GENDER DISCRIMINATION AND LOCAL ELECTIONS

The under-representation of women in politics is a widely shared observation, but the reasons for this under-representation are still imperfectly understood and are the subject of much debate. Among the possible explanations, the hypothesis of voter discrimination against women is frequently proposed but rarely substantiated. This study attempts to test this hypothesis in the case of France. For this, we exploit an unprecedented natural experiment that took place in France in March 2015 as part of the departmental elections. For the first time, candidates did not stand alone and were instead obliged to run as equal pairs, composed of a man and a woman. The law also required that the order of appearance on the ballot be based on alphabetical order, which led half of the pairs to have a woman in first position and vice versa. This historic change in the electoral process may have led some voters to pay more attention to the candidate in first position on the ballot, thinking that this candidate would receive more prerogatives than the one in second position.

This reform constitutes an ideal analytical framework for assessing the presence of gender discrimination and analyzing its determining factors: by comparing the votes received by pairs with a woman in first and second positions, and insofar as the gender of the first candidate is random, we are able to precisely identify the existence of voter discrimination against women. Finally, we identify substantial discrimination towards female candidates affiliated with right-wing parties, which affected the outcome of the election. The reference study also shows that the gender bias of voters depends not only on the amount of information available on ballots, but also on existing discrimination in the local labor market.

- Women are under-represented in politics, especially at local level: 42% of the deputies are women and only 16% of the mayors.

- The 2015 departmental elections established parity by obliging candidates to run in mixed pairs: each pair is made up of a man and a woman. The law also requires that the order of appearance of candidates on the ballot correspond to alphabetical order: one in two men take first place, and vice versa.

- Some voters may have focused their attention only on the name of the first candidate. However, since the order of appearance of candidates is random and is not related to their prerogatives once elected, the gender of the first candidate should not affect the vote. If pairs in which women are named first receive fewer votes than others, this signals the existence of gender discrimination among voters.

- By analyzing the differences in electoral performance of the pairs with a woman or a man in first position, we show that only right-wing pairs with a woman in first position were discriminated against by their voters: on average, they lost 1.5 percentage points of the vote in the first round (about 5% of the average share received by a right-wing pair), which was not the case for the other political groups.

- The resulting loss of votes changed the result of the election: affected pairs saw their probability of going to the second round or winning the election decrease by 5%.

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Introduction

Women are under-represented in politics, especially at the local level: while 42% of deputies are women, they represent only 16% of mayors (Foucault 2020). The place of women in political life is a major public policy issue. Beyond the growing aspiration for women and men to be represented equally in the bodies which determine public policies, the over-representation of men is not without consequence on the conduction of policies because women and men do not have the same concerns once elected (Lippmann 2019). Female elected officials are better at raising society's awareness about the concerns of women (Chattopadhyay and Duflo 2004), and although a consensus on the economic consequences of the lack of political parity has not been perfectly established, studies in various institutional frameworks suggest that men and women do not manage their administrations in the same way, particularly in terms of environmental protection (Funk and Gathmann 2015), public health (Brollo and Troiano 2016), or child protection (Baskaran and Hessami 2018).

Why are women under-represented in politics?

Although the under-representation of women in politics is widely observed in many countries, there are multiple causes and identifying them is complex. Establishing that there is a lack of women in politics is not enough to conclude that voters have sexist prejudices. Likewise, a simple comparison of the votes received by women and men is not very informative: if a female candidate receives as many votes as a male candidate, it can certainly indicate that voters have no marked gender preferences, but it may also indicate that the female candidate is intrinsically more competent than the male candidate, offsetting possible voter bias. In this and other respects, identifying electoral discrimination turns out to be a complex undertaking. The path of women to decision-making political posts is an obstacle course, in which voter discrimination is only the last of the hurdles.

A first obstacle lies in the decision whether or not to begin a political career. Numerous studies have shown that among those with equal skills, women tend to have less confidence in their ability to take up careers or disciplines most often associated with men (Hayes and Lawless 2016, Carlana 2019, Boring and Brown 2016), which can dissuade them from considering careers in highly competitive environments such as politics.

A second obstacle is the reaction of political parties to female candidates. Parties with reservations about female candidates may decide to nominate fewer women than men, or to assign women only to constituencies that are particularly difficult to win (Esteve-Volart and Bagues 2012).

To limit these phenomena, various measures have been implemented in France in recent decades. For example, in legislative elections, parties that do not run as many female candidates as male candidates are penalized with reduced state funding. At the municipal level, the lists presented for municipal elections in communes with more than 1,000 inhabitants are made under rules of strict parity. At the departmental level, the 2015 elections that we are studying represent a particularly restrictive quota policy, since they oblige parties to nominate equal pairs, in which each member has exactly the same prerogatives once elected, guaranteeing perfectly equal representation in departmental assemblies. However, these policies did not achieve the goal of full parity. The incentives put in place during the legislative elections did not prevent the number of women candidates from being lower than the number of male candidates in the most recent elections. Likewise, parity on municipal lists does not prevent the absence of parity among those at the top of the lists, where the great majority of leaders were male during the most recent municipal elections (Lassébie 2019). The day after the 2015 departmental elections, almost 90% of the presidents of elected departmental assemblies were men.

Assuming that the candidacies are perfectly equal, a final obstacle resides in the potential gender bias of voters: with similar characteristics, it is possible that a female candidate is discriminated against and receives fewer votes solely because of her gender. The challenge is to find a framework that unambiguously identifies such discrimination. While this could be done clearly in the context of controlled laboratory experiments (Mo 2015), it is notoriously difficult in the real world. On the one hand, questioning individuals about their electoral preferences using simple polls is insufficient, due to significant declarative biases. On the other hand, in general, the comparison of electoral performance between male and female candi-

dates does not allow us to determine whether or not there is gender discrimination.

In this regard, the system we are studying offers an ideal framework for trying to quantify gender discrimination.

The 2015 departmental elections: a large-scale natural experiment

Historically, departmental councilors were elected for a period of six years according to the rules of a *two-round, uninominal, majoritarian* voting system: each councilor ran accompanied by a substitute. The elections were held every three years, allowing departmental councils to be renewed by half.

The law of May 17th, 2013, introduced profound changes in this system. It redrew electoral boundaries to make the number of voters more homogeneous; it put an end to the renewal by half by unifying the dates of all departmental elections; and it reformed voting arrangements. The election now follows the rules of a *two-round, mixed-pair, majoritarian* voting system: the candidates are now required to run as a mixed pair, composed of a man and a woman, accompanied by two substitutes with corresponding genders. This method achieves one of the stated objectives of the reform: to ensure strict gender parity after the departmental election.

On March 22nd and 29th, 2015, the first and second rounds of the departmental election were held to elect departmental councilors from 2,054 cantons according to the new electoral system. There were 9,097 pairs of candidates in this election.

The order of candidates on the ballot: a tool to measure discrimination

Article 3 of the law of May 17th, 2013, provides that the order of appearance of candidates on the ballot on election day is determined by alphabetical order. To ensure compliance with the rules, the law also stipulates that ballots that violate this rule are considered invalid on election day.

Figure 1 illustrates this mechanism. First position is for the person whose surname's first letter is the earliest in alphabetical order. In this case, Peter Dupont is in first position when he appears with Rebecca Vannier but in second position when he appears with Rebecca Bannier.

Figure 1: Illustration of the mechanism studied
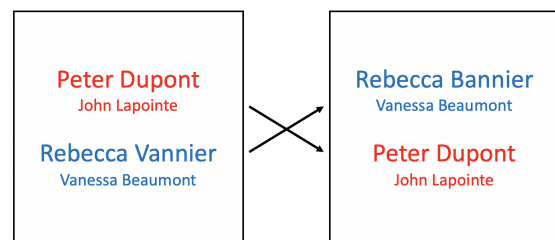
Interpretation: If Rebecca Vannier forms a pair with Peter Dupont, she appears second on the ballot (since the letter D is before the letter V in the alphabet). On the other hand, if Rebecca Bannier forms a pair with Peter Dupont, she appears first on the ballot (the letter D being after the letter B in the alphabet).

One of the key points of our article is to show that the fact that a woman is in first position on the ballot is the result of chance. As long as individuals do not have the opportunity to change their name at the time of the election, everything suggests that having a woman in first position is purely random and occurs in half of the cases. This is in fact what has been observed since, on average, one in two ballots had a female candidate in first position. Furthermore, none of the candidates' observed characteristics explain their position on the ballot. Some political parties could have strategically chosen their candidates by selecting them according to the first letter of their surname to ensure the presence of a man or a woman in the first position on the ballot. But we show that this is generally not the case.

De facto, the random distribution of the gender of the first candidate on the ballot creates a large-scale natural experiment, in which the gender of the first candidate of the pair is likely to be distributed randomly. Figure 2 shows, in each canton, the gender of the first candidate of the first pair in alphabetical order. Unsurprisingly, there are as many blue dots – cantons in which the first pair in alphabetical order has a female candidate in first position – as there are red dots – cantons where the first pair in alphabetical order has a male candidate in first position – and no particular regularity seems to emerge.

How can we measure discrimination?

To identify the presence of discrimination, we use public data from the Ministry of the Interior, which indicates the name, position, age and socio-professional category of the candidates. We combine them with data from the national directory of elected officials (RNE) and local in-

Figure 2: Gender of the first candidate of the first pair (in alphabetical order) in each canton
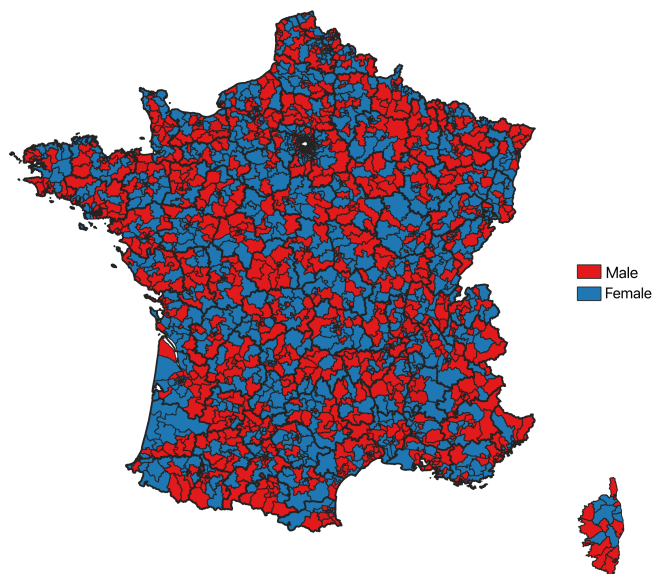
Male
Female

Interpretation: The cantons colored in red (respect. blue) are those for which the gender of the first candidate appearing on the ballot of the first pair (in alphabetical order) is male (respect. female).

formation contained in the INSEE census.

We then compare the electoral performances of pairs that belong to the same political group but are located in different cantons. More precisely, we look at whether pairs with a woman in first position received on average a different number of votes compared to pairs with a man in first position.

Given that having a woman in first position is only explained by alphabetical order, the pairs compared are, on average, similar in all respects apart from belonging to different cantons. For example, the candidates' average political experience or their age are, on average, the same whether the first candidate is a man or a woman. In this way, no difference in electoral performance can be explained by differences arising from the quality or characteristics of the candidates.

In this context, identifying a difference in vote between the two types of pair also means that we simultaneously observe two things:

- Imperfect understanding of election rules by voters
- Discriminatory behavior of voters regarding women

Indeed, given that the elected candidates receive the same prerogatives regardless of their position on the ballot, voters have no reason to change their vote according to the candidate's order of appearance. If they do, this indicates that voters imperfectly understood the rules of the election and likely thought that the person appearing first on the ballot would receive more prerogatives. Consequently, any difference in votes between pairs whose first candidates differ in gender is necessarily explained by discriminatory behavior by voters regarding women.

Main results and interpretations

Discrimination affects right-wing pairs

Our results indicate that among the pairs running in the departmental election, only right-wing pairs[1] suffered from discrimination. In fact, unlike candidates from other political parties, right-wing pairs with a woman in first position lost between 1 and 2 percentage points of the vote compared to pairs of the same political stripe but with a man in first position (that is, a decrease in the share of votes received of around 5%). They also saw their probability of going to the second round (and being elected) reduced by about 5%. In this very specific case, gender discrimination therefore led to a drop in the number of votes received by the right, even though the right comfortably won this election.

Such results therefore indicate both an imperfect understanding of the electoral rules and gender bias among certain right-wing voters. On the other hand, they do not allow us to conclude that there is no discrimination on the part of voters from other political parties. The lack of results for the other political parties may mean that voters have better understood the electoral rules and/or that voters do not discriminate. At this stage, the study does not allow us to rule out either of these two propositions.

The importance of the level of available information

The reasons that led right-wing voters to discriminate are complex, and we cannot observe what actually happened in the voting booth on election day. On the other hand, the data allow us to identify avenues capable of explaining the reasons for their choices.

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[1]We define right-wing pairs as those whose candidates were affiliated to the following parties: Union du Centre, Union des Démocrates et des Indépendants, Debout la France, Divers droite, Union des droites and UMP.

First, *decisions seem to have been made in the voting booth since we find no discrepancy in terms of abstention rates or the share of invalid and blank votes*. Voters transferred their votes to other pairs since, on average, parties symmetrically received more votes when opposing a right-wing pair in which the woman appeared first.

Second, *discrimination appears to be lower when voters are better informed about candidates*. As part of our study, we used the CEVIPOF electoral archives to gather a sub-sample of ballot papers (about 12% of the total) from which we extracted additional information sometimes supplied by the candidates (age, photographs, political experience, socio-professional category). Analysis of this additional information suggests that when information about candidates is available on the ballot, the effect of discrimination disappears. It also seems that pairs who decide to add information to the newsletter also receive more votes.

One possible interpretation of these results is that electoral behavior reflects a form of "statistical" discrimination whereby voters who know little about the candidates use an easily accessible criterion (that of gender) to infer their quality. In the absence of information, such an inference may be based on stereotypes which may depend on exposure to strong female role models or simply on the presence of women in past elections (Beaman et al. 2009, Baltrunaite et al., 2014). Historically, women on the right have been under-represented in local elections compared to other political parties. Having been more rarely confronted with female candidates from their own political camp, some right-wing voters presumably discriminated against unknown women but corrected their behavior when a sufficiently strong signal was present on the ballot. This interpretation seems all the more likely since the transfer of votes on the right does not seem specifically oriented towards a pair with a man in first position, which would have indicated discrimination against women regardless of any observed or known characteristics.

However, while this interpretation may corroborate a large body of evidence, it presumably does not provide an exhaustive account of the phenomenon we observed. The explanation of discriminatory phenomena are a very complex subject, so caution is advised for the interpretation of the results. It is by comparing these results with the teachings of other social-science disciplines that a complete explanation will help us to understand the whole phenomenon.

What lessons can be learned?

Several elements of interest for public policy emerge from the results of our study:

1. The information conveyed by the ballot is not neutral. Our results show that electoral performance and the degree of discrimination against candidates varies greatly depending on the amount of information available in the voting booth. Experimental economics has recently shown that small informational differences can have substantial effects on the behavior of individuals: under these conditions, it is worth asking whether we need to harmonize – upwards or downwards – the information contained in ballots.

2. The results that we highlight call for reflection on the implications of quota policies. Although the reform achieved its objective of forming mixed assemblies, it did not guarantee real parity at the highest level of departmental assemblies: since 2015, almost 90% of assembly presidents have been men.

3. The issue of women's place in politics is linked to numerous perspectives on gender discrimination. It has been established that discrimination in the political sphere is directly connected to discrimination in the labor market (Le Barbanchon and Sauvagnat 2018) and that this, in turn, partly results from gender bias in educational institutions (Breda et al. 2019). Likewise, the success of policies to reduce gender inequalities can only be made possible through the co-operation of actors from both the public and private sectors (Revillard 2016). Also, the fight against gender discrimination will only be effective if we connect these different public policies, and reflect on their interactions.

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