ M1 has Arellano-Bond s.e. in parenthesis,

M2-3 present s.e. with White's correction AR1 and heteroskedasticity

Table 4.6: Alternative control variables for models M1-3 in the main text.

	A.M11	A.M12	A.M13
	Pooled	Int. Size	Int. Location
Log % votes collapsed party (t-2)	0.16** (0.05)	0.14* (0.05)	0.15** (0.05)
Location collapsed party (t-2)	-0.10* (0.05)	-0.09 (0.05)	-0.08 (0.04)
% collapsed party (t-2) * East Europe		0.38 (0.25)	
Location * East Europe			-0.32 (0.20)
East Europe (dummy - Yes)	1.55*** (0.31)	0.36 (0.85)	2.17*** (0.43)
Log of population	0.01 (0.04)	0.02 (0.04)	0.01 (0.04)
% change in GDP	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Log inflation (+2)	-0.10 (0.08)	-0.08 (0.09)	-0.14 (0.09)
Number of parties (t-1)	0.01 (0.01)	0.01 (0.02)	0.01 (0.01)
Log time (+ 1)	0.22 (0.12)	0.25* (0.12)	0.21 (0.12)
Mean Dist. Mag.	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Turnout	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Compulsory voting (Yes)	0.24 (0.16)	0.25 (0.17)	0.24 (0.16)
Log vote share NP (t-1)	0.01 (0.04)	-0.01 (0.04)	0.01 (0.04)
Intercept	-0.07 (1.00)	-0.19 (1.04)	0.06 (1.00)
R ²	0.23	0.23	0.23
Adj. R ²	0.22	0.22	0.22
Num. obs.	333	333	333

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$. Arellano-Bond s.e. in parenthesis

Table 4.7: Pooled linear models controlling for the impact of elections in post-soviet (East European) countries, their interaction with the size of the collapsed party and location. The dependent variable is the log share of votes for new parties (+1).

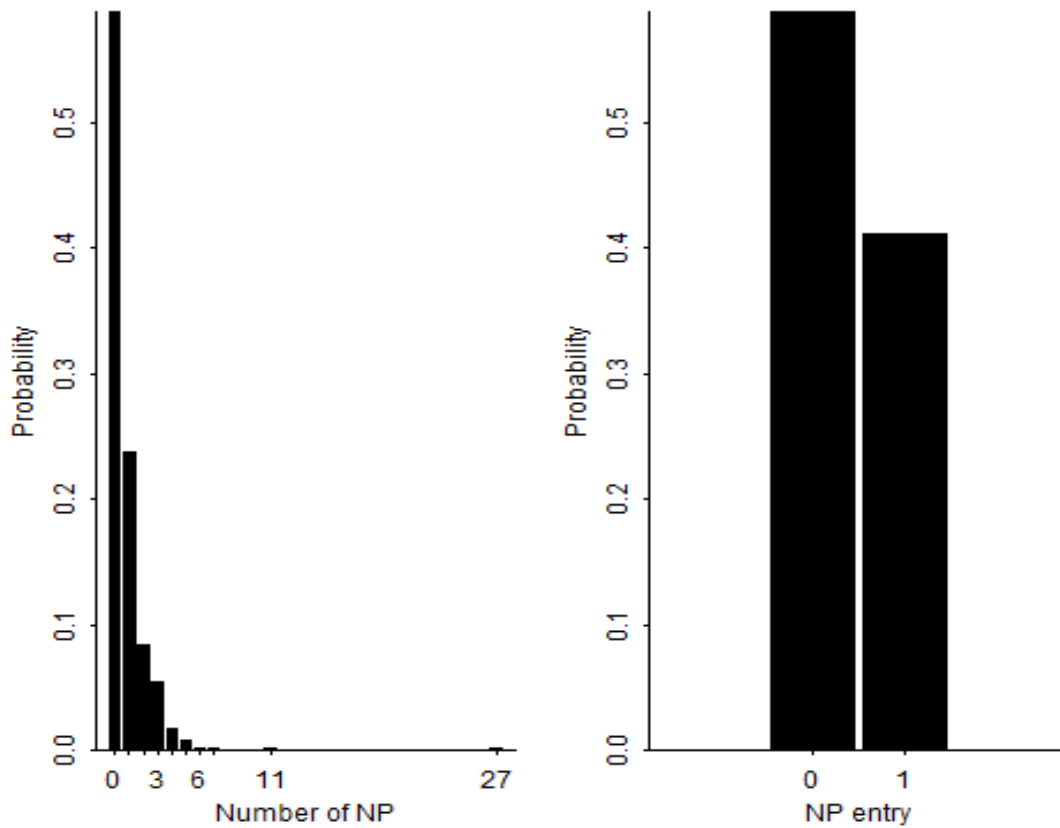


Figure 4.8: Histogram of alternative definitions of the dependent variable. On the left is a count of significant new parties (i.e. those that obtained enough votes win a seat). On the right is the dummy variable indicating the existence of a significant new party entry.

	A.M14 Logit	A.M15 Logit int.	A.M16 Neg. Bino.	A.M17 Neg. Bin. int.
Log % votes collapsed party (t-2)	0.25* (0.11)	0.23 (0.12)	0.20** (0.07)	0.18* (0.07)
Location collapsed party (t-2)	-0.04 (0.10)	-0.05 (0.10)	-0.14* (0.07)	-0.14* (0.07)
FPTP (dummy - Yes)	-0.79* (0.39)	-0.93* (0.46)	-0.82** (0.28)	-0.97** (0.34)
FPTP * log % collapsed party (t-2)		0.14 (0.24)		0.13 (0.17)
Log of population	0.10 (0.10)	0.10 (0.10)	0.16* (0.07)	0.16* (0.07)
% change in GDP	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)	0.00 (0.01)
Log inflation (+2)	0.15 (0.19)	0.14 (0.19)	0.02 (0.12)	0.01 (0.12)
Number of parties (t-1)	0.05 (0.04)	0.05 (0.04)	0.04 (0.03)	0.04 (0.03)
Log time (+ 1)	-0.04 (0.29)	-0.06 (0.29)	0.04 (0.19)	0.02 (0.19)
Turnout	-0.02* (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)
Compulsory voting (Yes)	0.66* (0.33)	0.68* (0.34)	0.35 (0.22)	0.36 (0.22)
Existence NP (t-1)	-0.03 (0.26)	-0.04 (0.26)	0.23 (0.17)	0.23 (0.17)
Intercept	-0.73 (2.00)	-0.64 (2.01)	-3.18* (1.25)	-3.13* (1.25)
AIC	439.65	441.33	762.45	763.95
BIC	485.38	490.87	811.99	817.30
Log Likelihood	-207.82	-207.66	-368.22	-367.97
Deviance	415.65	415.33	312.50	312.06
Num. obs.	334	334	334	334

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$

Table 4.8: Count models on the existence of successful new parties and the number of successful new parties that enter. A successful new party is defined as one that obtains enough votes to gain a seat in the legislature.

4.6. Appendix: Party collapse and new party entry

	A.M18 Pooled	A.M19 FE	A.M20 FE Interaction
Log % votes collapsed party (t-2)	0.33*** (0.06)	0.21** (0.07)	0.15 (0.08)
Location collapsed party (t-2)	-0.06 (0.05)	-0.07 (0.05)	-0.08 (0.05)
FPTP (dummy - Yes)			-1.09** (0.37)
FPTP * log % collapsed party (t-2)			0.23 (0.16)
Log of population	-0.03 (0.04)	1.48 (1.01)	1.35 (1.01)
% change in GDP	0.00 (0.01)	-0.00 (0.01)	-0.00 (0.00)
Log inflation (+2)	-0.08 (0.09)	-0.13 (0.10)	-0.11 (0.10)
Number of parties (t-1)	0.01 (0.02)	-0.09* (0.04)	-0.10* (0.04)
Log time (+ 1)	-0.14 (0.13)		
Mean Dist. Mag.	0.00 (0.00)	-0.04 (0.02)	
Turnout	-0.01 (0.01)	0.01 (0.01)	0.02 (0.01)
Compulsory voting (Yes)	0.21 (0.14)	-0.46 (0.48)	-0.80 (0.50)
Log vote share NP (t-1)	0.06 (0.06)	-0.07 (0.06)	-0.05 (0.06)
Intercept	2.44* (1.07)		

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, \cdot $p < 0.1$

Table 4.9: Empirical models on the association between size of party crash, its location and interaction of size with electoral system. With collapsed parties defined as those that completely exit electoral competition. That is, they do not compete in the next election. The dependent variable is the logged vote share for new parties

Chapter 4. Party collapse and new party entry

	A.M21 Pooled	A.M22 FE	A.M23 FE Interaction
Log % votes collapsed party (t-2)	0.33*** (0.05)	0.20** (0.07)	0.17* (0.08)
Location collapsed party (t-2)	-0.08 (0.05)	-0.10* (0.05)	-0.11* (0.05)
FPTP (dummy - Yes)			-1.11** (0.37)
FPTP * log % collapsed party (t-2)			0.17 (0.15)
Log of population	-0.03 (0.04)	1.28 (1.01)	1.12 (1.01)
% change in GDP	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.00)
Log inflation (+2)	-0.09 (0.09)	-0.13 (0.10)	-0.11 (0.10)
Number of parties (t-1)	0.00 (0.02)	-0.09* (0.04)	-0.10** (0.04)
Log time (+ 1)	-0.12 (0.12)		
Mean Dist. Mag.	0.00 (0.00)	-0.04 (0.02)	
Turnout	-0.01 (0.01)	0.01 (0.01)	0.02 (0.01)
Compulsory voting (Yes)	0.22 (0.14)	-0.47 (0.48)	-0.79 (0.50)
Log vote share NP (t-1)	0.05 (0.05)	-0.06 (0.06)	-0.05 (0.06)
Intercept	2.30* (1.06)		

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, \cdot $p < 0.1$

Table 4.10: Empirical models on the association between size of party crash, its location and interaction of size with electoral system. With party collapse defined as a party that loses more than 70% of the vote share it held in the past election. The dependent variable is the logged vote share for new parties

4.6. Appendix: Party collapse and new party entry

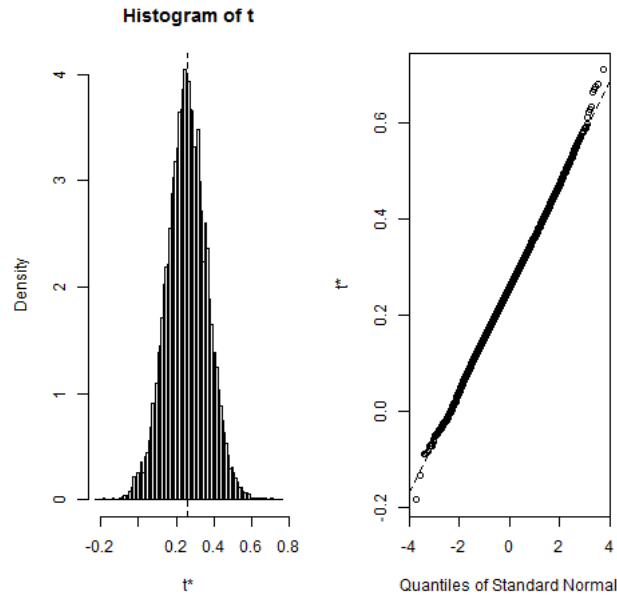


Figure 4.9: Bootstrap coefficients on the share of votes. Bootstrapped taking a random sample of elections.

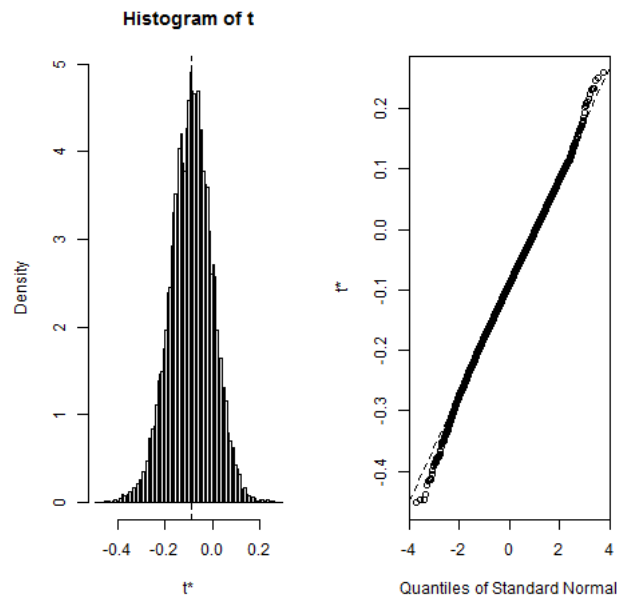


Figure 4.10: Bootstrap coefficients on collapsed party location. Bootstrapped taking a random sample of elections.

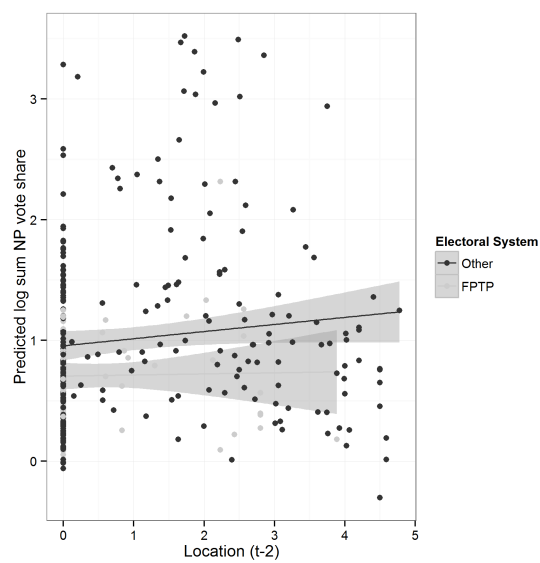


Figure 4.11: Interaction effect of collapsed party location and first-past-the-post electoral formula.

Chapter 5

Conclusions

The central conclusion of this research is that political parties react to the incentives they face, but the decisions they make include non-monetary costs and benefits. The chapters in this dissertation study different types of incentives and how these affect party decisions. The paper in Chapter 2 uses a lab experiment to test the effect of social identity on coalition building behaviour. Chapter 3 uses a novel dataset to determine the impact of costs and benefits of entry, created by public funding, on the number of presidential candidates sponsored by new parties in Latin America. The final study in Chapter 4 estimates the effects of opportunities created by a party collapse on the success of new party entry in parliamentary systems. Together these papers contribute to a broader understanding of how political parties and their elites are influenced by the context in which the decisions are taken. The papers add to the rational choice literature on political parties, by presenting more nuanced explanations on party entry and coalition building behaviour. However, in doing so, it emphasises the importance of including insights from behavioural economics (e.g. personal biases) to these explanations.

Chapter 2 examines the impact of social identity and how it alters who people select as coalition partners. As the results suggest, ideology has a strong and robust effect on who people form alliances with. The laboratory experiment used in this paper constitutes a unique opportunity to identifying this effect using a design that explicitly omits any policy or office benefits from partner selection. That is to say, preferences for forming coalitions with similar people do not produce any positive impact for the proposer,

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other than a personal benefit from favouring a like-minded person. On the contrary, the experiment was designed in such a way that displaying social identity biases implied sacrificing personal income, acting against a utility maximizing paradigm. The results from the experiment contribute to the formal understanding of the factors that explain coalition partner selection. The findings also suggest that the inclusion of social identity biases in formal models can help improve predictions, bringing them closer in line with empirical regularities (cf. Martin & Stevenson 2001, Laver & Schofield 1990).

Of course students in a lab cannot be equated to professional politicians, yet parties are not strictly outcome-oriented black boxes either. Parties are formed by individuals, leaders, supporters, grass-roots campaigners, and donors, among others, all of whom can have personal biases. The experiment shows that, even in a stylised environment where choices don't have policy consequences or affect future political results, people express preferences for those that are ideologically closer to them. It is likely that these concerns are also relevant for political leaders, given that forming alliances with ideologically opposing parties can have important electoral consequences. An example of this is the loss in support for the Liberal Democrats after the 2010-15 coalition government with the Conservatives in Britain, or the Social Democratic Party of Germany (SPD) after the first grand-coalition government with Angela Merkel's Christian Democrats (CDU). Even if party leaders are more outcome oriented than other people, to win they need electoral support and to incorporate voters' preferences in their actions is a rational decision. The experimental results presented in Chapter 2 provide evidence that social identity concerns have an impact on people's preferences over coalition partners. Consequently, incorporating these types of non-monetary considerations could help improve the predictive power of the theoretical models.

The study in Chapter 3 looks into how different types of subsidies for political parties affect the entry of presidential candidates running for new political parties in Latin America. The chapter finds evidence that monetary and media subsidies, allocated based on past electoral results, are associated with lower numbers of new-party candidates competing in elections. On the contrary, subsidies for parties' on-going activities,

distributed as a function of the results in the upcoming election, are associated with higher numbers of new-party candidates. These findings provide evidence in favour of the argument that campaign subsidies act as barriers to entry, increasing the costs for new parties to compete in presidential elections and leaving them at a disadvantage with respect to existing parties. While, on the contrary, post-election subsidies for on-going party activities would tend to increase the potential benefits of competing and become a good reason to field a presidential candidate. Furthermore, these results are robust to various definitions of relevant new-party candidates and methods of estimation, attesting to the generalizability of the outcomes.

The findings in Chapter 3 contribute to the understanding of how party finance regulations impact the representativeness and stability of the party system. By distinguishing between the effects produced by different types of funding (and their allocation mechanisms) the paper highlights the trade-offs faced by policy makers. On the one hand, funding for on-going party activities can help improve representation by generating opportunities for new political forces to enter. However, this has the potential cost creating high volatility and reducing governing capabilities (cf. Sartori 1976, Lijphart 1984, Powell 1982). On the other hand, campaign funding based on past electoral results can hinder new party entry, limiting the possibilities of party systems to adjust to new political ideas, reducing representation. Both representation and reduction of volatility are important objectives for Latin American policy makers, as many party systems have low levels of institutionalization, which impacts the quality of democracy (Mainwaring & Scully 1995). It is, therefore, of outermost importance to consider the effects party financing regulations can generate.

This study also contributes to the literature on new party entry by expanding its geographical reach. Until now analyses on new parties have concentrated on developed countries and/or (West, Central and East) European parliamentary systems (Harmel & Robertson 1985, Hug 2001, Tavits 2006, 2008*a*, among many others). To the best of my knowledge this is the first study to code and apply the concept of new parties to Latin America. Given the prevalence of presidential systems in the region, the new party

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concept is adapted to account for the existence of parties that compete in elections for the first time running a presidential candidate.

The final paper, Chapter 4, studies the impact of changes in party systems and how they can generate opportunities for new legislative parties to enter. The statistical analyses provide robust evidence that a party collapse generates opportunities for new parties to successfully enter. The size of the space created by the collapsed party has a systematically positive association with new parties' electoral outcomes. This effect is persistent independent of the operational definition used for a successful new party—the presence/absence of new parties (dummy), the number of new parties or their vote share. It is also present when one accounts for the characteristics of the sample, such as a concentration of large party collapses in former Soviet countries. There is, however, evidence that the effect of party collapse size is moderated by the presence of plurality electoral formulas. In countries that use a first-past-the-post system the effect of collapsed party size is significant, but smaller than for other electoral rules. This result was expected given the higher thresholds for electoral success (i.e. obtaining a seat in the legislature) in plurality systems.

The research in Chapter 4 makes a contribution to the spatial literature on new party entry (cf. Downs 1957, Kitschelt 1988, Rohrschneider 1993, among others). By analysing the party exit-entry dynamic, it provides evidence that an opening in previously occupied policy space can lead to new party success. To the best of my knowledge, this is the first paper to test the argument empirically using a cross-national study. Until now, the literature has concentrated on the impact of new policy issues (e.g. the environment, local autonomy, anti-European Union sentiment, etc.) (Hug 2001, Meguid 2008, among others). However, the argument that an opportunity is created when an existing party collapses had not been tested. Furthermore, by looking at changes in the policy supply in a country (party crashes), this paper complements explanations of new party entry by providing arguments regarding *when* they can successfully emerge within a given institutional and cultural structure.

5.1 Implications for further research

The research on social identity and its impact on coalition building highlights the importance of including individual biases into formal explanations of party behaviour. For example, identification with a position on the ideological spectrum could help explain why niche parties ‘stick to their guns’ and cater to their electorate instead of the median voter, despite moderate to low electoral results (see Spoon 2009*b*, Laver 2005, Ezrow et al. 2011). If identification with a policy position is a key component of party support, movement away from that position can jeopardize their electoral outcomes.

On the other hand, the strength of social identity concerns regarding ideological positions may vary. In periods of high polarization social identity costs/benefits can increase, while their impact could be lower in moments of internal peace and prosperity. These differences could help explain why, parties that belong to the same ‘family’, express more or less willingness to adopt new policies across countries and over time.

In terms of new parties, this dissertation opens the field to include Latin American presidential systems. Research on new political actors in Latin America has so far concentrated on political outsiders (Kenney 1998, Mayoraga 2006, Corrales 2008, Mustillo 2012, Carreras 2012, among others). The adaptation of the definition of new parties to presidential candidates in Latin America creates a bridge between the insiders/outside approach and predominantly Euro-centric studies on new legislative parties. Connecting these literatures and creating a comparable dataset has, created opportunities to test the generalizability of these theories on a broader institutional, economic and cultural setting.

Additionally, the implementation of the study contributes to a wider research agenda by producing the first time series dataset of party finance regulations and subsidies in Latin America. This dataset includes information on types of funding, allocation mechanisms, and eligibility criteria, among other variables, and will be made publicly available upon publication. This data can be used for multiple purposes, including comparative studies on the impact of party finance laws on the electoral outcomes of different types of political parties. The introduction of funding (with some measure of

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equal allocation) could reduce the impact of high income donors and level the opportunities for parties that cater to less wealthy voters, therefore affecting their electoral results.

The research in Chapter 4 highlights the importance of within country variations in explanations of new party entry. The paper encourages looking into changes in the characteristics of the party system to explain when and how new parties emerge in a country over time. The study also emphasises the difficulties in identifying causal effects in this line of research due to endogeneity in the generation of opportunities for viable party entries. The study proposes a simple temporal solution to this problem. However, it is important for future research to take appropriate measures to deal with the issue. An alternative approach would be to conduct experimental research or use external shocks to the party system as instrumental variables.

Overall, this dissertation produces novel outcomes for various types of incentives on party behaviour. It provides robust evidence on the impact of standard rational choice assumptions. However, it also highlights importance of including non-monetary valuations into cost–benefit assumptions of party behaviour.

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