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ABSTRACT

To predict others' behavior and make their own choices, voters and candidates can rely on information provided by polls and past election results. We isolate the impact of candidates' rankings using an RDD in French local and parliamentary two-round elections, where up to 3 or 4 candidates can qualify for the second round. Candidates who barely ranked first in the first round are more likely to run in the second round (5.6pp), win (5.8pp), and win conditionally on running (2.9 to 5.9pp), than those who barely ranked second. The effects are even larger for ranking second instead of third (23.5, 9.9, and 6.9 to 12.2pp), and also present for ranking third instead of fourth (14.6, 2.2, and 3.0 to 5.0pp). The impact of rankings is largest when the candidates have the same political orientation (making coordination relatively more important and desirable), but it remains strong when two candidates only qualify for the second round (and there is no need for coordination). Overall, our evidence suggests that both coordination and bandwagon effects are important drivers of the behavior of candidates and voters and of election outcomes.

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1 Introduction

In elections, some voters decide whether to participate or abstain and which candidate to vote for based only on their own preferences (e.g., Pons and Tricaud, 2018; Spenkuch, 2018). Others also take into account their expectations about the behavior of the rest of the electorate. For instance, voters might strategically decide to shift their support away from their preferred candidate towards a candidate that they like less but expect to have higher chances to be in contention for victory (e.g., Duverger, 1954; Myerson and Weber, 1993; Cox, 1997). Similarly, candidates can decide whether or not to enter the race based on the fraction of voters they expect to vote for them and for their competitors. Those who foresee that they will receive few votes or that their presence might divide the votes of their camp and lead to the victory of a candidate that is more distant ideologically might choose to stay out of the race. To form their expectations about others' preferences and strategies and make their own decisions, voters and candidates can rely on information provided by polls and past election results. Despite large evidence that political actors' overall level of information matters (e.g., Hall and Snyder, 2015; Le Pennec and Pons, 2019), little is known about which exact pieces of information they actually base their decisions on.

We focus on one specific piece of information, candidate rankings: the ordering of candidates in polls, in previous elections, or in the previous round (in elections with multiple rounds). While past and predicted vote shares provide detailed information on the distribution of preferences, rough-hewn rankings can serve as a coordination device in and of themselves. When more than two candidates are in the running, their past rankings can be used by strategic voters as a focal point to coordinate on the same subset of candidates and on the same equilibrium in a decentralized way, and by sister parties to determine which of their candidates should drop out. These coordination mechanisms can be reinforced by behavioral motives such as a bandwagon effect. Voters who desire to vote for the winner might decide to "jump on the bandwagon" and rally behind higher-ranked candidates if they derive intrinsic value from voting for candidates who won or had a higher rank in the past or if they rightly anticipate that these candidates are more likely to win in the future.

In this paper, we estimate the impact of rankings on voters and candidates' decisions and examine whether this impact reflects strategic coordination or bandwagon effects. To isolate the effect of rankings from the effect of past vote shares, we use a regression discontinuity design (RDD) and compare the likelihood of running, the likelihood of winning, and the vote share obtained by candidates who had previously received close-to-identical numbers of votes but ranked just below or just above one another.

We implement this strategy in French local and parliamentary elections from 1958 to 2017. In these elections, the winner is designated by a two-round plurality voting rule, and up to three or four first-round candidates can qualify for the second round. This enables us to measure the effect on second-round outcomes of ranking first in the first round (instead of second), second (instead of third), and third (instead of fourth), and to test for impact heterogeneity by the number and type of other candidates qualified for the second round. In addition, all candidates qualifed for the second round can decide to drop out of the race. We can thus estimate the impact of first-round rankings both on voters' choice of candidate in the second round and on candidates' decision to run.

We first run an RDD on the vote share difference between the top two candidates in the first round and find that ranking first instead of second increases candidates' likelihood to stay in the race by 5.6 percentage points and their likelihood to win by 5.8 percentage points. Arriving second instead of third has even larger effects, of respectively 23.5 and 9.9 percentage points. These effects are measured in races in which both the higher-ranked and lower-ranked candidates qualified for the second round, and they are all significant at the 1 percent level. Arriving third instead of fourth increases candidates' likelihood to run in the second round by 14.6 percentage points and their likelihood to win by 2.2 percentage points. These effects are significant at the 1 and 10 percent level respectively.

The overall effects on winning can be driven both by the effect on running (candidates' decision to stay in the race) and by an effect on vote shares and winning conditional on running (if voters rally behind higher-ranked candidates). Naturally, the anticipation of the latter effects may contribute to explain the effects on candidates' behavior. We cannot directly estimate the effects conditional on running by focusing on elections in which both the lower-ranked and higher-ranked candidates decide to enter the second round, as those who do are not randomly chosen. We derive bounds to deal with this selection issue. We find that arriving first instead of second increases candidates' vote share and likelihood of winning conditional on running by 1.3 to 4.0 percentage points and 2.9 to 5.9 percentage points respectively. The effects of ranking second instead of third (resp. third instead of fourth) are 4.0 to 14.7 and 6.9 to 12.2 percentage points (resp. 2.5 to 10.0 and 3.0 to 5.0 percentage points).

Second, we disentangle the mechanisms responsible for these effects. We show that they are unlikely to be driven by differences in campaign expenditures, press coverage, or other qualified candidates' decision to stay in the race or drop out. In addition, we find that the effects are much larger when the higher- and lower-ranked candidates have the same political orientation. For instance, ranking first instead of second increases the likelihood of running by 35.2 percentage points when the first and second candidates have the same orientation, due to alliances among their parties, and the likelihood of winning by 30.4 percentage points, compared to only 0.1 and 1.7 percentage points when they have distinct orientations. This can come from the fact that shared orientation makes voters' and candidates' coordination against ideologically distant candidates more desirable, but also from the fact that it makes rallying behind the higher-ranked candidate less costly, whatever the underlying motive.

To investigate the extent to which coordination explains our results, we focus on elections in which three candidates or more qualified for the second round (and rankings can be used to coordinate on a subset of them) and compare the effects of ranking first instead of second depending on the challenge posed by the third candidate. We find that the effects on running and winning decrease with the gap between the second and third candidates' vote shares, suggesting that coordination (which is more critical when the gap is lower) explains part of the effects. In addition, the effects of ranking first are larger when the ideological distance between the top two candidates is lower than their distance with the third candidate (making coordination between the top two more desirable).

To test whether strategic coordination suffices to explain our results, we turn to elections in which the third candidate is *not* qualified. In these elections, there is no room or need for coordination: all voters should vote for their preferred candidate among the top two, and candidates do not risk contributing to the victory of a disliked competitor by running. Nonetheless, we find that the effects of ranking first instead of second remain large: it increases candidates' probability of running in the second round by 1.8 percentage points and their vote share and probability of winning conditional on running by 1.0 to 1.9 percentage points and 4.9 to 5.8 percentage points respectively. The overall effect of ranking first on winning when the third candidate is not qualified is 5.8 percentage points, which is very close to the effect in the full sample. These results indicate, first, that dropout agreements are not only driven by the desire to avoid the victory of a third candidate, second, that the desire to vote for the winner is an important driver of voter behavior, and third, that bandwagon effects sway many elections.

Our analysis builds on previous studies estimating the impact of candidate rankings across elections. Following Lee (2008), a large literature has examined the impact of ranking first (instead of second) on future elections and shown that close winners generally benefit from an incumbency advantage when they run again (e.g., Eggers et al., 2015). These studies have been unable to distinguish the effect of holding office from the pure effect of being labeled first, which we can instead isolate by studying two rounds of the same election. Complementing this work on the effect of ranking first, Anagol and Fujiwara (2016) show that arriving second (instead of third) in past elections also increases candidates' likelihood to run in the next elections and win them, and they attribute these effects to strategic coordination by voters. Our paper completes these studies in four important ways.

First, we can estimate the effect of arriving second or third, as well as the effect of arriving first (independently from incumbency advantage).

Second, the short time span (one week) between the first and second rounds helps us isolating the direct effect of rankings from reinforcing mechanisms which are more likely to matter when considering elections separated by several years, such as increased notoriety of the higher-ranked candidates and differential likelihood to be replaced by another candidate of their party.

Third, coordination between parties can lead them to ask candidates to stay out of the race. This important aspect of party coordination is difficult to study in general, when we only observe candidates who are actually competing, not those who considered entering but eventually stayed out. Instead, we observe the full set of candidates eligible to compete in the runoff, whether or not they actually stay in the race. Indeed, qualification to the second round is entirely determined by first round results. This enables us to cleanly estimate and characterize the contribution of party coordination to the effects of rankings. We find evidence that coordination between parties of similar orientation is motivated by the desire to avoid the victory of a candidate of a different orientation as well as other motives, such as enforcing a deliberative ideal among allied parties and their supporters. These results echo prior work showing that parties favor candidates ranked higher by voters: Folke et al. (2016) and Meriläinen and Tukiainen (2016) both find that rankings in the number of preference votes obtained by politicians in open-list municipal elections affect their chances of promotion within their party.

Fourth, we can isolate the contribution of the bandwagon effect to the impact of rankings by focusing on second rounds in which only two candidates qualified and there is thus no need or even room for strategic coordination. Most existing measures of the bandwagon effect are based on survey data. Bartels (1985) finds that a large fraction of voters in U.S. primary elections intend to vote for the candidate they deem the most likely to win the nomination, but acknowledges that this correlation may also capture the effect of people's preferences on their assessment of candidates' chances. Wright (1993) and Atkeson (1999) find systematic overreporting voting for the winner in post-electoral surveys, suggesting that voters have a strong desire to be on the winning side. While the design of these studies addresses the concern of reverse causality, their result is consistent with alternative interpretations. For instance, it may capture an actual change in people's beliefs on the quality of the winning candidate which began before the election and continued afterwards, irrespective of any desire to be in the winning camp. Alternatively, when the winner is a non-mainstream candidate, the perceived acceptability of reporting voting for her may increase when it is known that she won even if voters' true likelihood to vote for her is unchanged. These alternative interpretations are less likely to account for the findings of Morton et al. (2015), who compare electoral results in French territories overseas between elections in which these territories voted before or after the overall election outcome had been made public. A limitation of this original natural experiment is that the voting reform took place in all overseas territories at once, making it difficult to disentangle its effect from concomitant factors.

We build on this preexisting work and bring causal evidence on the existence and size of the bandwagon effect using administrative electoral results of a large number of individual races.[1]

[1] Similarly to our setting, Kiss and Simonovits (2014) study bandwagon effects in two-round elections in Hungary.

The positive effects we find on vote shares and winning are in line with the predictions of models assuming that voters gain utility from voting for the winner (Hinich, 1981; Callander, 2007). The bandwagon effect of candidate rankings is akin to the effects measured in other contexts of asset rankings on trading behavior (Hartzmark, 2015), hospitals' rankings on their number of patients and revenues (Pope, 2009), and employees' rankings on their sales performance (Barankay, 2018).

Methodologically, we draw on other studies that exploit vote-share thresholds to estimate causal effects of interest (for a review, see de la Cuesta and Imai, 2016). Our setting is closest to Pons and Tricaud (2018), which uses French runoffs to measure the impact of the qualification of the third candidate in the second round, with three important differences. First and foremost, that previous study assessed the extent to which voters behave expressively or strategically, as well as the consequences for electoral outcomes. Instead, the present study asks which information voters (and candidates) who want to behave strategically use to predict others' behavior, and it shows that rankings facilitate decentralized coordination by serving as focal points. Second, while Pons and Tricaud (2018) use district-level specifications, our analysis is conducted at the candidate level and uses two observations per district, corresponding to the higher-ranked and lower-ranked candidates. Third, the present study includes a larger number of elections as we do not need to restrict the analysis to parliamentary and local elections using the 12.5 percent qualification threshold.

The remainder of the paper is organized as follows. We provide more details on our setting and empirical strategy in Section 2. Section 3 presents our empirical results and Section 4 discusses the underlying mechanisms. Section 5 concludes.

2 Empirical strategy

2.1 Setting

Our sample includes parliamentary and local elections. Parliamentary elections elect the representatives of the French National Assembly, the lower house of the Parliament. France is divided into 577 constituencies, each of which elects a Member of Parliament every five years. Local elections determine the members of the departmental councils. France is divided into 101 départements, which have authority over education, social assistance, transportation, housing, culture, local development, and tourism. Each département is further divided into small constituencies, the cantons, which elect members of the departmental councils for a length of six years. All French territories participate in local elections, except for Paris and Lyon (where the departmental council is elected

Differently from our strategy, they compare the size of the difference between the first and second candidates' vote shares in the first and second rounds. They interpret the increase in the winning margin as evidence of a bandwagon effect of first round results on second round vote choices, but other differences between the first and second rounds than the availability of first round results could drive this pattern.

during municipal elections) and some French territories overseas. Until an electoral reform in 2013, each canton elected one departmental council member. Local elections took place every three years and, in each département, only half of the cantons were electing their council member in a given election. After the reform, all cantons participated in elections held every six years and each canton elected a ticket composed of a man and a woman. The reform further reduced the number of cantons from 4035 to 2054, to leave the total number of council members roughly unchanged. This new rule applied to the 2015 local elections, which are included in our sample. We consider a ticket as a single candidate in our analysis, since the two candidates organize a common electoral campaign, run in the election under the same ticket, and get elected or defeated together.

Both parliamentary and local elections are held under a two-round plurality voting rule. In order to win directly in the first round, a candidate needs to obtain a number of votes greater than 50 percent of the candidate votes and 25 percent of the registered citizens. In the vast majority of races, no candidate wins in the first round, and a second round takes place one week later. In the second round, the election is decided by simple plurality: the candidate who receives the largest vote share in the second round wins the election.

The two candidates who obtain the highest vote share in the first round automatically qualify for the second round. Other candidates qualify if they obtain a first-round vote share higher than a predetermined threshold. This rule is essential for our study design, as it enables us to estimate the impact of ranking first instead of second (using all races in which no candidate wins in the first round) as well as the impact of ranking second instead of third, and third instead of fourth (using all races in which three or four candidates qualified for the second round).

Importantly, all candidates qualified for the second round can decide to drop out of the race between rounds. This allows us to estimate the impact of first-round rankings both on voters' choice of candidate in the second round and on candidates' decision to stay in the second round.

The qualification threshold changed over time: in local elections, the required vote share was 10 percent of the registered citizens until 2010, when the threshold was increased to 12.5 percent.[2] In parliamentary elections, the required vote share was 5 percent of the voters in 1958 and 1962, it was changed to 10 percent of the registered citizens in 1966, and 12.5 percent of the registered citizens in 1976.

Our sample includes 14 parliamentary elections and 12 local elections: all parliamentary elections of the Fifth Republic from 1958 to 2017 except for the 1986 election (which used proportionality rule), and all local elections from 1979 to 2015. We do not include local elections held before 1979 as the electoral rule allowed any candidate to run in the second round, irrespective of their vote share in the first round and even if they were absent from the first round.[3]

[2] In the 2011 local elections, the threshold remained at 10 percent in the 9 cantons belonging to Mayotte département.

[3] Each of the 26 elections we consider took place at a different date. In 1988, both parliamentary and local elections

2.2 Data

Our sample includes a total of 22,556 races: 16,221 (71.9 percent) from local elections and 6,335 (28.1 percent) from parliamentary elections. Official results of local and parliamentary elections were digitized from printed booklets for the 1958 to 1988 parliamentary elections and for the 1979 to 1988 local elections, and obtained from the French Ministry of the Interior for the 1993 to 2017 parliamentary elections and for the 1992 to 2015 local elections. We exclude races where only one round took place and those with only one candidate in the first round. Table 1 gives the breakdown of the sample data by election type and year.

Table 1: Number of races by election type and year

Election type	Year	Nb of races	Election type	Year	Nb of races
Parliamentary elections	1958	433	Local elections	1979	1,086
	1962	374		1982	1,061
	1967	405		1985	1,230
	1968	319		1988	1,177
	1973	430		1992	1,425
	1978	423		1994	1,369
	1981	334		1998	1,513
	1988	455		2001	1,301
	1993	497		2004	1,516
	1997	565		2008	1,074
	2002	519		2011	1,564
	2007	467		2015	1,905
	2012	541			
	2017	573			
	Total	6,335		Total	16,221
	Total	22,556			

To measure the impact of ranking first instead of second (henceforth "1vs2"), we further exclude races in which two of the top three candidates obtained an identical number of votes in the first round (sample 1).[4] Indeed, we do not have any way to choose which candidate to treat as first, when the top two candidates obtained the same number of votes, and which candidate to compare to the first, when the two candidates ranked below her obtained the same number of votes. To measure the impact of ranking second instead of third (henceforth "2vs3"), we restrict our sample

were held, but in different months. The 2001 and 2008 elections took place at the same date as mayoral elections. Our results are robust to excluding these two elections.

[4]By "two of the top three candidates", we mean two of the top two candidates (i.e. the top two) if two candidates only competed in the first round, and two of the top three candidates if three candidates or more competed in the first round. The same applies to the next restrictions.

to races where three candidates at least competed in the first round and the third candidate qualified for the second round, and we exclude races in which two of the top four candidates obtained an identical number of votes in the first round (sample 2). To measure the impact of ranking third instead of fourth (henceforth "3vs4"), we restrict our sample to races where four candidates at least competed in the first round and the third and fourth candidates qualified for the second round, and we exclude races in which two candidates among the second, third, fourth and fifth obtained an identical number of votes in the first round (sample 3).

Thanks to the large set of elections we consider and the large number of races in each election, we have a large number of close races: the vote share difference between the candidates ranked first and second (resp. second and third, third and fourth) is lower than 2 percentage points in 2,581 races in sample 1, 1,874 races in sample 2, and 758 races in sample 3.

Table 2 presents some descriptive statistics on our full sample.

Table 2: Summary statistics

	Mean	Sd	Min	Max	Obs.
Panel A. 1st round					
Registered voters	28,295	28,157	258	200,205	22,556
Turnout	0.636	0.125	0.094	0.921	22,556
Candidate votes	0.613	0.122	0.093	0.914	22,556
Number of candidates	6.5	3.1	2	48	22,556
Panel B. 2nd round					
Turnout	0.628	0.134	0.117	0.968	22,556
Candidate votes	0.595	0.138	0.103	0.963	22,556
Number of candidates	2.1	0.4	1	6	22,556

In the average race, 63.6 percent of registered citizens turned out in the first round and 61.3 percent cast a valid vote for one of the candidates (henceforth "candidate votes"), as opposed to casting a blank or null vote.[5] On average, 6.5 candidates competed in the first round. Turnout in the second round was slightly higher than in the first round (62.8 percent on average) but the fraction of candidate votes was slightly lower (59.5 percent on average). The number of candidates competing in the second round ranged from 1 to 6 with an average of 2.1.

Tables A1, A2, and A3 in the Appendix present descriptive statistics on all races in samples 1, 2, and 3 as well as close races between the first and second candidates in sample 1, the second and third in sample 2, and the third and fourth in sample 3. Overall, samples 1, 2, and 3, and close

[5] Valid voting for a candidate entails inserting a ballot pre-printed with the candidate's name in an envelope and putting this envelope in the ballot box. Casting a blank vote means putting an empty envelope in the ballot box, and a null vote writing something on the ballot or inserting multiple ballots in the envelope.

races in these samples are very similar to the full sample. The most noticeable differences are as follows: in sample 1, turnout and the share of candidate votes in the second round were slightly higher in close races. In sample 2, the average number of candidates in the first round was slightly higher in close races but the number of candidates in the second round was almost identical, and turnout and the share of candidate votes were slightly lower in close races in both rounds but the increase between rounds was similar as in the full sample.

All the statistics shown in Tables 2, A1, A2, and A3 are at the race level. Importantly, the analysis below is conducted at the candidate level and uses exactly two observations per race, for the higher-ranked and lower-ranked candidates. We use the political label attributed to the candidates by the French Ministry of the Interior to allocate them to six political orientations: far-left, left, center, right, far-right, and other.[6]

2.3 Evaluation framework

We exploit close races to estimate the impact of candidates' first round rankings on their second round outcomes. To measure the impact of ranking 1vs2, we use two observations per race, corresponding to the candidates arrived first and second, and define the running variable X_1 as the difference between each candidate's vote share and the vote share of the other top-two candidate. For the candidate ranked first, the running variable is equal to her vote share minus the vote share of the candidate ranked second, and for the candidate ranked second it is equal to her vote share minus the vote share of the candidate ranked first:

$$X_1 = \begin{cases} voteshare_1 - voteshare_2 & if\, ranked\, 1st \\ voteshare_2 - voteshare_1 & if\, ranked\, 2nd \end{cases}$$

Similarly, for 2vs3 and 3vs4, we define the running variables X_2 and X_3 as:

$$X_2 = \begin{cases} voteshare_2 - voteshare_3 & if\, ranked\, 2nd \\ voteshare_3 - voteshare_2 & if\, ranked\, 3rd \end{cases}$$

$$X_3 = \begin{cases} voteshare_3 - voteshare_4 & if\, ranked\, 3rd \\ voteshare_4 - voteshare_3 & if\, ranked\, 4th \end{cases}$$

We define the treatment variable T as a dummy equal to 1 if the candidate was better ranked in

[6] The Ministry of the Interior attributes political labels based on several indicators: candidates' self-reported political affiliation, party endorsement, past candidacies, public declarations, local press, etc. We mapped political labels into the six political orientations, mainly based on the allocation chosen by Laurent de Boissieu in his blog "France Politique": http://www.france-politique.fr/. We also used public declarations made by the candidates. Appendix D shows the mapping between labels and political orientations for each election.

the first round ($X > 0$) and 0 otherwise, and evaluate the impact of higher rank with the following specification:

$$Y_i = \alpha_1 + \tau T_i + \beta_1 X_i + \beta_2 X_i T_i + \mu_i \tag{1}$$

where Y_i is the outcome of interest for candidate i. We run this specification separately for 1vs2, 2vs3, and 3vs4. It estimates the impact of rankings at the limit, when both candidates have an identical vote share. Therefore, it enables us to isolate the impact of ranking from the impact of differential vote share.

Following Imbens and Lemieux (2008) and Calonico et al. (2014), our main specification uses a non-parametric approach, which amounts to fitting two linear regressions on candidates respectively close to the left, and close to the right of the threshold. We test the robustness of our results to a quadratic specification, including X_i^2 and its interaction with T_i as regressors in equation [1].

Since we use two observations per race (one on the left, and one on the right of the threshold), we cluster our standard errors at the race level (district x year level). Our results are left unchanged if we instead cluster at the district level (results available upon request).

Our estimation procedure follows Calonico et al. (2014), which provides robust confidence interval estimators. Our preferred specification uses the MSERD bandwidths developed by Calonico et al. (2018), which reduce potential bias the most. We also test the robustness of the main results to using the optimal bandwidths computed according to Imbens and Kalyanaraman (2012) and to using tighter bandwidths by dividing the MSERD bandwidths by 2.

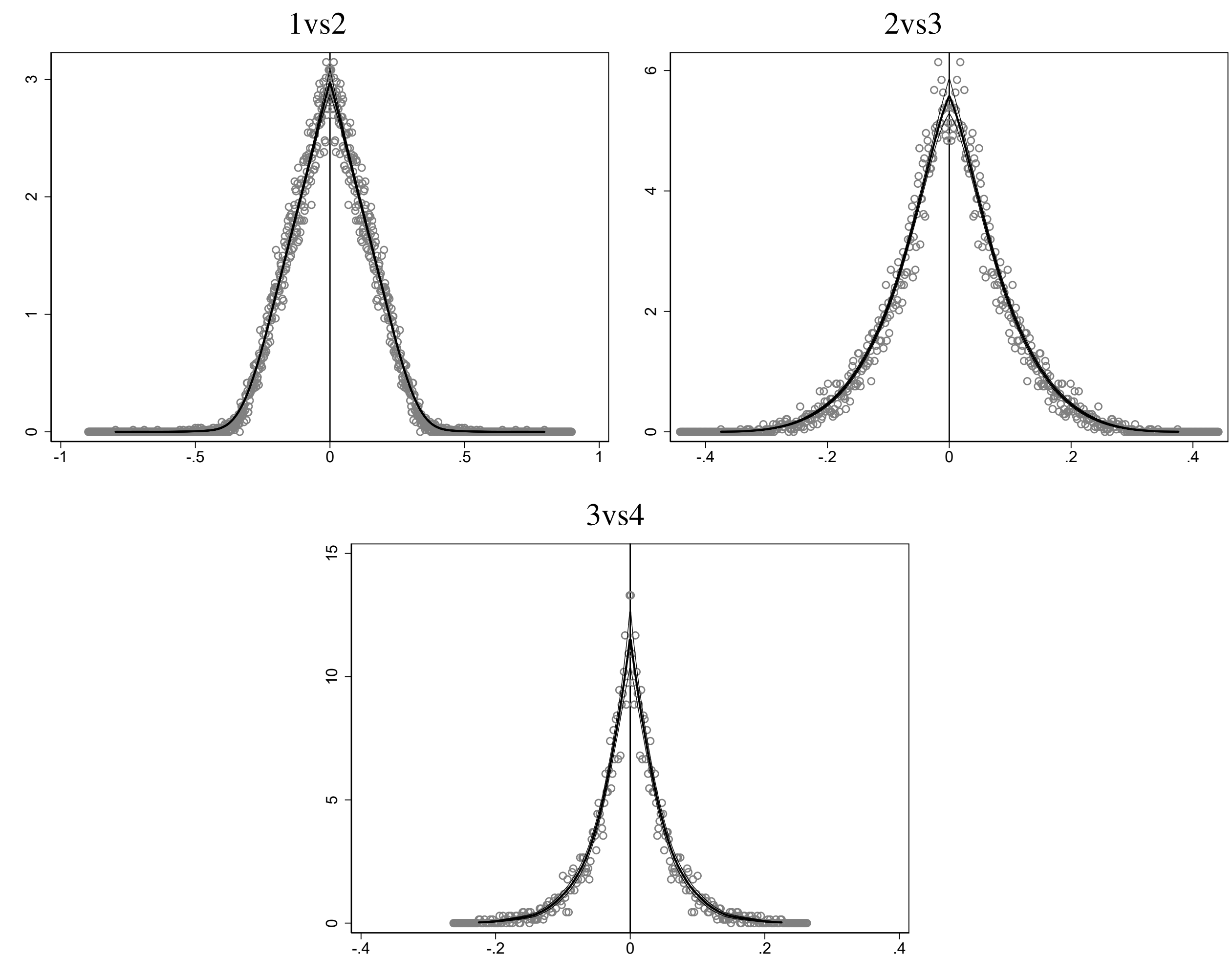
The bandwidths used for the estimations are data-driven and therefore vary depending on the outcomes and samples we consider.

2.4 Identification assumption

The identification assumption is that the distribution of candidate characteristics changes continuously around the threshold, so that the only discrete change occurring at this threshold is the shift in candidates' ranking. Sorting of candidates across the threshold only threatens the validity of this assumption if it occurs at the cutoff, with candidates of a particular type pushed just above or just below the threshold (de la Cuesta and Imai, 2016). Generally, this is unlikely, as it requires the ability to predict election outcomes and deploy campaign resources with extreme accuracy, and given that weather conditions on Election Day and other unpredictable events make the outcome of the election uncertain (Eggers et al., 2015). In our setting, manipulation of the threshold is perhaps even more unlikely than in other RDDs using vote share thresholds as very limited information is available about voters' intentions in the first round of French parliamentary or local races. In particular, district-level polls are very rare during parliamentary elections, and nonexistent during local elections, due to small district size and limited campaign funding.

To bring empirical support for the identification assumption, it is customary for RDDs to check if there is a jump in the density of the running variable at the threshold using a test designed by McCrary (2008). In our setting, this test is satisfied by construction since we consider the same set of races on both sides of the threshold and in each race the higher- and lower-ranked candidate are equally distant to the cutoff (see Figure 1).

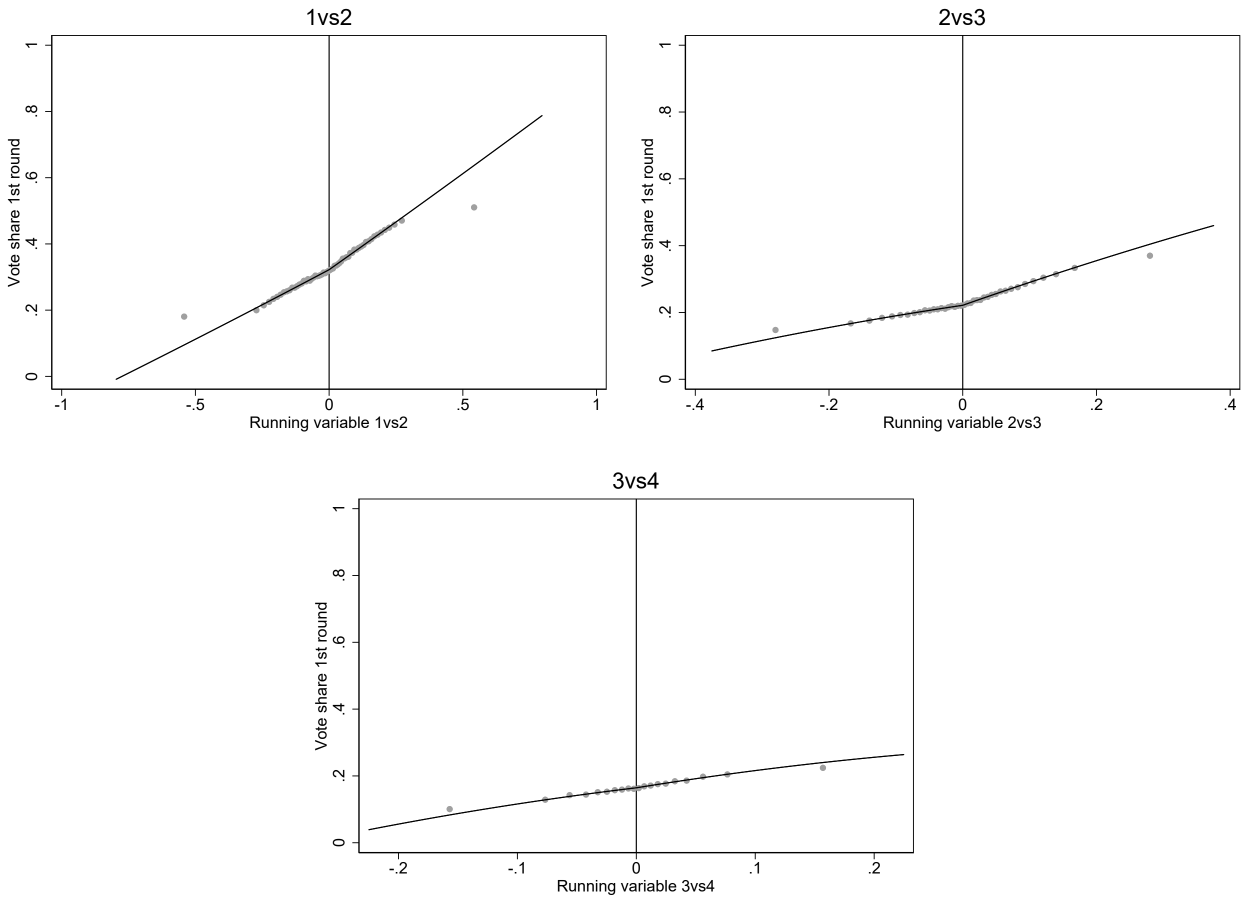
Figure 1: Density of the running variable



Similarly, first round outcomes such as district size, the total number of candidates, voter turnout, or the candidate's vote share are smooth by construction at the threshold. Figure 2 plots the candidate vote share in the first round against the running variable. For this graph as well as for graphs showing the effects of rankings, each dot represents the average value of the outcome within a given bin of the running variable. Observations corresponding to higher-ranked candidates are on the right of the threhold, and those corresponding to lower-ranked candidates on the left. To facilitate visualization, a quadratic polynomial is fitted on each side of the threshold.

We observe that in sample 1, on average, the candidates ranked first and second in the first round received around 30 percent of candidate votes at the threshold. In sample 2 (resp. 3), the first round vote share of candidates ranked second and third (resp. third and fourth) was 20 percent (resp. 18 percent) at the threshold.

Figure 2: Vote share in the first round



Notes: Dots represent the local averages of the candidate's vote share in the first round (y-axis). Averages are calculated within quantile-spaced bins of the running variable (x-axis). The running variable (the vote share difference between the two candidates in the first round) is measured as percentage points. Continuous lines are a quadratic fit.

To bring additional support for the identification assumption, we consider variables whose distribution at the threshold is not mechanically symmetric: the candidate's gender, whether she ran in the previous election, in the same département and then in the same district,[7] whether she won a race in the previous election, in the same département and then in the same district, whether

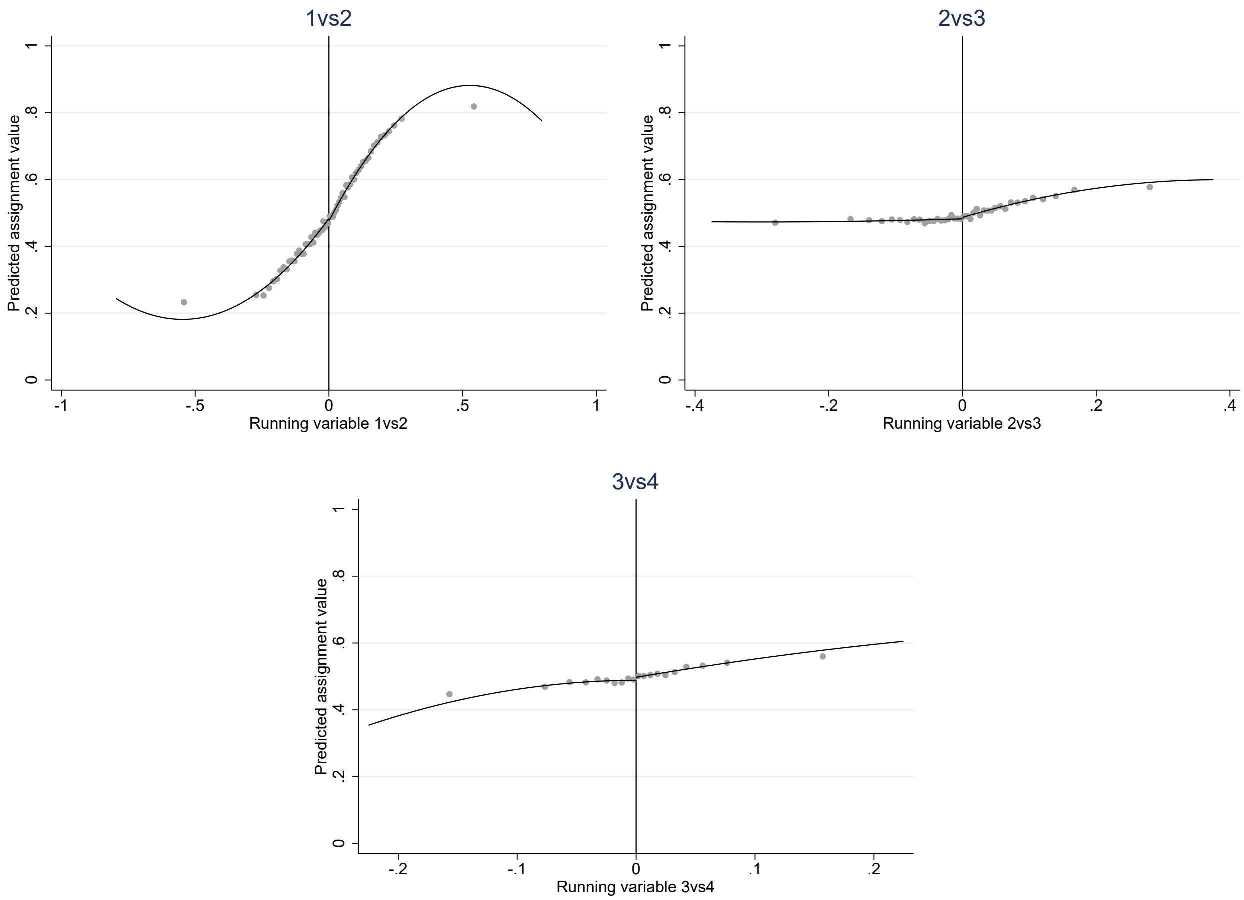
[7] These are two distinct variables because some candidates ran in the previous election in the same département but in a different district.

she belongs to a political party (as opposed to running as an independent), a set of six dummies indicating her political orientation, whether this orientation is the same as the incumbent's, the number of other candidates of her orientation who were present in the first round, her strength in the first round, defined as the sum of first-round vote shares of all candidates of the same orientation, and the average strength of her orientation at the national level in the first round.[8] We conduct the following general test for imbalance. We regress the assignment variable D on these variables, use the coefficients from this regression to predict assignment status for each candidate, and test whether the predicted value jumps at the threshold. To avoid dropping observations, for each regressor, we include a dummy equal to one when the variable is missing and replace missings by 0s. Figure 3 shows the lack of any jump at the cutoff for predicted assignment to first rank (instead of second), second rank (instead of third), and third rank (instead of fourth). As shown in Table 3 the coefficients are small and non-significant.

We also examine whether there is a discontinuity in any of the variables used to predict assignment, taken individually (the corresponding graphs and tables are included in Appendix B). For 1vs2, one coefficient out of 16 is significant: the probability to be on the center. For 2vs3, the coefficient for the probability to be on the left is significant. Finally, for 3vs4, the probability to be on the left and the probability that the candidate won a race in the previous election in the same département are both significant. Overall, one coefficient out of 48 is significant at the 1 percent level, 3 are significant at the 5 percent level, and 4 at the 10 percent level. Since the general balance test shows no discontinuity, we are confident that there is no systematic sorting of candidates at the threshold. In addition, the results shown in the rest of the paper are robust in sign, magnitude, and statistical significance to controlling for baseline variables that are statistically significant.

[8]The average strength of a candidate's orientation is computed over all districts in which at least one first round candidate has this orientation. It is missing for non-classified candidates.

Figure 3: General balance test



Notes: Dots represent the local averages of the predicted assignment status (y-axis). Other notes as in Figure 2.

Table 3: General balance test

Outcome	(1)	(2)	(3)
	Predicted treatment		
	1vs2 (sample 1)	2vs3 (sample 2)	3vs4 (sample 3)
Treatment	0.000	0.001	0.008
	(0.006)	(0.004)	(0.007)
Robust p-value	0.814	0.978	0.317
Observations left	11,840	5,145	1,199
Observations right	11,840	5,145	1,199
Polyn. order	1	1	1
Bandwidth	0.104	0.065	0.037
Mean, left of threshold	0.477	0.486	0.491

Notes: Standard errors clustered at the race level are in parentheses. Statistical significance is computed based on the robust p-value and ***, **, and * indicate significance at 1, 5, and 10%, respectively. The unit of observation is the candidate. Each column reports the results from a separate local polynomial regression. The outcome is the value of the treatment predicted by the following baseline variables: the candidate's gender, whether she ran in the previous election, in the same département and then in the same district, whether she won a race in the previous election, in the same département and then in the same district, whether she belongs to a political party (as opposed to running as an independent), a set of six dummies indicating her political orientation, whether this orientation is the same as the incumbent's, the number of candidates of her orientation who were present in the first round, her strength in the first round, and the average strength of her orientation at the national level in the first round. The independent variable is a dummy equal to 1 if the candidate is better ranked in the first round. Separate polynomials are fitted on each side of the threshold. The polynomial order is 1 and the bandwidths are derived under the MSERD procedure. The mean, left of the threshold gives the value of the outcome for the lower ranked candidate at the threshold. It is computed by taking as outcome the probability of winning with all values on the right of the threshold replaced by 0.

3 Empirical results

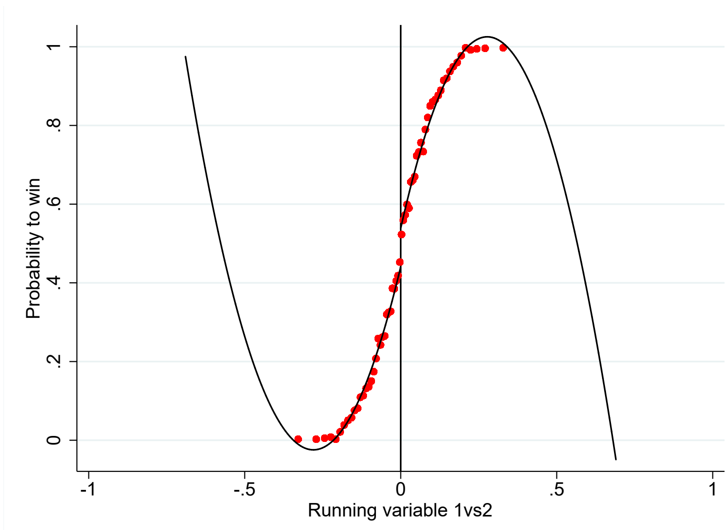
3.1 Impact on winning

We first measure the impact of candidates' first-round rankings on their unconditional likelihood to win the race: an outcome defined whether the candidate participates in the second round or not, and equal to 1 if the candidate wins, and 0 if she enters the second round and loses or if she drops out between rounds.

Figure 4 plots the likelihood that the first and second candidates win the election against the running variable. We observe a clear discontinuity at the cutoff: ranking 1vs2 in the first round has a large and positive impact on winning. Figure 5 shows an even larger jump for the impact of ranking 2vs3. A jump remains visible on Figure 6, which shows the impact of ranking 3vs4, but it is smaller: very few candidates ranked third and fourth in the first round are in a position to win the second round, limiting the scope for impact.

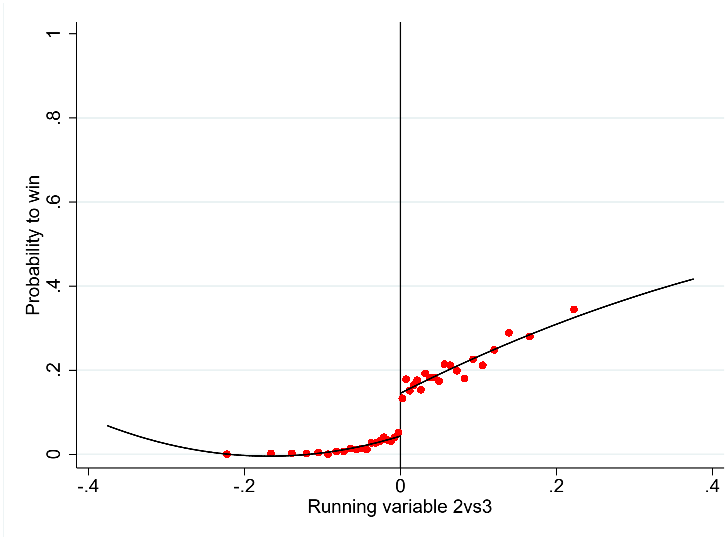
Table 4 provides the formal estimates of the effects using our preferred specification. On average, ranking 1vs2 in the first round increases the likelihood to win the election by 5.8 percentage points (column 1), which represents a 12.7 percent increase compared to the mean chance of victory of close second candidates at the threshold (45.6 percent). Ranking 2vs3 has an even larger effect, of 9.9 percentage points (column 2): it more than doubles the likelihood of victory of close third candidates (4.8 percent). The effect of ranking 3vs4 is smaller in magnitude (2.2 percentage points, column 3), but it amounts to a three-fold increase compared to the very small fraction of races won by close fourth candidates (0.6 percent). The effects of ranking 1vs2 and 2vs3 are significant at the 1 percent level and the effect of ranking 3vs4 at the 10 percent level.

Figure 4: Impact on winning 1vs2



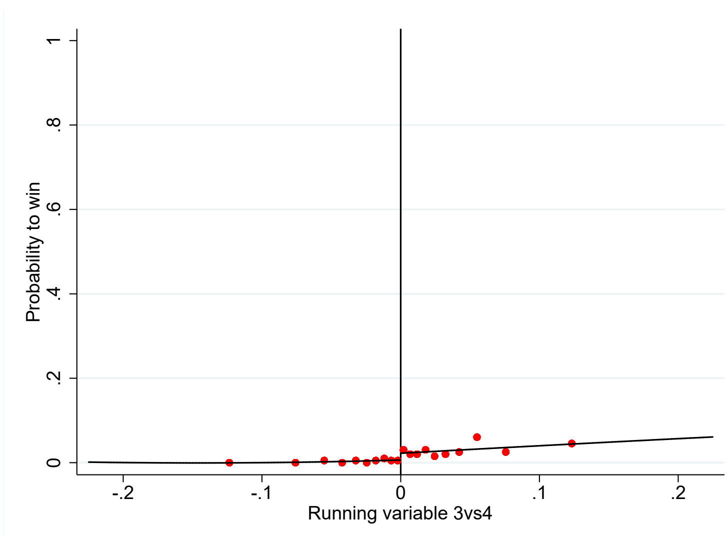
Notes: Dots represent the local averages of the probability that the candidate wins in the second round (y-axis). Averages are calculated within quantile-spaced bins of the running variable (x-axis). The running variable (the vote share difference between the two candidates in the first round) is measured as percentage points. The graph is truncated at 70 percent on the x-axis to accommodate for a single outlier. Continuous lines are a quadratic fit.

Figure 5: Impact on winning 2vs3



Dots represent the local averages of the probability that the candidate wins in the second round (y-axis). Averages are calculated within quantile-spaced bins of the running variable (x-axis). The running variable (the vote share difference between the two candidates in the first round) is measured as percentage points. Continuous lines are a quadratic fit.

Figure 6: Impact on winning 3vs4



Notes as in Figure 5.

Table 4: Impact on winning

Outcome	(1) Probability to win in the 2nd round 1vs2 (sample 1)	(2) 2vs3 (sample 2)	(3) 3vs4 (sample 3)
Treatment	0.058***	0.099***	0.022*
	(0.017)	(0.013)	(0.011)
Robust p-value	0.004	0.000	0.051
Observations left	8,018	4,375	1,119
Observations right	8,018	4,375	1,119
Polyn. order	1	1	1
Bandwidth	0.066	0.052	0.033
Mean, left of threshold	0.456	0.048	0.006

Notes: Standard errors clustered at the race level are in parentheses. Statistical significance is computed based on the robust p-value and ***, **, and * indicate significance at 1, 5, and 10%, respectively. The unit of observation is the candidate. Each column reports the results from a separate local polynomial regression. The outcome is a dummy equal to 1 if the candidate wins the election. The independent variable is a dummy equal to 1 if the candidate is better ranked in the first round. Separate polynomials are fitted on each side of the threshold. The polynomial order is 1 and the bandwidths are derived under the MSERD procedure. The mean, left of the threshold gives the value of the outcome for the lower ranked candidate at the threshold. It is computed by taking as outcome the probability of winning with all values on the right of the threshold replaced by 0.

To probe the robustness of the results to alternative specification and bandwidth choices, we estimate the treatment impacts using a quadratic specification (Table C1 in Appendix C, columns 2, 4 and 6), the optimal bandwidths computed according to Imbens and Kalyanaraman (2012) (Table C2, columns 2, 4 and 6), and tighter bandwidths obtained by dividing the MSERD bandwidths by 2 (Table C3, columns 2, 4 and 6). All regressions use Calonico et al. (2014)'s estimation procedure. The estimates obtained using these different specifications are very close in magnitude and they remain statistically significant at the same level. In addition, the effects of ranking 2vs3 are robust to excluding races in which the second candidate is close to the first candidate in the first round and the effects of ranking 3vs4 to excluding races in which the third candidate is close to the second, indicating that our estimates are not driven by cases in which several vote share discontinuities overlap.

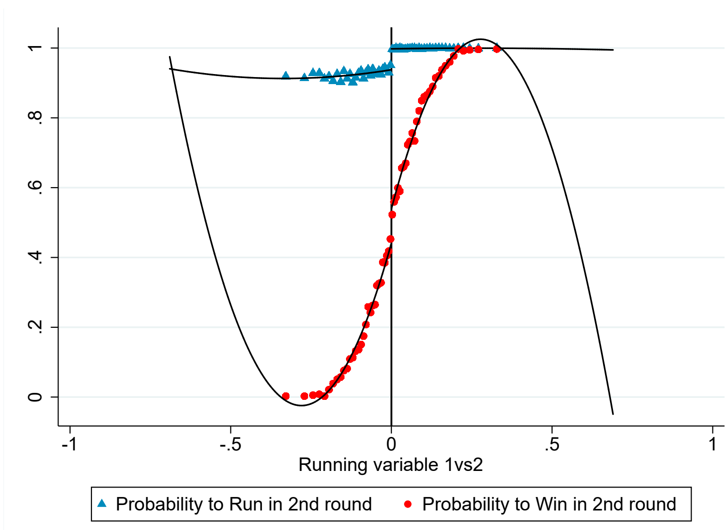
The effects of rankings on winning the race can result both from an increased likelihood to run in the second round, as any qualified candidate can decide to drop out and winning requires staying in the race, and from an increased likelihood to win the election, conditional on running, if voters rally behind higher-ranked candidates. We now use our RDD framework to estimate the effects of rankings on both outcomes and disentangle these two channels. We also estimate the impact on vote shares conditional on running, to determine which fraction of voters drives the impact on winning conditional on running.

3.2 Impact on running

We begin again with a graphical analysis. Figure 7 plots both the likelihood of running (in blue) and the likelihood of winning (in red, replicating Figure 4) of the first and second candidates against the running variable. The quadratic polynomial fit for running indicates a large upward jump at the cutoff. The jump is even more spectacular for ranking 2vs3 (Figure 8) and 3vs4 (Figure 9), and in both cases it is larger than the discontinuity observed for winning.

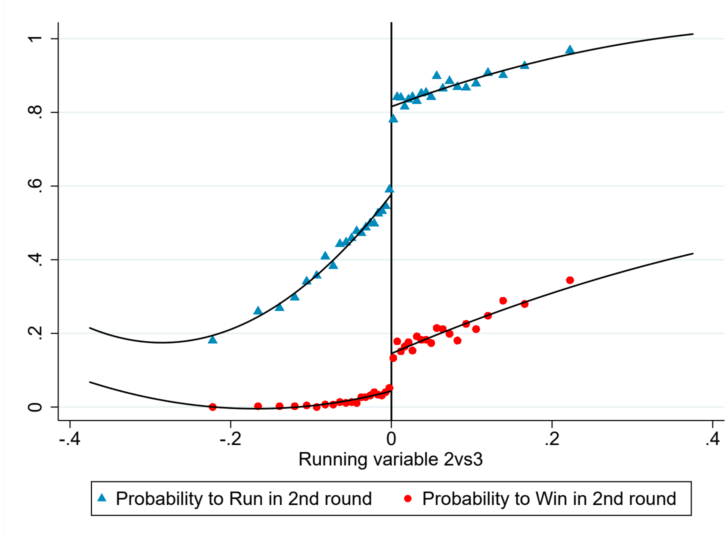
Consistent with the graphical analysis, the estimates reported in Table 5 indicate that ranking 1vs2 increases candidates' likelihood to run in the second round by 5.6 percentage points (6.0 percent of the mean at the threshold on the left): while 5.9 percent of close second candidates decide not to enter the second round, all first place candidates do (column 1). Ranking 2vs3 and 3vs4 has larger effects still: it increases running by 23.5 percentage points (40.9 percent) and 14.6 percentage points (48.0 percent) respectively (columns 3 and 5). All three effects are significant at the 1 percent level.

Figure 7: Impact on winning and running 1vs2



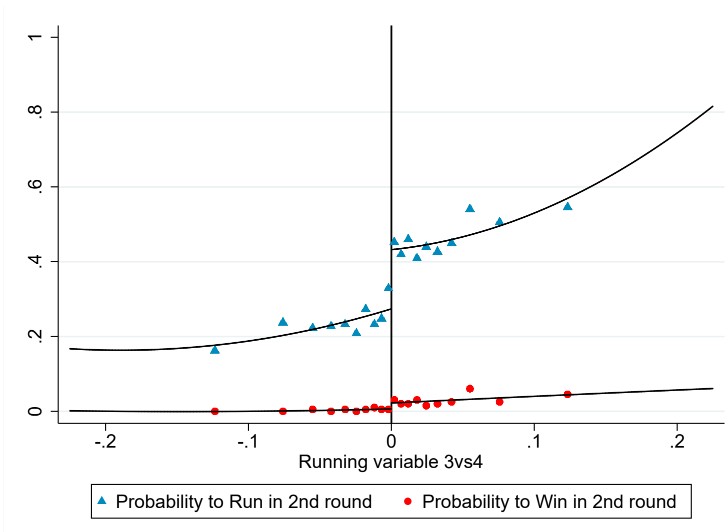
Notes: Triangles (resp. circles) represent the local averages of the probability that the candidate runs (resp. wins) in the second round (y-axis). Other notes as in Figure 4.

Figure 8: Impact on winning and running 2vs3



Notes: Triangles (resp. circles) represent the local averages of the probability that the candidate runs (resp. wins) in the second round (y-axis). Other notes as in Figure 5.

Figure 9: Impact on winning and running 3vs4



Notes as in Figure 8.

Table 5: Impact on winning and running

Outcome	(1)	(2)	(3)	(4)	(5)	(6)
	1vs2 (sample1)		2vs3 (sample 2)		3vs4 (sample 3)	
	Run	Win	Run	Win	Run	Win
Treatment	0.056***	0.058***	0.235***	0.099***	0.146***	0.022*
	(0.005)	(0.017)	(0.018)	(0.013)	(0.040)	(0.011)
Robust p-value	0.000	0.004	0.000	0.000	0.003	0.051
Observations left	12,208	8,018	5,350	4,375	1,157	1,119
Observations right	12,208	8,018	5,350	4,375	1,157	1,119
Polyn. order	1	1	1	1	1	1
Bandwidth	0.109	0.066	0.068	0.052	0.036	0.033
Mean, left of threshold	0.941	0.456	0.574	0.048	0.304	0.006

Notes: In columns 1, 3 and 5 (resp. 2, 4 and 6), the outcome is a dummy equal to 1 if the candidate runs (resp. wins) in the second round. Other notes as in Table 4.

Once again, these effects have a similar magnitude and remain statistically significant when using a quadratic specification or the two alternative bandwidths (see Appendix C), and the effect of ranking 2vs3 (resp. 3vs4) is robust to excluding races in which the second candidate was close to the first candidate in the first round (resp. the third candidate was close to the second).

3.3 Impact on winning and vote shares conditional on running

We now turn to the second channel which might underlie the impacts of rankings on winning: an increased vote share and likelihood of winning *conditional on running* in the second round, either because active voters rally behind higher-ranked candidates or because these candidates manage to mobilize a larger fraction of their supporters.

To estimate these effects, we cannot simply run an RDD on elections in which both the lower-ranked and higher-ranked candidates decide to enter the second round. Indeed, the fact that close candidates qualified for the second round are similar at the threshold does not imply that close candidates who decide to run in the second round are similar as well.

To address this selection issue, we follow Anagol and Fujiwara (2016), who adapt Lee (2009)'s bounds method to RDDs. To estimate the impact of ranking 1vs2 on the likelihood of winning conditional on running, we first decompose it mathematically into observed and unobserved components.

Using the potential outcomes framework, we define R_0 and R_1 as binary variables indicating if the candidate runs in the second round when $T = 0$ (the candidate ranked second in the first round) and $T = 1$ (the candidate ranked first in the first round), respectively. In the data, we only observe

$R = TR_1 + (1-T)R_0$: we know whether the candidate ranked first decides to run in the second round but not whether she would have run if ranked second, and conversely. Similarly, we define W_0 and W_1 as binary variables indicating if the candidate wins in the second round conditional on running when $T = 0$ and $T = 1$, respectively. We only observe $W = R[TW_1 + (1-T)W_0]$: when the candidate does not run in the second round ($R = 0$), she does not win ($W = 0$) and we do not observe whether she would have won if she had stayed in the race. When she runs in the second round ($R = 1$), we observe whether the candidate ranked first wins the election but not whether she would have won if ranked second, and conversely.

We further define four types of candidates: "always takers," who always run in the second round, whether they ranked first or second in the first round; "never takers," who never run in the second round; "compliers," who run in the second round if ranked first but not if ranked second; and "defiers," who run in the second round if ranked second but not if ranked first. The key assumption we use to derive bounds is that there are no defiers: all candidates who ranked second and enter the second round would also have run if ranked first. Under this assumption, we have that $R_1 \geq R_0$ and we can write the impact on the unconditional likelihood of winning (estimated in Section 3.1) as the sum of the impact on running in the second round (estimated in Section 3.2), multiplied by the likelihood that close second-place compliers would win if they entered the race; and the impact on the likelihood of winning conditional on running (for compliers and always takers), multiplied by the probability of running of first-place candidates at the threshold:

$$\underbrace{E(W_1R_1 - W_0R_0|x=0)}_{RD\ effect\ on\ W} = \underbrace{Prob(R_1 > R_0|x=0)}_{RD\ effect\ on\ R} \cdot \underbrace{E(W_0|x=0, R_1 > R_0)}_{Unobservable}$$

$$+ \overbrace{E[W_1 - W_0|x=0, R_1 = 1]}^{Effect\ on\ win\ cond\ on\ being\ always-taker\ or\ complier} \cdot \underbrace{E(R_1|x=0)}_{lim_{x\downarrow 0}E[R|x]}$$

From this expression, we get:

$$\overbrace{E[W_1 - W_0|x=0, R_1 = 1]}^{Effect\ on\ win\ cond\ on\ being\ always-taker\ or\ complier} = \frac{1}{\underbrace{E(R_1|x=0)}_{lim_{x\downarrow 0}E[R|x]}} [\underbrace{E(W_1R_1 - W_0R_0|x=0)}_{RD\ effect\ on\ W} - \underbrace{Prob(R_1 > R_0|x=0)}_{RD\ effect\ on\ R} \cdot \underbrace{E(W_0|x=0, R_1 > R_0)}_{Unobservable}] \qquad (2)$$

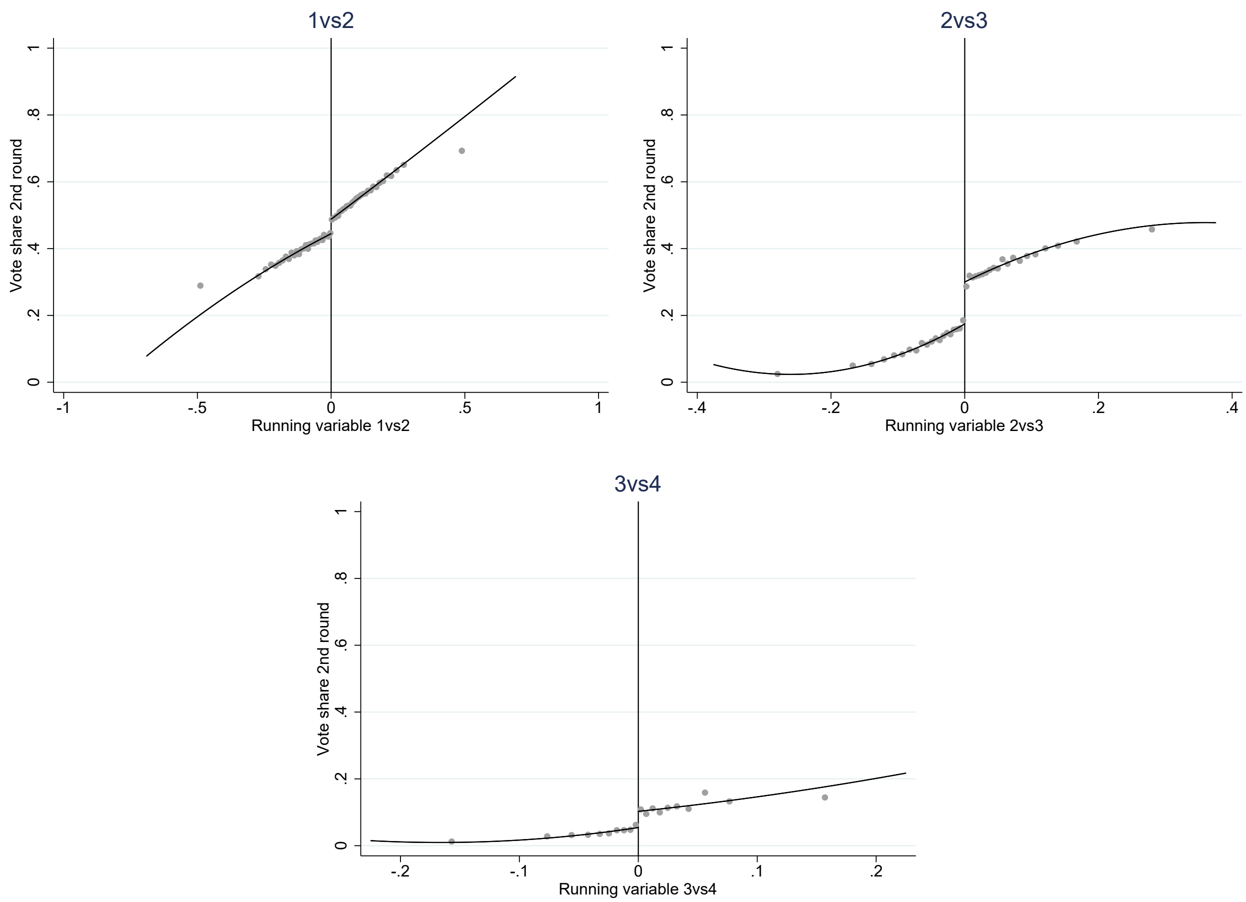
$E(W_0|x=0, R_1 > R_0)$ is the likelihood that compliers would win if they entered the race, absent treatment (i.e., when they rank second). By definition, compliers do not run when they rank second (but only when they rank first). This term is thus unobservable. Since all the other terms on the right-hand side of equation [2] are observed, we can derive bounds on the effect on winning conditional on running by making assumptions about this term.

To obtain an upper bound, we set $E(W_0|x=0, R_1 > R_0) = 0$, as the largest possible effect occurs if we assume that close second-ranked compliers would never win in the second round if they decided to run. To obtain a lower bound, we replace the unobservable term by the probability that close first-ranked candidates who do choose to stay in the race win the election: 51.8 percent. The choice of this high probability (which is higher than the probability of victory of close second-rank candidates who actually run in the second round: 48.4 percent) makes our lower bound conservative.

We use the same method to derive bounds on the impact of ranking 2vs3 and 3vs4 on the likelihood of winning conditional on running. The probabilities that close second-ranked and third-ranked compliers win the election, which we use to replace the unobservable term when computing the lower bounds of both impacts are 18.3 and 6.2, respectively, which is much higher than the probability of victory of close third-ranked (resp. fourth-ranked) candidates who do run in the second round: 8.5 (resp. 1.6).

To derive bounds on the effects on second round vote shares conditional on running, we replace the RD effect on the unconditional likelihood of winning by the RD effect on unconditional vote shares (an outcome equal to 0 if the candidate drops out between rounds), in Equation [2]. This effect corresponds to the jumps observed on Figure 10, which plots unconditional vote shares of the lower-ranked and higher-ranked candidates against the running variable. In addition, to derive the lower bound 1vs2, we replace the unobservable term by the vote share obtained in the second round by close first-ranked compliers: 48.6 percent. Again, we use the same method for 2vs3 and 3vs4. The second round vote share of close second-ranked and third-ranked compliers, which we use to compute their lower bounds, are 37.0 and 23.1 respectively.

Figure 10: Vote share in the second round



Notes: Dots represent the local averages of the predicted assignment status (y-axis). Other notes as in Figure 2.

Finally, we use a bootstrapping procedure to estimate the standard errors of the bounds: we draw a sample from our data with replacement, compute the lower and upper bounds as indicated above, repeat these two steps a very large number of times, and estimate the empirical standard deviation of both bounds.

Table 6 provides the resulting bounds and bootstrapped standard errors of the effects of ranking 1vs2, 2vs3 and 3vs4 on conditional vote shares and likelihood of winning.

Table 6: Bounds on winning and vote share, conditional on running

Outcome	(1)	(2)	(3)	(4)	(5)	(6)
	1vs2 (sample 1)		2vs3 (sample 2)		3vs4 (sample 3)	
	Win	Vote share	Win	Vote share	Win	Vote share
Upper bound	0.059	0.040	0.122	0.147	0.050	0.100
Boot. std error	(0.025)**	(0.004)***	(0.017)***	(0.012)***	(0.023)**	(0.023)***
Lower bound	0.029	0.013	0.069	0.040	0.030	0.025
Boot. std error	(0.024)	(0.003)***	(0.014)***	(0.005)***	(0.018)*	(0.012)**
Mean $T = 0$	0.484	0.472	0.085	0.311	0.016	0.197

Notes: ***, **, and * indicate significance at 1, 5, and 10%, respectively. The mean, left of the threshold gives the value of the outcome for the lower ranked candidate at the threshold, conditional on running in the second round. It is computed by taking as outcome the probability of winning or the vote share, with all values on the right of the threshold replaced by 0.

As shown in column 1, conditional on running in the second round, ranking 1vs2 in the first round increases the likelihood of winning by 2.9 to 5.9 percentage points (6.0 to 12.2 percent of the mean for candidates ranked second who run in the second round at the threshold). The upper bound is significant at the 5 percent level, but the lower bound is not. The effect on vote shares conditional on running is 1.3 to 4.0 percentage points (2.8 to 8.5 percent), where both the upper and lower bounds are significant at the 1 percent level (column 2).

Ranking 2vs3 has larger effects, conditional on running. First, it increases the likelihood of winning by 6.9 to 12.2 percentage points (81.2 to 143.5 percent, column 3). In other words, ranking 2vs3 roughly doubles candidates' likelihood of winning, conditional on running. Second, it increases the conditional second round vote share by 4.0 to 14.7 percentage points (12.9 to 47.3 percent, column 4). Both the upper and lower bounds of both effects are significant at the 1 percent level.

Finally, ranking 3vs4 increases the conditional likelihood of winning by 3.0 to 5.0 percentage points, which corresponds to a two-fold or three-fold increase, compared to the mean at the threshold on the left (column 5). It increases the second round vote share by 2.5 to 10.0 percentage points (12.7 to 50.8 percent), conditional on running (column 6). All these bounds are significant at the 10 percent level or at a higher level.

Overall, our results so far indicate that the effects of first round rankings on candidates' likelihood to win the second round are driven both by higher-ranked candidates' higher likelihood to stay in the race and by voters rallying behind them. Importantly, these two effects may be linked. Indeed, candidates may decide whether or not to stay in the race based on the comparison between their expected likelihood to win, which depends in part on voters' response to rankings, and the costs of running, such as time and money spent campaigning. As a result, lower-ranked candidates' higher likelihood to drop out may in part reflect the (accurate) anticipation of facing an electoral disadvantage in the second round.

To the extent that candidates adjust their decisions to their expectations about voter behavior, any mechanism affecting voters' response to rankings may help explain candidates' own response. Therefore, the next section discusses the mechanisms underlying the behavior of candidates and voters jointly.

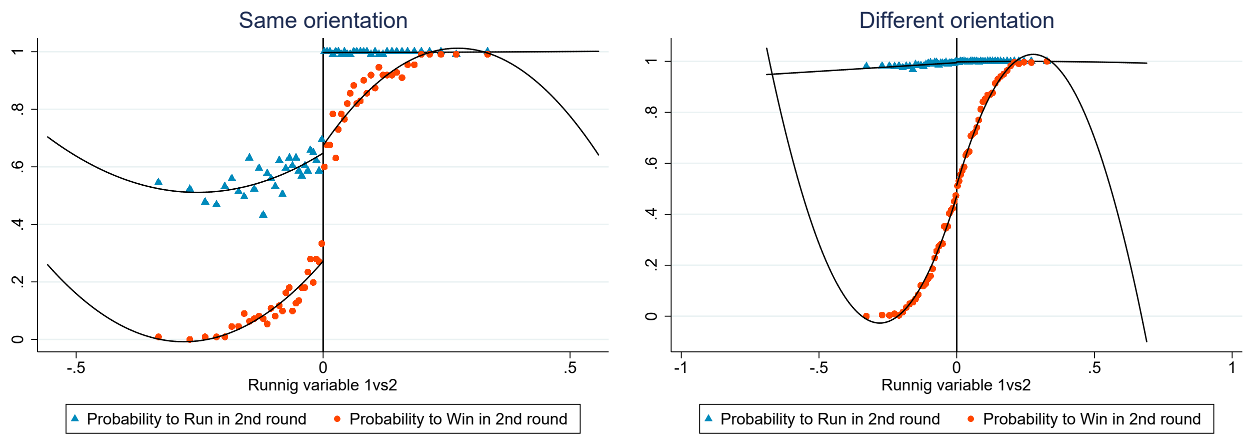
4 Mechanisms

4.1 Impact depending on political orientation

To investigate the mechanisms underlying the large effects of ranking 1vs2, 2vs3, and 3vs4 on running in the second round, winning, and winning and vote shares conditional on running, we first compare effect size when the higher- and lower-ranked candidates have the same political orientation or, instead, distinct orientations.

As shown on Figures 11, 12 and 13, the effects of rankings on running and winning are much larger in races in which candidates have the same orientation. When the first and second candidates have the same orientation, ranking 1vs2 increases the likelihood of running and winning by 35.2 and 30.4 percentage points (Table 7, columns 2 and 5). Both estimates are significant at the 1 percent level. Instead, the effects are close to zero and not significant when they have distinct orientations (columns 3 and 6). We find a similar difference, although not as important, for ranking 2vs3: its effects on running and winning are 62.7 and 22.3 percentage points, significant at the 1 percent level, when the second and third candidates have the same orientation. When they have distinct orientations, the effects remain significant at the 5 percent level but decrease to 5.2 and 4.1 percentage points (Table 8). Finally, when the third and fourth candidates have the same orientation, the effect of ranking 3vs4 on running is 40.1 percentage points and significant at the 1 percent level, and the effect on winning 4.0 percentage points and not significant. Both point estimates are lower and not significant when they have distinct orientations (Table 9).

Figure 11: Impact depending on political orientation 1vs2



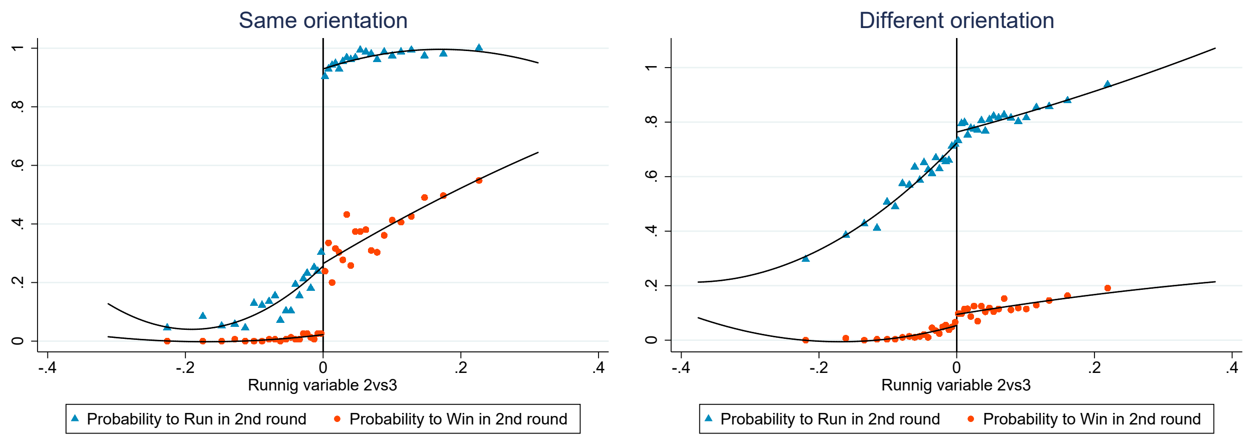
Notes as in Figure 7.

Table 7: Impact depending on political orientation 1vs2

Outcome	(1) Probability to run 1vs2 Full	(2) Same	(3) Diff	(4) Probability to win 1vs2 Full	(5) Same	(6) Diff
Treatment	0.056***	0.352***	0.001	0.058***	0.304***	0.017
	(0.005)	(0.022)	(0.002)	(0.017)	(0.038)	(0.018)
Robust p-value	0.000	0.000	0.693	0.004	0.000	0.623
Observations left	12,208	2,046	7,219	8,018	1,394	7,243
Observations right	12,208	2,046	7,219	8,018	1,394	7,243
Polyn. order	1	1	1	1	1	1
Bandwidth	0.109	0.121	0.071	0.066	0.076	0.072
Mean, left of threshold	0.941	0.647	0.996	0.456	0.315	0.480

Notes: In columns 1, 2 and 3 (resp. 3, 4 and 5), the outcome is a dummy equal to 1 if the candidate runs (resp. wins) in the second round. In columns 2 and 5 (resp. 3 and 6), the two candidates have the same orientation (resp. distinct orientations). Other notes as in Table 4.

Figure 12: Impact depending on political orientation 2vs3



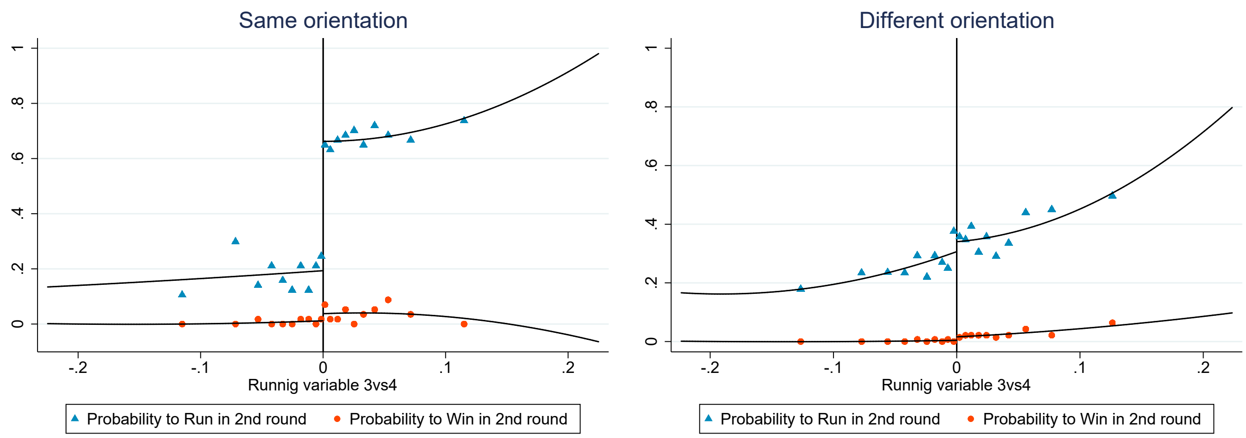
Notes as in Figure 7.

Table 8: Impact depending on political orientation 2vs3

Outcome	(1)	(2)	(3)	(4)	(5)	(6)
	Probability to run 2vs3			Probability to win 2vs3		
	Full	Same	Diff	Full	Same	Diff
Treatment	0.235***	0.627***	0.052**	0.099***	0.223***	0.041**
	(0.018)	(0.029)	(0.021)	(0.013)	(0.027)	(0.013)
Robust p-value	0.000	0.000	0.045	0.000	0.000	0.011
Observations left	5,350	1,489	3,727	4,375	1,343	3,490
Observations right	5,350	1,489	3,727	4,375	1,343	3,490
Polyn. order	1	1	1	1	1	1
Bandwidth	0.068	0.055	0.073	0.052	0.048	0.066
Mean, left of threshold	0.574	0.286	0.706	0.048	0.023	0.059

Notes: In columns 1, 2 and 3 (resp. 3, 4 and 5), the outcome is a dummy equal to 1 if the candidate runs (resp. wins) in the second round. In columns 2 and 5 (resp. 3 and 6), the two candidates have the same orientation (resp. distinct orientations). Other notes as in Table 4.

Figure 13: Impact depending on political orientation 3vs4



Notes as in Figure 7.

Table 9: Impact depending on political orientation 3vs4

Outcome	(1)	(2)	(3)	(4)	(5)	(6)
	Probability to run 3vs4			Probability to win 3vs4		
	Full	Same	Diff	Full	Same	Diff
Treatment	0.146***	0.401***	0.026	0.022*	0.040	0.014
	(0.040)	(0.065)	(0.049)	(0.011)	(0.027)	(0.009)
Robust p-value	0.003	0.000	0.758	0.051	0.127	0.156
Observations left	1,157	349	812	1,119	325	847
Observations right	1,157	349	812	1,119	325	847
Polyn. order	1	1	1	1	1	1
Bandwidth	0.036	0.038	0.035	0.033	0.034	0.037
Mean, left of threshold	0.304	0.233	0.330	0.006	0.013	0.002

Notes as in Table 7.

A possible interpretation is that the effects of rankings are driven by coordination: strategic voters use them to all coordinate on the same subset of candidates in a decentralized way, and parties to decide which candidates should drop out of the race. Shared political orientation makes coordination more *desirable*: it increases the value that the lower-ranked candidate and her supporters associate with the victory of the higher-ranked candidate against ideologically distant candidates and makes them more willing to contribute to it (by dropping out and voting for her, respectively), resulting in larger effects of rankings. But other interpretations are possible, since shared orientation also makes it *less costly* for voters to rally behind the higher-ranked candidate and easier for sister parties to reach dropout agreements (Pons and Tricaud, 2018), whatever the underlying motive. Dropout agreements between sister parties often involve multiple constituencies and are part of a long-term collaborative equilibrium which may be strengthened by ideological proximity and the habit to govern together.

In the next two sections, we focus on the impact of ranking 1vs2 and consider separately races in which a third candidate qualified or failed to qualify, to disentangle the different possible mechanisms at play.

4.2 The role of coordination

To investigate the extent to which coordination explains the effects of ranking 1vs2, we focus on elections in which three candidates or more qualified for the second round (sample 2). In these elections, the top two candidates and their supporters might want to coordinate against lower-ranked candidates and use rankings to do so. We conduct two distinct tests.

First, the first and second candidates and their supporters should be more willing to coordinate when the candidate ranked third is stronger and more likely to challenge the victory of one of them. If coordination against the third candidate drives our results, we should thus expect the second candidate to be more likely to drop out of the race and voters to be more likely to rally behind the first when the third candidate's vote share is closer to the second candidate's. Consistent with this prediction, Table 10 shows that the effects of ranking 1vs2 on entering the second round and winning are larger when the gap in first round vote shares between the second and third candidates is lower than 5 percentage points than in the full sample (columns 1 through 4). Effect size further increases when the gap is lower than 2.5 percentage points (columns 5 and 6).[9]

[9] We observe the same patterns when we restrict the sample to races in which the top two candidates have the same orientation (see Table A4 in the Appendix).

Table 10: Impact on 1vs2 depending on the strength of the 3rd

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome	1vs2					
	Full		Gap<5%		Gap<2.5%	
	Run	Win	Run	Win	Run	Win
Treatment	0.096***	0.053	0.130***	0.099*	0.185***	0.150**
	(0.010)	(0.025)	(0.017)	(0.040)	(0.030)	(0.046)
Robust p-value	0.000	0.119	0.000	0.065	0.000	0.012
Observations left	4,505	3,544	1,950	1,496	810	1,073
Observations right	4,505	3,544	1,950	1,496	810	1,073
Polyn. order	1	1	1	1	1	1
Bandwidth	0.087	0.065	0.089	0.066	0.065	0.089
Mean, left of threshold	0.899	0.450	0.864	0.392	0.807	0.350

Notes: Sample only includes the races where the third candidate is qualified for the second round. In columns 2 and 5 (resp. 3 and 6) the sample is further restricted to elections where the gap in the vote share between the candidates ranked second and third in the first round is lower than 5 (resp. 2.5) percentage points. In columns 1, 2 and 3 (resp. 4,5 and 6), the outcome is a dummy equal to 1 if the candidate runs (resp. wins) in the second round. Other notes as in Table 4.

Second, the top two candidates and their supporters should be more likely to coordinate together (instead of coordinating with other candidates and groups of voters) when their ideological distance is relatively lower than their distance with the third candidate. To the extent that our results are driven by coordination, we should first expect the effects to be larger when the third candidate has a different orientation than both top two than when she has the same orientation, in races in which the top two candidates have the same orientation. The results shown in Table 11 are aligned with this prediction: ranking 1vs2 increases the likelihood of running by 12.8 percentage points when the third candidate has the same orientation and 48.0 percentage points when she has a different orientation (columns 3 and 5); its effects on the likelihood of winning are -3.1 percentage points (which is not statistically significant) and 45.2 percentage points respectively (columns 4 and 6). When the top two candidates have distinct orientations, we should expect larger effects when the third candidate is on the right or on the left of both of them, on the left-right axis, than when she has the same orientation as one of them or is located in between. Support for this prediction is weaker as none of the effects found on running and winning in these two cases is significant (Table 12).

Overall, effect size heterogeneity in races in which three candidates or more qualified for the second round supports the interpretation that coordination by candidates and voters explains at least part of the effects of ranking 1vs2. To test whether strategic coordination can explain them entirely, we now turn to races in which the third candidate is *not* qualified for the second round (races of sample 1 where the third candidate received a vote share below the qualification threshold in the first round).

Table 11: Impact on 1vs2 depending on the political orientation of the 3rd - same orientation

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome	1vs2 - same orientation					
	Full		3rd same		3rd diff	
	Run	Win	Run	Win	Run	Win
Treatment	0.420***	0.371***	0.128**	-0.031	0.480***	0.452***
	(0.036)	(0.045)	(0.049)	(0.122)	(0.041)	(0.044)
Robust p-value	0.000	0.000	0.023	0.523	0.000	0.000
Observations left	869	854	177	138	707	802
Observations right	869	854	177	138	707	802
Polyn. order	1	1	1	1	1	1
Bandwidth	0.071	0.069	0.088	0.063	0.070	0.082
Mean, left of threshold	0.580	0.274	0.874	0.567	0.521	0.220

Notes: Sample includes only the races where the third candidate is qualified for the second round and the top two candidates have the same political orientation. In columns 3 and 4 (resp. 5 and 6) the sample is further restricted to elections where the third candidate has the same political orientation as the top two (resp. has a different political orientation). In columns 1, 3 and 5 (resp. 2,4 and 6), the outcome is a dummy equal to 1 if the candidate runs (resp. wins) in the second round. Other notes as in Table 4.

Table 12: Impact on 1vs2 depending on the political orientation of the 3rd - distinct orientations

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome	1vs2 - distinct orientations					
	Full		3rd same or middle		3rd on the left or right	
	Run	Win	Run	Win	Run	Win
Treatment	0.003	-0.021	-0.006	-0.003	0.028	-0.020
	(0.005)	(0.026)	(0.004)	(0.027)	(0.015)	(0.056)
Robust p-value	0.745	0.277	0.140	0.782	0.103	0.470
Observations left	2,843	3,158	1,658	2,952	801	658
Observations right	2,843	3,158	1,658	2,952	801	658
Polyn. order	1	1	1	1	1	1
Bandwidth	0.069	0.078	0.050	0.101	0.098	0.076
Mean, left of threshold	0.991	0.491	1.002	0.491	0.964	0.456

Notes: Sample includes only the races where the third candidate is qualified for the second round and the top two candidates have distinct political orientations. In columns 3 and 4 (resp. 5 and 6) the sample is further restricted to elections where the third candidate has the same political orientation as one of the top two or has a different orientation and is located in the middle of the top two on the left-right axis (resp. has a different political orientation and is located either on the right or on the left of the top two). In columns 1, 3 and 5 (resp. 2, 4 and 6), the outcome is a dummy equal to 1 if the candidate runs (resp. wins) in the second round. Other notes as in Table 4.

4.3 Party norms and bandwagon effect

When the third candidate is not qualified for the second round, there is no need or even room for the top two candidates and their voters to coordinate against a lower-ranked candidate. Nonetheless, the effects of ranking 1vs2 remain substantial. As shown in Table 13, it increases candidates' likelihood of running and winning by 1.8 and 5.8 percentage points overall (columns 1 and 4). These estimates are significant at the 1 percent and 5 percent level respectively.

When the first and second candidates have distinct orientations, none of them drops out between rounds, at the threshold (column 3). Ranking 1vs2 increases the likelihood of winning by 4.9 percentage points (column 6), which is at the margin of statistical significance (p-value 0.108).

When the top two candidates have the same orientation, the first candidate always enters the second round but the second drops out in 18.7 percent of the races, at the threshold. This difference is significant at the 1 percent level (column 2). Candidate dropouts often result from agreements between left-wing parties. These parties argue that they want to follow the first round choice of their supporters instead of allowing voters supporting candidates eliminated after the first round to decide of the outcome of the race between the remaining candidates. In sum, dropouts are motivated by the enforcement of a deliberative ideal in the subgroup of parties and voters on the left. Dropout agreements when the top two candidates have the same orientation and the third is absent may further be explained by the desire to save on campaign efforts, avoid a campaign where negative arguments could hurt the long-term reputation of both competitors, and enforce national agreements allocating a certain number of seats to each of the allied parties. Indeed, in areas where they are enforced, the dropout agreements ensure that roughly half of the races are won by the candidates of either of the competing parties, at the threshold. Whatever their exact motivation is, these dropouts result in a large effect of rankings on the outcome of the race: The effect on winning is almost as large as the effect on running (16.8 percentage points), and significant at the 5 percent level.

Table 13: Impact on 1vs2 in races where the 3rd is not qualified

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome	1vs2 absent 3rd					
	Probability to run 1vs2			Probability to win 1vs2		
	Full	Same	Diff	Full	Same	Diff
Treatment	0.018***	0.187***	-0.000	0.058**	0.168**	0.049
	(0.004)	(0.031)	(0.000)	(0.021)	(0.054)	(0.022)
Robust p-value	0.000	0.000	0.269	0.034	0.015	0.108
Observations left	7,440	759	3,129	4,979	689	4,661
Observations right	7,440	759	3,129	4,979	689	4,661
Polyn. order	1	1	1	1	1	1
Bandwidth	0.120	0.125	0.051	0.075	0.111	0.078
Mean, left of threshold	0.982	0.813	1.000	0.471	0.418	0.476

Notes: Sample includes only the races where the third candidate is not qualified for the second round. In columns 2 and 5 (resp. 3 and 6) the sample is further restricted to elections where the two candidates have the same orientation (resp. distinct orientations). In columns 1, 2 and 3 (resp. 4, 5 and 6), the outcome is a dummy equal to 1 if the candidate runs (resp. wins) in the second round. Other notes as in Table 4.

To test whether voters respond to the top two candidates' first round rankings as well, in races in which the third candidate is not qualified for the second round, Table 14 derives bounds for the effects on winning and vote share conditional on running. We find that ranking 1vs2 increases candidates' likelihood of winning by 4.9 to 5.8 percentages points overall (column 1). The lower and upper bounds are both significant at the 10 percent level. These effects can be driven by active voters rallying behind the first candidate as well as a larger mobilization of this candidate's supporters. The behavior of these voters cannot be explained by the desire to coordinate against lower-ranked candidates (who, again, are not present, as they are not qualified). Instead, the most likely interpretation is that these voters derive intrinsic value from siding with the winner of the first round, or that they desire to vote for the winner of the race and rightly anticipate that the candidate ranked first in the first round has increased chances of also winning the second round.

Interestingly, the fraction of voters whose choice of candidate is based on these behavioral motives is relatively small on average: the effect on vote shares is between 1.0 and 1.9 percentages points (column 4), where both the lower and upper bounds are significant at 1 percent. This fraction is sufficient to sway a larger fraction of close elections, demonstrating the importance of bandwagon effect for election outcomes.

The effect on winning conditional on running is observed not only when the top two candidates have the same orientation (column 2) but also when they have distinct orientations (column 3). This is a remarkable result as it indicates that the desire to vote for the winner affects electoral outcomes in a substantial number of races, even when the ideological distance between candidates is important. However, the lower and upper bounds on the effects on vote shares are small and not significant in that case (column 6). Instead, the conditional effect on vote shares is very large when both candidates have the same orientation, with lower and upper bounds of 7.6 and 18.7 percentage points, both significant at the 1 percent level (column 5).

An alternative interpretation for the effects of rankings on voter behavior is that preferences include a common value component and voters update their beliefs on candidates' quality based on the first round choices of others (e.g., Feddersen and Pesendorfer, 1997; Deltas et al., 2016), which benefits the candidate arrived first on average. However, our effects are estimated at the threshold, when the first and second candidates received exactly the same vote share and their rankings do not contain any additional information on voters' private signals. For this mechanism to operate, one would thus also need to assume that voters lack information on candidates' exact vote shares and that they wrongly believe that the first candidate received substantially more votes. Instead, one could expect voters who update their beliefs on candidates' quality in such a sophisticated way to also gather precise information on election results and pay attention to it. This makes this interpretation less plausible than the bandwagon mechanism even if we cannot entirely rule out that it contributes to the results.

Table 14: Bounds on winning and vote share 1vs2 in races where the 3rd is not qualified

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome	1vs2 absent 3rd					
	Win			Vote share		
	Full	Same	Diff	Full	Same	Diff
Upper bound	0.058	0.168	0.049	0.019	0.187	0.002
Boot. std error	(0.030)*	(0.082)**	(0.029)*	(0.004)***	(0.032)***	(0.003)
Lower bound	0.049	0.059	0.049	0.010	0.076	0.002
Boot. std error	(0.029)*	(0.068)	(0.029)*	(0.003)***	(0.016)***	(0.003)
Mean $T=0$	0.480	0.526	0.477	0.499	0.500	0.499

4.4 Discussion of alternative mechanisms

We have so far attributed the effects of rankings on candidates' likelihood of winning and on their vote shares conditional on running to choices made by voters. We now discuss three alternative mechanisms which could also explain these effects. First, we examine whether these effects might be driven by campaign choices made by the higher- and lower-ranked candidates between the two rounds.

While we lack data on candidates' precise political platforms, we collected data on their campaign expenditures for the 1992 to 2015 local elections and for the 1993 to 2017 parliamentary elections (collectively accounting for 65.8 percent of our sample).[10] We do not measure candidates' expenditures between rounds separately, but only know the total amounts of money they received and spent over the entire course of the campaign. We measure the impact of rankings on these two outcomes divided by the number of registered citizens in the district. The effects, shown in Table 15, are small overall and not significant, even though better-ranked candidates are more likely to run in the second round. The lack of systematic impact of rankings on total campaign expenditures and contributions is perhaps not too surprising, since the first and second rounds are separated by one week only.

Table 15: Impact on campaign expenditures and contributions

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome	1vs2		2vs3		3vs4	
	Expend.	Contrib.	Expend.	Contrib.	Expend.	Contrib.
Treatment	-0.009	-0.015	0.034	0.033	0.017	0.007
	(0.012)	(0.014)	(0.022)	(0.023)	(0.079)	(0.081)
R. p-value	0.365	0.210	0.123	0.145	0.781	0.936
Obs l	5,109	4,889	1,544	1,570	92	92
Obs r	5,109	4,889	1,544	1,570	92	92
Polyn.	1	1	1	1	1	1
Bdw	0.084	0.080	0.053	0.055	0.018	0.018
Mean	0.583	0.609	0.417	0.427	0.350	0.362

Notes: Sample includes only the elections for which campaign expenditure data are available. In column 1 and 2 (resp. 3 and 4, 5 and 6) we further restrict the analysis to races where campaign expenditures and contributions are available both for the candidate ranked first and the candidate ranked second (resp. second and third, third and forth). In columns 1, 3 and 5 (resp. 2, 4 and 6) the outcome is the candidate's total expenditures (resp. contributions) spent (resp. received) during the electoral campaign. Other notes as in Table 4.

Second, we check whether the effects might be driven by choices made by a third political actor, different from voters and the higher- and lower-ranked candidates on whom we have focused so far: other candidates qualified for the second round. These candidates' decision to stay in the race or drop out between rounds might depend on the rankings of top candidates and it might in turn affect the higher- and lower-ranked candidates' vote shares and likelihood of winning. For instance, if third candidates are more likely to drop out of the race when the candidate ideologically closest to

[10] All data come from the French National Commission on Campaign Accounts and Political Financing (CNCCFP). Data on campaign expenditures for recent years are available on the Commission's website (http://www.cnccfp.fr/index.php?art=584). We collected and digitized the data for the 1992, 1994, 1998, 2001 and 2004 local elections. Data on campaign expenditures for the 1993, 1997, and 2002 parliamentary elections were collected and digitized by Abel François and his co-authors (see Fauvelle-Aymar and François, 2005; Foucault and François, 2005). Data are only available for candidates who received more than 1 percent of the candidate votes in the first round and, in local elections, for cantons above the 9,000 inhabitants threshold.

them among the top two is ranked first than when she is ranked second, then that candidate should receive more votes by the third candidate's supporters when ranked first.

To examine this mechanism in a systematic way, we define two outcomes at the candidate level: a dummy equal to 1 if a lower-ranked candidate with the same orientation is present in the second round, and the number of such candidates. Both outcomes directly reflect dropout decisions of lower-ranked candidates.[11] For ranking 1vs2 (resp. 2vs3 and 3vs4), we consider candidates ranked third and below (resp. fourth and below and fifth and below).

The effects are shown in Tables 16, 17, and 18: ranking 1vs2, 2vs3, or 3vs4 does not have any significant effect on the presence of lower ranked candidates of the same orientation in the second round (columns 1 and 3). We test the robustness of this result in the subsample of races in which such effects are most likely to occur: races in which the two candidates of interest have distinct political orientations and at least one lower-ranked candidate qualified (columns 2 and 4 of each table). Again, we do not find any significant impact, except for a positive effect of ranking 3vs4 on the likelihood that a lower-ranked candidate of the same orientation is present, which is significant at the 10 percent level (Table 18, column 2).

Table 16: Impact on the presence of same-orientation lower ranked candidates - 1vs2

	(1)	(2)	(3)	(4)
Outcome	Dummy lower ranked		Number of lower ranked	
	Full	Subsample	Full	Subsample
Treatment	-0.002	-0.011	-0.003	-0.017
	(0.005)	(0.013)	(0.005)	(0.014)
Robust p-value	0.510	0.401	0.393	0.223
Observations left	11,441	2,804	11,181	2,676
Observations right	11,442	2,804	11,181	2,676
Polyn. order	1	1	1	1
Bandwidth	0.100	0.068	0.098	0.064
Mean, left of threshold	0.034	0.069	0.037	0.073

Notes: In columns 2 and 4 we only include races where the third candidate is qualified and the top two candidates have distinct political orientations. In columns 1 and 2 the outcome is a dummy equal to 1 if a lower ranked candidate who has the same orientation as the candidate is running in the second round. In columns 3 and 4 the outcome is the number of lower ranked candidates who have the same orientation as the candidate and are running in the second round. Other notes as in Table 4.

[11] Effects on these outcomes should not be driven by the likelihood that a lower-ranked candidate with the same orientation qualified for the second round or the number of such candidates, as we do not observe any discontinuity at the cutoff for these outcomes, as should be expected (see the placebo checks in Section 2.4).

Table 17: Impact on the presence of same-orientation lower ranked candidates - 2vs3

	(1)	(2)	(3)	(4)
Outcome	Dummy lower ranked		Number of lower ranked	
	Full	Subsample	Full	Subsample
Treatment	-0.004	-0.022	-0.005	-0.024
	(0.005)	(0.028)	(0.006)	(0.030)
Robust p-value	0.471	0.434	0.449	0.421
Observations left	5,082	693	4,851	687
Observations right	5,082	693	4,851	687
Polyn. order	1	1	1	1
Bandwidth	0.064	0.047	0.060	0.047
Mean, left of threshold	0.022	0.074	0.023	0.077

Notes: In columns 2 and 4 we only include races where the fourth candidate is qualified and the candidates ranked second and third have distinct political orientations. In columns 1 and 3 the outcome is a dummy equal to 1 if a lower ranked candidate who has the same orientation as the candidate is running in the second round. In columns 2 and 4 the outcome is the number of lower ranked candidates who have the same orientation as the candidate and are running in the second round. Other notes as in Table 4.

Table 18: Impact on the presence of same-orientation lower ranked candidates - 3vs4

	(1)	(2)	(3)	(4)
Outcome	Dummy lower ranked		Number of lower ranked	
	Full	Subsample	Full	Subsample
Treatment	0.013	0.080*	0.011	0.065
	(0.009)	(0.050)	(0.008)	(0.044)
Robust p-value	0.112	0.082	0.167	0.155
Observations left	1,188	195	1,317	246
Observations right	1,188	195	1,317	246
Polyn. order	1	1	1	1
Bandwidth	0.037	0.041	0.044	0.057
Mean, left of threshold	0.006	0.023	0.006	0.023

Notes: In columns 2 and 4 we only include races where the fifth candidate is qualified and the candidates ranked third and fourth have distinct political orientations. In columns 1 and 3 the outcome is a dummy equal to 1 if a lower ranked candidate who has the same orientation as the candidate is running in the second round. In columns 2 and 4 the outcome is the number of lower ranked candidates who have the same orientation as the candidate and are running in the second round. Other notes as in Table 4.

Third, voters may rally behind higher-ranked candidates as a result of larger coverage of these candidates by the media. To test for differential media coverage, we used Factiva's research tool and collected all press articles released between the two rounds of parliamentary elections since 1997 and containing the entities "élection," "électoral," "législative," "candidat," or "circonscription" as well as all press articles released beween the two rounds of local elections since 1998 and containing the entities "élection," "électoral," "cantonale," "candidat," "canton," or "cantons." In total, these elections account for 51.1 percent of our sample.[12] We obtained a total of 76,673 articles. We measure the impact of ranking 1vs2, 2vs3, or 3vs4 on three different outcomes: the total number of articles mentioning the candidate's first and last names at least once; the total number of mentions (counting twice the articles in which the candidate is mentioned twice, thrice the articles in which they are mentioned thrice, etc.); and the total number of articles mentioning the candidate in the title. As shown in Table 19, ranking 1vs2, 2vs3, or 3vs4 does not have any significant effect on any of these outcomes.

We conclude that rankings' effects on electoral outcomes are driven neither by differential campaign expenditures, nor by differential press coverage, nor by dropout decisions of other candidates.

Table 19: Impact on press coverage

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Outcome		1vs2			2vs3			3vs4	
	Articles	Quotes	Titles	Articles	Quotes	Titles	Articles	Quotes	Titles
Treatment	-0.151	-0.020	0.035	0.065	0.053	0.048	0.056	0.110	0.006
	(0.516)	(0.928)	(0.046)	(0.593)	(1.018)	(0.035)	(0.140)	(0.247)	(0.006)
R. p-value	0.777	0.974	0.458	0.926	0.842	0.284	0.743	0.656	0.314
Obs left	5,193	5,062	6,272	1,405	1,494	1,464	134	125	125
Obs right	5,193	5,062	6,272	1,405	1,494	1,464	134	125	125
Polyn.	1	1	1	1	1	1	1	1	1
Bdw	0.086	0.083	0.109	0.044	0.048	0.047	0.020	0.018	0.018
Mean	4.369	7.080	0.232	2.043	3.110	0.041	0.160	0.287	0.006

Notes: Sample includes only the elections for which newspaper articles are available. In columns 1, 4 and 7, the outcome is the total number of articles mentioning the candidate at least once. In columns 2, 5, and 8, the outcome is the total number of mentions. In columns 3, 6, and 9, the outcome is the total number of articles mentioning the candidate in the title. Other notes as in Table 4.

5 Conclusion

This paper shows that past candidate rankings have large effects on future electoral outcomes. Using a regression discontinuity design in French two-round parliamentary and local elections since 1958, we find that arriving first in the first round increases candidates' likelihood to run in the

[12]Press articles are only available on Factiva from the end of the 1990s onwards. The number of newspapers covered and the total number of articles are much lower in the earlier years. Since a disproportional fraction of races of sample 3, used to measure the impact of ranking 3vs4, come from these earlier elections, the average number of citations for these candidates is very low.

second round by 5.6 percentage points, compared to arriving second, and that arriving second and third increases running by 23.5 and 14.6 percentage points respectively, compared to arriving third and fourth. In addition to being more likely to stay in the race, higher-ranked candidates obtain larger vote shares and they are more likely to win, conditional on running. Voters rallying behind the candidate ranked first increase her conditional vote share by 1.3 to 4.0 percentage points and her likelihood of winning by 2.9 to 5.9 percentage points. The effects of arriving second instead of third are even larger – 4.0 to 14.7 and 6.9 to 12.2 percentage points –, and arriving third instead of fourth also has significant effects on vote shares and winning, conditional on running.

Overall, candidates and voters' combined response to rankings generates large effects on candidates' likelihood to win: arriving first instead of second, second instead of third, and third instead of fourth increases winning by 5.8, 9.9, and 2.2 percentage points, respectively.

The effect of ranking first is larger when the third candidate is more likely to challenge the top two candidates and when the top two candidates are of the same political orientation, suggesting that coordination by parties and voters against other candidates qualified for the second round drives part of the effects. Our evidence first indicates that rankings help strategic voters to focus on the same subset of candidates and on the same equilibrium in a decentralized way. This is an important result, given that multiple strategic equilibria usually exist, when there are three candidates or more (Myerson and Weber, 1993). Second, rankings also facilitate parties' coordination, leading to a decrease in the number of candidates. This is at least as important given many voters' propensity to vote expressively, when they have to choose between more than two candidates, and the resulting risk of suboptimal electoral outcomes such as a defeat of the Condorcet winner (Pons and Tricaud, 2018). Dropout agreements based on rankings can help addressing this issue and increasing the representativeness of elected leaders by reducing the number of alternatives and often bringing it down to two.

But the effects of ranking first instead of second remain large in elections in which the third candidate is *not* qualified, showing that strategic coordination cannot explain everything. In this case, party-level agreements lead the second candidate to drop out in 18.7 percent of the races, when she has the same orientation as the first, and voters rallying behind the first increase her vote share by 1.0 to 1.9 percentage points and her likelihood of winning by 4.9 to 5.8 percentage points on average, conditional on running. We infer that dropout agreements between parties can be motivated by other reasons than strategic coordination, such as enforcing national agreements which allocate a certain number of seats to each party, and that behavioral motives such as bandwagon effect can greatly affect voter behavior and electoral outcomes.

This last result is perhaps more unsettling. Mainstream political economy models predict that election outcomes and policies implemented by elected leaders correspond to voters' preferences. In citizen-candidate models, the candidate proposing the platform preferred by the largest group of voters gets elected (Osborne and Slivinski, 1996; Besley and Coate, 1997), and in the voter median theorem, competing parties align their platforms with the policy preference of the voter who is the most representative by virtue of being located in the median (Downs, 1957). Instead, we find that a large number of elections are swayed by a relatively small fraction of voters driven by their desire to vote for the winner instead of substantial differences between candidates such as valence and policy platforms.

This result also has implications for the choice of an optimal voting rule. A large literature compares voters' incentives to misrepresent their true preferences and strategically adjust their choices to the expected behavior of others under different voting rules (e.g., Laslier, 2009; Balinski and Laraki, 2011; Dasgupta and Maskin, 2019). Our findings indicate that voters' actual preferences may themselves depend on others' behavior. This phenomenon, and the fact that it affects the outcome of many races, adds a new layer of complexity to the problem of preferences' aggregation.

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