
Original Article

Explaining the number of preferential votes for women in an open-list PR system: An investigation of the 2003 federal elections in Flanders (Belgium)

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Q3 **Abstract** The electoral system is an important factor influencing female representation in Parliament. There is a consensus that a proportional representation (PR) system is more beneficial for women than a majoritarian system. Since there is a lot of variety in PR systems and since recent literature suggests that how actors cope with institutional provisions should be looked at more closely, we have investigated why women receive fewer votes in an open-list PR system. More in particular, it was our aim to find out whether a lower number of votes for women are because of voter bias or to systemic bias. We have analyzed three variables influenced by systemic actors (parties, society and media) that have a substantial effect on the number of votes: media attention, campaign expenditures and list position. Our analysis of the 2003 federal Belgian elections shows that women are disadvantaged on these three variables and that as a consequence they obtain fewer votes. There is no voter bias, but a systemic bias. These disadvantages can be due either to individual characteristics influenced by education and society (less ambition, less convinced of capabilities, and so on) or, more importantly, to party- or media-related factors (a.o. list composition, designation of campaign budgets and spokespersons).

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Introduction

Worldwide, politicians are devoting increasing attention to the socio-demographic representativeness of political institutions. The under-representation of specific groups in political institutions is increasingly considered a

democratic problem (Phillips, 1995). To counter this lack of representativeness, many countries have therefore implemented quota systems in recent years (Dahlerup, 2007; Krook, 2007).

The presence of women in parliaments has also been high on the research agenda for several decades. Norris (1996) has developed a common framework for examining the presence of women in parliaments, which focuses on three levels of analysis: the recruitment environment, the recruitment structures and the recruitment process. The electoral system is part of the recruitment environment and is generally seen as having a large impact on the political representation of women (Norris, 1996; Matland and Montgomery, 2003). There seems to be a consensus among scholars that a system of proportional representation (PR) is more favourable for the election of women than a majority system (Norris, 1996; Caul, 1999; Matland and Montgomery, 2003; Leijenaar, 2004; Norris, 2004; Matland, 2005). Since there is a huge variety of PR systems and since recent discussions (Tremblay, 2008; Schmidt, 2009) suggest that how parties, candidates and voters cope with such systems is equally (or even more) important than the system as such, looking at the functioning in practice of PR systems seems worthwhile. Therefore, we will focus in this article on the preferential votes for women, an under-researched topic (Ballmer-Cao and Tremblay, 2008). We will move beyond a simple comparison of the number of preferential votes for men and women and attempt to account for possible differences, including the role of voters, parties, media and society in electing women. We will investigate more in particular whether a lower number of preferential votes for women could be attributed to voter bias or to systemic bias (caused a.o. by the party or by society), in other words whether voters reject women at the ballot box or whether party, society, and so on do not grant enough support to female candidates.

We select three variables to measure systemic bias: candidates' position on the list, media attention and campaign expenditure. These three variables were selected because they are influenced by structural actors and because they are the three main factors affecting the number of preferential votes in Belgium (Maddens *et al*, 2006a). The inclusion of these factors mirrors our aim to look further than the party as influencing actor. Murray *et al* (2009) restrict their analysis of the French elections to party elite bias, focusing only on the role of parties in terms of granting electable positions to women. We are convinced that discriminatory factors in the election of women could be broader than the party alone. The party constitutes an important element of our analysis but in order to check for other actors (society and media) influencing the vote share of female candidates, we opted for the inclusion of campaign expenses and media attention in the analysis.

If these three variables affect significantly the number of preferential votes, and not sex,¹ than there is a systemic bias and no voter bias.



Our research questions are as follows:

- Do female candidates differ from male candidates on the variables ‘position on the list’, ‘campaign expenses’ and ‘media exposure’?
- If such differences exist, do they affect the number of preferential votes? And is there still an effect of sex on the number of preferential votes when controlling for these variables?

We start by dealing more in detail with the role of PR systems in the election of women and the need to look at their functioning in practice. As this article will focus on elections in Belgium, we will then provide factual information on the Belgian electoral system and quota provisions. Next, the relevance of the three variables under scrutiny and their relation to gender will be outlined. Before presenting the results, the methodology will be described. We end with conclusions.

Women and PR Systems

As was indicated, systems of PR are thought to be more beneficial for the election of women than a majority system. Several explanations for this difference can be put forward. First of all, in a PR system parties have to propose more than one candidate per district, which allows them to introduce new candidates without totally disrupting internal power balances. Second, multi-member districts, which are typical of PR systems, permit parties to present a whole range of candidates from different sub-groups, while in single-member districts the party candidate is supposed to represent the district population as a whole. Third, in PR systems ‘contagion effects’ are more likely to occur: party competition for gender-sensitive voters encourages parties to intensify their efforts for female representation (Meier, 2004). Finally, the turnover rate of parliamentarians is higher in PR systems than in majority systems, which facilitates the influx of new politicians, particularly women (Norris, 1996; Jacobson, 2004).

There are two reasons why it is worthwhile to take a closer look at the functioning in practice of one particular PR system for the presence of women in Parliament.

First of all, PR systems may vary considerably, with the type of electoral list (open or closed list system) as one of the most relevant variables. In a closed-list PR system, the seats obtained by a party are allocated to the candidates according to their order on the list, as determined by the party. In an open-list PR system, on the other hand, seats are allocated to the candidates according to the number of preferential votes obtained. There is disagreement about which type of electoral list is most beneficial for women. The central question

in this respect is whether it is easier to convince voters to vote for female candidates (open list) or to convince party leaders to give women a prominent and safe position on the list (closed list). Some limited research has been conducted to establish whether women obtained fewer, an equal number or more preferential votes than male candidates in an open-list PR system. The results of these studies were mixed, with some indicating that women obtain fewer votes (Matland, 1994, 2005), while others found evidence that women receive an equal number (Schmidt, 2003) or possibly even more (Leijenaar, 2004) votes than men. In the end, it can only be concluded that a system of preferential voting renders the outcome of the elections in terms of female representation more unpredictable (Ballmer-Cao and Tremblay, 2008).

Second, we point to recent discussions in the literature that criticise the over-emphasis on institutional factors (electoral system, quota, party rules, and so on) as explanations for female representation (Tremblay, 2008; Schmidt, 2009). It is argued that PR systems do not automatically produce more women-friendly parliaments nor do majority systems lead to male-dominated assemblies. How voters, candidates and parties cope with these institutional variables is as important as these variables themselves. Parties in particular play a crucial role in the election of women: how they select, present and support female candidates affects their chance to become elected (Tremblay, 2008). This is related to the discussion whether voters prefer male over female candidates (voter bias), or whether women perform worse in elections because of a more systemic bias. Fréchette *et al* (2008) found in France that voters expressed a systematic preference for male candidates at the expense of female candidates, while Murray *et al* (2009) reject this thesis in a reassessment of the French data and conclude that an elite bias (parties nominating women in less attractive districts) prevails. As indicated in the introduction, our operationalisation of systemic bias is broader than only party bias and includes also the effects of media and society.

Women and Preferential Votes in Belgium

In this section, the Belgian electoral system and quota regulations are explained.

Belgian voters can either vote for a party list or for one or more candidates (on a single party list).² Candidates receiving sufficient preferential votes to pass the election threshold are automatically elected. The other candidates can reach the threshold by making use of the list votes. These list votes are distributed to candidates according to their order on the list, offering a substantial advantage to candidates at the top of the list, as a result of which the system used to function as a *de facto* closed-list system. However, in recent



elections, more low ranked candidates have managed to get elected at the expense of higher ranked candidates. This is because of the growing number of voters casting a preferential vote instead of voting for the party list. In addition, a recent electoral reform halved the impact of list votes on the allocation of seats to candidates, thereby diminishing the advantage of higher ranked candidates (Wauters, 2003). The Belgian electoral system has thus evolved from a *de facto* semi-closed list PR system to a *de facto* semi-open-list PR system.

Recently, legislation aimed at increasing the proportion of women on candidate lists has been introduced in Belgium³ (Meier, 2004; Celis and Meier, 2006). In 1994, a first quota law, stating that maximum two thirds of the candidates on a list could be of the same sex, was introduced. In 2002, this was changed into the requirement that electoral lists should contain an equal number of male and female candidates (or differing by one in the case of an odd number of candidates). In addition, one of the two highest (often safe, electable) positions on the list should be reserved for a woman. As a transitional measure for the 2003 election, only one of the three highest positions on the list was reserved for a woman candidate. List quotas, however, only affect the composition of candidate lists, not the actual election of MPs. Nevertheless, the quota legislation has led⁴ to a substantial increase in female MPs, from 12 per cent in 1991 over 19 per cent in 1999 to 35 per cent in 2003 (Celis and Meier, 2006).

Table 1 shows that women obtained fewer preferential votes than men in the 2003 Belgian federal elections in Flanders. As can be seen from the last column, the quota legislation resulted in an almost equal number of men and women on the lists. However, women only received 38.9 per cent of the total number of preferential votes. This applied to all Flemish parties, except for the ecologist party Agalev,⁵ where female candidates received 65.5 per cent of the total number of preferential votes (see Appendix A for more information on the political parties in the table).

Table 1: Percentage of preferential votes for women candidates in the elections for the Belgian House of Representatives in 2003 (by party)

<i>Party</i>	<i>Number of preferential votes for women</i>	<i>Total number of preferential votes</i>	<i>Percentage of preferential votes for women</i>	<i>Percentage of women on the candidate lists</i>
Agalev	153 626	234 466	65.5	49.7
CD&V	704 648	1 766 481	39.9	49.1
N-VA	157 958	354 405	44.6	48.4
SP.A-Spirit	568 174	1 448 141	39.2	48.4
Vlaams Blok	329 743	933 349	35.3	48.4
VLD	561 400	1 621 160	34.6	48.4
Total	2 475 549	6 358 002	38.9	48.7



However, it remains to be seen whether gender as such does still significantly affect the number of preferential votes when the effect of variables such as incumbency, place on the list, local mandates, campaign expenditures and media exposure is controlled for.

In what follows, we first present a discussion of the three variables selected and investigate how they relate to gender. Next, we will assess whether gender still has a significant impact on the number of preferential votes when these three variables are controlled for.

The Relevance of the Three Variables under Scrutiny

Position on the list

It has been shown that candidates in prominent positions on the ballot form automatically draw more votes, even when other factors are controlled for (Geys and Heyndels, 2003; Maddens *et al*, 2006a). This effect can be labelled Ballot Position Effect. In Belgian elections, the most favourable positions are those at the top and the bottom⁶ of the list of main candidates (that is, the so-called ‘effective’ candidates). Candidates at the top of the substitute list⁷ can also be expected to attract more votes. Female candidates used to be underrepresented at the top of the list, as a result of which the 1994 quota law was not as effective as intended. For that reason, as discussed above, the revised quota law required that in the 2003 elections at least one of the three top places on the list should be reserved for a woman. The parties complied with this law in a minimal way, and only in a limited number of cases did they give the first place to a woman candidate (Celis and Meier, 2006).

This corresponds to a more general trend revealed by quota research. Male party elites are often reluctant to lose their power position and while they agree to introduce quota regulations, they are often mitigating these regulations in practice by preferring to pay a penalty instead of complying to the law (if possible) and by placing women only on inferior list positions or in more challenging (less safe) districts than men (Dahlerup, 2007; Murray *et al*, 2009). Power struggles within political parties (benefitting male politicians) could be held accountable for the lower electoral score of women.

Campaign expenses

Previous research has demonstrated that, other things being equal, the more a candidate spends on his or her campaign, the more votes (s)he receives (Abramowitz, 1991; Palda and Palda, 1998; Samuels, 2001; Maddens *et al*,



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2006a; Johnston and Pattie, 2008). In general, little research has, however, been conducted on gender and campaign finance. The scarce available literature focuses on the United States and mostly on campaign resources (for instance Uhlaner and Scholzman, 1986) rather than on campaign expenses. For the present article, the question whether women can raise equal funds as men is not that important, since Belgian candidates can only accept small donations from private individuals (Weekers and Maddens, 2007) and since research has shown that donations cover less than 2 per cent of candidates' campaign expenditures (Maddens *et al.*, 2006a). Consequently, it is more important to review the literature on the possible difference between women and men in their campaign expenses. Findings in the United States show that male and female politicians spend equivalent amounts of money on their campaigns (Hogan, 2001; Dolan, 2006). As for PR systems, there seems to be a small gender effect in the sense that women spend less on their campaign than men (Maddens *et al.*, 2006a). Explanations for this difference may be sought both at the level of individual candidates and at the party level. At the individual level, explanations for this expenditure gap may involve female politicians' lack of ambition and lower self-esteem. Research has revealed that, in general, women in politics are less ambitious than men and are less convinced that they have the capabilities required to run for and serve in political office (Lawless and Fox, 2005; Frederick, 2007). It seems likely that less ambitious women and women who fear they might not be up to the job will be less inclined to spend a lot of (their own) money on their campaign. In the Belgian context, such tendencies are reinforced by the quota laws, since at least some parties invited women to join their list simply to comply with quota laws and not because they wanted to encourage them to start a political career (Maddens *et al.*, 2006b).

Besides individual explanations (influenced by education and society), the role of political parties should also be taken into account, more specifically with regard to two aspects of the Belgian legislation on campaign expenses. First, in addition to expenses made from personal funds, candidates are also allowed to use party funds. A limited number of candidates (3.5 per cent) make use of this possibility. Second, a restricted number of candidates are allowed to spend the maximum amount calculated on the basis of the number of voters in the district. The spending cap for the other candidates is much lower and is fixed.⁸ Whether or not a candidate is allowed to spend the higher maximum amount is determined by his or her position on the list, except for an extra candidate whom the party is free to choose. Hence, to a certain extent the amount of campaign expenses is influenced by the party, which determines candidates' position on the list and chooses the extra candidate entitled to spend the higher maximum amount. As female candidates are less likely to occupy top positions on the list, it is safe to assume that their campaign



expenses will on average be lower. But it remains to be seen whether this gender difference persists once position on the list is controlled for.

Media attention

To date, only a few studies on differences in the level of media attention given to male and female candidates have been conducted, again mostly in majoritarian systems (Gulati *et al*, 2003). Such studies tend to focus on the number of media appearances, on the context in which candidates are presented and on media treatment of candidates (Kahn and Goldenberg, 1991; Kahn, 1994; Havick, 1997; Smith, 1997; Gidengil and Everitt, 2003). In this article, the focus will be limited to the number of media appearances. A more or less consistent finding for female politicians is that their media coverage is less extensive, although differences are diminishing (Kahn, 1994; Smith, 1997). This under-representation can be explained by two different factors, that is, media logic and party logic (Altheide and Snow, 1979; Mazzoleni, 1987; Van Aelst *et al*, 2008).

The term media logic refers to the set of values and formats through which issues are treated in the media in order to promote a particular kind of presentation that is compatible with, among other things, entertainment values and audience expectations. This logic implies that the media themselves determine which topics and people appear in the news. Underrepresentation in the media can in this view be explained by the opinions and attitudes of journalists and the media in general, for instance stereotypes news people hold about male and female candidates (Kahn, 1994). It is in this respect relevant to note that the journalism remains a rather male-dominated profession (Smith, 1997). The commercial rules under which media have to operate constitute another factor that could account for a gender gap in media coverage. News people must be selective in the topics and the people they cover. One of the criteria in this selection process is the attractiveness or newsworthiness of the topic or person. A criterion of newsworthiness is relevance: politicians that are relevant are depicted more extensively in the news than less important. Well-known, incumbent politicians, often men, are advantaged because of that.

Party logic, on the other hand, implies that party-political factors determine who will receive press coverage. In this view, the media do not shape the political agenda, but merely reflect it. Although parties are forced by quota laws to place women (high) on candidate lists, there are no regulations on the kinds of candidates that play a prominent media role. It remains possible that parties continue to direct their campaign strategies towards the prominent male politicians of the party.



It is not our aim to disentangle media and party logic in this article. Rather, we will look at the effect of gender differences in media coverage, irrespective of the underlying dynamics which led to these differences.

The gap in media attention given to male and female political candidates may have far-reaching consequences, given that name recognition is an important factor in vote choice: in general, voters are likely to look for familiar names on their ballots. Since variations in the quantity of news coverage may influence candidates' recognition rates (Goldenberg and Traugott, 1987), female candidates receiving less coverage are less likely to receive votes. Moreover, quantitative differences in media coverage may influence voters' impressions of these candidates, as voters' evaluations of candidates tend to be influenced by the media. If the media, for instance, focus extensively on policy matters where male candidates are the spokespersons, voters may come to believe that male candidates are more knowledgeable about such issues (Kahn, 1994), which may give them an electoral bonus.

Methodology

Multiple regression analyses were conducted on a data set of all⁹ candidates at the federal parliamentary elections of 2003 in Flanders (the largest region of Belgium). Given the huge number of data to be collected, we decided to limit the analysis to only one region (and to only one election). Moreover, the parties and the party system in the other Belgian regions differ, which would render the analysis more complicated.

The data were collected within the framework of a broader research project of the Centre for Political Research at K.U.Leuven (KANDI 2003 project).¹⁰ The data set contains information about sex, position on the list, media appearances, campaign expenditures and preferential votes of all candidates for the six major Flemish parties¹¹ in the 2003 Belgian federal elections.

The effect of three variables will be analysed: position on the list, media attention and campaign expenditures.

As far as *position on the list* is concerned, the four first places and the last two places on the list are examined, as well as the first two places and the last place on the list of substitutes.

The *media attention* was measured on the basis of the number of press articles mentioning a certain candidate during the official campaign period (that is, the 40 days preceding the election). We focused on newspaper articles rather than on television appearances. Only a limited number of candidates (mostly those at the top of the ballot) appear on television and benefit from this effect, while (nearly) all candidates appear at least a few times in newspaper articles (Van Aelst *et al.*, 2008). Running an analysis with a variable



on which almost all candidates have a score of 0 does not make much sense. On average, a candidate was mentioned in 21 newspaper articles during the campaign.

As candidates for Belgian federal elections are required to declare their *campaign expenses* (to the electoral court in their district), we managed to collect data on the campaign expenses of all candidates. The campaign expense variable is the amount spent per registered voter in the district, expressed in eurocents. It can be assumed that the relationship between the expenses and the vote will be non-linear in the sense that the marginal returns of spending will gradually decrease with the amount spent. To allow for this possibility, it is common practice in campaign expense research to include the squared expenses in the regression model (for example, Samuels, 2001). In addition, we will also include dummy variables indicating whether or not a candidate is allowed to spend the higher maximum amount (*High max*) and whether a candidate is also running for the Senate (*Cand.Senate*), which would enable him/her to spend more in the large district for the Senate elections.

With regard to *preferential votes*, a relative indicator will be used. The number of preferential votes received by a candidate will be divided by the total number of valid votes (both preferential and list votes) in the district.

In order to obtain a good estimate of the effect of the variables mentioned above, a number of mechanical effects have to be controlled for (for a full list, see Appendix B).

The next section investigates whether there is a difference between men and women with respect to media attention, campaign expenditures and place on the list. We always start by considering the bivariate relationship between sex and the variable under consideration and then perform a multivariate analysis, in which the variable under consideration functions as an independent variable.

Results: Gender Differences in the Variables under Scrutiny

Position on the list

Our results show that women continue to occupy less attractive places on the list. Among the heads of the lists, there are only 27 per cent women and in the last position on the list, also a crucial position, there are only 19 per cent women (see Table 2). In the second position, the percentage of female candidates is already considerably higher (38.89 per cent), but it is only in the third position that (owing to quota requirements) men are outnumbered by women (52.78 per cent). In the most visible first and last positions of the substitute lists, female candidates are also significantly underrepresented.



Table 2: Percentages of men and women candidates by place on the list (chi-square analysis) ($N=948$)

<i>Position on the list</i>	<i>Men</i>	<i>Women</i>	<i>Chi²</i>
1st position on list	72.22	27.78	6.5779**
2nd position on list	61.11	38.89	1.4518
3rd position on list	47.22	52.78	0.2449
4th position on list	55.56	44.44	0.2756
Penultimate position	52.78	47.22	0.0342
Last position	80.56	19.44	12.8495***
1st position on subst. list	66.67	33.33	3.2459*
2nd position on subst. list	70.59	29.41	5.2699**
Last position on subst. list	77.78	22.22	10.5278***
Other position on subst. list	45.19	54.81	4.7245**

* $P < 0.1$; ** $P < 0.05$; *** $P < 0.01$.

Campaign expenses

On average, men candidates spend twice as much on their campaign as women: 0.87 eurocents per registered voter for men against only 0.46 eurocents for women. As argued above, women are disadvantaged with regard to campaign spending because they generally occupy a lower position on the list and are therefore underrepresented in the group of candidates to whom the highest spending cap applies. Among this group of financially privileged candidates, only 32.1 per cent are women. However, this financial disadvantage is not only a by-product of female candidates' lower position. Even among equally ranked candidates, men tend to be more often selected for the highest spending cap than women. For instance, among the candidates occupying the fourth position, 45 per cent of the men are entitled to spend the highest amount, against only 25 per cent of the women. Among the candidates at the bottom of the list, the respective percentages are 37.9 for men against 28.6 for women; as for the candidates at the top of the substitute list, 27.3 per cent men versus 9.1 per cent women were entitled to spend the higher maximum amount. As explained above, it is the party that selects these additional candidates.

Even when candidates' position on the list and the permission to spend the higher maximum amount (high max) is controlled for in multiple regression analysis, gender still has a significant effect on the campaign expenses. Table 3 shows that, other factors kept constant, a male candidate outspends a female one by 0.13 eurocents per voter. Other variables significantly affecting expenditure include a candidate's party (candidates of smaller parties have lower expenses), the first position on the list, being a mayor, the permission to

Table 3: Results of OLS regression analysis with the relative amount of campaign expenses as dependent variable^a (unstandardised coefficients) ($N=913$)

<i>Variable</i>	<i>Parameter estimate</i>	<i>Standard error</i>
Intercept	1.45883***	0.10644
Agalev	-0.90124***	0.07617
NVA	-0.57010***	0.07656
Vlaams Belang	-0.46025***	0.07593
VLD	-0.10196	0.07248
SPA	-0.14543**	0.07250
District magnitude	-0.04676***	0.00428
1st position	0.52386***	0.15036
2nd position	-0.28829**	0.14428
3rd position	0.07971	0.12229
4th position	-0.02053	0.12054
Penultimate position	-0.10091	0.11189
Last position	0.00707	0.12462
1st succ.list	0.13487	0.11916
2nd succ. List	-0.19052*	0.11479
Last position succ.	-0.18307	0.11971
Other position succ.	-0.12168**	0.05365
Mayor	0.23002**	0.09466
Alderman	0.01239	0.07136
Local Councillor	0.04742	0.04857
Incumbent	0.12703	0.07741
High Max	2.32273***	0.10108
Sex	0.13220***	0.04432
Cand. Senate	0.38984***	0.10254

^aIn all regression analyses with campaign expenses as the dependent or independent variable, the observations with a missing value on this variable were omitted. Those candidates with 0 euro campaign expenses, however, were retained in the analyses.

* $P < 0.1$; ** $P < 0.05$; *** $P < 0.01$.

Adjusted $R^2 = 0.7355$.

spend the higher maximum (high max) and whether the candidate is simultaneously running for the Senate election.

Media attention

During the campaign period, male candidates are on average mentioned in 29.1 newspaper articles against only 10.8 articles for female candidates. Media coverage is obviously largely determined by candidates' position on the list, as newspapers will primarily focus on leading candidates. Candidates already holding a political mandate will also get more attention in the media. Even



when these factors are controlled for, however, gender still has a significant effect on a candidate's media coverage (see Model 1 in Table 4): all things being equal, a male candidate will be mentioned in 7.46 more newspaper articles than female candidates. Occupying the first place on the list has the strongest effect on media coverage: with other factors held constant, candidates heading the list appear in 165 more newspaper articles than other candidates.

In Model 2, campaign expenses are entered into the model as an independent variable. The effect of campaign expenses on media attention is significant, indicating that candidates can 'buy' media attention by running a large-scale campaign. Thus, the gender effect on media attention might be because of

Table 4: Results of OLS regression analyses with the number of newspaper articles published in the election period as dependent variable (unstandardised coefficients) ($N=948$)

Variable	Model 1		Model 2	
	Parameter estimate	Standard error	Parameter estimate	Standard error
Intercept	-10.46720	7.38973	-34.96235***	7.85998
Agalev	-1.26632	5.17168	13.21298**	5.49811
NVA	-10.12360*	5.25853	-0.40808	5.29440
Vlaams Belang	-10.27658*	5.26628	-1.15445	5.19849
VLD	6.13718	5.04613	8.82594*	4.86862
SPA	11.19907**	5.06976	14.15476***	4.87543
District magnitude	0.70057**	0.29312	1.44236***	0.30566
1st position	164.86560***	8.66974	160.85038***	10.15706
2nd position	34.00432***	8.29763	27.20188***	9.70210
3rd position	15.94537**	8.06747	12.89458	8.20669
4th position	2.06590	7.93307	0.91141	8.08758
Penultimate position	2.01656	7.85084	4.28795	7.51051
Last position	20.85700**	8.40741	23.54899***	8.36163
1st succ.list	7.15451	8.29420	4.69864	8.00100
2nd succ. List	3.54250	8.05369	6.80850	7.71375
Last position succ.	-1.35215	8.25018	3.36776	8.04226
Other position succ.	-0.24837	3.67614	2.00533	3.60979
Mayor	20.84296***	6.59890	18.93503***	6.37242
Alderman	-4.74867	4.94087	-4.06065	4.78797
Local Councillor	-1.21974	3.35440	-1.18614	3.26078
Incumbent	19.24724***	5.20453	13.48716***	5.20161
Sex	7.45596**	3.05508	5.11680*	2.98840
Cand. Senate	68.93231***	7.03485	59.85289***	6.93559
Campaign expenses	—	—	16.22519***	2.25029
High max	—	—	-30.95823***	8.56239

* $P < 0.1$; ** $P < 0.05$; *** $P < 0.01$.

Adjusted R^2 Model 1 = 0.4904.

Adjusted R^2 Model 2 = 0.5357.

women's lower expenditures, but this is apparently only very partially the case since sex continues to have a statistically significant effect when the campaign expense variables are included in the model. There is, however, a modest effect since the coefficient decreases: the difference between men and women in newspaper articles is 5.12, other factors held constant.

In sum, women suffer from a triple disadvantage as concerns media attention: they obtain less coverage because they occupy less visible positions on the list (see Table 2), because they spend less money in the election campaign (see Table 3), and on top of that, the media appear to be inherently less interested in female politicians.

Results: Effects of These Variables on the Number of Preferential Votes

The previous section revealed that female candidates occupy less crucial positions on the list than men, that they spend a smaller amount of money on their campaign and that they are less visible in the media than men. In this section, we will run several multiple regression analyses in order to assess the effect of these three variables on the relative number of preferential votes. The dependent variable is now the share of preferential votes as a percentage of the total number of valid votes in the district. The average candidate obtains 0.87 per cent of these valid votes.

A first OLS regression model, containing only the mechanical effects and sex (Table 5, Model 1),¹² captures just 26 per cent of the variance in the percentage of preferential votes. In this basic model, gender has a significant effect on the percentage of preferential votes: a man obtains 0.31 percentage points more preferential votes than a woman, with mechanical effects held constant.

When the first position on the list is added to the model (Model 2), the effect of gender decreases substantially (from 0.31 to 0.18) but remains significant. This marked decrease can be interpreted as an indication that the gender effect is partly because of the fact that few women occupy the top position on the list. Adding the effect of the second, third and fourth positions to the model does not alter the effect of gender considerably (from 0.18 to 0.16) (Model 3). This is logical, since Table 2 showed that women were only significantly under-represented in the first position on the list. When the other positions are entered (Model 4), the effect of gender further decreases to 0.09 and is only significant at the 0.1 level. Clearly, women are not only disadvantaged because they seldom occupy the top positions, but also because they are under-represented in some other highly visible positions, such as the bottom of the list and the top and bottom of the substitute list.

For the campaign expenditure effect, we again start from the basic model and add the variables relevant for expenses (Model 5). In this adapted model,

Table 5: Results of OLS regression analyses with the percentage of preferential votes as dependent variable (unstandardised coefficients) ($N=947$ for Models 1–4 and $N=912$ for Models 5–8)

<i>Variable</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>	<i>Model 7</i>	<i>Model 8</i>
Intercept	-1.08356**	-1.49961***	-1.77573***	-1.85477***	-1.17264***	-0.76592***	-0.91803***	-1.39559***
Party strength	0.06055***	0.06188***	0.06226***	0.06238***	0.03700***	0.04915***	0.03263***	0.03837***
District magnitude	-0.05828***	-0.04736***	-0.03992***	-0.03499***	-0.02823***	-0.06356***	-0.03757***	-0.02536***
Pref. rate	0.40157***	0.42997***	0.44752***	0.45434***	0.38121***	0.41169***	0.41256***	0.45313***
Pref./list rate	0.01613***	0.01657***	0.01653***	0.00273***	0.00966***	0.01157***	0.00659***	0.00787***
Sex	0.30542***	0.17793***	0.15546***	0.09150*	0.03497	0.01719	-0.08584*	-0.06919
1st position on list	—	4.31370**	4.43202***	4.46115***	—	—	—	2.33232***
2nd position	—	—	1.35720***	1.38036***	—	—	—	0.95165***
3rd position	—	—	0.73201***	0.74614***	—	—	—	0.30560**
4th position	—	—	0.46509***	0.48463***	—	—	—	0.23757*
Penultimate position	—	—	—	0.08849	—	—	—	-0.02068
Last position	—	—	—	0.73506***	—	—	—	0.16703
1st succ.list	—	—	—	0.37937**	—	—	—	0.07078
2nd succ. List	—	—	—	-0.09343	—	—	—	-0.01216
Last position succ.	—	—	—	0.34264**	—	—	—	0.18872
Other position succ.	—	—	—	-0.19717***	—	—	—	-0.10972*
Campaign expenses	—	—	—	—	0.67047***	—	0.79424***	0.83393***
Campaign expenses ²	—	—	—	—	0.00738	—	-0.04696***	-0.05506***
High max	—	—	—	—	0.10694	—	-0.66758***	-1.35178***
Media exposure	—	—	—	—	—	0.01690***	0.01373***	0.01052***
R^2	0.2606	0.5729	0.6134	0.6269	0.5518	0.6838	0.7592	0.8003

* $P < 0.1$; ** $P < 0.05$; *** $P < 0.01$.

the effect of gender declines dramatically (from 0.31 to 0.03) and is not significant at all. The same is true when media exposure is added to the basic model (Model 6), where the gender coefficient amounts to just 0.02. These pronounced drops in the effect of gender indicate that both campaign expenses and media exposure may account for the fact that women obtain fewer preferential votes than men.

In Model 7, campaign expenses and media exposure are joined. Both variables have a significant effect on the percentage of votes.

Model 8 includes all the variables discussed in this article, which all have a significant effect on the percentage of votes, with the exception of gender. Gender as such does not have a significant effect, once all relevant variables are taken into account.

Conclusions

The electoral system is an important factor influencing the presence of women in Parliament. There is a consensus among scholars that a PR system is more beneficial for women than a majoritarian system. Since there is a lot of variety in PR systems and since recent literature suggests that how actors cope with institutional provisions (such as electoral systems) should be looked at more closely, we have investigated in this article whether and why women receive fewer votes than men in an open-list PR system. More in particular, it was our aim to find out whether a lower number of preferential votes for women are because of voter bias or to systemic bias.

We have analysed three variables which could be seen as elements influenced by systemic actors (parties, society and media) and which have a substantial effect on the number of preferential votes: media attention, campaign expenditures and position on the list. Our analysis of the 2003 Belgian federal elections shows that women are disadvantaged on all three variables: women are underrepresented in the first position of the list and in other visible positions; they spend less money on their personal election campaign and they receive less media coverage.

Women receive fewer votes than men, but this gender effect disappears when either the position on the list, the campaign expenditures or the media attention is entered in the analysis. Women do not obtain a lower number of preferential votes because they are women (no voter bias), but because they are less likely to occupy crucial positions on the list, wage a less expensive campaign and get less media coverage (systemic bias). These disadvantages may be due either to individual characteristics (for example, less ambition, less convinced that they have a chance of getting elected) or party-related factors (for example, list composition, designation of campaign budgets and spokespersons).



Clearly, the ranking of candidates on the list is determined by the party. This order does not only have a direct effect on the number of preferential votes, but also an indirect one mediated by the fact that top-ranking candidates draw more media attention and are allowed to spend more. In this sense, the party appears to be the main culprit, while individual factors influenced by education and society (such as women's lack of motivation to run an expensive campaign) seem to play a more residual role. This leads us to the counter-intuitive finding that even in an open-list system, political parties play a determining role in the election of women.

Over and above these party-related and individual level factors, there is also an independent media effect: the media generally pay less attention to female candidates, irrespective of their position on the list, their political functions or the size of their campaign.

In conclusion, our results show that the lower number of votes for female candidates is because of systemic bias (caused by party, media and society) rather than to voter bias (voters disliking female candidates). The weaker performance for female candidates does not indicate that voters are discriminating by gender, but means that women are not yet positioned and supported to pursue preferential votes with the same effort as male candidates.

Our study would benefit from additional analyses in other open-list PR systems, which might confirm or amend our findings about a systemic bias towards women. It would also be interesting to examine how women relate to the three variables under consideration in elections where they obtain an equal number or even a higher number of votes than men (see the second section). Finally, investigating the effect of quota on media attention and campaign expenses could shed more light on the role of position on the list and the spill-over effects of it on other variables. One thing is, however, clear: the way crucial actors (parties, and so on) deal with institutional provisions merits more attention in analyses of female underrepresentation.

Notes

- 1 We use the term 'sex' to indicate the basic biological distinction between men and women (as a characteristic of a candidate for instance). 'Gender' is used when we refer to the social and structural construction of this difference.
- 2 This system is named a flexible list system.
- 3 Earlier, some parties had already adopted informal quotas.
- 4 The relationship between the quota legislation and the number of women in Parliament is not straightforward, however: intervening variables, such as district and party magnitude, 'contagion effects' and the degree to which the list order is decisive, also play an important role (Meier, 2004).
- 5 This party has always devoted attention to the position of women. For the elections under consideration, women headed this party's lists in all but one district.

- 6 Although they do not directly increase the chance to become elected (candidates of these positions do not receive list votes), the last positions are important because of their visibility. Candidates at the top or the bottom of the list strike the eye, candidates in the middle of the list do not. There are even expressions to denote these phenomena: it is said that candidates at the top 'pull' the list, while candidates at the bottom 'push' the list. These visible positions are also translated in a higher amount of preferential votes (Geys and Heyndels, 2003).
- 7 Voters are presented with two different lists per party: a list of main candidates (so-called 'effective' candidates) and a list of substitute candidates, who take the seat in the case of a vacancy. Elected MPs who are appointed minister or state secretary have to resign as an MP and are succeeded by a substitute.
- 8 This maximum varied between 51 291 euro in the largest district of Antwerp and 14 880 euro in the smallest district of Luxembourg. Other candidates' expenditures were limited to a fixed amount of 5000 euro for 'effective' candidates and the first substitute candidates, and 2500 euro for the other substitute candidates.
- 9 In order to exclude from the analysis irrelevant candidates whose only function is to fill the list, a supplementary analysis on a smaller sample of relevant and motivated candidates is sometimes performed (Samuels, 2001; Maddens *et al*, 2006a). As there is here no consensus on the most suitable variable for making such a selection (for example, number of votes, campaign expenses, media attention) and as moreover such a variable may simply not be available (an independent assessment of the quality of the candidates) or may already be used in the analysis itself (possibly leading to circular argumentation), we only conducted an analysis on all candidates. Experiments with media coverage as a criterion show, however, that the same effects are found for 'high quality candidates' as for all candidates.
- 10 These data were collected by Sam Depauw, Stefaan Fiers, Bart Maddens, Jo Noppe, Steven Van Hecke and Bram Wauters. The part of the project relating to campaign expenses was financed by the Belgian newspaper De Tijd.
- 11 All presenting full lists in every district.
- 12 It was decided to omit one outlier from the data set in the regression analyses, that is, the socialist leader Steve Stevaert, who headed the socialist list in the constituency of Limburg and also ran in the Senate election. Stevaert obtained an exceptionally high percentage of preferential votes, that is, 24.4 per cent, which is 7.2 percentage points higher than the candidate ranked second, that is, Prime Minister Guy Verhofstadt with 17.23 per cent. The externally studentised residual for Stevaert (that is, the difference between the actual value and the value predicted on the basis of a model estimated without the outlier (Welkenhuysen-Gybels and Loosveldt, 2002, pp. 336–343)) in a model with the preferential vote percentage as the dependent variable and the amount spent per registered voter as the independent variable is no less than 14.28, which is considerably higher than the value obtained by Prime Minister Guy Verhofstadt, that is, 10.67.

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Appendix A

Flemish Political Parties

Agalev (now Groen!): Flemish Green party

CD&V (previously CVP): Flemish Christian democratic party



N-VA (former members of VU, a Flemish regionalist party that split up into two parts in 2001): Flemish Regionalist party with a centre-right profile
SP.A (previously SP): Flemish Social democratic party
Spirit (now SLP, former members of VU): Flemish Regionalist party with a social-liberal profile, formed common lists with SP.A at the 2003 elections
Vlaams Blok (now Vlaams Belang): Extreme right Flemish Regionalist party
VLD (previously PVV, now OpenVLD): Flemish Liberal party

Appendix B

List of Variables

Sex: dummy variable with a value of 1 for male candidates;

Preferential votes: percentage of preferential votes for the candidate calculated on the basis of the total number of valid votes in the district.

Candidate's position on the list: Several dummies were created which correspond with the expected critical positions, thus taking into account that the relationship between the position on the list and the number of preferential votes is probably non-linear. The position variables are as follows: first position, second position, third position, penultimate position, bottom position, first position on substitute list, second position on substitute list, other position on substitute list. The reference category contains the candidates occupying the middle positions on the main list (from the fourth until the third last position).

Campaign expenses: amount of candidate expenses per voter in the district, expressed in eurocents.

Campaign expenses²: squared amount of candidate expenses per voter in the district.

High max: Dummy variable with a value of 1 if the highest spending limit applies to the candidate.

Media exposure: Number of Dutch-language newspaper articles in which the name of the candidate is mentioned at least once, in the period from 1 January 2003 until the day before the election (17 May 2003).

Parties: Several dummies were created which correspond to the parties SP.A-Spirit, VLD, Vlaams Blok, Agalev and N-VA (see Appendix A). The christian-democratic party CD&V will serve as a reference category.

Party strength: percentage of votes (both list votes and preferential votes) for the party in the district, calculated on the basis of the total number of valid votes in the district.

District magnitude: Number of seats to be distributed in the district.



Pref./list rate: percentage of voters for the party in the district casting at least one preferential vote, calculated on the basis of the total number of valid votes for the party in the district.

Pref.rate: Mean number of preferential votes cast by the voters of the party in the district casting at least one preferential vote.

Cand. Senate: dummy variable with a value of 1 if the candidate also runs in the concurrent Senate election.

Incumbent: dummy variable with a value of 1 if the candidate is, or has been during the previous legislature (1999–2003), either an MP in the federal House or Senate or a regional parliament, or a minister in the federal or regional government.

Mayor: dummy variable with a value of 1 if the candidate is a mayor of a municipality or city at the time of the campaign.

Alderman: dummy variable with a value of 1 if the candidate is an alderman in a municipality or city at the time of the campaign.

Local councillor: dummy variable with a value of 1 if the candidate is a member of the council of a municipality or city at the time of the campaign.