

Electoral Systems and Support for Female Candidates

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Abstract:

It is a well-established finding that proportional representation (PR) electoral systems are associated with greater legislative representation for women than single member, first-past-the-post systems. However, the degree to which different types of PR rules affect voting for female candidates has not been fully explored. The existing literature is also hindered by a reliance on cross-national data in which some aspects of individual vote preferences and electoral system features are endogenous to other important factors. In this paper, we draw upon an experiment conducted during the 2014 European Parliament (EP) elections to isolate the effects of different PR electoral systems. Participants in the experiment were given the opportunity to vote for real EP candidates in three different electoral systems – closed list, open list, and open list with panachage and cumulation. Because voter preferences can be held constant across the three different votes, we can evaluate the extent to which female candidates were more or less advantaged by the electoral system itself.

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Paper prepared for presentation at the CPSA annual meeting, June 2-4, 2015, Ottawa, Ontario

Women's representation is the topic of much scholarly research. Many studies focus on whether higher proportions of female legislators make a difference. One possible difference is increased women's political participation, as a consequence of the descriptive representation that comes with women being in the legislature. That is, women's interest and engagement in politics may increase if they see legislators who represent them better (in the descriptive sense). Another effect would be a change in the kinds of policies that are pursued, in that more women in the legislature might lead to policies that are better for women than would otherwise be the case. Although we believe that studying these topics is important, in this paper we focus on understanding women's representation as an electoral outcome. In particular, we focus on how electoral institutions affect women's representation, and examine whether women candidates win more votes under some electoral rules compared with others.

A large literature in political science argues that electoral institutions can influence various aspects of society, such as the number of parties, voter turnout, or satisfaction with democracy. Electoral institutions can also influence who is chosen to represent citizens, not only in terms of the partisan affiliation of elected officials, but also in terms of their identity (broadly construed). For example, although nearly every legislature around the world contains more men than women, the proportion of women in legislatures varies a great deal (Inter-Parliamentary Union (IPU) 2014, Krook 2009).

Existing research about the effects of electoral systems on women's electoral success generally finds that proportional representation (PR) electoral systems are associated with greater legislative representation for women than majoritarian systems¹ are. A few examine distinctions within PR as well, arguing that closed party lists, where the parties determine how many female candidates are put forward as well as their positions on the list, tend to result in greater female representation than open lists that allow for preferential voting. Overall, the consensus seems to be that electoral systems have effects on female representation, in some cases and to some degree.² However, the existing literature is hindered by a reliance on cross-national data in which some aspects of individual vote preferences and electoral system features depend on the national context. Although cross-national studies may capture the effect of different electoral rules on

¹ We take the family of majoritarian systems to include plurality systems, such as first-past-the-post, as well.

² Salmond (2006) and Roberts, Seawright and Cyr (2013) suggest that once some methodological problems in existing studies are taken into account, the effects of electoral rules on women's representation in national parliaments is smaller than previously thought.

women's electoral success to some extent, it is difficult to be confident that the authors have successfully accounted for all other factors that might determine voters' propensities to vote for female candidates. Our approach allows us to isolate the effect of the openness of the electoral rule from other factors that might influence the proportion of votes cast for women.

In this paper, we draw upon an experiment conducted during the 2014 European Parliament (EP) elections to evaluate the effects of different proportional representation electoral systems in isolation, across different countries. Participants in the experiment were given the opportunity to vote for real EP candidates in three different electoral systems – closed list, open list, and open list with panachage and cumulation. Because voter preferences can be held constant across the three different votes, we are able to evaluate the extent to which female candidates were more or less advantaged by the electoral system itself. Are more women elected under closed or open list rules? Does the kind of open list matter? Do all voters react the same way to these electoral rules, or do women and men react differently? Our discussion should be of interest to both scholars of electoral systems and of gender and politics more broadly.

Electoral Institutions and Voting for Women

Scholars point to a wide array of contextual factors that could explain the discrepancy between the proportion of women in the electorate and the proportion of women elected to office. These factors include culture, socioeconomic status, group membership, and political context, among others (Kittilson and Schwindt-Bayer 2012, 4). Existing work focuses on a variety of way in which this gender gap comes about, from the initial decisions of women to participate in political organizations or to declare themselves as candidates, to the decisions of party elites to promote female politicians, to the decisions of voters to vote for them. Once elected, scholars study whether (and under what conditions) women in office lead to different policy outcomes, or if they encourage the political participation of women more broadly. In this study, we focus specifically on the effect of different electoral rules.

Electoral rules can influence women's representation by having an impact on voters, on candidates, and on party elites. It is difficult to isolate these stages from one another, however. What party elites do with respect to presenting candidates will affect how voters respond in elections, and the party elites anticipate this when making decisions. One common argument is that more proportional, or more open, electoral rules change the incentives of party leaders to

include more women on their ballots to appeal to different groups within their electorate. Such a strategic move could appeal to those who desire descriptive representation – voters want to vote for, and be represented by, someone who looks like them – or substantive representation, where voters think that someone like them will have similar preferences. The logic here is that women might want to vote for women candidates either to see more women in the legislature, or because they think that women are more likely to produce policy that female voters prefer (or both). If this is true, then we should observe more women than men voting for women candidates. Party elites, in turn, will include women on their ballots (or not) based on their expectations of voter behavior.

One feature of the existing work on the effect of electoral rules on female representation is that it typically compares proportional electoral rules with majoritarian ones. As mentioned above, most scholars find that proportional representation is associated with greater female representation in the legislature compared with majoritarian electoral rules (Kittilson and Schwindt-Bayer 2010).³ One explanation for this finding is that political parties in PR list systems find it easier, or more useful, to create inclusive candidate lists compared to parties in majoritarian systems (assuming that party elites think that this is a desirable goal). Majoritarian, single-member districts tend to favor incumbents, who are largely men. As Roberts, Seawright & Cyr (2013, 1558) put it, “Voters may be hesitant to choose women in head-to-head contests with men. This may lead parties to select fewer female candidates in plurality systems and fewer of the ones chosen to be elected.” Thus more female candidates get party support to be on the ballot in PR systems than in majoritarian ones. Note that this explanation does not require that voters actually be hesitant to vote for women, only that parties believe that this might be the case. Indeed, Roberts, Seawright & Cyr point to a study by Lawless & Pearson (2008) that shows that, in the context of majoritarian elections in the United States, women are equally successful as men.⁴

³ Note that Matland (1998) only finds that PR has an effect on women’s representation in developed countries.

⁴ Other studies have also found evidence of voters’ willingness to vote for women, rather than that voters are reluctant to do so. Welch and Studlar (1988, 280), examining how voters react to male and female candidates in both national and local elections in the United Kingdom, say that “...voters are apparently equally receptive to female candidates at both levels; the difference lies more in women being encouraged and willing to put themselves forward as candidates at the local level, and in party selection committees being more willing to nominate women candidates for winnable seats at that level. Once incumbency is achieved, women are as hard to dislodge as men, in whatever party they represent. But getting there is the problem.”

A related explanation of the effect of electoral rules on women's political participation focuses on what happens after the ballots have been determined. Electoral rules might have a larger effect on female voters than male ones. Building on the suggestion that PR systems allow parties to create more inclusive ballots, the idea here is that "women may be more receptive to these signals of inclusion than men who have not historically been politically excluded or socially marginalized. If women view the political process as inclusive and participatory, they may be more likely to engage politically. More inclusive rules should promote greater participation of women and yield smaller gender gaps in political involvement." (Kittilson and Schwindt-Bayer 2012, 15-16).⁵ In other words, as more women compete for office, more women in the electorate will be willing to vote, and presumably to vote for women.

The extent to which all voters want to vote for women is a different matter, and scholars expect that the underlying propensity to vote for women will vary across voters. According to Sanbonmatsu (2002), voters have "baseline gender preferences" that affect their vote choices. She finds that citizens in the United States have an "affinity" towards candidates of their own gender. And, though she cautions that voter gender is only part of the explanation for this affinity, she also discusses a wide variety of studies (again, in the American context) that show gender effects in voting, specifically that women are more likely than men to vote for women (Sanbonmatsu 2002, 30). Other work also finds evidence that women may prefer to vote for women, although the reasons behind such behavior varies (Goodyear-Grant and Croskill 2011, Holli and Wass 2010, Plutzer and Zipp 1996).

However, some argue that more women will be elected under closed list PR than under open list PR, because in a closed list system the parties can control the placement of women on the ballot whereas with open list rules, voters can vote for the party but avoid voting for women if they want to do so. Note that this argument presupposes that voters will, on average, be *less* likely to vote for women than for men. Whether this accurately reflects reality, or under what conditions it reflects reality, is an important consideration but in some sense it is less relevant than whether the party elites believe that they will receive fewer votes if they place too many women on their ballots. Even if voters are willing to vote for women, to do so they need the party elites to put

⁵ Kittilson and Schwindt-Bayer's argument is about participation broadly, for example getting women to the polls or running for office, rather than specifically on whether women are more likely to vote for women when given the chance (either compared to voting for men, or compared with the likelihood of men voting for women when given the chance).

women on the ballots in the first place (Milyo and Schosberg 2000, Norris, Vallance and Lovenduski 1992).

Assuming party elites want to attract women to compete under their party label, what determines the supply of candidates? For the potential candidates, competing under PR rather than majoritarian rules might seem more appealing because incentives to vote strategically for candidates who are well known and from large parties (often men, in part because incumbents tend to be men rather than women) are weaker in PR systems than in majoritarian ones. It follows, then, that the supply of women candidates might be expected to be greater under PR.

Thus the story about voting for women in more open electoral systems is something like this: If the supply of women candidates is higher, and if parties are more likely to choose women to be on their ballots, and if women are more likely to vote for women, then more open electoral systems will lead to higher proportions of women being elected to the national legislature. In this paper, we focus on the voters and whether they – both men and women, with a variety of ideological leanings – vote for more women when the electoral rules are more open, allowing the voters more flexibility in how they cast their vote.

Previous scholars have argued that more inclusive electoral rules are likely to lead to more women being elected to office, and that the effect of electoral rules might be different for women and men in the electorate, but the literature does not provide clear evidence for whether (and how) the electoral rules – in particular, their level of openness or inclusivity – affect voting behavior. The cross-national analyses typically used to examine this issue all confront the challenge of adequately isolating the effects of electoral rules on voting behavior from their effects on other aspects of women's participation. One recent study of the effect of electoral rules on the representation of women in the European Parliament, for example, finds that the level of openness of the electoral rules has no effect (Fortin-Rittberger & Rittberger 2014, 14), and the authors conclude, rather, that contextual factors are the key determinants of women's electoral success.

While not denying the importance of contextual factors, we think it is worth re-examining the question of the effects of electoral rules on voters' propensity to vote for women candidates using a different approach. If we could have the same voters in various European Union countries vote according to different electoral rules, we would be able to compare the effect of the electoral rules

themselves, holding constant other contextual factors that might be relevant to a particular voter's situation. For example, as the electoral systems give voters more freedom to choose candidates, do voters seem to favor male or female candidates (or show no preference with respect to gender)? Do women and men respond differently to the openness of the electoral rules? Furthermore, we could approximate different levels of enthusiasm for placing women on the ballot on the part of the party elites by presenting our "voters" with party lists that vary in the proportion of women they include. Although a single voter would see the exact same ballots across three different voting systems, as a whole our voters could get different draws of candidates and thus different proportions of women on the ballot. We designed a study, described below, to provide just this type of data.

Hypotheses

Drawing on the arguments in the literature on electoral rules and women and politics, we present three hypotheses. Overall, we expect that voters will be more likely to vote for women when electoral rules are more inclusive.

Hypothesis 1: Voters will give more support to women candidates in more open electoral systems compared with less inclusive systems.

Next, drawing upon insights from research on women's political participation, we expect that women will be more likely than men to vote for women. The literature on descriptive representation suggests that women will gain more than men from an increase in the number of women elected to office, and thus, on average, women should have a stronger incentive to use their votes to try to elect women. We expect this effect to be especially strong in the open list and panachage systems. Indeed, if voters have "baseline gender preferences" as well as "ideological or party preferences" in the closed list systems, the two may conflict. If the latter is the strongest, then in the closed list system, the vote should be driven mostly by partisan considerations, and male and female voters should have similar propensities to vote for women. In the open list and panache systems, on the contrary, there is much less conflict between partisan and gender preferences.

Hypothesis 2: Women are more likely than men to vote for women, especially in more open systems.

Finally, we consider whether the ideology of the voter conditions the tendency to vote for women. Existing literature points to the relationship between left-wing parties and women's representation (Salmond 2006, Caul 1999, Kittilson 2006), the role of egalitarian attitudes about political leadership (Norris and Inglehart 2001) and the importance of gender ideology (Paxton and Kunovich 2003). Extending this further, and with the logic that those on the left of the ideological spectrum will be more ideologically predisposed to support gender equity⁶, we question whether left-leaning voters might be more inclined to vote for women than right-leaning voters.

Hypothesis 3: Left-leaning voters are more likely than right-leaning voters to vote for women.

Data and Methodology

The data used in this paper are drawn from the EuroVotePlus project. This project was run between May 4 and May 26, 2014 through an online platform, as part of the Making Electoral Democracy Work research project (Blais 2010). The study was open to individuals from any country. We advertised the website in the national and local media during the three weeks preceding the EU elections. The website was available in 14 different European languages.

The purpose of EuroVotePlus was twofold. On the one hand, it sought to educate the public about different electoral systems currently used by some Member States to elect their MEPs⁷ and to discuss some potential reforms of the EP electoral rules. The second objective of the project was to gather information about voting behaviour under different electoral rules by presenting a quasi-experiment that would allow us to observe behavioral changes and compare them across candidate list configurations.

In particular, the website provided a discussion about having elections with Europe-wide party lists. Currently, each EU Member State has a certain number of seats in EP elections, and elects its own MEPs. Some have proposed to reform the EP electoral system by adding additional members, elected through Europe-wide party lists in a single pan-European constituency.

⁶ Thoisdottir et al. (2007) find that attitudes toward inequality are related to right-wing orientations, but only in Western (not Eastern) Europe.

⁷ Indeed, for the EP elections, each EU Member State has a certain number of seats, and elects its own MEPs according to its own electoral system

However, which electoral system to use for such a reform has not been established. Indeed, the diversity of electoral rules in use throughout Europe for the election of their own members of the European Parliament is remarkable.

We were interested in seeing how respondents would react to the opportunity to take part in hypothetical elections with Europe-wide party lists, and it provided us with the opportunity to create the ideal conditions for our study of voting for women, as detailed above. We decided to let the participants vote with three different voting rules that are currently used to elect (national) members of the European Parliament: closed list (example: France), open list (example: Latvia), and panachage (example: Luxemburg). All visitors to the website were invited to cast ballots for this hypothetical Pan-European election, under these three different electoral rules.⁸ We call this a quasi-experiment because although there was no random assignment there is a clear treatment effect to be observed with the different votes.

The challenge when designing these Pan-European elections was to set up an election that would mimic, from the point of view of the voter, what would be a realistic election of European delegates through pan-European party lists. We decided that each participant would see seven lists, corresponding to the seven political groups that were actually registered at the European Parliament at the time of the election. Each of these lists would be composed of 10 candidates. The candidates on each list were randomly selected from among the MEPs registered in the corresponding group. Randomization was done independently among participants, meaning that any two participants saw different candidates. Each candidate was presented on the ballot under his or her group affiliation, with his or her first name, surname, nationality, and official picture. Further information about the candidates was made available by having the name of each candidate linked to the candidate's official web page on the European Parliament's website. Note that because of the way these pan-European party lists were constructed, many candidates were unfamiliar to each respondent (because they were MEPs from other countries). Although gender was not explicitly indicated on the ballot, it could be guessed (for the candidates unknown to the respondent) from the picture (and often first names).

Each participant voted under the three different voting procedures, in the following order: closed list, open list, then panachage. In the closed list system, participants were asked to indicate which

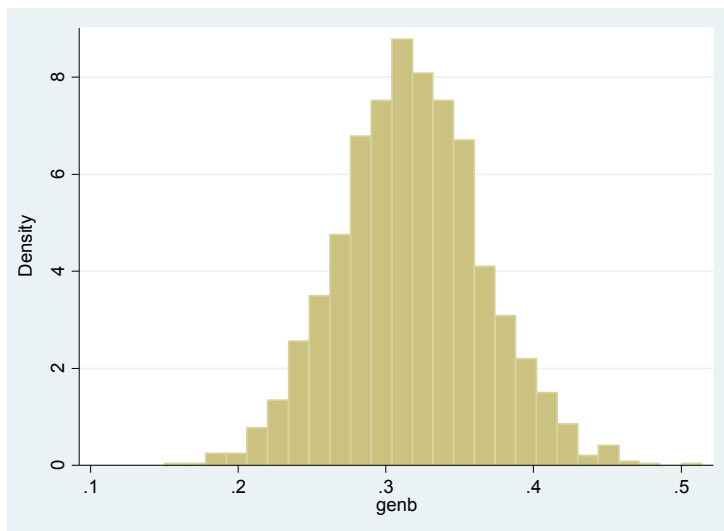
⁸ Depending on their home country, some visitors were also invited to vote for their national EP elections, also under these three voting procedures. We do not use the data on national elections in the present paper.

party list they preferred. Although voters had no control over which candidates were elected, we created a measure of support for female candidates from the proportion of females on the list that was chosen.

In the open list system, participants had to choose one party list. Then, they were able to assign 0, 1 or 2 points to each candidate within this selected list. There was no constraining maximum number of votes to be assigned; the maximum for each participant was 2 multiplied by the number of candidates on the list. However, a maximum of 2 votes could be assigned to any single candidate. To create a measure of votes for women, we divided the total number of points given to female candidates by the total number of points distributed. This ratio represents the percentage of votes given for women.

In the panachage electoral system, each participant had a total of 10 points to be distributed. Instead of being constrained to a single party list of candidates, however, participants were able to distribute the points among any number of party lists. We calculated the percentage of votes given for women in the same way as for the open list electoral system.

Figure 1: Distribution of the percentage of women on the ballots



The ballots remained the same, for a given participant, under the three voting rules. We are thus able to evaluate the effect of the electoral system while holding constant all of the cultural, historical, economic, and other contextual factors that might normally vary in conjunction with different electoral rules. However, because of our randomization of the ballots in the European

elections, there is substantial variation in the percentage of female candidates on the ballots seen by the respondents. Figure 1 above reports the distribution of female candidates seen by participants on the ballots (70 candidates total), the mean of which is 32%. Because of this aspect of the study design, we are also able to compare across voters to see how behavior changes when the proportion of female candidates changes.

After completing the three Pan-European votes, respondents were asked to complete a short questionnaire with standard demographic questions, questions about politics in general, and questions eliciting their opinions about the pan-European constituency, as well as about the three voting rules that they just experienced. For our analysis, we use only observations where we have results from the vote in the three pan-European elections, as well as answers to the question about gender. Our sample contains 1810 observations (see summary statistics in the Appendix).

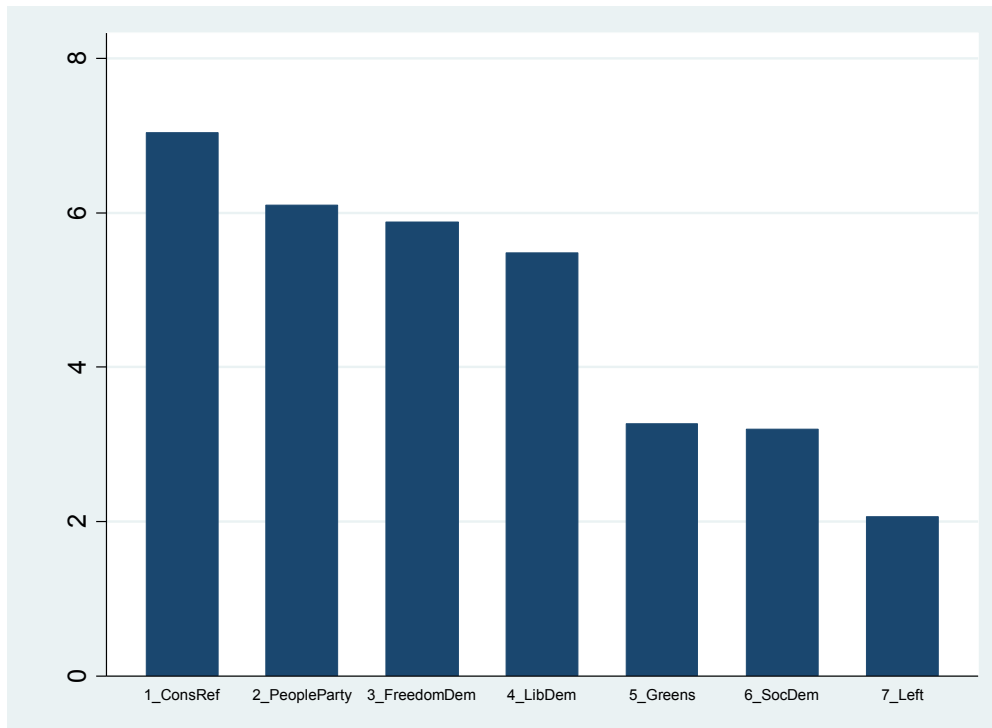
It is important to note that the percentage of female candidates on the different party lists varied a great deal. For instance, the lists of the Freedom and Democracy party featured less than 6% of female candidates on average, and that of the Greens over 47%. Table 1 below reports the statistics among the ballots seen by our respondents. Note in particular that extreme parties (either on the right or on the left) had fewer female candidates than the other parties. The parties with the most female candidates were the Greens, the Social Democrats, and the Alliance of Liberals and Democrats. The ideological aspect of female candidate variation occurred naturally because the lists were compiled from the roster of existing MEPs; parties with fewer women MEPs would naturally provide fewer potential female candidates for our lists.

Table 1: Percentage of women on the lists, by party

Party	% female candidates on the lists	
	Mean	Std Dev
Alliance of Liberals and Democrats for Europe	0.42	0.14
European People's Party	0.34	0.14
Europe of Freedom and Direct Democracy	0.06	0.06
European Conservatives and Reformists	0.22	0.12
Progressive Alliance of Socialists and Democrats	0.43	0.15
Greens/European Free Alliance	0.48	0.15
European United Left-Nordic Green Left	0.29	0.12
All (proportion of women)	0.32	0.05

To give an idea of the ideological positions of these different parties, Figure 2 plots, for each party, the average ideology of respondents who voted for that party in the closed list system. To plot that figure, we selected the 1757 respondents who answered the question about ideology that was asked in the short questionnaire (ideology is measured on a 0-10 scale).

Figure 2: Average ideology of voters (under the closed list system), by party



Results

We begin by considering our hypotheses with aggregate data. In Table 2 we report the mean value of votes for female candidates, by all voters, in each type of electoral system. The data provide evidence in support of our first hypothesis, that open electoral systems are associated with more votes for women, as clearly the panachage system has the most votes for women.

Table 2: Mean votes for women, by electoral system

	All (n=1810)	Men (n=1326)	Women (n=484)
Closed	0.39 (0.18)	0.39 (0.17)	0.38 (0.18)
Open	0.41 (0.21)	0.40 (0.20)	0.43 (0.21)
Panachage	0.44 (0.27)	0.42 (0.26)	0.51 (0.28)

The next two columns in the table report the mean votes for women by male and female participants, respectively, addressing our second hypothesis. The data demonstrate that women vote for women more than men vote for women, and the distinction is clear in the open and panachage systems. The most noticeable information in this table is that the average percentage of votes for women under panachage is 51% for female respondents, which can be compared against (i) the average votes for women under closed lists for female respondents (38%), and (ii) the average percentage of votes for women under panachage for male respondents (42%).

The differences between the mean percentage of votes for women candidates in each electoral system are significant for both men and women. Furthermore, the mean support by female voters is significantly different from the corresponding value for male voters in the open and panachage systems. As a further test of the differences between male and female voters, we conducted two-sample Kolmogorov-Smirnov tests to determine if there are differences in the distribution of support for women candidates. The results reveal that female voters cast significantly more votes for women candidates than male voters in the open and panachage systems, but not in the closed system. Thus, both our first and second hypotheses are supported, but the differences between the amount of support given to women candidates by men and women suggests that the increase in support observed in the first column is driven mostly by the behaviour of female voters.

We can also look at aggregate data to assess our third hypothesis, whether partisanship moderates the tendency for women to support women. Figure 3 shows the mean value of votes for women in the closed (blue, left-hand side bar), open (red, middle bar) and panachage (green, right hand side bar) electoral systems, by partisanship for female respondents (top subgraph), male respondents (middle subgraph), and in the whole sample (bottom subgraph). We use the party chosen under the closed list system to indicate partisan-induced support for women.

Figure 3: Mean votes for women by electoral system and voter gender



What is immediately obvious in Figure 3 is that, regardless of gender and the electoral system, partisanship is very important – voters voting for extreme parties (either on the left or the right) tend to vote for fewer women. The effect is especially strong on the right-hand side of the political spectrum.

Does looking at the data this way change how we understand the effect of electoral systems? Put simply, no. The graph confirms that for male respondents, the propensity to vote for women candidates is not greatly affected by the electoral systems: looking at the subgraph in the middle (male respondents), we observe that, for each partisanship, the heights of the three bars corresponding to the three electoral systems are quite similar. On the other hand, we observe that the results are quite different for female respondents. More open systems, and in particular panachage systems, increase their propensity to vote for female candidates. This is true all across the ideological spectrum, and more noticeably so for female voters voting under the closed list system for the Freedom and Democracy party or for the Left party, parties whose lists present very few females.

Next we turn to evaluating our hypotheses with multivariate regression analyses (Tables 3a-c). We created three different models – one for the closed list system, one for the open list system, and one for the panachage system. We used the measures of votes for women, detailed above, as our dependent variables. Our main variable of interest for the second hypothesis is gender. In all the models, we include the party choice under the closed list system as a measure of partisanship, to evaluate Hypothesis 3. We also control for the percentage of women appearing on the ballot. For the open list and panachage systems, we present two variations of the models, one where we include the measure of female votes from the closed list ballot to control for the support for women that can be traced to the specific party that was supported by the respondent, and one without such a variable.

Results for the closed list election

The results for the closed list system are in Table 3a. All the dummies indicating partisanship are significant. The propensity to vote for female candidates seems to be strongly driven by the mechanical effect of the composition of the full ballot: the presence of more females on the ballot is associated with a higher number of females in the list chosen. More specifically, one more percentage point of females on the ballots translates in 1.11 more percentage of votes cast for women. It seems to be the case that under the closed list ballot, the vote is exclusively driven by partisanship, with no special consideration for the gender of the candidates. Our results lead us to conclude that there is no effect of gender on support for female candidates in a closed list system.

Table 3a: Votes for women in the closed list system

Variable	Coef.	Std. Err.	P>t
Female	0.001	0.007	0.93
Vote : European People’s Party	-0.06	0.01	0.00
Vote : Europe of Freedom and Direct Democracy	-0.35	0.01	0.00
Vote : European Conservatives and Reformists	-0.18	0.02	0.00
Vote : Progressive Alliance of Socialists and Democrats	0.03	0.01	0.00
Vote : Greens/European Free Alliance	0.08	0.01	0.00
Vote : European United Left-Nordic Green Left	-0.11	0.01	0.00
% Women Candidates on the Ballot	1.10	0.06	0.00
Constant	0.06	0.02	0.01
R2	0.49		
N	1810		

Results for the open list election

In the open list election condition (Table 3b), the right-hand side of the table shows the results where the measure of female votes from the closed list ballot is included as an independent variable; the left-hand side of the table shows the results without this variable. In both models, we do observe a significant although weak effect of gender (3 or 4 percentage points in the fraction of votes cast for female candidates). This is different than the results for the closed list system and reflects our expectation, derived from the literature, that women will vote for women, especially in more open electoral systems.

Regarding partisanship, the results depend on whether we include the measure of female votes from the closed list ballot. When it is not included, all the dummies indicating partisanship are significant. When it is included, none of the dummies indicating partisanship is significant. This suggests that, beyond the choice of list itself, partisanship has no effect on whether more votes are given to women candidates.

Table 3b: Votes for women in the open list system

Variable	Coef.	Std. Err.	P>t	Coef.	Std. Err.	P>t
Female	0.04	0.01	0.00	0.04	0.01	0.00
Vote : European People's Party	-0.04	0.02	0.01	0.01	0.01	0.25
Vote : Europe of Freedom and Direct Democracy	-0.31	0.02	0.00	0.03	0.02	0.12
Vote : European Conservatives and Reformists	-0.18	0.02	0.00	-0.01	0.02	0.52
Vote : Progressive Alliance of Socialists and Democrats	0.03	0.01	0.05	-0.01	0.01	0.54
Vote : Greens/European Free Alliance	0.08	0.01	0.00	0.00	0.01	0.997
Vote : European United Left-Nordic Green Left	-0.10	0.01	0.00	0.01	0.01	0.62
% Support for Women Candidates (Closed List)				0.95	0.02	0.00
% Women Candidates on the Ballot	1.11	0.08	0.00	0.06	0.06	0.36
Constant	0.02	0.03	0.42	-0.03	0.02	0.18
R2	0.31			0.64		
N	1810			1810		

Results for the panachage election

As with the open list system, we present the results for the panachage system in Table 3c, where the right-hand side of the table shows the results when the measure of votes for women from the closed list ballot is included as an independent variable, and the left-hand side of the table shows the results without this variable. Once again we find an effect for gender, but the effect is larger

(9 or 10 percentage points in the fraction of votes cast for female candidates). This corresponds to our expectations, as the panachage system allows voters more freedom in choosing candidates. Looking at partisanship, we find, like in the open list system, that none of the dummies indicating partisanship is significant when we include the measure of female votes from the closed list ballot.

Regarding Hypothesis 3, overall our results suggest that partisanship has strong effect on the vote for women, with voters on the right and on the extreme-left having a lower propensity to vote for women. But this effect seems to be driven mostly by the different gender balance across party lists. Indeed, when one controls in the open list and panachage systems for the number of women on the party list chosen under the closed list system, none of the partisan dummies is significant.

Table 3c: Votes for women in the panachage system

Variable	Coef.	Std. Err.	P>t	Coef.	Std. Err.	P>t
Female	0.09	0.01	0.00	0.09	0.01	0.00
Vote : European People’s Party	-0.05	0.02	0.02	-0.01	0.02	0.55
Vote : Europe of Freedom and Direct Democracy	-0.27	0.03	0.00	-0.04	0.03	0.18
Vote : European Conservatives and Reformists	-0.14	0.04	0.00	-0.02	0.03	0.48
Vote : Progressive Alliance of Socialists and Democrats	0.01	0.02	0.54	-0.01	0.02	0.54
Vote : Greens/European Free Alliance	0.06	0.02	0.00	0.00	0.02	0.99
Vote : European United Left-Nordic Green Left	-0.06	0.02	0.00	0.01	0.02	0.65
% Support for Women Candidates (Closed List)				0.67	0.04	0.00
% Women Candidates on the Ballot	1.11	0.12	0.00	0.37	0.12	0.00
Constant	-0.01	0.04	0.83	-0.05	0.04	0.25
R2	0.15			0.25		
N	1810			1810		

(Tentative) Conclusions

The results presented above are, of course, only preliminary observations. More work remains to be done to tease out the specific effects of electoral system rules on behavior. However, we are in a position to make some tentative conclusions:

- More open systems are more favorable to women candidates, and the effect is driven mostly by female voters. More specifically, the vote in the closed list system seems to be driven (exclusively) by partisan considerations (voters choose parties), whereas in the

other two systems, voters pay attention to characteristics of the candidates, which has a positive impact on the amount of support for women candidates.

- Extreme parties (both on the left and on the right of the political spectrum) present lists with fewer female candidates than moderate parties. Therefore, the propensity to vote for female candidates is strongly correlated with partisanship in the closed list system. Looking at more open voting rules, controlling for the percentage of female candidates on the list chosen under the closed list system, we observe no independent effect of partisanship.

In trying to explain the small number of women MPs (and the low level of women in the political elite in general), two competing hypotheses (among others) are that *(i)* Parties do not put females on their lists because of their lower chance of being elected, the latter being driven the voters' bias against females, and *(ii)* Parties, who are historically composed of men, discriminate against female politicians. If anything, our results are more consistent with the latter hypothesis.

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Appendix: Summary Statistics

Variable	Mean	Std. Dev.	Min	Max	Obs
% Women Candidates on the Ballot	.320742	.0492192	.157	.5	1810
% Support for Women Candidates (Closed List)	.3857519	.1761458	0	.899	1810
% Support for Women Candidates (Open List)	.4062536	.2075364	0	1	1810
% Support for Women Candidates (Panachage)	.4397851	.2692604	0	1	1810
Female	.2674033	.4427269	0	1	1810
Vote : Alliance of Liberals and Democrats for Europe	.1574586	.3643332	0	1	1810
Vote : European People's Party	.1005525	.3008183	0	1	1810
Vote : Europe of Freedom and Direct Democracy	.061326	.2399936	0	1	1810
Vote : European Conservatives and Reformists	.0325967	.1776276	0	1	1810
Vote : Progressive Alliance of Socialists and Democrats	.238674	.4263909	0	1	1810
Vote : Greens/European Free Alliance	.2309392	.4215501	0	1	1810
Vote : European United Left-Nordic Green Left	.178453	.3829995	0	1	1810
Ideology	3.937962	2.136066	0	10	1757