Preferential Voting and the Selection of Party Leaders: Evidence from Sweden*

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Abstract

Preferential voting has been introduced in several proportional election systems over the last 20 years, mainly as a means to increase the accountability of individual politicians. Many of these reforms have been criticized as blatant failures. In this paper, we hypothesize that preferential voting in a general election can operate as a stand-in internal primary election for the top position of party leader. Empirically, we rely on a unique data set, drawn from four waves of Swedish local elections, that includes every nominated politician in each of 290 assemblies. We use a natural-experiment (regression-discontinuity) approach and obtain strong support for our main hypothesis. When we estimate the causal effect of winning the most preferential votes on becoming the local party leader in the next election, we find that "list winners" are twice as likely to become party leaders as their narrowly losing challengers. Comparing across municipalities, we find that the response to narrow list winning is the strongest within unthreatened governing majorities, within which voters also use the preferential vote most frequently. Comparing across politicians, we find that the effect of list winning is the strongest for competent politicians, who are also more likely to draw preferential votes than mediocre politicians.

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1. Introduction

Effective democratic governance allows voters to elect and hold politicians accountable through elections. Previous research indicates that fierce candidate or party competition for the popular vote may improve politician quality and economic outcomes (Besley et al., 2010; Galasso and Nannicini, 2011). Monopolization of office holding by certain political parties or candidates can thus be quite hazardous.

As for the electoral formula, the choice between proportional representation (PR) and plurality rule is typically portrayed as a tradeoff between representation and accountability (Bingham Powell, 1982; Lijphart, 1984; Taagepera and Shugart, 1989). When it comes to individual politicians, closed-list PR suffers from weak accountability by only giving voters a choice among whole lists of candidates pre-determined by political parties. Open-list systems, like those in Brazil, Finland and Hungary, address this by mandating voters to single out one politician on the ballot.

Over the last 20 years, many countries with PR have implemented reforms to give voters a more direct choice across candidates, without going all the way to open lists. The most common reform is to introduce preferential voting, or so-called flexible lists.[1] In these systems, voters have the option of expressing a preference for individual candidate(s) among those on the party list. Typically, the list rank is still set by the party and only disturbed if individual candidates clear some threshold of preference votes. Most voters cast their preferential votes for politicians who are highly ranked by their parties, and thus do not need their preferential votes to be elected. Therefore, many scholars have criticized preferential voting as little more than "closed lists in disguise" (Farrell, 2001; Mueller, 2005; Andeweg, 2005; De Winter, 2005).

But some observations challenge the view that preferential votes are meaningless for the allocation of power. Crisp et al. (2012) note that candidates, who should not be bothered by earning preferential votes to win re-election, still spend a lot of time doing so. Karvonen (2010) observes that voters in many countries cast their optional preferential votes in larger, rather than smaller, numbers over time. There are also striking stories about political leaders who have built their careers on preferential votes, including current party leaders and ministers Iveta Radicová in Slovakia and Annie Lööf in Sweden.[2]

In this paper, we examine the effect of preferential votes on the appointment to party leader. We argue and show empirically that the distribution of preferential votes across "safe" candidates, by and large works in the same way as an internal indirect primary election of party leaders. These findings rely on a unique data set with all preferential votes cast for politicians in 3,000 party groups, in four waves of elections, in 290 Swedish municipalities. They also rely on a regression discontinuity (RD) design[3], where we exploit the threshold for winning the most preferential votes in the party

[1] Preferential voting is currently used in (at least): Austria, Belgium, the Czech Republic, Denmark, Estonia, Indonesia, Norway, the Netherlands, Slovakia, and Sweden, and is debated in many more PR systems.

[2] In the Slovakian elections of 2006, Social Affairs Minister Iveta Radicová was the highest preference vote-getter for her party. Her preference vote tally surpassed the Prime Minister, Mikulás Dzurinda, who held the top position on the 2006 party list. In the election of 2010 Radicová was moved to the party's top list position and was also appointed Prime Minister. In Sweden, the Center Party politician Annie Lööf was elected to the Parliament in 2006 based purely on preferential votes. In 2010, she was placed at the top of the ballot and doubled her preference vote, by far surpassing that of the sitting party leader. In 2011, she was appointed party leader and her large popular support, her role as an "election winner", was a key element in the discussions leading up to her appointment.

[3] Imbens and Lemieux (2008) give an overview of the RD methodology. Lee, et al. (2004) and Petterson-Lidbom (2008) are the first applications to elections. For a more extensive list of papers that have applied RD designs in electoral settings, see Caughey and Sekhon (2012).

group to the estimate their causal effect. This addresses the natural concern that unobserved characteristics of the politician – such as ambition or charisma – confound the number of preferential votes and upward promotion in the party.

In a set of baseline results, we show robust evidence that winning the most preferential votes on the party list increases the probability of becoming the local party leader by almost 15 percentage points (or by about 50 percent). This supports the hypothesis that preferential voting within PR can serve as a stand-in for an internal primary election of the party leader.

We extend this baseline RD analysis in two directions to gain further insights into voter and party behavior. First, we compare how political parties respond to preferential votes in different political contexts. This exploits the large variation in political competition among Swedish municipalities: some of these localities have had the same governing party since the introduction of representative democracy almost 100 years ago. We show that the response to preferential votes is the strongest precisely in dominant party groups. Moreover, a larger share of voters cast a preferential vote in such political monopolies compared to competitive municipalities. This role for preferential voting as a democratic outlet in places with strong party dominance suggests a close parallel with evolutions in some majoritarian systems. In the US, primary elections were introduced to break out of a non-competitive status quo. By allowing voters to directly influence candidate selection, power was moved from parties to voters, especially in places like the South, where the Democrats had a near monopoly on power from the 1880s to the 1950s. Primary elections became a democratic outlet for selecting the candidate who was assured to win the subsequent general election.

Second, we consider the selection of high-quality politicians. From descriptive statistics on the distribution of all preferential votes, we can show that voters demand more competent candidates. An increase in our competence measure by two standard deviations is associated with the same increase in preferential votes as having a tertiary education. Based on this observation, we repeat our baseline RD analysis in subsamples distinguished by politician competence. We show that parties are more responsive to preferential vote winners in their choice of party leaders when it comes to competent rather than mediocre candidates. Taken together, these results suggest that the introduction of preferential voting can potentially raise the quality of elected officials, and in particular of party leaders.

The paper is related to a wider literature on voter and party behavior. Our results show that parties are highly sensitive to signals regarding candidate popularity when appointing people to powerful positions. If this is so, it becomes rational to cast a preferential vote for a politician high up on the party ballot, rather than merely contemplating the likelihood of being pivotal in the election of politicians further down the ballot. Put differently, citizens rationally internalize downstream party behavior in their voting behavior. Such a voting rationale has been proposed in a set of recent theoretical papers (Piketty, 2001, Razin, 2003, and Meirowitz and Shotts, 2009).[4] At least in a broad sense, our specific results validate this general idea.

The remainder of the paper is organized into eight sections. Section 2 further discusses the hypothesis that preferential voting may work as a primary election. Section 3 gives some basic information about Sweden's local politics. Section 4 describes the preferential voting system in Sweden, and provides some descriptive evidence of its use. Section 5 describes our data, and Section

[4] Although theoretical models of elections as information transmission devices have focused on subsequent political positions by candidates under plurality rule, the same general argument applies to party nominations under PR.

6 gives details on our RD methodology. Section 7 contains the baseline results for the whole sample, while Section 8 extends them for different subsamples, distinguished by political context and politician competence, respectively. Section 9 concludes the paper. Some of the robustness checks are collected in an Appendix.

2. **Preferential Voting as an Internal Primary Election**

A key question in political economics is how institutions shape political behavior. In democracies, elections provide a critical institutional link in the principal-agent relationship between voters and politicians. When the preferences of politicians and voters are misaligned, the threat of being ousted from elected office can curtail misbehavior (Barro, 1973; Frerejohn, 1986), while electoral career concerns can help sort across politician types (Rogoff 1990, Coate and Morris, 1995). Thus, elections can push politicians to act in the voters' interests, and select the best candidate for the job.

Political parties are commonly the gatekeepers to candidacy and thereby to political office. However, it is not straightforward to map theoretical predictions about career concerns of individual politicians to the behavior of political parties. In PR systems in particular, political parties share accountability within party groups. As individual politicians tend to follow the party line in their assembly votes, this adds to the difficulty of holding individual politicians within party groups accountable in elections. Party leaders become dominant player in PR systems, especially in parliamentary forms of government, as these leaders often control the formulation of the party line as well as the composition of the party list.

Key hypothesis

Our basic idea is that the preferential vote can serve as a tool for better individual accountability of party leaders in PR systems. Obviously this requires that parties respond to preferential votes in the selection process. The main reason for parties to do so is the simple fact that parties (and candidates) aim for election and re-election. Preferential votes give party organizations a direct (but noisy) signal of the popularity of each politician on the ballot. This is a unique information source in party-centered systems, where opinion polls usually focus on parties rather than candidates. In the words of a high-placed official in Sweden's largest party, the Social Democrats, parties "would be stupid" not to use the information from preferential votes to maximize their electoral success.[5] If this argument is valid, we would expect parties to use preferential-vote information to select individuals to the positions that are considered key for electoral victory, namely the top position(s) on the ballot. Indeed, these persons also tend to serve as party leaders.

The central role of local party leaders in Sweden

In Sweden's municipalities, episodes of electoral success or failure are indeed often accredited to the local leadership. A typical example is the so-called Anders-Johansson effect in the municipality of Sigtuna, north-west of Stockholm. Here, the Social Democrats have gained ten percentage points of electoral support in the last three elections, while the national party lost about the same fraction of votes. In the 2010 election, 14 percentage of the local electorate split their votes to support the local Social Democrats instead of their first choice for the parliamentary election. This success has largely been accredited to the energetic local party leader Anders Johansson. In 2010, he received 40% of the party's preferential vote, 6-7 times more than the closest challenger.

[5] Ibraham Baylan, personal communication.

Another example is the Left party in Fagersta municipality, in the middle of Sweden. The party's local leader, Stig Henriksson, has been described as a charismatic opponent to the party's national policy. In the 2006 election, the local Left party received 58% of the vote, while the national party only received 9%. Even though the confidence crisis of the local Social Democratic party in the 1990s may have helped pave the way for this spectacular success, it is commonly considered a Stig-Henriksson effect (Etzler, 2008, Tidningen Flamman). In 2010, Henriksson received a staggering 89% of the party's total preferential vote, fifty times more than his main challenger.

When might preferential votes matter the most?

If parties care about their election or re-election, when would they respond the most to the information in preferential votes when they select party leaders? Drawing on insights from the probabilistic-voting model, one might pinpoint places with many *swing* voters, who are willing to switch parties based on party characteristics. From this perspective, parties which are reasonably sure, or fully convinced, that they will win the next election should have weak incentives to respond to preferential votes.

However, the preferential vote is different from the party vote in that it also challenges *committed* voters for each party to choose between candidates. Indeed, surveys in several countries show that those who choose to cast their (optional) preferential votes are on average more party-loyal and politically knowledgeable than their peers. This observation leads to the opposite prediction. Preferential votes cast in places with more committed voters might work as a stronger signal to the party, as these voters have the information and interest required to actively send a credible signal about their preferences. But why would parties respond to a signal from voters, even if this signal is stronger, in situations when they are electorally safe?

Parallels with primary elections

Arguably, something can be learned from the voluntary adoption of internal party primary elections in majoritarian systems. In the late 1800s and early 1900s, dominant parties in certain U.S. states adopted primaries to move the power over nominations from party insiders to a wider selectorate (Ansolabehere et. al., 2007). Similarly, in contemporary Latin America it has been shown that parties adopted primaries mainly to combat internal divisions (Serra, 2006; Kemahlioglu, et. al. 2009). Disgruntled factions of party members – who felt that nominations were made by insiders in "smoke filled rooms" – fostered primaries as a way to avoid defections. Thus, the main function of primaries was to discipline party elites to follow a more transparent nomination procedure. If we think about committed voters as approximate party members, voluntary compliance with preferential voting outcomes by monopoly parties in PR systems is not too distant from voluntary adoptions of primaries by monopoly parties in majoritarian systems.

The incentives for introducing primaries to combat internal party divisions have not only been studied from a historical perspective. Hortala-Vallve and Mueller (2012) argue theoretically that heterogeneous parties are more likely to adopt primaries when they risk splitting into smaller, and more homogeneous, political groups. Serra (2011) argues that parties introducing primaries might face a cost of diverging from their ideal policies, but will be rewarded by candidate valence.

Seeing the preferential vote as an indirect (and voluntary) primary election among the candidates on the list, also squares well with media reports on preferential vote results in Sweden. Similar to a primary election, the media reports often specify the "winner" within a party. If this winner is not granted the highest ranked political appointment available to the party, this can be met with criticism referring to the "popular will" and "political legitimacy". An editorial piece in the

Swedish newspaper Kristinehamnsbladet pointed out which local party groups had failed to reward the preferential vote winners in the 2006 elections with the most prestigious political positions (Brommesson, 2006). The editor concluded that "the political parties have a curious inability to hand over power to the voters that they will be ruling for the next four years". In a subsequent op-ed, a disappointed voter responded to this story by bursting out that "[w]hat are our local parties doing? Is this what they consider to be ethical and moral behavior? All our preferential votes are being totally ignored […]. How do we dare to continue voting for parties that have completely side-stepped our democratic principles?"

Motives of individual politicians

How might a preferential-vote system square with the career concerns of individual politicians to strive for the position as party leader? Models in political economics distinguish three motives for holding office: "ego rents", "policy rents", and "material rents".[6] Ego rents capture an intoxicating effect of power or a sense of pride from approval by one's fellow citizens. Drawing on interview evidence, it appears that compliance with preferential voting results can raise these rents for individual politicians. Winning the most preferential votes is a clear status marker, and the status hierarchy is recalled each time a roll is called in the municipal assembly. As told by a politician from an opposition party in one municipality: "after the election, the majority party's preferential vote winner was not willing to assume the board chairpersonship and <name of incumbent leader> continued on his post. Now, each time roll is called, they call him, < name of incumbent leader >, second instead of first. This makes us in the opposition feel really terrific".

Similar arguments can also be made about policy rents, when politicians are motivated by strong policy preferences. Politicians motivated by policy will likely to refer to preferential votes as a mandate to take a strong political position, or to obtain a greater influence over the party policy. In their study of preferential voting in Slovakia, Crips et al. (2012) observe that obtaining more preferential votes correlates with voting more frequently against the party line. Similarly, the literature on Latin America shows that candidates elected by internal primaries behave more independently after assuming office. In Sweden, anecdotal evidence holds that parties may consider preferential votes to raise the autonomy of the individual politician. As explained by a local party leader: "for people who are not elected through the preferential vote, I feel that I can demand that they toe the party line. If not, I tell them that 'you owe your seat to the party, now do as I say'".

Like any monopoly, we expect a political party with a strong hold on power to extract more private gains in the form of material rents. This has been shown to be the case for Swedish municipalities by Svaleryd and Vlachos (2009). If politicians who place a greater value on material rents self-select into those arenas, internal competition within the party could push compliance with preferential voting results to break ties in the internal struggle for power. Of course, some politicians put stronger weight on public-good motivation than on private-rent motivation. If voters have preferences for public-good motivated party leaders, we would expect such politicians to attach more significance to the preferential-vote results than private-rent motivated politicians. This could drive their career concerns and sense of righteousness to pursue office based on popular support, but also their tendency to withdraw from leadership when support crumbles.

Summary

We have put forward the hypothesis that (i) preferential voting could well work as an internal party primary for party leadership. We have also suggested that (ii) the response to preferential votes may depend on the political context, with some presumption that the strongest response is found in

[6] See Persson and Tabellini (2000, chs. 3-5).

locally dominant parties. Finally, we have argued that (iii) different types of politicians may have systematically different motives to pursue an internal party career based on preferential vote support. We rely on these three hypotheses in our empirical work to follow.

3. Sweden's Municipal Politics and Institutions

Political institutions

Sweden uses a PR election system for its three levels of government: the one-chamber national parliament, 20 county assemblies, and 290 municipal councils. Elections are held jointly for all three political levels every fourth year. Turnout in these synchronized elections is high, typically in the 80-90 percent range of eligible voters.[7]

Compared to many other countries, municipalities in Sweden have substantial political power. They have the right of local self-government, guaranteed by the Swedish Instrument of Government (1991 Local Government Act 2.1). This includes the power to tax, as well as the control of a sizeable share of public spending. In 2010, the average local income tax was 21.6%. Through their responsibility for large areas of social spending – schools, child care and elderly care – municipalities were the main employer of about a quarter of Sweden's total labor force. Because of this political importance, a leadership position in a large municipality is generally considered as a position of greater political power than a seat in the national parliament.

The municipal council (the local parliament) is led by the council board (the local government). The chairperson of the board (the closest equivalent to a mayor) is indirectly selected from the governing party, or the largest party in the governing coalition. Specific policy areas are dealt with in subcommittees of which the average council has seven, with chairpersons appointed from the governing majority. The board, assembly, and committee chairpersons are the most influential politicians, but the chairperson of the municipal council is typically the only person employed as a full-time politician.[8]

Municipal parties, leaders and list nominations

Sweden's party system is highly stable with seven political parties represented in nearly all municipal assemblies. Small local parties hold about 4-5% of the total council seats. The only electoral threshold is defined by district magnitude, and ranges from about 1.5 to 5 percentage points of the vote.

Local nomination procedures are highly decentralized to the local party organization. Within the municipality, members are organized into clubs based on either geographical areas or party sub-organizations. In large parties there are typically clubs for the youth league, women, university students, and trade-union members (in left-wing parties). The local party has a leader, who leads the political work in formulating policy proposals, and assumes the role of the political spokesperson of the party. The standard procedure is to place this leader on top of the party ballot, and to appoint him or her to the top political position available to the party. Specifically, the person who tops the list

[7] Municipalities differ widely in both land area (from 9 to 19,447 square kilometers) and population (from 2,558 to 780,817 inhabitants). Population differences are reflected in different-sized municipal councils, from at least 31 seats to a maximum of 101, with an average of 40. Seats are allocated across parties in proportion to their vote shares in electoral districts with a minimum magnitude of 15 seats.

[8] Others receive piece-rate compensation for meetings and offices, and less than 10% of politicians receive more than 40% of a standard full-time salary. A survey carried out in 1991 shows that an average council member spends 8.3 hours per week on her duties, while a chairperson spends 17.8 hours.

in the largest party of the governing majority is generally appointed chairperson of the municipal council board.

Party lists are composed in two steps. In the two left-wing parties (Social Democrats and Left Party), clubs nominate members to a nomination committee that aggregates the nominations into a proposed list. In the other parties, the nomination committee organizes test elections, in which all party members can vote. On the face of it, such an internal primary may seem more open to turnover within the list, but in reality both nomination procedures strongly favor the status quo. Dominant fractions within the party control the aggregation of nominations, both through the clubs and the committee which makes up the final list. In the internal primaries, votes are mobilized by strong actors and networks, which organize around candidates. These networks are important, since only a minor fraction of the members use their right to vote.

Local elections take place in a low-information environment. There are typically not even opinion polls for parties, let alone for individual politicians. Still, about one quarter of the electorate split their vote between the national and municipal level. The extent of such vote splitting has been shown to vary with local political conditions (Karlsson, 2012). Interviews conducted for this paper suggest that local party groups do not automatically expect the same election result as in the national election. It appears to be commonly understood that vote splitting in the national and local election can arise rapidly, to punish or reward local politicians. As mentioned in Section 2, numerous local party groups either fail miserably, or outperform the national party by far.

4. The Preferential Vote System and its Users

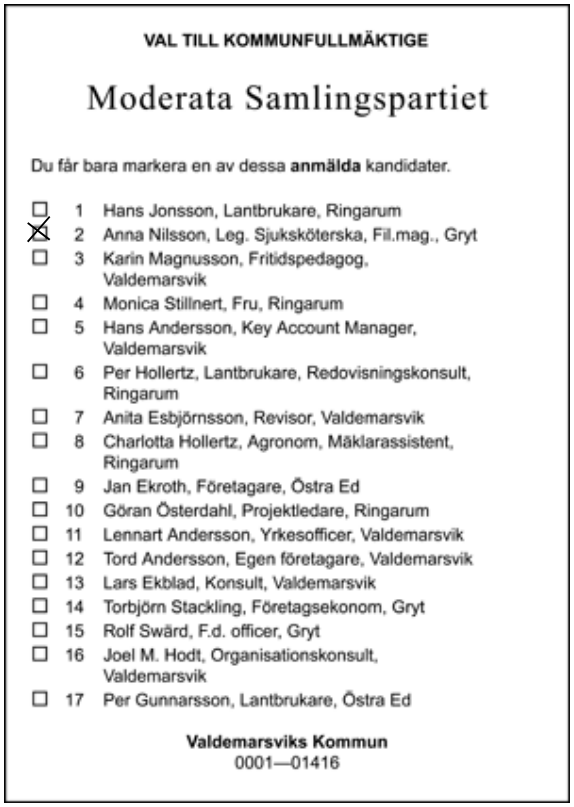
Mechanics

The preferential-vote system was introduced in the 1998 elections. It allows each voter to cast a single preferential vote one of the candidates on the ballot, by ticking a check-box next to his/her name. From the ballot (see Figure 1), a voter can usually determine basic information about the candidate: gender and region of birth (from the name), occupation, residence, and (sometimes) age.

Given the election result, each party gets a number of seats proportional to its vote share. Prior to preferential voting, these seats would simply be counted from the top: in a party with three seats, the top three people would each get one. With preferential voting, seats are instead first granted on the basis of the number of preferential votes, given that a politician has passed a threshold: 5 percent of the party's total vote (with at least 50 votes). Once the candidates clearing this threshold have been given their seats, the remaining seats obtained by the party are awarded to the candidates with the highest list rank who did not clear the threshold.

The share of candidates who pass the 5-percent threshold is usually about one fifth. Of these, the vast majority occupy positions high enough on the party ballot that would have obtained a seat without any preferential votes. Of the candidates passing the preferential-vote threshold, only about five percent are placed on low enough positions not to be guaranteed a seat.

Figure 1 – Example of Electoral Ballot



VAL TILL KOMMUNFULLMÄKTIGE

Moderata Samlingspartiet

Du får bara markera en av dessa **anmälda** kandidater.

- ☐ 1 Hans Jonsson, Lantbrukare, Ringarum
- ☒ 2 Anna Nilsson, Leg. Sjuksköterska, Fil.mag., Gryt
- ☐ 3 Karin Magnusson, Fritidspedagog, Valdemarsvik
- ☐ 4 Monica Stillnert, Fru, Ringarum
- ☐ 5 Hans Andersson, Key Account Manager, Valdemarsvik
- ☐ 6 Per Hollertz, Lantbrukare, Redovisningskonsult, Ringarum
- ☐ 7 Anita Esbjörnsson, Revisor, Valdemarsvik
- ☐ 8 Charlotta Hollertz, Agronom, Mäklarassistent, Ringarum
- ☐ 9 Jan Ekroth, Företagare, Östra Ed
- ☐ 10 Göran Österdahl, Projektledare, Ringarum
- ☐ 11 Lennart Andersson, Yrkesofficer, Valdemarsvik
- ☐ 12 Tord Andersson, Egen företagare, Valdemarsvik
- ☐ 13 Lars Ekblad, Konsult, Valdemarsvik
- ☐ 14 Torbjörn Stackling, Företagsekonom, Gryt
- ☐ 15 Rolf Swärd, F.d. officer, Gryt
- ☐ 16 Joel M. Hodt, Organisationskonsult, Valdemarsvik
- ☐ 17 Per Gunnarsson, Lantbrukare, Östra Ed

Valdemarsviks Kommun
0001—01416

Notes: Electoral ballot for the Conservative Party in Valdemarsvik municipality, with a preferential vote cast for Anna Nilsson, an authorized nurse (Leg. Sjuksköterska), holding a university degree (Fil. Mag.), and residing in Gryt.

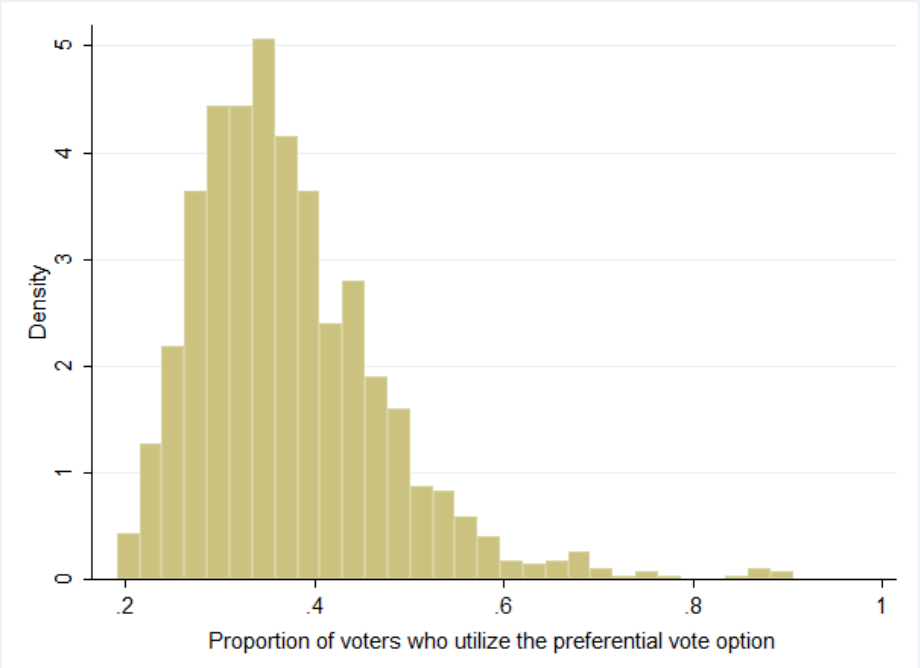
Participation by region, party, and political context

It is optional to cast one's preferential vote and the share of voters that do so varies substantially. Figure 2 shows the distribution of participation rates across municipalities in all elections between 1998 and 2010. The underlying data show that in 1998 the average municipal participation rate was 35.2 percent. Participation declined somewhat in the following two elections, but bounced back up again in 2010.

Participation in preferential voting varies substantially, not only among municipalities but also among political parties. Unconditionally, voters for the small parties on the center-right are more likely to participate than voters for the largest parties: the Social Democrats (on the left) and the Conservative party (on the right). Controlling for party, however, more voters cast a preferential vote the larger the size of the party group in the municipal council. This correlation is interesting, because the absolute number of votes needed to clear the threshold *increases* with both the size of the party and the size of the municipality. As participation rises rather than falls with the relative size of the party, voters do not appear to be deterred from casting a preferential vote by a lower likelihood that theirs is a pivotal vote.

As mentioned in Section 2, we are interested in how preferential voting links up with political competition between parties, and whether a party is in the governing majority or not. The cross-tabulation in Table 1 shows that the propensity to cast preference votes – across municipalities, parties and years – indeed differs by these conditions. We divide the sample according to median

Figure 2 – Distribution of Participation in the Preferential-vote System



Notes: Share of voters, by municipality, who used the preference vote option in the 1998-2010 elections.

competition in the municipality (see Section 5 for a definition of this variable), and the party's being in the majority or the opposition. In the municipalities with weaker political competition, almost 35% of the voters cast a preferential vote for parties belonging to the governing majority vs. 26% for those in the minority. In municipalities with stronger political competition, the gap between majority and opposition parties is almost gone.

Table 1 – Average Share of Voters Casting a Preferential Vote, by Competition and Majority-Minority Status of the Municipality

	Majority Parties	Opposition Parties
Above-median Competition	28.6%	27.9%
Below-median Competition	34.8%	26.0%

Who are the preferential voters?

Surveys show that those casting preferential votes are generally more knowledgeable about politics and identify more strongly with a certain political party than other voters (SOU 2007:68). While they have socioeconomic characteristics fairly representative for the population at large, foreign-born voters, highly educated voters, and younger voters, are over-represented among the preferential voters, although the differences are quite small (Holmberg and Oskarsson, 2013).

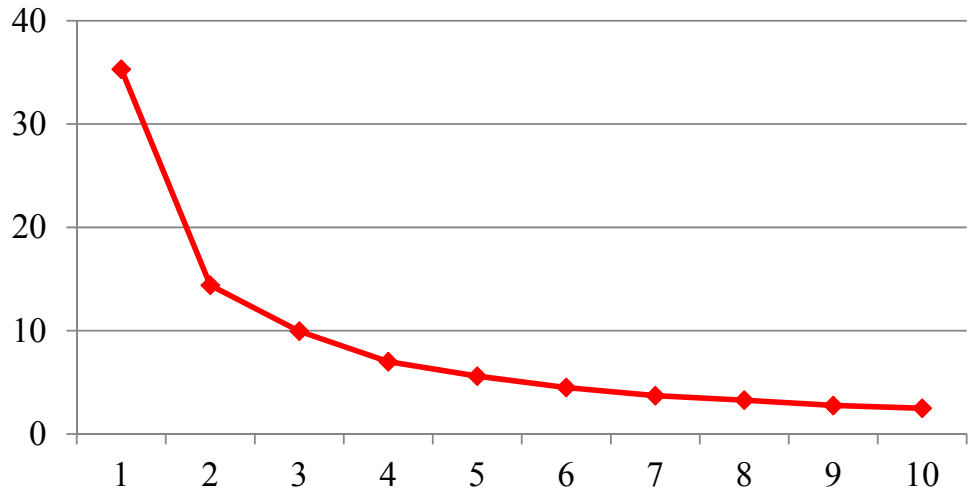
Why do the majority of voters abstain from using their preferential vote? The most common reason for abstention, self-reported by half the respondents in various surveys, is a perceived lack of

knowledge about the candidates.[9] The second-most common reason is a dislike for the preferential-vote system, although this has become less common over time. More unusual responses include a lack of interest in politics and a reported difficulty to decide on a specific candidate. In 2002, less than five percent said that they abstained because they felt that their vote would not count, and even fewer considered the system to be overly complicated (Oscarsson, 2007). At the introduction of the system, there was a fear that voters would abstain because they did not understood its mechanics. After the 1998 election, however, surveys showed that the vast majority of the voters had fully understood the voting mechanism and level of the threshold (SOU 1999:92).[10]

What types of politicians garner more votes?

In voter surveys, the most commonly reported reason to support a particular candidate is "personal traits" such as competence, charisma, and empathy. The second most common, given by about one third, is socioeconomic characteristics such as gender, age, occupation, and place of residence. Only one in ten respondents listed the political opinions of the candidate to be their main motive.

Figure 4 – Preferential Votes Obtained by List Rank



Notes: The figure shows the preferential votes cast for different candidates at different positions on the list as shares of the party's total number of votes in the municipal election.

As in other countries with flexible list systems, the list rank of a candidate is the single most important predictor of preferential votes (SOU 1999:92; SOU 2007:68). Figure 4 shows the average fraction of preferential votes within a party group received by candidates on list positions one through ten. On average, a candidate placed at the very top of the list receives more than a third of

[9] Nevertheless, half of all voters, and a fifth of those who said a lack of knowledge caused them to abstain, could still name at least one politician for whom they could have voted.

[10] The Swedish government spent a lot of resources on informing voters. The Swedish system is also substantially less complicated than rules in some other countries with flexible lists. As noted by Gallagher and Mitchell (2005) in the case of Austria, a lack of information about the system in popular media was likely "to cause many voters [to] tick the first name on the list just to be sure that their vote will be valid".

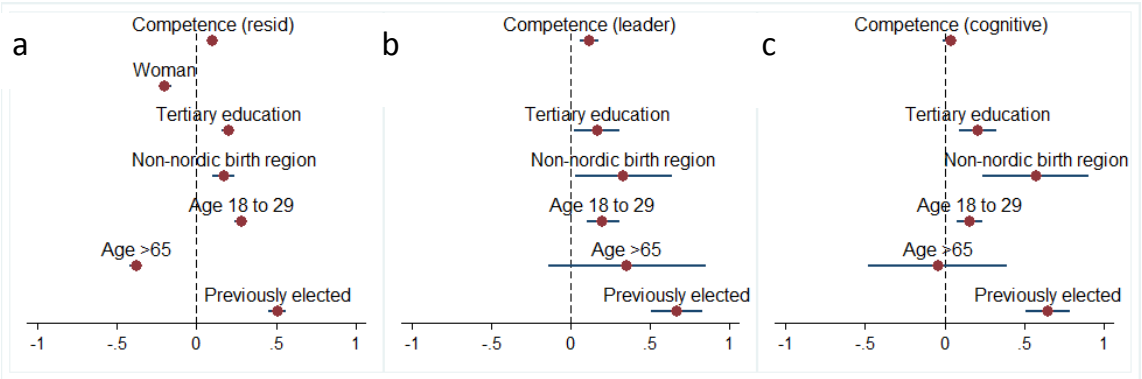
all preferential votes (or 12 percent of the total vote).[11] The average fraction received by the second-in-rank is less than half this number. The curve flattens out gradually. Clearly, the figure shows no tendency for voters to cast preferential votes for low-ranked candidates, whose list ranks do not guarantee a council seat.

Of course, list rank is strongly correlated with political appointments, previous political experience, and numerous personal characteristics. To map voter demand more clearly, we run a simple regression analysis for the relationships between socioeconomic characteristics of the politician and his or her preferential votes, controlling for list rank. We examine how votes are distributed across politician gender, education (tertiary education or not), country of birth (outside of the Nordic countries or not), age, and re-election (at least once).

We also use three approximate measures for the competence of each political candidate. The first is the measure used by Besley et al. (2013), which exploits data on the local politicians' earned income on the private labor market. The intuition behind it is that competence can be gauged from average income differences (over 20 years) between people with the same education, occupation, age, and gender. The other measures are from Sweden's prior mandatory military draft: one score from a written IQ-type test and one score from a formalized interview with a psychologist meant to capture leadership skills to sort recruits across training programs.

The results from this analysis are presented in Figure 5, which plots the point estimates and their 95% confidence intervals for each candidate characteristic. In order to reduce the risk of conflating socioeconomic characteristics with trends in preferential voting and/or list rank, all specifications include fixed effects to account for trends in preferential voting over time (year-fixed effects); trends within each specific party groups over time (year-fixed effects interacted with party- group-fixed effects); and also preferential vote differences across list ranks (list-rank fixed effects interacted with four categorical dummy variables for the size of the party group).

Figure 5 – Share of Preferential Votes and Politician Characteristics



Notes: Each graph shows the coefficients and their 95% confidence bands in an OLS regression of the share of preferential votes for an individual candidate on her list rank and a number of personal characteristics, as described in the text.

[11] Surely, this phenomenon can at least in part be attributed to the tendency of voters to choose the top-ranked persons by "default". This has been shown to be a basic aspect of voter psychology, and exists also in countries where ballot ranks are decided by alphabetical order or at random (e.g. Montabes and Ortega, 2002).

Graph “a” shows our estimates for the whole sample of politicians, using income residuals to capture competence. In graphs “b” and “c”, we instead measure competence with the leadership score and the cognitive score from the military draft, respectively. For last two graphs, the coverage of the competence measure is limited to a subset of men, which shows up in the higher standard errors on the other variables.

We find statistically significant relationships between the non-competence characteristics, which are all typically observable from ballot information, and preferential votes. The estimated coefficients (except that for women), suggest that candidates who represent voter groups with larger shares of preferential voters perform better.

Importantly, our two first competence measures are positively correlated with preferential votes, even though we control for list rank. Higher competence by one standard-deviation, according to either measure, is associated with a 0.1 percentage point higher share of preferential votes. Even though the estimates are relatively small, they are still striking, given they refer to a characteristic that voters cannot learn about from ballot information. One potential reason is that charismatic politicians with good leadership skills are more likely to run personal campaigns. Campaigns for preferential votes among Swedish local politicians are not uncommon but are often quite modest, with average spending of 5,000 SEK (~ USD 800) in the early 2000s. No register is kept of such campaigns, but government reports for the earliest elections (1998 and 2002) showed that the number of campaigns was increasing.

5. Data and Measurement

Candidate characteristics

The data for our main analysis come from four waves of elections in Sweden’s 290 municipalities, from 1998, when preferential voting was introduced, until the most recent election in 2010. For each of these four elections, we have collected all electoral ballots for all political parties. At the Swedish election agency, these ballots are registered with the personal-identification code of each politician and then stored at Statistics Sweden. Using these identification codes, we can link each politician to extensive socioeconomic information from other registers. In the combined dataset, we can follow politicians over time, knowing how many preferential votes they receive in each election, their list placements on the electoral ballots, and whether their socioeconomic status such as education, occupation and income changes. For the two most recent election periods, we also have additional data on the political appointments held by each politician. This includes positions municipal council executives, positions in the council board and on committees handling specific policy areas.

Preference votes

The most important political variable in our dataset is the number of preference votes obtained by each politician in each election. Drawing on this information, we construct a binary treatment variable that takes a value of one for the person who gets the largest number of preferential votes of all candidates on the party list in a particular election. Around the point when a top candidate just barely beats his or her most important challenger to the highest preferential vote count, assignment to treatment can be considered random. Thus, when the preferential-vote count is very close, we do not expect any systematic differences in the political and socioeconomic characteristics of the politicians close to the threshold. This similarity is the identifying assumption of our RD design and it is further explained and empirically verified in subsequent sections of the paper.

Although they are outcomes in a PR-election system, our "close elections" are thus defined in a similar manner as in the archetypical RD study of a majoritarian election system with two candidates. We compute the relative support of the winner of the preferential-vote tally relative to his or her "top contender", i.e., the politician on the list with the second largest number of preferential votes. We then divide this vote difference by the total number of votes for the two candidates, which gives us the margin of victory, or loss, of the winner.[12] This variable has a natural threshold of zero, the point at which the winner and top contender have equal preferential vote shares.

Party leadership

Our main dependent variable is a binary indicator of holding the position as municipal party leader at the time of the next municipal election, i.e., the top position on the party ballot. As discussed in Section 3, the top-ranked candidate is almost always awarded the top appointment in the municipal political hierarchy available to each party. Using our data for the 2006 and 2010 elections, we can verify this claim. In nine cases out of ten, the chairperson of the municipal council board is the top-ranked person in the largest political party of the governing majority. In eight cases out of ten, the vice chairperson is the top-ranked person from another party, usually the largest opposition party. In seven out of ten cases when a smaller party has a seat on the municipal council board, this is occupied by their top-ranked politician.

6. Statistical Methodology

Specifications

To test the main hypothesis formulated in Section 2 that preferential voting works like an indirect internal primary for leadership of the party, we consider different specifications for estimating the effect of preferential-vote winning on leadership selection within the party. First, we show the effects from a simple OLS regression. This specification quantifies the correlation between receiving the most preferential votes and the likelihood that a politician becomes the leader in the next election period, but does not allow us to estimate the causal effect of receiving one of the two treatments. To estimate a causal effect, we use three different Regression Discontinuity Designs (RDD), namely (i) a specification with a flexible control polynomial, (ii) a specification with a linear control function, where the sample is restricted to observations close to the threshold, (iii) a specification in where the sample is restricted to observations close to the threshold, but with no controls included. We start by describing the OLS setup and then move to the RDD designs.

OLS

For the OLS, we let index *i* denote the individual, index *p* the party, and index *t* the election year. The dependent variable, $Y_{i,p,t+1}$ is set to one if politician *i* is appointed leader of local party *p* in the next election (t+1) (i.e., if s/he is the top ranked person on the party's ballot) and zero otherwise. The treatment indicator $P_{i,p,t}$ is a dummy for individual i being the preferential vote winner in party *p* and election *t*. The basic OLS specification assumes the following simple relationship between $Y_{i,p,t+1}$ and $P_{i,p,t}$,

$$Y_{i,p,t+1} = \beta_0 + \beta_1 P_{i,p,t} + \varepsilon_{i,p,t+1}\,, \qquad (1)$$

where β_1 measures the correlation between receiving the treatment and becoming leader in the next period.

[12] This is the equivalent of the margin of victory in a two-candidate election in a majoritarian system.

RDD

The RDD regressions add a so-called forcing variable, $m_{i,p,t}$, to Equation (1), a variable that measures the distance of politician *i* from the threshold for being the list winner in party *p*, $P_{i,p,t}$. In our three different RDD specifications, each one strikes a different balance between the size of the window around the threshold and the way we account for the relationship between the outcome and the forcing variable.

Control functions

The first specification uses a wide sample and includes a control function: a third or fourth-order polynomial function of the forcing variable. We still drop some observations in the tails of the forcing variable to limit the risk of over-fitting the control polynomials to capture outliers. In each case, we set the data window in accordance with the density of observations in a common-sense manner (see Figure 3 in the placebo-tests section of the Appendix for the distribution of observations). We set the maximum distance from the threshold to the winner having 40 percent more, or less, of the combined preferential votes obtained by both the winner and the challenger.

The basic idea behind the flexible control polynomials is that the treatment variable, $P_{i,p,t}$ is entirely determined by the forcing variable, $m_{i,p,t}$. Because of this, we can control for potential endogeneity of the treatment variable, and also deal with other problems, such as omitted-variable bias, by controlling flexibly for the forcing variable. In both the third- and fourth-order polynomial cases, we estimate separate control functions on each side of the threshold. The specification becomes

$$Y_{i,p,t+1} = \beta_0 + \beta_1 P_{i,p,t} + f^L(m_{i,p,t}) + f^U(P_{i,p,t} m_{i,t}) + \varepsilon_{i,p,t+1}\,, \quad (2)$$

where f^L and f^U denote the control functions below and above the threshold.

Narrow samples

The next two RDD approaches rely on narrower samples around the two thresholds.[13] In the first three, we include a local linear-control function, which allows us to account for the possibility of a relationship between the forcing variable and the outcomes even within quite narrow windows around the thresholds. In the first narrow sample, we use the optimal-bandwidth specification suggested by Imbens and Kalyanaraman (2012), which we henceforth refer to as the I-K test. In the two narrowest windows around the threshold, we the do not include any controls for the forcing variable, meaning that specification (2) corresponds to (1).

Controls

Finally, we estimate each specification with and without a rich set of controls. These include list rank interacted by four dummies for the size of the party group in the municipal council, a dummy for being a woman, seven dummies for educational categories, a dummy for a candidate elected to the parliament in *t*+1, four dummies for age categories. We also include three dummy variables for election outcomes interacted with a dummy for whether an individual is the top-ranked person on the list: (i) party *p* becomes a part of the governing majority between *t* and *t*+1, (ii) party *p* is removed from the governing majority between *t* and *t*+1, or (iii) party *p* loses voter support between *t* and *t*+1. If the relationship between the treatment and the party leadership in the next election still hold up when these controls are interacted, this is further evidence that our estimated relationship is causal.

[13] The margins that we use are 10, 5 and 2.5 percent.

Sample Restrictions

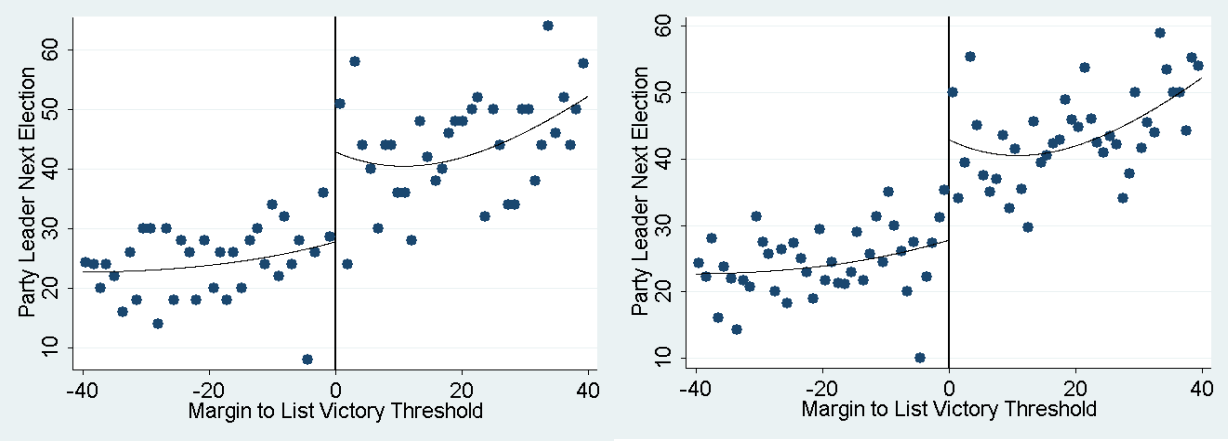
We make several sample restrictions to implement the standard RDD. Our starting sample includes 11,914 observations (5,957 party-group observations). We first omit any observation where the current party leader is not one of the top two vote getters, which excludes 1,314 observations. Then, we drop all party groups where the absolute win margin is more than 40 percentage points, excluding another 2,780 observations. This large reduction is natural since the current leader usually wins the preferential vote by a large margin. As the dynamics of leadership selection may be quite different in parties with just one or two representatives, we exclude these, to eliminate another 1,034 observations. Finally we exclude the party groups where both of the top-two candidates were not guaranteed to be elected based on their list rank. This leaves us with a final sample of 3,446 observations.

7. Empirical Results

Graphical analysis

Following the "industry standard" for RDD research, we begin with a graphical analysis. Figure 3 shows the binned averages of the percentages of candidates that are selected as party leaders in the next election period, $Y_{i,p,t+1}$ as a function of the win/loss margin to being the party's list winner in preferential votes, $m_{i,p,t}$. As noted above, we set the range of $m_{i,p,t}$ to [-40% to 40%]. The binned averages are computed in two different ways. In the graph to the left, each dot corresponds to 50 observations, while it corresponds to a 1 percentage-point interval for the forcing variable $m_{i,p,t}$ in the graph to the right.

Figure 6 – Graphical Analysis of the List Winner Effect.



Notes: The graphs show binned averages of politicians chances of becoming the party leader in t+1 as a function of the win/loss margin to being the list winner in the party's preferential votes. In the graph to the left, each bin contains 50 observations. In the graph to the right, each bin contains all observations within a 1 percentage-point interval for the win/loss margin. The lines in the graphs are third-order polynomials fitted to the observations.

Both versions of the graph convey a similar message. We see a clear positive shift in the probability of being selected as party leader in the next period, as we cross the list-winner threshold in the party. Of the narrowest losers, slightly more than 25 % are selected as party leaders in the next election period, as opposed to slightly more than 40% of the narrowest winners. Thus, the probability

of becoming the party leader goes up by 15 percentage points, or by more than half (60% in relative terms), if the candidate wins the most preferential votes in the party group.

Regression analysis

Corresponding regression results are shown in Table 2. Column 1 shows the OLS specification, columns 2 and 3 the RDD control-polynomial specifications, column 4 the RDD optimal-bandwidth specification, columns 5 and 6 the RDD local-linear specifications, and columns 7 to 9 the RDD close-election specifications. The upper and a lower pane show the results without and with control variables, respectively. Each cell displays the estimated coefficient on the dummy variable for the forcing variable passing the threshold, i.e., β_1 in Equation (1) or (2).

The OLS results show that, overall, the politician who receives the largest number of preferential votes in his or her party group is about 19 percentage points more likely to remain the party leader compared to those party leaders who do not. However, including our extensive set of control variables cuts this estimate by more than half.

Table 2 – Estimates of the relationship between becoming the list winner in preferential votes in election *t* and party *p* being party leader in *t*+1

	OLS	Pol 3rd	Pol 4th	I-K test	Loc Lin 20%	Loc Lin 10%	Close 10%	Close 5%	Close 2.5%
Without control variables									
				18.8%					
Treatment Effect	19.54***	15.52*	17.86*	13.05**	12.68**	19.21**	14.60***	19.89***	7.05
	(1.89)	(7.97)	(10.02)	(5.62)	(5.49)	(7.96)	(3.77)	(5.56)	(8.34)
Obs	3,446	3,446	3,446	1,648	1,730	868	868	414	198
With control variables									
				21.8%					
Treatment Effect	8.54***	15.70**	19.98**	11.01**	11.37**	18.56**	12.35***	18.28***	8.54
	(2.02)	(7.77)	(9.88)	(5.08)	(5.29)	(7.73)	(3.70)	(5.65)	(7.39)
Obs	3,407	3,407	3,407	1,842	1,712	856	856	412	263

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors clustered at the party-group level are reported in parentheses. Dummy variables are scaled as 0 or 100. Control variables include three dummy variables for election outcomes: the party becomes a part of the governing majority between *t* and *t*+1, the party is removed from the governing majority between *t* and *t*+1, or the party loses voter support between *t* and *t*+1. They also include the following dummy variables, included separately for the leader and the challenger: list-ranked fixed effect (for the challenger), four dummies for the size of the party group in the municipal council, a dummy for being a woman, seven dummies for educational categories, a dummy for a candidate being elected to the parliament in *t*+1, four dummies for age categories where one specifically for persons reaching retirement age before election *t*+1.

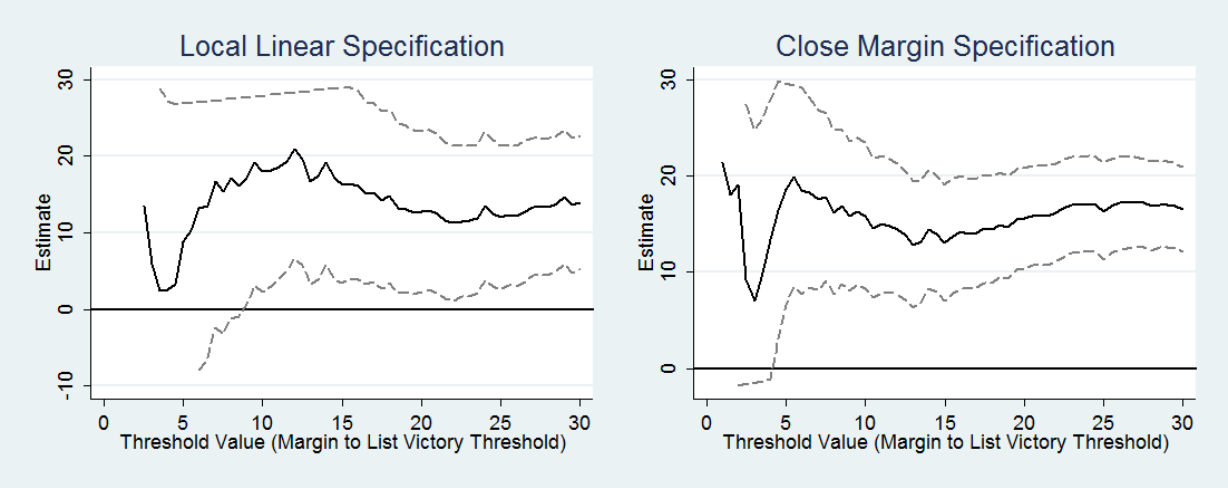
The estimates from the RDD specifications show that the correlation captured by the OLS estimates is indeed driven by a causal effect. The estimates are similar to what we would expect

from the graphical analysis. The two polynomial specification both have large estimates, but the standard errors are also large, so the estimated effects only weakly statistically significant. The I-K test suggests an optimal bandwidth of 16 percentage points and a point estimate of 16 percentage points, which is strongly statistically significant. The two local linear specifications, with bandwidths on each side of the I-K optimal bandwidth, give estimates similar to the I-K test.

When we include the large set of control variables, the estimates barely change. For the specifications that use a large part of the sample, we also see a reduction in the standard errors. That the results are unaffected by a large set of variables, which are strongly related to both the share of preferential votes a candidate receives and being selected as the local party leader, provides strong support for the claim that our RDD estimates are indeed causal.

As a sensitivity test, we examine how the estimates from the local linear and close-elections specifications change as we alter the estimation window over a wide range. The results from this analysis are graphed in Figure 7, where we plot both the estimates and their 95% confidence intervals. The confidence intervals are censored and only shown in the interval [-10, 30]. As the figure shows, it is hard to obtain precise estimates below a certain range for the window around the threshold and thus the size of the estimation samples. However, at reasonable sample sizes, the estimates are remarkably stable and significant at the 95% level for all bandwidths. All in all, the results clearly show that being the list winner in the party group substantially raises the probability of being selected as party leader in the next election. This supports our main hypothesis.

Figure 7 – Estimates of the treatment effect by estimation bandwidth



Notes: The solid lines in the figure show the estimated treatment effects from being the list winner, as we vary the width of the estimation window around the threshold, with a local linear specification and a close-margin specification, respectively. The dotted lines are 95% confidence intervals.

Robustness checks

To validate our identifying assumption of treatment status being as good as random around the threshold, we conduct a large set of robustness checks. Here, we only provide a summary of these tests, but the Appendix contains more detailed information with corresponding tables and figures.

First, we run the McCrary test of balance in the density of observations around the threshold. Since we include both the winner and first runner up in our analysis, there is per definition always balance in our estimation sample. However, the test is still relevant for another dimension of the analysis. We can verify that the first-ranked candidate on the list is not more likely to become the list winner when we are close to our threshold. Restricting the sample to only the first-ranked politicians, we run the McCrary test and find no difference in the number of the times the current leader wins or loses in the narrow range around the threshold.

In a second set of tests, we examine if variables that should not be systematically affected by the treatment are balanced across the threshold. For this part of the analysis, we perform graphical analyses as well as placebo regressions on four relevant pre-determined covariates: being the current leader, the current list rank, gender, and years of education. This analysis strongly suggests that covariates are balances around the threshold.

A third set of tests, vary the placement of the treatment threshold to create so-called placebo thresholds at false values of the forcing variable. In this analysis, we only find a significant treatment effect at the true threshold. Taken together, all the robustness checks provide very strong support for our identifying assumption.

8. Heterogeneous Effects

This section investigates the auxiliary hypotheses discussed in section 2, namely that the effect of preferential votes on leadership selection depends on the political context as well as the personal characteristics of candidates.

Political power and competition

A useful dimension of our data is that it is drawn from 290 municipal legislative assemblies, each with its own political context and distribution of power between parties. First, municipalities vary with respect to political competition. In some localities, power rarely changes hands and the governing majority is very stable. In others, competition is fierce as parties fall into right and left-wing blocks of about equal size and battle it out in the elections. Examining the treatment effect of preferential vote support for politicians in this dimension is not only of interest for our hypothesis that dominant parties may want to voluntarily adapt to the preferences of members/voters so as to avoid factional infighting. From a normative point of view, it is interesting to know if voters can indeed influence the distribution of power within parties to help compensate for their inability to influence the power between parties when politics is not competitive.

Following the discussion in Section 2, a second dimension of interest is whether a party belongs to the governing majority. In this dimension, we would like to verify whether the observed treatment effect occurs in those instances when the voters, and politicians themselves, are mostly affected. It is the parties in the governing majority that appoint all the chair positions in the political structure, including the chair of the full council, council board and all sub-committees.

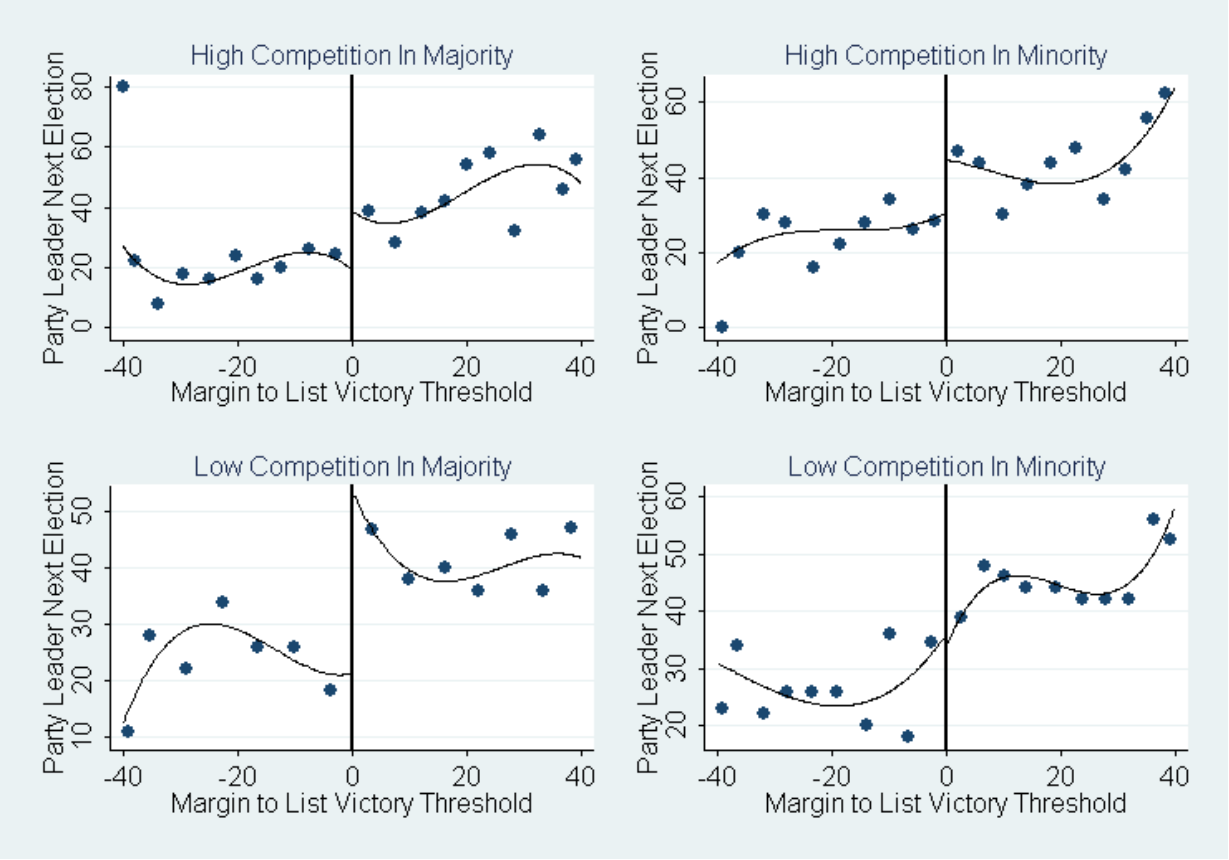
The analysis here follows exactly the same approach as in Section 7, except that the sample is split into four different subsamples based on majority status and political competition above or below the median.[14]

[14] The fact that more than two parties compete in every given election makes it tricky to measure competition. In the Swedish setting, politics is however centered around two stable left- and right-wing blocks and has therefore been

The graphical analysis, presented in Figure 8, shows that our baseline results are driven by one subcategory: parties belonging to the governing majority in municipalities with weak political competition. In these political contexts, we see a clear and large shift in the probability of becoming the local party leader as we cross the list-winning threshold for preferential votes. The only caveat with this observation is that the polynomial in the southwest graph is fitted to observations in the tail, which might lead to a slight overestimation of the effect. Irrespective of this, the graph shows that the jump at the threshold is quite large in majority parties under weak competition.

The regression results, presented in Table 3, reinforce the graphical analysis. We observe a large effect of gaining clearing the PV election for politicians in a party that forms part of the governing majority in municipalities with weak political competition. This effect ranges from 24 to 35 percent and is significant at the at least the 10 percent level in all but two specifications. In no other subsample do we find an effect that is as clear and consistent.

Figure 8 – Graphical Analysis of Heterogeneous Treatment Effects by Political Context



Notes: The figures show the binned averages of politicians being the party leader in *t*+1 as a function of the win/loss margin in the election in *t*. Each bin contains 50 observations and the lines are fitted third-order polynomials. The full sample is divided into four categories depending on majority status of the party and the level of political competition in the municipality.

classified as a bipartisan political system (Alesina et al., 1997). The absolute difference in vote shares between the two blocks thus becomes an appropriate measure for the main dimension of political competition (see also empirical studies by, e.g., Svaleryd and Vlachos, 2009). To capture persistence in competition, we use a three-election moving average of the absolute difference in vote shares.

These results on heterogeneity indeed support our discussion in Section 2, i.e., preferential voting can serve a similar role as primary elections in the US at the time of their introduction, namely to introduce individual electoral accountability in dominant parties operating in environments with low political competition.

Table 3 – Estimates of Heterogeneous Treatment Effects by Political Context

	OLS	Pol 3rd	Pol 4th	I-K test	Loc Lin 20%	Loc Lin 10%	Close 10%	Close 5%	Close 2.5%
High Competition and in Governing Majority									
				25.8%					
Treatment Effect	24.99***	16.92	17.27	1.11	0.65	15.33	8.82	16.28	23.81
	(3.51)	(14.98)	(18.26)	(9.18)	(10.59)	(15.29)	(7.37)	(11.45)	(15.10)
Obs	932	932	932	588	450	204	204	86	42
High Competition and in Minority									
				23.4%					
Treatment Effect	17.73***	15.87	37.72*	6.51	14.26	27.11*	15.57**	26.84***	8.60
	(3.69)	(15.13)	(19.50)	(9.58)	(10.38)	(15.31)	(7.48)	(10.04)	(15.80)
Obs	920	920	920	560	486	244	244	132	64
Low Competition and in Governing Majority									
				16.2%					
Treatment Effect	16.27***	31.07*	34.14	28.02**	29.29**	30.48*	24.01***	25.39**	25.00
	(4.30)	(17.15)	(20.86)	(13.99)	(12.38)	(17.51)	(8.59)	(12.55)	(18.88)
Obs	660	660	660	244	320	158	158	80	40
Low Competition and in Minority									
				14.3%					
Treatment Effect	18.26***	-0.48	-14.44	9.25	10.49	6.26	12.54*	11.07	-21.43
	(3.73)	(16.24)	(20.53)	(13.15)	(10.93)	(15.90)	(6.98)	(11.06)	(16.46)
Obs	934	934	934	366	474	262	262	116	52

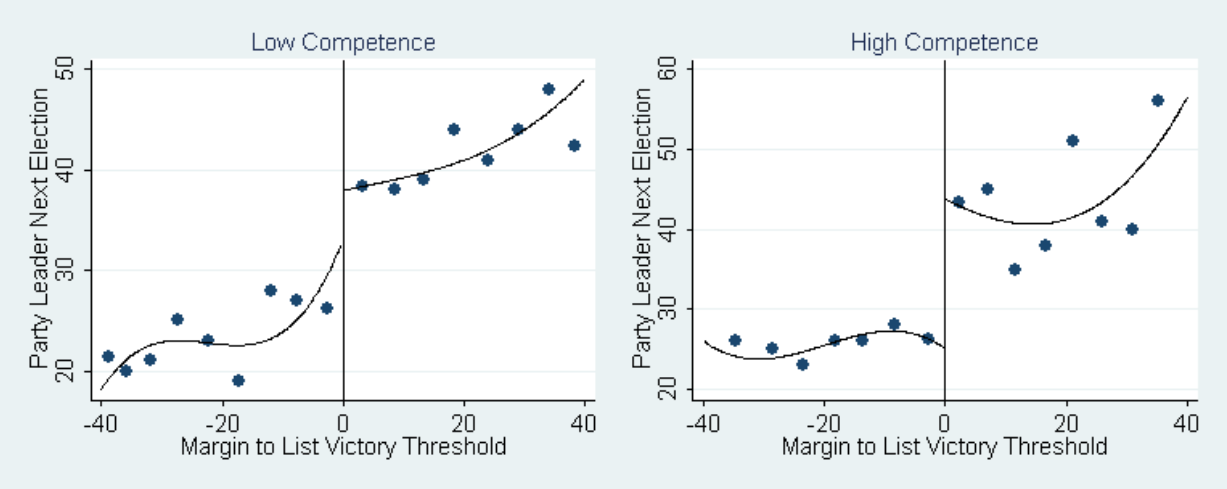
Notes: The table shows OLS and RDD estimates of the heterogeneous relationship between being the list winner in preferential votes in election period *t* and party *p* becoming the party leader in election *t*+1, by majority status of the party and political competition. *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors clustered at the party group level are reported in parentheses. Dummy variables are scaled as 0 or 100 to give results in percentage terms.

Individual competence

The introduction of preferential voting could improve the selection of party leaders in two ways. The first is that voters demand more competent candidates, something we showed in the descriptive statistics presented in Section 4 (recall Figure 3). As the basic correlation between preferential vote shares and party leadership shows, the fact that competent politicians garner more preferential votes mean that they are more likely to become the party leader. A second way selection can improve is if the treatment effect of list winning on selection to party leadership is larger for competent candidates than mediocre candidates. One pathway to such heterogeneity might be that competent politicians put a greater weight on political accountability through elections, such that they are more encouraged to pursue the leadership position following a win of preferential votes (or to step down in the wake of a loss). If mediocre politicians are more likely to self-select into politics for material rents, this would make them less likely to pursue or to give up power based on the popular preferential vote.

We divide the baseline sample by the median of our primary competence measure; the income differences between politicians with the same age, education, occupation, and gender (see Besley et al, 2013). Figure 9 shows the graphical results. The likelihood of becoming party leader seems to take a jump at the threshold for both the low and high competence group.

Figure 9 – Graphical Analysis of Heterogeneous Treatment Effects by Individual Competence



Notes: The graphs show the effect of passing the threshold of list winning in the local party group on being selected as the party leader in the next election period. Each bin contains 100 observations, and the lines represent fitted third order polynomials. The margin to list victory is computed as the vote difference in percentage points between the winner and the first challenger. The sample is divided by median competence.

The regression analysis in Table 4 sheds more light on how the treatment effect might differ across the two samples. The estimated effect(s) are not significantly different from zero in the sample of mediocre politicians, while the coefficients are larger and statistically significant in the competent group. This indicates that parties adhere more strongly to the election results from the preferential vote in the case that the top vote getters are competent. Nevertheless, the coefficients are not

statistically different from each other across the two samples, so we should interpret the results with some caution.

Table 4 – Estimates of Heterogeneous Treatment Effects by Individual Competence

	OLS	Pol 3rd	Pol 4th	I & K test	Loc Lin 20%	Loc Lin 10%	Close 10%	Close 5%	Close 2.5%
Competence below median									
				28.3%					
Treatment Effect	18.10***	4.23	7.44	4.18	4.50	11.03	9.70*	12.31	-5.26
	(2.55)	(10.75)	(13.54)	(7.74)	(7.40)	(10.65)	(5.08)	(7.59)	(10.88)
Obs	1,603	1,603	1,603	729	791	408	408	183	93
Competence above median									
				29.1%					
Treatment Effect	18.97***	20.36*	22.10	14.98	16.00**	21.52**	17.85***	22.63***	11.81
	(2.58)	(10.65)	(13.57)	(6.17)	(7.45)	(10.71)	(5.25)	(7.32)	(11.07)
Obs	1,602	1,602	1,602	1,164	816	400	400	202	92

Notes: The table shows OLS and RDD estimates of the heterogeneous relationship between the treatment of being the list winner in preferential votes in election period *t* and party *p* being selected as party leader in election *t*+1, by individual competence measures being above and below median competence as measured by average income residuals.
*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors clustered at the party group level reported in parentheses.

9. Conclusions

In this paper, we evaluate responses of political parties to the introduction of preferential voting in Sweden's PR election system. Using a large sample of party groups in all of Sweden's municipalities, we find that parties respond strongly to these votes when selecting their next party leader. This result is robust to the inclusion of a large set of controls and to a regression-discontinuity analysis that controls for the potential selection of certain politician types into the group with a high degree of voter support. Although our finding was not an intended outcome of the electoral reform, it calls into question the critical assessments of preferential voting. Like in other countries, Swedish voters scarcely use their preferential votes to upset the ballot ranking by voting for candidates with low list ranks. On the other hand, their votes for candidates with high list ranks appear very influential on who holds power within the party.

In line with the hypothesis advanced in this paper, party responses to preferential vote results largely parallels the use of an internal primary election. In particular, it mimics the adoption of *voluntary* internal primaries, as parties can choose to completely ignore the preferential votes for candidates with safe positions on the list. Exploring the political contexts in which parties respond more strongly to preferential votes give us further insights on this point. We find that the response is

stronger in situations when the electoral accountability of the party is low, because office holding has been next to monopolized by a single political party or coalition. This finding suggests that preferential voting may allow committed voters to hold powerful individual politicians accountable within the party group. In particular, they are given the opportunity to "throw the rascals out" in places where political competition is absent. This interpretation is made more plausible by the observation that voters make more use of their preferential vote under circumstances of weak political competition.

Our analysis also addresses the link between preferential voting and the selection of competent politicians. Descriptive statistics show that competent politicians receive substantially more preferential votes, even controlling for factors such as tenure and list rank. This implies that responsiveness to the preferential-vote result might raise the quality of political leaders. In addition to this, we also find indicative evidence that the treatment effect of narrow wins in preferential votes on leader selection is larger for competent politicians. Together, these two findings suggest that the introduction of preferential votes may be an important reform for improving the selection of leading politicians.

PR-systems with indirect leadership selections have been criticized for poor popular accountability. A prospective policy implication of our findings is that preferential voting can address this concern. But does preferential voting have other systematic effects as well? Do party leaders whose appointment is based on preferential votes behave differently in office? If they turn out to, e.g., communicate more directly with voters, or shift the political focus from the party line to their own preferences, these auxiliary consequences should also considered in normative judgments of this type of electoral reform. They are an important topic of further empirical research.

Preferential voting allows voters to signal candidate popularity, to both politicians and parties. These signals seem to be internalized in the nomination procedure and affect the allocation of political power within party groups. The common complaint that voters waste their preferential votes on politicians highly ranked on the ballot may need to be re-considered. Our analysis shows that the downstream effects of these supposedly wasted votes may be considerable. This is in line with a recent branch of voting theory, although the precise theoretical mechanism behind the finding is still poorly understood. A further analysis of the interplay between voters and parties in the context of preferential voting is an exciting topic for further theoretical research.

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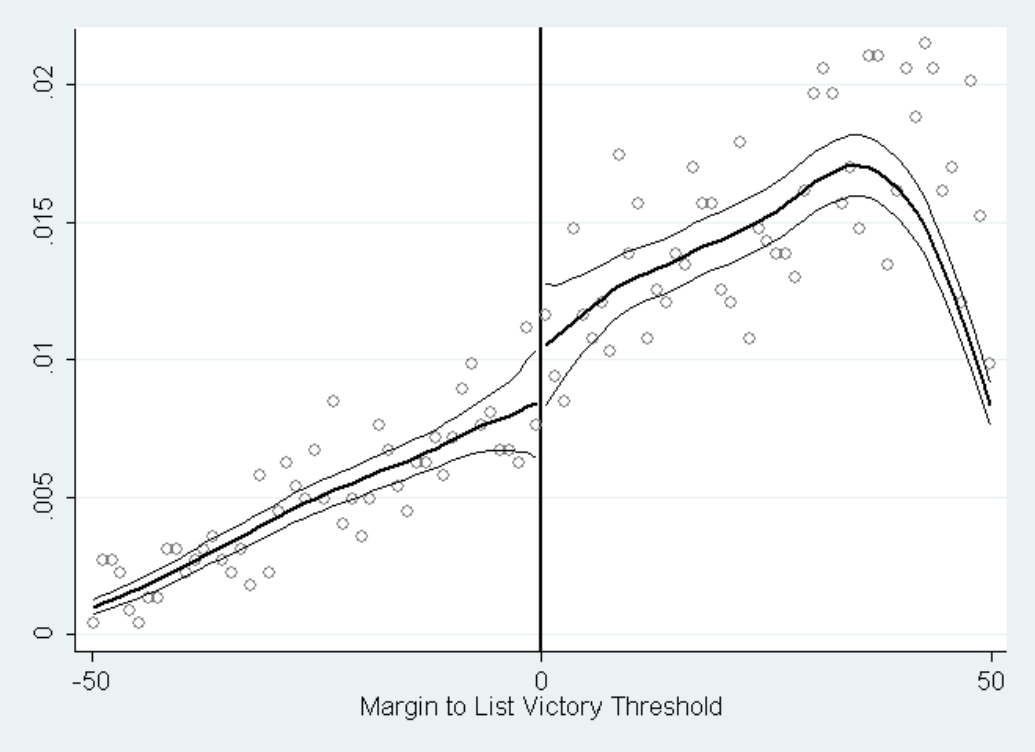
Appendix – Robustness checks for the baseline results

Manipulation around the threshold

An important condition for an RDD design to yield unbiased results is that the density of observations is smooth around the threshold defining the treatment. In our case, this is not clear a priori. For example, the current leader could have more resources to draw preferential votes. S/he could also have more information about the expected distribution of the votes and use his or her resources to tilt the odds of winning. If such attempts were successful, this would show up as a higher density of observations to the right of the threshold, the cases where the current leader narrowly won the preferential vote.

To test for such manipulation, we rely on the two-step procedure proposed by McCrary (2008). In the first step, the forcing variable is partitioned into equally spaced bins and frequencies are computed within those bins. In the second step, the frequency count within each bin is used as the outcome variable in a local linear regression. It is important to note that in our main analysis we will always have balanced frequency counts around the threshold, by definition, since we include both the winner and the runner up. To examine possible manipulation around the threshold, we therefore restrict the sample to the current party leaders to see if they are more likely to win close races. We present the results of this test graphically, with the regression lines as well as the raw density of observations.

Figure A1 – Test for balance around the threshold



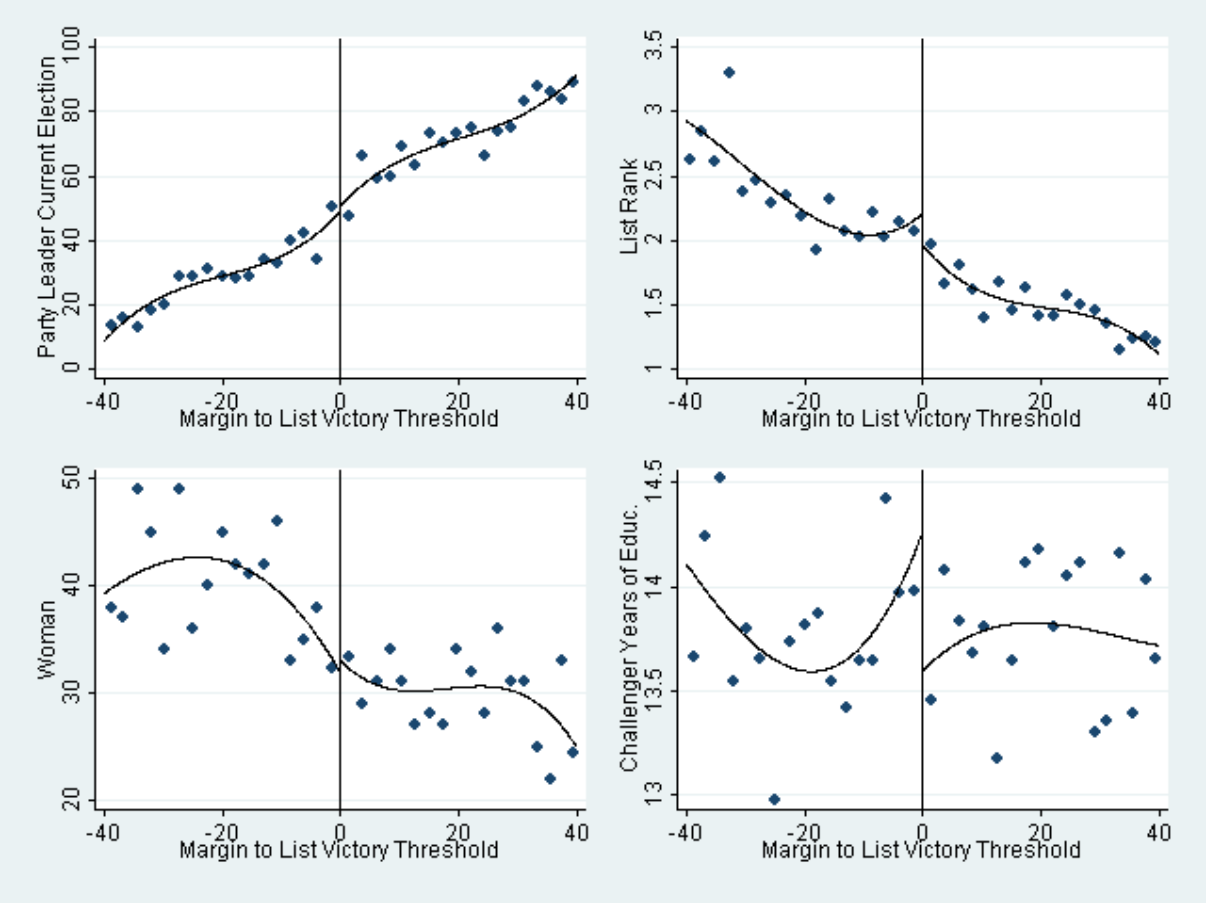
Notes: The graph illustrates a McCrary test for balance in the density of observations around the thresholds for being the list winner. The sample is restricted to the current party leaders. The estimated discontinuity jump is 0.208 with a standard error of 0.170 – thus the jump at the density is not statistically significant.

Figure A1 shows the distribution of observations, by their margin to the list-winning treatment threshold. Over the full support, the distribution is skewed to the right, which is to be expected given the advantage of current leaders in the preferential vote (recall Figure 2). However, neither the raw data nor the local linear regression lines suggest that we should suspect systematic sorting around the threshold. Thus, there is little indication that the current leader can affect its preferential vote tally relative to the top challenger within the party, when the competition is neck to neck.

Placebo outcomes

We now turn to the placebo outcomes. This analysis is organized in the same way as the baseline analysis except that we consider different outcomes variables and exclude all control variables. We examine four outcomes: (i) being the current leader, (ii) current list placement, (iii) female gender, and (iv) years of education. These outcomes are strong predictors of receiving preferential votes and of being selected as party leader in the next election. The placebo outcomes are also determined prior to treatment. Therefore, they should not be affected by passing the threshold if our analysis is correct. A graphical analysis is presented in Figure A2 and regression results in Table A1.

Figure A2 – Graphical Analysis of Being the List Winner on Placebo Outcomes



Notes: The figure contains binned averages of four placebo outcomes as a function of the distance to the list-winning threshold. Each bin contains 100 observations. The lines are fitted third-order polynomials.

Table A1 – Regression Analysis of Being the List Winner on Placebo Outcomes

	OLS	Pol 3rd	Pol 4th	I-K test	Loc Lin 20%	Loc Lin 10%	Close 10%	Close 5%	Close 2.5%
Outcome Variable: Party leader current election									
				13.3%					
Label Effect	0.43***	0.02	-0.05	0.06	0.06	0.04	0.18***	0.14**	-0.03
	(0.02)	(0.09)	(0.11)	(0.08)	(0.07)	(0.09)	(0.05)	(0.07)	(0.10)
Obs	3,446	3,446	3,446	1,114	1,730	868	868	414	198
Outcome Variable: Current list rank									
				15.0%					
Label Effect	-0.84***	-0.19	0.12	-0.12	-0.22	-0.02	-0.37***	-0.24	-0.05
	(0.06)	(0.25)	(0.31)	(0.20)	(0.17)	(0.25)	(0.12)	(0.17)	(0.27)
Obs	3,397	3,397	3,397	1,271	1,707	863	863	410	196
Outcome Variable: Woman									
				20.3%					
Label Effect	-0.10***	0.01	0.02	-0.01	-0.02	-0.02	-0.03	-0.03	0.01
	(0.02)	(0.07)	(0.09)	(0.05)	(0.05)	(0.07)	(0.04)	(0.05)	(0.07)
Obs	3,446	3,446	3,446	1,752	1,730	868	868	414	198
Outcome Variable: Years of education									
				16.3%					
Label Effect	-0.01	-0.51	-0.08	-0.33	-0.41	-0.45	-0.16	-0.17	-0.24
	(0.09)	(0.38)	(0.49)	(0.30)	(0.26)	(0.38)	(0.19)	(0.27)	(0.39)
Obs	3,443	3,443	3,443	1,387	1,728	868	868	414	198

Notes: The table shows OLS and RDD estimations of the relationship between the leader in election *t* receiving the list winner treatment and four placebo outcomes. *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors clustered at the party group level are shown in parenthesis.

The results from the graphical analysis and the regressions are clear: there is no evidence for treatment status being significantly related to any of the predetermined outcomes. The graphical analysis shows no indication of a shift as we pass the threshold for any of the four outcomes; nor do the regressions provide any evidence of sorting into treatment. All estimates for the specifications that include some sort of control function are very close to zero and all but one is statistically insignificant. The few significant estimates are found for list placement in the "close 10 percent" and "close 5 percent" specifications. This can be explained by the strong relationship between the forcing variable (i.e. preferential votes as a share of the party vote) and list placement.[15] The steep slope of this relationship leads to an imbalance in sample means between the two sides of the threshold as

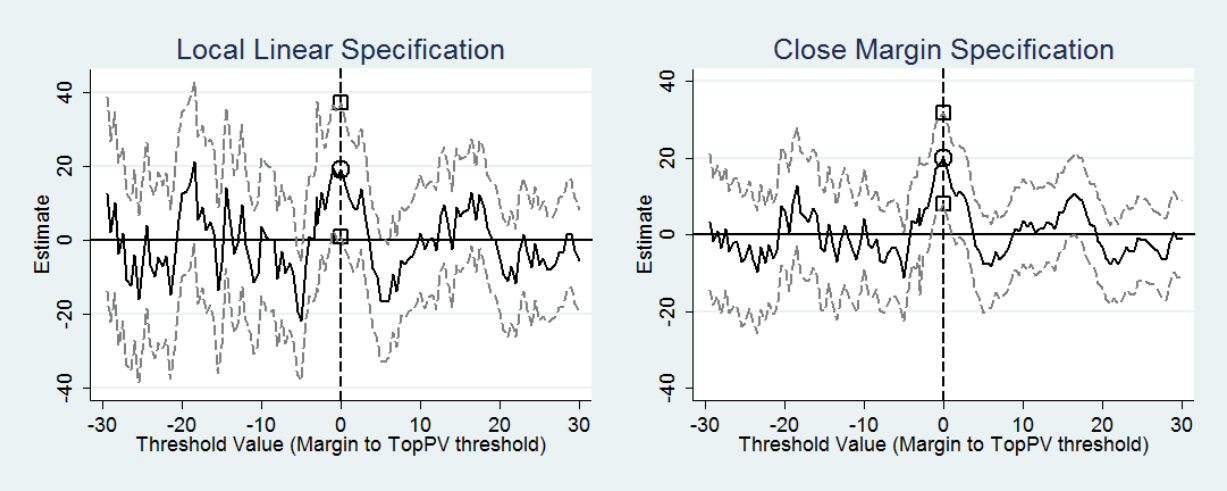
[15] Folke, Hirano and Snyder (2012) show that this type of imbalance is not a problem in RDD specifications, if they control for the relationship between the outcome and the forcing variable.

we expand the window but do not include any control function for this slope. In sum, we find no evidence of violations to the identifying assumptions.

Placebo thresholds

By varying the placement of the treatment threshold, we can ascertain that our analysis is not picking up one of many jumps. In Figure A3 we let the treatment threshold vary and plot the estimated treatment effects along with a 95 percent confidence interval. The figure shows the placebo analysis for two specifications with local linear regression and an estimation window of 10% (graph to the left), and the specification without any control function and a window of 5% (graph to the right). These figures reassure us that the spikes in the estimated treatment effects are found at the true threshold values – these spikes are also the only ones that reach statistical significance.

Figure A3 – Placebo Analysis of Estimated Treatment Effects



Notes: The graphs show the estimated treatment effect on becoming party leader in the next election of being the list winner in the current election for different values of the treatment threshold. Zero corresponds to the true threshold value, while positive and negative numbers correspond to different false placebo values (for different percentages away from the true value). The black line shows the point estimates, and gray lines show a 95 percent confidence interval.