

Enduring Gender Bias in Reporting on Political Elite Positions: Media Coverage of Female MPs in Belgian News Broadcasts (2003–2011)

The International Journal of Press/Politics
2015, Vol. 20(4) 395–414
© The Author(s) 2015
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1940161215596730
ijpp.sagepub.com



Marc Hooghe¹, Laura Jacobs¹, and Ellen Claes¹

Abstract

In Belgium, like in numerous other democracies, the representation of women in parliament has risen sharply in recent decades, partly because of gender quota legislation. This rapid evolution implies that traditional notions on the presence of gender bias in media reporting need to be re-assessed. Relying on data from more than six thousand full newscasts, we examine the allotted speaking time to members of parliament (MPs) from 2003 until 2011 in the two main television news broadcasts in the Dutch-speaking region of Belgium. Multilevel regression analyses were conducted to determine which factors influence the probability and volume of television news coverage of MPs. The results indicate that—even controlling for alternative explanations—news media persist in a biased treatment of female MPs: Female MPs are significantly less likely to be allotted speaking time, and they receive less speaking time than their male colleagues. Moreover, results show that this gap in media coverage is present especially for elite and thus newsworthy positions. Apparently, gender bias in the media persists, even when the political system evolves rapidly toward equal representation.

Keywords

descriptive representation, gender bias, news media, Belgium, television news, multilevel analysis, media bias theory

In Western liberal democracies, one can observe a trend toward a stronger descriptive representation of women in politics (Childs and Krook 2009). It has not

¹Centre for Citizenship and Democracy, University of Leuven, Leuven, Belgium

Corresponding Author:

Marc Hooghe, University of Leuven, Parkstraat 45, 3000 Leuven, Belgium.

Email: marc.hooghe@soc.kuleuven.be

been investigated systematically, however, whether this trend also erodes the pattern of gender bias that is traditionally present in the news media (De Swert and Hooghe 2010). Content analysis in the past has shown repeatedly that there is a systematic bias in the way female and male politicians are being portrayed in the media, both in terms of the volume and the substance of the media coverage (Kahn 1994; Ross et al. 2013). A theoretically relevant question is therefore whether the rise in the proportion of female seats in parliament has had an effect on the coverage female members of parliament (MPs) receive in news media. In this article, we aim to assess this question drawing upon unique longitudinal data covering more than six thousand full television news broadcasts from Belgium, permitting us to investigate patterns over time. In contrast to earlier studies, we do not rely on a sample of broadcasts, but we include all news broadcasts that have been aired during this nine-year observation period. Do female politicians still receive significantly less media coverage than male politicians, while controlling for other alternative explanations that impact newsworthiness of politicians? Is there a trend toward more equal media coverage as female participation in parliament is on the rise? The rapid rise of women in political elite positions in Belgium allows us to investigate whether media bias is reduced when women gain access to more political power.

The outline of the paper is as follows. First, we focus on gender bias research in the media, before we introduce the Belgian case and our data and methods. Finally, the implications of our findings are discussed and suggestions are made for further research.

Gender Bias and Stereotypes in the Media

Historically, women have struggled to obtain suffrage and parliaments were traditionally dominated by male representatives, but even in the current era, female politicians are often subject to processes of gender stereotyping (Fox and Oxley 2003; Lawless 2004; Ramirez et al. 1997; Ross et al. 2013). Braden (1996) has stated that female politicians often face stereotypical questions on womanhood in the media and are described according to traditional gender roles. Research has identified several causal mechanisms that may account for the lack of female representation in politics. Many studies indeed point to the persistence of traditional gender stereotypes and roles, which highlight the perceived incompatibility of traditional female gender roles with pursuing a political career (Fox and Oxley 2003; Lawless 2004).

Furthermore, gender bias in media coverage too might serve as an obstacle to female representation in politics. Media bias theory suggests that the media “play an integral role in the campaign by framing, shaping, ignoring or presenting the candidates to the public” (Falk 2008: 2). The media would treat female and male politicians differently and this would be unfavorable for female politicians (Ross et al. 2013). As previous studies on agenda setting have shown, voters rely heavily on the media for information on politics, with a result that voting behavior can be strongly influenced by media messages (Iyengar and Kinder 1987). If the media report on female politicians in a biased manner, this may lead the electorate to internalize these messages.

Lack of media coverage for female politicians may reinforce public perceptions about politics as a dominantly male profession. Moreover, the volume of media attention has an important positive effect on the future career of politicians. Less media coverage thus may inhibit female politicians' opportunities to pursue a successful political career. Another reason why equal media coverage is important lies in the fact that the visibility of positive role models is crucial to motivate women in aspiring a political career (Atkeson 2003; Wolbrecht and Campbell 2007).

The possible presence of gender bias in media reporting on politics has been the topic of numerous studies (Aday and Devitt 2001; Bystrom et al. 2001; Heldman et al. 2000; Kahn 1994; Wasburn and Wasburn 2011). Generally, two patterns can be distinguished. First, there is a difference between female and male politicians in terms of the *volume* of media coverage they receive. Second, also the *substance* of the media coverage would greatly diverge.

First, with regard to the volume of media coverage, Kahn's (1994) content analysis in *The Distorted Mirror* demonstrated how women running for office in the United States systematically received less media coverage than men. It has to be noted, however, that efforts to replicate these findings have delivered mixed results (Atkeson and Krebs 2008; Robertson et al. 2002; Smith 1997). More recent studies even found high-profile candidates to receive more media coverage than their male counterparts (Wasburn and Wasburn 2011).

Second, the *substance* of media coverage, too, is subject to persistent gender bias (Kahn 1994). A number of studies have found that the representation of female politicians focused more on physical appearance and personal life (Bystrom et al. 2001; Falk 2008; Ross et al. 2013) and less on issues and political ideas, reducing the ability of women to present themselves as viable candidates (Aday and Devitt 2001). Media often stress the novelty of women running for office as well. In addition, it has been shown that female politicians were more frequently linked with issues such as social policy, than with topics such as foreign policy or finance (Bystrom et al. 2001).

In this study, we will mainly focus on the volume of media coverage, and there are three reasons to take this step. First, agenda-setting theory and research allows us to assume that especially the volume of media attention will have an effect on the way female politicians are perceived by future voters. Second, a focus on volume allows us to fully exploit the vast data set, containing more than six thousand news broadcasts. Third, volume is highly reliable indicator, as registering the length of a news items involves fewer decisions than efforts to analyze the substance of media coverage.

The Rise of Women in Belgian Parliament

Historically, numerous studies have documented a low presence of female politicians in media reports. However, if in reality too women are underrepresented in politics, this does not imply media bias, as the low level of visibility is an adequate representation of reality. In the recent era, however, female participation in elected politics has risen sharply, and this offers a unique opportunity to assess whether there is indeed a persistent media bias. Whereas in 1997, women only made up 13.8 percent of all MPs

in Europe, this proportion steadily increased to 25.3 percent in April 2015 (Interparliamentary Union [IPU] 2015). Assuming news media reflect trends in society, we would expect that female MPs are more visible in the media as well.

Belgium offers an interesting case study because the country started as a “laggard” with regard to equal representation but now is considered to be a leader on gender equality (Meier 2012). In general, Belgium has received a ranking in the top ten of the Gender Inequality Index, which is an indicator of equal rights and opportunities for women (United Nations Development Program [UNDP] 2015). Belgium lagged behind for a long time: The percentage of women in the Belgian federal parliament remained very low until the beginning of the 1990s (Meier 2012). However, from 1994 onward, this changed rapidly. Belgium was one of the first European countries to adopt gender quota legislation, and the country became a pioneer in implementing gender quota legislation for political assemblies, an example which has been followed by other countries. These initiatives have resulted in a steady increase of female MPs in both the Chamber of Representatives and the regional assemblies. In the Flemish regional parliament, for instance, the number of women in parliament almost doubled from 23 percent in 2003 to 39 percent in 2011. Due to this historically unprecedented rise, Belgium offers an ideal setting to investigate whether a stronger representation of female politicians reduces gender bias in media reporting: Within the same political and media system, the proportion of female MP changes dramatically across the observation period.

The Current Study

In this paper, we address the possible persistence of a gender bias in the media using evidence from the Dutch-speaking region of Belgium, that is, Flanders. Our study contributes to the available knowledge on this topic in several ways. First, past evidence has often been mixed and most of the studies are based on evidence from the United States or other Anglo-Saxon contexts (Aday and Devitt 2001; Atkeson and Krebs 2008; Bystrom et al. 2001; Heldman et al. 2005; Smith 1997). Second, the focus of previous work was almost entirely upon election campaigns and more specifically on races for high prestigious and mediatized offices (Aday and Devitt 2001; Heldman et al. 2005; Wasburn and Wasburn 2011). Although investigating coverage of media campaigns is crucial, media attention for politicians in nonelectoral settings has been less frequently examined. Long-lasting media exposure of female MPs and politicians can, however, be expected to have a profound socialization impact on the electorate. Third, studies on gender bias tend to be narrowly focused on a politician’s sex as only possible explanation. Few studies systematically investigate the presence of gender bias in media coverage controlling for alternative explanations that could account for differences in media attention. Our study will therefore take into account the effect of other background characteristics. Fourth, past studies rely on data resulting from small samples of several weeks. This study, however, uses a data set that covers every occasion an MP received speaking time on the two most important television news broadcasts in the Flemish region of Belgium from 2003 to 2011. As we include data from

more than six thousand news broadcasts, we can be confident that our findings are not due to variations in small samples. Finally, our data cover a nine-year period that permits us to investigate evolutions over time. In line with the literature review, we formulate two hypotheses:

Hypothesis 1: There is a gender bias in the volume of media coverage for female MPs in television news broadcasts, controlling for relevant characteristics and real-life data.

Hypothesis 2: There is a trend toward a more equal balance in the amount of media coverage for female MPs in television news broadcasts over time.

Data and Method

To determine whether gender bias is persistent, we will rely on evidence from Flanders, the Dutch-speaking region in Belgium. Belgium is a federal state with a bicameral system, with the Chamber of Representatives (the Lower House) and the Senate (the Upper House). In both legislative bodies, members either belong to the Dutch or French linguistic group (Deschouwer 2009). A special feature of the Belgian federation is that the country has two completely distinct media systems. The Dutch language community in the North of the country has its own television and radio stations and its own newspapers, and the reverse goes for the French language community (Hooghe et al. 2007). For this reason, we only consider the media system of one language group, the Dutch language community. Within this media system, we analyze television news coverage for the national Chamber of Representatives and the Flemish regional parliament. As we only analyzed Flemish news media, we only included the Dutch-speaking MPs for the Chamber of Representatives.

We rely on data collected by the Electronic News Archive (ENA) (www.nieuwsarchief.be). This is one of the largest digital news archives available for scientific research: Since 2003, the major evening news broadcasts of the Flemish public broadcasting corporation, VRT, and of the main commercial corporation, VTM, are archived, coded, and analyzed (ENA 2013). A special feature of the ENA archive is that it includes all news broadcasts and does not rely on a selection. Both newscasts attract large audiences every evening (CIM TV 2011). In 2011, the average market share for the public broadcasting corporation amounted to 33.4 percent. The commercial station had a market share of 20.2 percent.

For every news item, we have information on name, language, function, sex, and speaking time of the depicted actor. Coding of the items was conducted by a team of professional coders that received extensive training by the academic staff of ENA (De Swert and Hooghe 2010). The intercoder reliability of the data was assessed on a regular basis. For the coding of actors and speaking time, the Krippendorff's alpha coefficients were respectively 0.82 and 0.98 and for the coding of the political function the Krippendorff's alpha was 0.98 (De Smedt et al. 2013). The attribution of variables such as gender, age, and specific elite positions was done by relying on official parliamentary records.

The volume of media coverage was operationalized as the seconds speaking time the MPs received in the six thousand news broadcasts. The unit of observation is an MP in a parliamentary term in a specific function. The logic behind this approach is that the amount of media attention for an MP depends on the specific characteristics that define the MP at a certain point in time. If during one term, for example, a MP first is an ordinary MP, subsequently becomes a party president, and a year later Speaker of the House, these are three different observations, because every time this person acquires a new defining characteristic that will have an impact on her/his media exposure. We opted to include political position, parliamentary term, and membership of a majority or opposition party in our definition of a "distinct observation." Hence, every time a change occurred for an MP for one of the characteristics taken into account, we constructed a new unit of observation for that person. This means that it is possible that one person appears several times in the data set. This is the case when an MP is serving or has served more than one term and within or between terms accumulated other political positions and/or went from opposition to majority, or vice versa. Politicians that were MPs during the period of analysis, but did not appear in the analyzed newscasts at all, are included in the data set as well, thus reflecting the actual composition of parliament. They were attributed a "zero" on the dependent variable "allotted speaking time." The different observations nested within MPs on different points in time make that there is dependency in our data, resulting in a multilevel structure (Hox 2010). We will therefore adopt a two-level approach, by considering the different observations nested within a person as the first level, and the person as the second level (see Appendix A).

The data set contains information about 493 individual MPs, each of whom belonged to at least one of the parliaments during the period of observation. One hundred eighty of these 493 MPs, or 36.6 percent, did not receive any speaking time at all. Together the MPs accumulated 143,404 seconds of speaking time on both newscasts, that is, almost 40 hours of speaking time. Following the approach that we already described, these 493 persons led to the creation of 1,011 units of observation, each representing an MP with unique characteristics within a single term in office. Of these 1,011 observations, 421 or 41.6 percent refer to MPs that did not receive any speaking time, whereas the remaining 590 units or 58.4 percent correspond with MPs that were granted at least one second of speaking time in the analyzed news broadcasts during that specific observation period.

In the next paragraphs, we will first present descriptive data to test whether the allotted speaking time for female MPs is in proportion with their actual representation in parliament. Subsequently, we will try to evaluate the hypotheses systematically. The descriptive data made clear that a large proportion of MPs did not receive any speaking time, and this means that almost half of all our observations take the value of "0." This skewed distribution forces us to adopt two different methods of analysis. We will first determine why some MPs receive speaking time and others do not. As the dependent variable "speaking time or not" is a binary outcome, multilevel logistic regression will be used. Subsequently, and only for the units of observation with speaking time, we explain which factors influence the volume of speaking time, using a multilevel

linear regression. The dependent variable for this second regression is the number of seconds an MP was allowed to speak. Although this approach might seem cumbersome, it allows us to differentiate two distinct forms of media bias. First, it allows us to investigate when MPs do not receive any speaking time at all, and second, we can ascertain whether the number of seconds a politician receives for a news quote is shorter than one would expect.¹

Operationalization of the Variables

Dependent Variables

For the multilevel logistic regression, the dependent variable is binary: Is an MP allotted speaking time or not? For the multilevel linear regression, the units of observation without speaking time are not included. Here the dependent variable is the number of seconds an MP is allowed to speak. The average speaking time was 243.1 seconds over the entire nine-year observation period for every MP with speaking time.

Independent Variables

As we want to determine whether a gender bias is present in the television news, an MP's sex is the main independent variable (0 = *man*, 1 = *woman*). In the entire sample ($N = 1,011$), used for the logistic regression, 32.0 percent of the units of observation that received speaking time are female, 68.0 percent are male. For the multilevel linear regression sample, in which cases with a "zero" on speaking time are excluded ($N = 590$), female MPs represent 28.5 percent of the observations and male MPs 71.5 percent. As this variable does not vary between the observations, it is measured on the second, individual level. All other variables were measured at the first level, as they vary over the different observations.

Next, we collected information about the age of the MPs, which will be used as a control variable. Previous literature suggests that age effects play differently for women than for men (Bligh et al. 2012). While for men age and assumed experience can be a positive characteristic, apparently this is less the case for women. For all politicians, however, age is an important control variable as research suggests that younger politicians receive more media coverage than older politicians (Midtbø 2011). We operationalized this variable by selecting the age of the MP at the end of his or her function. When the MP was still in parliament on December 31, 2011 (i.e., the final date in the data set), we included his or her age at this moment to guarantee comparability. The youngest member is 24 years old, the oldest 79.

The third group of independent variables concerns so-called "position variables." Every actor in the sample is an MP, but some occupy other positions as well, which may explain why those members receive more television news coverage. This is in line with previous literature that has focused upon the concentration of media coverage by holders of elite positions (Midtbø 2011). Some MPs are more newsworthy than others because of the prestige they derive from their political position (Heffernan

2006; Schaffner and Sellers 2003). The general evidence states that media attention rises along with the prestige of the political position. We opted to include the following elite positions: (former) party president (1 = *yes*), former government minister, Speaker of the House, and (former) chairperson of the parliamentary party. To arrive at a general measurement of elite positions, we constructed a grouping variable called “holder of an elite position,” encompassing every MP that held at least one of the positions mentioned. The data show that, with regard to these elite positions, the gender balance is not equal. Female politicians only occupy 13.4 percent of these elite positions in the national Chamber of Representatives and 28.7 percent in the Flemish parliament for the entire period 2003 until 2011, which is lower than the overall percentage of female MPs in both parliaments. Appendix B includes more detailed descriptive statistics.

The experience of an MP is also a characteristic that has been found to influence the amount of media attention (Elmelund-Præstekær et al. 2011; Van Aelst et al. 2010). More experienced MPs receive more media coverage, because they have access to more resources and inside information that journalists consider valuable. We operationalized this variable by counting—at the start of each position, and hence observation—the number of days the MP has been represented in the parliament he or she currently is a member of. This ranges from zero days, referring to a political novice without parliamentary experience to 14,095 days, referring to a political veteran who has been a MP for over 40 years. To enhance the interpretability of this variable, we divided the number of days by 365.

We collected information about the fact whether the MP is a majority or opposition member (0 = *opposition*, 1 = *majority*) because past literature has indicated an impact of this characteristic on the newsworthiness of MPs (Schaffner and Sellers 2003; Schoenbach et al. 2001). Opposition MPs make up 46.1 percent of the observations, 53.9 percent refer to majority party members. We also included a control variable containing information about the parliament the MP is a member of (0 = Flemish regional parliament, 1 = Chamber of Representatives). The distribution was 51.7 percent for the Flemish parliament and 48.3 percent for the Chamber.

Finally, to investigate how media coverage has evolved over time, we constructed a variable referring to the parliamentary term in which the MP is active. For the national Chamber of Representatives, the period of observation overlaps with four terms: 1999–2003, 2003–2007, 2007–2010, and 2010–2014.² For the Flemish parliament, which is renewed every five years, we have three terms: 1999–2003, 2004–2009, and 2009–2014. We took the corresponding terms for the Chamber and Flemish parliament together, resulting in four terms.³

Results

Female MPs and Media Coverage

First, we explore the bivariate relationship between the proportion of female MPs and the amount of speaking time they receive. Figure 1 demonstrates the rise of women in both the national and regional parliament. To improve the comparability of the rise in

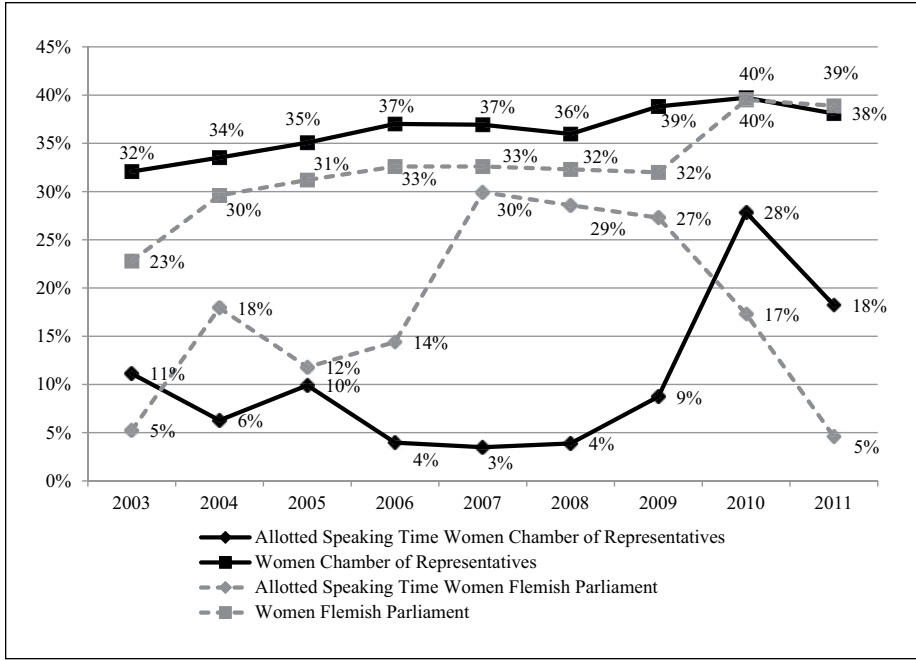


Figure 1. Trends in descriptive representation of women in parliament versus allotted speaking time.

Source: Chamber of Representatives (www.dekamer.be), Flemish parliament (www.vlaamsparlement.be), Electronic News Archive (www.dekamer.be).

female MPs with the volume of speaking time (which we analyzed for Flemish MPs), we only included Flemish MPs in the graph as well. In 2003, approximately one out of three MPs (32 percent) in the Chamber was a woman. This percentage of female MPs has grown over the years, and in 2011, women made up almost 40 percent of the MPs in the Chamber. This ranks Belgium worldwide at a sixteenth place for gender balance in parliament (IPU 2015). As for the Flemish parliament, the graph shows that women made up less than one-quarter of the MPs (23 percent) in 2003 and this almost doubled to 39 percent in 2011.

Figure 1 plots this rise in female MPs together with the allotted speaking time of female MPs during the same time period. For the Chamber, there is a large gap in the years until 2009. Even while occupying 30 percent of the seats in parliament, women did never receive more than 10 percent of the allotted speaking time. In 2010, we note a considerable rise in the percentage of speaking time for female MPs. This is mostly accounted for by the fact that the female leader of the Flemish Socialist Party joined the Chamber in that year. In October 2011, she was replaced by a male successor, which helps to explain the decrease in speaking time for women that year. It is clear that at no point in time the volume of media attention is in proportion with the number

of female MPs. Even at the highest point, women only obtained 28 percent of the speaking time, while occupying 42 percent of the parliamentary seats in the Chamber. In the Flemish parliament, media attention is slightly more in proportion with the actual women's share in seats, certainly in the years 2007 until 2009. The trend, however, is not stable: In 2011, the percentage of speaking time is even lower than in 2003, producing the largest gap since 2003. This drop in media attention is mainly due to the absence of female chairpersons in the Flemish parliament since 2008, as all female chairpersons were replaced by male counterparts.

This bivariate analysis already sheds light on the second hypothesis: There does seem to be a persistent gender bias in the Belgian television news. The graph, however, does not control for alternative explanations yet. In the next paragraph, the possible presence of a gender bias in Belgian newscasts will therefore be investigated in a more systematic manner.

Explaining the Probability and Amount of Media Coverage of MPs

Multilevel logistic regression. By conducting a multilevel logistic regression, we aim to determine which factors impact the probability that an MP will be allowed speaking time or not. For this analysis, we considered the total sample ($N = 1,011$). We can derive that 590 cases (58.4 percent) represent actors that were allowed speaking time, whereas 421 (41.6 percent) observations refer to actors without speaking time. Model 0 (Table 1) represents the intercept-only model. This model shows the variance at the second, individual level, and the model fit when no independent variables are included. Model 1 includes the independent variables at both the first and second level.

The results in Model 1 indicate that female MPs are significantly less likely to receive speaking time. Age has a small but significant impact: Younger politicians are slightly more likely to be granted speaking time. The strongest and most significant predictor, however, is being holder of an elite position. Experience does not influence the probability of speaking time and neither does the variable with regard to majority or opposition. With regard to parliamentary term, we observe that MPs were significantly more likely to receive speaking time in the second and third term than in the first term. Finally, we note that members of the national legislative body are more likely to receive speaking time than regional MPs.

As far as the probability to be allotted speaking time is concerned, we can conclude that Model 1 suggests that a gender bias is still present. Only 38.6 percent of the male MPs is not allotted any speaking time compared with 48.1 percent of the female MPs. Occupying an elite position, however, is the most powerful predictor as mainly MPs with elite positions dominate the television news.⁴

In addition, we tested cross-level interactions⁵: Most notably, it is necessary to assess whether over time there is an evolution toward a more equal media attention for female MPs. None of the cross-level interactions were significant, and they were therefore not included in Table 1. We can conclude therefore that there is no evolution toward more speaking time for female MPs over time.

Table 1. Explaining the Probability to Be Allotted Speaking Time.

	Model 0	Model 1
Intercept	0.260 (0.070)***	-0.292 (0.519)
Level 1: Observation		
Age		-0.024 (0.010)*
Holder of elite position (1 = yes)		1.600 (0.239)***
Experience		0.027 (0.018)
Majority/opposition (1 = majority)		0.251 (0.156)
Terms (ref. = Term 1)		
Term 2		0.703 (0.202)***
Term 3		0.704 (0.213)**
Term 4		0.155 (0.294)
Parliament (1 = Chamber)		0.603 (0.176)**
Level 2: individual		
Sex (1 = woman)		-0.455 (0.183)*
Variance	1.663	0.564
-2 log likelihood	-666.231	-612.246

Note. Entries are the result of a multilevel logistic regression using maximum likelihood estimation.

Dependent variable: Speaking Time—Yes or No. N (Level 1) = 1,011, N (Level 2) = 493.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Multilevel linear regression analysis. For the multilevel linear regression analysis, we included only the 590 observations of MPs that received speaking time (Table 2). The dependent variable is the number of seconds the MP was speaking in the television news, ranging from 2 to 10,421 seconds. As the variable did not have a normal distribution, we calculated the logarithm and used the transformed variable in the analysis. We can derive that female MPs received a total of 19,356 seconds (5.4 hours) of speaking time, while male MPs accumulated almost five times as much speaking time, that is, 124,048 seconds (34.6 hours). In percentages, this means that male MPs received 86.5 percent of the total speaking time. More detailed descriptive statistics can be found in Appendix B.

Model 0 represents the intercept-only model in which the variance is split into two components: the variance between observations within individuals (“within group variance”) and the variance between individuals (“between group variance”). There is substantially more variance between the individuals, than between observations within individuals. We can now calculate the intraclass correlation (ICC) of the intercept-only model, that is, the expected correlation between the observations on the dependent variable of two randomly chosen units in the same group. The ICC shows that 33.2 percent of the variation can be explained by individual-level characteristics, whereas 66.8 percent can be explained by first-level variables. In Model 1, we add the independent variables both at the first and second level, while the cross-level interactions are included in Model 2.

Table 2. Explaining the Volume of Speaking Time.

	Model 0	Model 1	Model 2
Intercept	4.177 (0.069)***	3.776 (0.367)***	3.749 (0.367)***
Level 1: Observation			
Age		-0.004 (0.007)	-0.005 (0.007)
Holder of elite position (1 = Yes)		1.282 (0.126)***	1.514 (0.142)***
Experience		-0.007 (0.011)	-0.008 (0.011)
Majority/opposition (1 = majority)		-0.159 (0.105)	-0.179 (0.104)
Term (Ref. = Term 1)			
Term 2		0.562 (0.140)***	0.576 (0.138)***
Term 3		0.140 (0.145)	0.142 (0.143)
Term 4		0.129 (0.194)	0.121 (0.192)
Parliament (1 = Chamber)		0.465 (0.117)***	0.421 (0.117)***
Level 2: Individual			
Sex (1 = woman)		-0.426 (0.129)**	-0.188 (0.144)
Cross-level interaction			
Sex × Holder of elite position			-0.986 (0.271)***
Variance (Level 1)	0.647	0.275	0.306
Variance (Level 2)	1.302	1.187	1.135
ICC	33.2%	18.8%	21.2%
-2 log likelihood	-1,101.555	-941.635	-935.199

Note. Entries are the result of a multilevel linear regression using maximum likelihood estimation. Dependent variable: allotted speaking time of members of parliament. Dependent variable was log transformed. N (Level 1) = 590, N (Level 2) = 308. ICC = intraclass correlation.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Model 1 largely confirms expectations. The results indicate that an MP's sex exerts a strong influence on the volume of speaking time: Female MPs receive significantly less time. Evidence is thus conclusive on the first hypothesis: a gender bias in television news media remains present. The assumption that mostly MPs occupying elite positions receive speaking time finds support as well.⁶ MPs in the second parliamentary term received more speaking time, but other terms were not significant. Experience and belonging to the majority or opposition are not significant, and neither is age. Finally, MPs from the federal Chamber receive more media coverage than MPs of the regional parliament.

In summary, both analyses reveal that television news does not reflect the evolution toward more descriptive representation of women in parliament. Male MPs are not only more likely to be allowed speaking time, but they also receive systematically significant more media coverage. We also test cross-level interactions in Model 2. The only cross-level interaction term that is significant is the interaction between "holder of an elite position" and "sex."⁷ Model 2 explains 52.7 percent of the first-level variance and 12.8 percent of the second, individual-level variance. Adding the cross-level

interaction term reveals that the mechanisms of gender bias that are at play are even stronger than previous research would lead us to believe. The interaction term indicates that even when women occupy elite positions, they receive less time in the news than men. The observed difference therefore will not simply disappear when female MPs acquire elite positions. While we here group all positions together, it can be observed that even when we look at identical functions (e.g., Speaker, President of a large party), this gender difference is still present. We can observe that a male holder of an elite position, on average, is allotted 485.1 seconds of speaking time, whereas a female holder of an elite position is allotted only 203.6 seconds.

We also tested other possible relevant interaction terms, but as they were not significant, we did not include them in Table 2. The interaction terms between “sex” and “term” failed to reach significance, which disconfirms Hypothesis 2: There is no evolution over time toward more speaking time for female MPs.

Discussion

This article investigated the presence of a gender bias in the media in Belgium, a country that has witnessed an impressive growth in the descriptive representation of female politicians in parliament. Relying on six thousand full news broadcasts from a nine-year period from 2003 until 2011, we systematically assessed which factors were important in determining both the probability and amount of media attention. The results were clear: News media continue to have a biased treatment of male and female MPs. The volume of media coverage for female MPs was not in proportion with their actual share in parliament, nor did the analysis show an evolution toward more proportional media attention. Female MPs are significantly less likely to be allotted speaking time than their male colleagues. Once speaking time is granted, female MPs receive less time.

The analysis thus revealed that a persistent gender bias continues to exist in the television news. This contradicts our hypothesis that gender bias would weaken when women succeed in accumulating more political power. The analysis, however, provides conclusive evidence that this is not the case. The most important finding of the article lies in the cross-level interaction effect between “sex” and “holder of an elite position.” The evidence does not support the assumption that increasing the proportion of women in elite positions will automatically result in more proportional media coverage in at least two ways. First, the analysis made clear that female MPs have a smaller probability to be granted speaking time and receive less media coverage. Second, adding the interaction term in the multilevel linear regression revealed another mechanism of gender bias: the differential treatment holds *especially* for women in more newsworthy elite positions. The interaction effect proved to be highly significant and strong. A female politician, exerting exactly the same function as her male colleague, is treated differently by the television news. It is important here to point out that this difference cannot be explained by the fact that women would never reach the most important political positions. An example can illustrate this finding. Ms. Marleen Vanderpoorten was Speaker of the Flemish parliament from July 2006 until June 2009.

She received 385 seconds of speaking time in the news broadcasts during the period she held this position. Mr. Jan Peumans, the current male Speaker of that parliament, succeeded her in July 2009. He obtained 608 seconds speaking time from July 2009 until December 2011, which is about three times as much for every year in office as his female predecessor. In summary, we can be confident that a real gender bias is present in the television news, and this bias becomes even stronger when women obtain elite positions. We think the most important contribution of the current finding lies in the establishment of gender bias for female holders of elite positions. Holding an elite position initially overrules gender bias, as in practice female party presidents cannot be ignored by journalists. But subsequently, when we investigate the *volume* of media attention, we do observe a clear gender bias. This implies that gender bias mechanisms tend to be very stubborn. Even in a country like Belgium, that scores very high on UNDP's Gender Equality Index, this bias is still clearly present, and we can therefore assume that this will also be the case in countries that are far less successful in achieving gender equality. Gender bias seems to operate in subtle ways, by, for example, allowing for longer quotes (i.e., more seconds) for men than for women. This suggests that to determine whether there is a gender bias between holders of an elite position, one should go into more detail and look at discrepancies in the amount of media coverage. Future studies may therefore want to replicate current findings, maybe in other institutional contexts, or over a longer period of time.

That female MPs are faced with a persistent gender bias in the media may have important implications, most notably for their own careers, but also in terms of the electorate. First, media attention is very important for MPs as they need to attract attention to their parliamentary work to get re-elected. Lack of media coverage can thus have a detrimental impact of female politicians' careers. Second, on the long term, a gender bias in media coverage for MPs may also hinder future recruitment and mobilization of female politicians, as visibility in the media is a crucial mechanism in stimulating young women to aspire political ambitions (Wolbrecht and Campbell 2007). Finally, mass media are highly instrumental in shaping public perceptions, and a lack of media attention for female politicians may stimulate beliefs that the democratic system is not open to everyone. Mass media operate within a democratic system, and therefore it could be expected that the media should adapt to new social realities, like increasing gender equality. In this regard, our study provides conclusive evidence showing the persistence of gender bias.

The finding that a gender bias is present in reporting on elite positions raises new questions for future in-depth-investigation. What mechanisms help us to explain the persistence of gender bias? On a speculative note, it might be that persistent stereotypical beliefs about female politicians held by newsmakers offer an explanation for the underrepresentation of female MPs. Gidengil and Everitt (2000) have focused on the impact of "gendered mediation." They argue that the political realm is still a largely masculine domain, and that the media tend to reinforce these male norms and values by framing political news from this dominant masculine perspective. Female politicians' behavior would be perceived as deviating from the prevalent norms in political behavior, such as confrontation and competition. To make things worse, confrontational and aggressive

behavior by female politicians may be negatively evaluated because it does not live up to the usually cultivated image of women. Another explanation may be that women themselves participate less actively in politics. In Belgium, however, we know from parliamentary records that male and female politicians participate equally. To address whether these mechanisms play a role, a more detailed content analysis is needed to assess how female leaders are portrayed, and whether this portrayal differs from the way male politicians are represented. Moreover, future studies should also include interviews with reports and media directors, to disentangle the underlying mechanisms. Some evidence of interviews conducted in the Belgian context suggests that some journalists perceive diversity and news as incompatible, and that the question whom one reports about is less important than the topic. Journalists suggest that they work with fixed contact lists, which may hinder contacting female politicians as network access is biased. It is quite clear, therefore, that despite official policies on diversity, in the media organization itself, journalists might lack motivation to reflect diversity in their news items. In any case, it is clear that gender bias within news media is a persistent phenomenon, and rather than alleviating the phenomenon, the rise of powerful female politicians might even lead to the introduction of new and stronger forms of gender bias.

Appendix A

Structure of the Data set for MPs.

Obs. No.	Obs. Name	Person	Term	Function	Age	Experience	On News?	Seconds
1	Marleen Vanderpoorten I	Marleen Vanderpoorten	2	MP Majority	52	4.15	yes	138
2	Marleen Vanderpoorten II	Marleen Vanderpoorten	2	Speaker Majority	55	6.23	yes	385
3	Marleen Vanderpoorten III	Marleen Vanderpoorten	3	Speaker Majority	55	9.13	no	0
4	Marleen Vanderpoorten IV	Marleen Vanderpoorten	3	MP Opposition	57	9.23	yes	45

Appendix B

Descriptives

Total Sample (N = 1,011).

	Minimum	Maximum	M
Sex (1 = woman)	0	1	0.32
Age	24	79	47.62

(continued)

Appendix B (continued)

	Minimum	Maximum	M
Experience	0	14,095	1,629.68
Speaker of the House (1 = yes)	0	1	0.01
Party president (1 = yes)	0	1	0.04
Former party president (1 = yes)	0	1	0.03
Chairperson of party (1 = yes)	0	1	0.08
Former chairperson of party (1 = yes)	0	1	0.04
Former government minister (1 = yes)	0	1	0.14
Holder of elite position (1 = yes)	0	1	0.25
Majority/opposition (1 = majority)	0	1	0.54
Parliament (1 = Chamber)	0	1	0.48
Term 1	0	1	0.23
Term 2	0	1	0.35
Term 3	0	1	0.30
Term 4	0	1	0.12

Restricted Sample (N = 590).

	Minimum	Maximum	M
Sex (1 = woman)	0	1	0.28
Age	24	74	47.43
Experience (years)	0	38.62	4.47
Speaker of the house (1 = yes)	0	1	0.02
Party president (1 = yes)	0	1	0.07
Former party president (1 = yes)	0	1	0.05
Chairperson of party (1 = yes)	0	1	0.12
Former chairperson of party (1 = yes)	0	1	0.06
Former government minister (1 = yes)	0	1	0.19
Holder of elite position (1 = yes)	0	1	0.36
Majority/opposition (1 = majority)	0	1	0.57
Parliament (1 = Chamber)	0	1	0.53
Term 1	0	1	0.18
Term 2	0	1	0.37
Term 3	0	1	0.33
Term 4	0	1	0.12

Gender Balance for Elite Positions 2003–2011.

Chamber of Representatives.

Position	Chamber		Flemish Parliament	
	Women	Men	Women	Men
Speaker of the house	0.0%	100.0%	33.3%	66.7%
Party president	8.3%	91.7%	30.0%	70.0%
Former party president	12.5%	87.5%	27.3%	72.7%
Chairperson of party	18.2%	81.8%	15.4%	84.6%
Former chairperson of party	10.0%	90.0%	27.3%	72.7%
Former government minister	14.8%	85.2%	39.4%	60.6%
Holder of elite position (Total)	13.4%	86.6%	28.7%	71.3%

Speaking Time MPs—Holder of an Elite Position 2003–2011.

	Percentage
MP (No Elite Position)	24.8
Holder of Elite Position	75.2

Speaking Time MPs—Gender Balance and Holder of an Elite Position 2003–2011.

	Percentage Speaking Time— MPs (No Elite Position)	Percentage Speaking Time— Holder of an Elite Position
Man	75.9	90.0
Woman	24.1	10.0

Acknowledgment

Dr. Yves Dejaeghere created the dataset on which the research reported in the article is based.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors gratefully acknowledge financial support from the European Research Council, ERC Advanced Grant ‘Linkage’, 295920.

Notes

1. An alternative method would be to use a zero-inflated negative binomial model. While this kind of analyses addresses the skewed distribution of the data and leads to roughly the

- same results, it fails to make a crucial distinction between receiving no media attention at all and receiving shorter quotes.
2. The Chamber was dissolved in 2010 and snap elections were held in June 2010, explaining the three-year 2007–2010 term.
 3. As the problem does remain that the terms of the two parliaments do not entirely overlap, we also conducted the same analysis separately for the regional and the federal parliament, and this does not lead to different results.
 4. We also included the different function variables separately. The results indicated that the variable “party president” was the most significant predictor of the probability to be allotted speaking time, followed by “former party president,” “chairperson of party,” and “former government minister.”
 5. We tested interaction terms between “sex” and “holder of an elite position,” “sex” and “experience,” “sex” and “term,” “sex” and “age,” “age” and “experience,” “age” and “majority,” “holder of an elite position” and “age,” “holder of an elite position” and “experience.” They were not significant.
 6. Including the function variables separately made clear that “party president” had the largest impact on speaking time, followed by “speaker of the house” and “chairperson of party.” “Former party president,” “former government minister,” and “former chairperson of party” proved to be not significant.
 7. We tested interaction terms between “sex and experience,” “sex and term,” “sex and age,” “age” and “experience,” “age and majority,” “holder of an elite position” and “age,” “holder of an elite position” and “experience.” They were not significant.

References

- Aday, Sean, and James Devitt. 2001. “Style over Substance: Newspaper Coverage of Elizabeth Dole’s Presidential Bid.” *Harvard Journal of Press/Politics* 6 (2): 52–73.
- Atkeson, Lonna. 2003. “Not All Cues Are Created Equal: The Conditional Impact of Female Candidates on Political Engagement.” *Journal of Politics* 65 (4): 1040–1061.
- Atkeson, Lonna, and Timothy Krebs. 2008. “Press Coverage of Mayoral Candidates: The Role of Gender in News Reporting and Campaign Issue.” *Political Research Quarterly* 61 (2): 239–52.
- Bligh, Michelle, Schlehofer, Michèle, Casad, Betiina & Gaffney, Amber. 2012. “Competent Enough, But Would You Vote for Her? Gender Stereotypes and Media Influences on Perceptions of Women Politicians.” *Journal of Applied Social Psychology*, 42 (3):560-597.
- Braden, M. 1996. *Women Politicians and the Media*. Lexington: University of Kentucky Press.
- Bystrom, Dianne G., Terry A. Robertson, and Mary Christine Banwart. 2001. “Framing the Fight: An Analysis of Media Coverage of Female and Male Candidates in Primary Races for Governor and U.S. Senate in 2000.” *American Behavioral Scientist* 44 (12): 1999–2013.
- Childs, Sarah, and Mona Lena Krook. 2009. “Analyzing Women’s Substantive Representation: From Critical Mass to Critical Actors.” *Government and Opposition* 44 (2): 125–45.
- CIM TV. 2011. “Marktaandelen 2011.”
- Deschouwer, Kris 2009. *The Politics of Belgium: Governing a Divided Society*. Basingstoke: Palgrave.
- De Smedt, Julie, Ruud Wouters, and Knut De Swert. 2013. “Inter-coder Reliability in the TV News Archive.” University of Antwerp.
- De Swert, Knut, and Marc Hooghe. 2010. “When Do Women Get a Voice? Explaining the Presence of Female News Sources in Belgian News Broadcasts (2003-2005).” *European Journal of Communication* 25 (1): 69–84.

- Electronic News Archive. 2013. "Project Elektronisch Nieuwsarchief Vlaanderen (UA)." <http://www.nieuwsarchief.be/index.php?pg=2>.
- Elmelund-Præstekær, Christian, David Nicolas Hopmann, and Asbjørn Sonne Nørgaard. 2011. "Does Mediatization Change MP-Media Interaction and MP Attitudes towards the Media?" *International Journal of Press/Politics* 16 (3): 382–403.
- Falk, Erica. 2008. *Women for President: Media Bias in Eight Campaigns*. Urbana: University of Illinois Press.
- Fox, Richard, and Zoe Oxley. 2003. "Gender Stereotyping in State Executive Elections: Candidate Selection and Success." *Journal of Politics* 65 (3): 833–50.
- Gidengil, Elisabeth, and Joanna Everitt. 2000. "Filtering the Female: Television News Coverage of the 1993 Canadian Leaders' Debates." *Women and Politics* 21 (4): 105–31.
- Heffernan, Richard. 2006. "The Prime Minister and the News Media: Political Communication as a Leadership Resource." *Parliamentary Affairs* 59 (4): 582–98.
- Heldman, Caroline, Susan Carroll, and Stephanie Olson. 2005. "She Brought Only a Skirt: Print Media Coverage of Elizabeth Dole's Bid for the Republican Presidential Nomination." *Political Communication* 22 (3): 315–35.
- Hooghe, Marc, Knut De Swert, and Stefaan Walgrave. 2007. *De Kwaliteit van het Nieuws*. [The quality of the news.] Leuven: Acco.
- Hox, J. J. 2010. *Multilevel Analysis: Techniques and Applications*. London: Routledge.
- Inter-parliamentary Union. 2015. "Women in Parliaments: World and Regional Averages." <http://www.ipu.org/wmn-e/world.htm>.
- Iyengar, Shanto, and Donald Kinder. 1987. *News that Matters: Television and American Opinion*. Chicago: University of Chicago Press.
- Kahn, Kim Fridkin 1994. "The Distorted Mirror: Press Coverage of Women Candidates for Statewide Office." *Journal of Politics* 56 (1): 154–73.
- Lawless, Jennifer. 2004. "Women, War, and Winning Elections: Gender Stereotyping in the Post-September 11th Era." *Political Research Quarterly* 57 (3): 175–93.
- Meier, Petra. 2012. "From Laggard to Leader: Explaining the Belgian Gender Quotas and Parity Clause." *West European Politics* 53 (2): 362–79.
- Midtbø, Tor. 2011. "Explaining Media Attention for Norwegian MPs: A New Modelling Approach." *Scandinavian Political Studies* 34 (3): 226–49.
- Ramirez, Francisco O., Yasemin Soysal, and Suzanne Shanahan. 1997. "The Changing Logic of Political Citizenship: Cross-National Acquisition of Women's Suffrage Rights, 1890–1990." *American Sociological Review* 62 (5): 735–45.
- Robertson, Terry, Allison Conley, Kamila Szymczynska, and Ansley Thompson. 2002. "Gender and the Media: An Investigation of Gender, Media, and Politics in the 2000 Election." *New Jersey Journal of Communication* 10 (1): 104–17.
- Ross, Karen, Elizabeth Evans, Lisa Harrison, Mary Shears, and Khursheed Wadia. 2013. "The Gender of News and News of Gender: A Study of Sex, Politics, and Press Coverage of the 2010 British General Election." *International Journal of Press/Politics* 18 (1): 3–20.
- Schaffner, Brian, and Patrick Sellers. 2003. "The Structural Determinants of Local Congressional News Coverage." *Political Communication* 20 (1): 41–57.
- Schoenbach, Klaus, Jan De Ridder, and Edmund Lauf. 2001. "Politicians on TV News: Getting Attention in Dutch and German Election Campaigns." *European Journal of Political Research* 39 (4): 519–31.
- Smith, Kevin B. 1997. "When All's Fair: Signs of Parity in Media Coverage of Female Candidates." *Political Communication* 14 (1): 71–82.

- United Nations Development Program. 2015. "Gender Inequality Index." <http://hdr.undp.org/en/content/table-4-gender-inequality-index>.
- Van Aelst, Peter, Adam Sehata, and Arjen Van Dalen. 2010. "Members of Parliament: Equal Competitors for Media Attention?" *Political Communication* 27 (3): 310–25.
- Wasburn, Philo C., and Mara H. Wasburn. 2011. "Media Coverage of Women in Politics: The Curious Case of Sarah Palin." *Media, Culture & Society* 33 (7): 1027–41.
- Wolbrecht, Christina, and David Campbell. 2007. "Leading by Example: Female Members of Parliament as Political Role Models." *American Journal of Political Science* 51 (4): 921–39.

Author Biographies

Marc Hooghe is professor of Political Science at the University of Leuven (Belgium). He holds an ERC Advanced Grant to investigate the democratic linkage between citizens and the state. He is chair of the Centre for Political Science.

Laura Jacobs is a PhD student at the Centre for Citizenship and Democracy at the University of Leuven, Belgium. She mainly investigates the depiction of diversity and inequality in news media.

Ellen Claes is an assistant professor of political science at the University of Leuven (Belgium). She is head of the Teacher Training Unit of the Faculty of Social Sciences, and has published mainly on citizenship education.