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Collateral Damage:

Do Gender Quotas Undermine Party Discipline?

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Abstract

Quotas are the most disputed instrument to promote equal representation of women. Today, political parties in more than 90 democracies apply them. Essentially, gender quotas are a manipulation of the electoral rules. Scholars of legislative politics have created an impressive knowledge on the effect of electoral rules on political behaviour. So far, this literature remains unconnected to the literature on gender quotas. Our study contributes to closing that research gap.

We argue that the introduction of gender quotas boosts competition among candidates of the same party. Yet, the effect of quota-induced competition on party discipline depends on the ballot structure. In case of unblocked ballots, quotas should decrease party discipline. In case of blocked ballots, it should reinforce the grip of the party leadership and thus strengthen party discipline. Importantly, this effect should hit male incumbents harder than their female colleagues.

On the empirical side, we study voting behaviour in the European Parliament, where one third of the deputies belong to parties which operate gender quotas. While our results support our general theory, we find the effect of gender quotas to be stronger for parties competing with unblocked lists.

Quotas are the most disputed instrument to promote equal representation of women in politics and business. Supporters see them as the only way to achieve equal representation within a reasonable time. Critics consider quotas as an attack on the individualistic and egalitarian principles of liberal democracy and as discrimination against men. Empirically, the supporters have been winning the battle in many places, resulting in more than 90 countries in which gender quotas for political representation are either legally prescribed or voluntarily adopted by individual political parties.[1]

The tremendous increase in the use of gender quotas over the last two decades has triggered a number of important questions. Why did certain countries or parties adopt gender quotas? How can we explain the design of the quota rules? Under which conditions did gender quotas effectively increase the share of women in politics? What is their effect on the policy outcome? Existing studies have contributed significantly to our understanding of these questions. For example, left parties and governments are more likely to introduce quotas. The design of quotas is often such that it minimized negative effects for the incumbents. The effect on the representation of women depends on the design of the quota system, the implementation mechanism as well as on the electoral rules. For an overview of the literature, see Krook et al. (2009) or Hellwege (2014).

Parties are crucial actors in organizing parliamentary majorities. Their importance inside parliament depends on their internal cohesion and discipline, which, consequently, has been studies extensively. Yet, so far, the study of quotas remains unconnected to the literature on party cohesion and discipline. This gap is noteworthy because a dominant argument in that literature considers nomination and election rules as an important factor explaining different levels of party discipline. Gender quotas are nothing else but a manipulation of precisely those rules, which raises the question as to whether or not they affect party discipline. Following the path-breaking work by Carey and Shugart (1995), researches

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[1] For more information, see http://www.quotaproject.org.

have studied the nexus between electoral rules and legislators' incentive to curate a personal profile with the voters instead of following their party leaders' instructions. Key variables in this literature are the distinctions between open and closed lists, blocked and unblocked ballots as well as the district magnitude as a proxy for intra-party competition.

In the present article, we close that research gap by studying the effect of gender quotas on party discipline under different electoral rules. As a starting point, we argue that the introduction of gender quotas increases the supply of and, therefore, boosts the competition among candidates. Specifically, quotas motivate a secrete reserve of female party members to enter the competition. The size of this effect is determined by the present level of competition, which, following Carey and Shugart (1995), depends on the district magnitude. Moreover, the direction of this effect depends on the applicable electoral rules. Where voters neither have influence on the composition of the list (closed list) nor on individual candidates position (blocked lists) , the party leadership holds all the power to select and rank from the pool of suitable candidates. Therefore, quota-induced competition should strengthen the party discipline of incumbents. In systems operating open and unblocked lists, the voters can (co-)determine the individual candidates' success. Unblocked lists imply preferential voting, i.e. votes are not cast for the complete list but for the most preferred candidate(s) on that list. In countries operating open and unblocked ballots, quota-induced competition should weaken the party discipline. Finally, quotas intend to substitute male by female legislators. If effective, quota-induced competition should therefore hit male incumbents much harder than their female colleagues.

On the empirical side, we study voting behaviour in the Sixth European Parliament (EP), which, given the different rules by which MEPs are elected, has been considered a natural laboratory for the study of electoral rules (Hix et al., 2007). We discuss the generalizability of our findings in the conclusion. About one third of all members of the Sixth EP belonged to parties that operate gender quotas. Overall, the

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empirical analysis confirms our theoretical argument. Importantly, only if elected from unblocked ballots do 'quota women' behave differently from their male colleagues. Yet, the 'quota men' are the ones who become most disloyal towards the party leadership under these systems. We observe no such gender difference for MEPs elected from blocked lists. This finding suggests that gender quotas are, at least in the short run, less effective where parties alone are entitled to order the candidates on their list.

This article continues with a brief summary of the literature on gender quotas before turning to the discussion of the interplay between electoral rules and gender quotas. Next, we derive our theoretical argument and hypothesis, which are subsequently tested empirically. Finally, we offer a brief discussion of our results.

Gender Quotas, Party Discipline and Electoral Rules

The overarching objective of gender quotas is an increased nominal representation of women in political office. Yet the literature studies the effect of gender quotas from many different perspectives, such as the effect on policy outcomes (aka substantive representation), on the competence of legislators and on their political behaviour. We contribute to the last category of studies, specifically to the effect of quotas on party discipline.

Are gender quotas effective in improving the nominal representation of women? The focus of the existing literature has been on whether quotas contribute to an increase in women elected (e.g. Dahlerup & Freidenvall, 2005; Krook et al., 2009; Schmidt & Saunders, 2004). Gender quotas are either required by law or adopted voluntarily by individual political parties. Election law quotas have been studied extensively with the overall conclusion being that they do in fact cause an increase in female representation (e.g. Htun & Jones, 2002; Jones, 1998). However, similar to other public policies, that

effect depends on the effectiveness of the implementation measures, specifically on the sanctioning of non-compliance (Dahlerup & Nordlund, 2004: 97).

Less systematic attention has been paid to the factors that shape compliance with gender quotas, which have been adopted voluntarily by political parties. Evaluating the effect of voluntary quotas comes with two challenges. First, there is no independent intra-party jurisdiction that could sanction non-compliance. Second, we are facing the threat of a selection effect according to which the effect of quotas is contingent on the same variables which have caused their adoption in the first place. For example, in Western Europe, leftist parties have been more likely to adopt gender quotas than parties of the right (Caul, 2001). Accordingly, we include all the variables used in other empirical studies on party discipline in the EP. Moreover, the literature gives us no reason to expect that the introduction of quotas is motivated by either strengthening or weakening party discipline. Finally, there is discussion on whether or not party quotas may have been designed strategically such that they do not hurt the re-election chances of the incumbents (see Fréchette et al. 2010; Murray et al., 2012). We account for this issue by operationalizing quotas as the discrepancy between prescribed gender ratio and observed gender ratio (for further explanation see below).

Do gender quotas effect substantive representation of women? Following Besley and Coate (1997) quotas change policies if women have systematically different policy positions than men. With a view to developed democracies, it has been argued that women may be less conservative than men (Hogan, 2008) and that women place a stronger salience on soft and redistributive policies (Aidt et al., 2006; Aidt & Dallal, 2006). Moreover, there is evidence that these differences in mass public opinion are reproduced in political elites (Campbel et al., 2010). Studying Indian village councils, one third of which must be chaired by women, Chattopadhyay and Duflo (2004) find that the local public goods provision represents the preferences of the chief's gender. For an overview on studies of nominal and substantive representation of women, see Wängnerud (2009).

Other studies have examined the impact of gender on ideology in congressional voting (Welch, 1985; Clark, 1998; Vega & Firestone, 1995). These studies have found that, although political party is the primary determinant of liberalness or conservatism in voting patterns, gender still has an effect after the analyses controls for constituency characteristics and party affiliation. Heath et al. (2005) argue that the observed voting patterns are indeed more about differences in constituency preferences and less about the effect of female representation as such. Her results suggest a selection effect according to which more liberal, left-leaning constituencies are more likely to elect female candidates that, in turn, represent their voters' preferences in parliament. Poggione (2004) concludes that identifying the impact of female representation on policy outcomes is more complex than previously thought, not least because the effect is mediated by party politics (see also Osborn 2012).

The main argument against the use of gender quotas is that they will lead to reversed discrimination against males by systematically favouring female candidates. Responses to this argument start by observing a biased selection process that needs fixing. For example, Besley et al (2014) perceive quotas as a threat to mediocre male incumbents. They argue that without gender quotas selection mechanisms might protect male incumbents of mediocre competence. Since voters value competent candidates, quotas (by increasing the number of competent females) constitute a threat to mediocre men. Lyder Hermansen (2017) finds empirical support for this argument using data from the EP. In a similar vein, Niederle et al. (2013) argue the quotas can help overcoming biased recruitment by effecting the application decision. Specifically, they show that quotas lead to a higher number of female candidates willing to compete for office.

Does the effect of gender quotas depend on electoral rules? Electoral rules have a huge impact on female representation in parliaments (Duverger, 1955; Darcy et al., 1994; Kenworthy & Malami, 1999; Matland, 1998; Matland & Studlar, 1998; Norris, 1985; Reynolds, 1999; Salmond, 2006). Researchers

have found a strong correlation between women's representation in parliament and proportional electoral systems with large districts, though recent work by Fortin-Rittberger and Rittberger (2015) suggests that this results may be partly endogenous. Proportional systems enable parties to increase the number of female candidates on their list without upsetting entrenched party interests.

Much of this literature focuses on the effect of district magnitude. Specifically, it has been argued that an increase in district magnitude has generally caused an exceptional rise in the number of women elected (Meier, 2005). By contrast, Thames and Williams (2010) argue that in order to understand the effect of electoral systems on female representation, we must look at all facets of electoral rules, which shape the incentives for candidates to obtain personal votes. They argue that systems with weak incentives for personal votes (aka party-centred systems) increase women's representation in comparison with systems that feature strong incentives for personal votes (aka candidate-centred systems).

Technically, it is difficult to combine open lists and unblocked ballots with so-called double quotas, which prescribe the percentage and the position of female candidates on the list. Yet, empirical research suggests that these double rules are most effective in increasing female representation (Gray, 2003; Dahlerup, 2006). Overall, the results for the effect of preferential lists on the representation of women are mixed. A number of studies suggest that voters may have a tendency to cast their votes for the established male candidates, thereby relegating the female newcomers to places down the list (Jones, 1998). From this perspective, the electoral preferences of the constituents determine the effect of gender quotas. In a similar vein, Fréchette et al.'s (2008) comparative study of gender quotas in the French Senate and the National Assembly points towards a selection effect in the evaluation of gender quotas under different electoral rules, which follows an almost perverse logic. In districts where

incumbents are aware of an electoral bias against female candidates, they may even benefit from an increased percentage of women on the list if elected by preferential votes[2].

Some of the literature which studies the effect of quotas on female representation includes electoral system as an explanatory factor. Paxton et al. (2009) argue that quotas work best under proportional representation and that this positive effect remains constant over time. Similarly, Baldez's (2004) results from a comparative study of Chile and Argentina support the argument that electoral quotas are most effective when applied in a closed-list, proportional representation system. By contrast, when studying Latin American countries, Jones (2004) finds that that well-designed quota legislation has a positive impact on the election of women, regardless of the type of party list (closed or open). He only finds a marginally larger effect of gender quotas if introduced in closed list systems.

The Effect of Gender Quotas on Party Discipline

Quotas are among the most controversial measures to correct an almost omnipresent underrepresentation of women in politics in general and parliaments in particular. One side argues that quotas correct an existing discrimination in the selection mechanism. For example, Lyder Hermansen (2017) argues that without quotas women face higher thresholds to obtain a promising position on the list. Consequently, she finds that the few women who make it have a higher average level of political ambition and skill. From this perspective, quotas correct an existing selection bias or discrimination. Opponents argue that quotas do more harm than good by discriminating against men, which, eventually, leads to a lower average quality of elected members of parliament. From this perspective, quotas bias candidate competition and, hence, are a form of overregulation. Our starting point is

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[2] For critical discussion of this argument see Murray (2012).

agnostic with regard to the reasons for the observed gender bias in nominal representation. However,

we do assume that the introduction of quotas encourage more females to enter the competition over

promising list position. This assumption is in line with the experimental results by Niederle et al (2013).

The bottom line of our argument is that this increased supply intensifies the competition among

candidates, thereby making the mechanisms governing the selection and nomination of candidates

more visible. Following the literature, the rules for re-election have important consequences for party

discipline in legislative behaviour. In this section, we argue that the introduction of gender quotas

constitutes a change of the electoral rules and as such have an effect on party discipline.

In their path-breaking article, Carey and Shugart (1995) argue that electoral rules shape legislators'

incentives to curate an independent, personal profile with the voters, which, in turn, should reduce their

loyalty towards the party. Most prominently, they consider the following three dimensions of electoral

rules. *First*, in some countries, only parties can set up lists and decide over the names on that list (closed

rule). In other countries, voters can choose among independent candidates or amend party lists by

adding additional names (open rule). *Second*, in some countries, only parties can determine candidates'

positions on the list (blocked ballot). By contrast, other countries operate preferential voting schemes

under which voters can at least co-determine the ranking of candidates on the list (unblocked ballot). A

blocked ballot is incompatible with an open list. *Third*, the district magnitude is a proxy for the level of

competition among candidates from the same party. In case of single-member districts, parties can only

nominate one candidate. Because the single candidate has to represent both himself and the party in

that district, the electoral rules have no effect on his party discipline. In multi-member districts, parties

can nominate as many candidates as there are seats to be obtained. However, most of the time, they

will not obtain all the seats, and accordingly, there is competition among candidates from the same

party. In case of open and unblocked ballots, intra-party competition increases candidates' incentives to

curate a personal profile with the voter because, ultimately, the voter determines their position on the

list. In case of closed blocked ballots, intra-party competition reduces candidates' incentives to curate a personal profile with the voters because, ultimately, the party determines their position on the list. Importantly, the literature on party cohesion argues that voting behaviour is an important instrument for incumbents to curate a personal profile with the voters (e.g. Carey, 2007; Hix, 2004).

How does the introduction of gender quotas affect incumbents' incentives to curate a personal profile with the voters?

Similar to district magnitude, gender quotas reinforce competition among incumbents over attractive positions on the party list. Specifically, quotas motivate more female party members to enter the competition for candidacy (see Niederle et al. 2013). Imagine a district with ten seats and a party which expects to win five of those seats. Usually, a party list would have ten names on it, but only the top five candidates will make it into office. Without quota, we observe women to be underrepresented on the party list. This can have very different reasons such as women's aversion to enter the male dominated competition or discrimination by powerful old boys' networks. Nevertheless, we also expect to find one or maybe two women on the list, with at least one of them at a promising position. Following the literature, quotas should motivated more women to enter the competition. All incumbents are worried that some of the additional female candidates will be sufficiently competent to threaten their position. Hence, the introduction of a quota increases the level of competition for all of the incumbents. Hence, they will be even more ambitious in pleasing those principals who determine their re-election chances, i.e. the voters in unblocked ballot systems and the party leadership in blocked ballot systems.   Please note that we return to discussing the gender specific effect of quotas on party discipline below.

H1a: In case of unblocked ballots, gender quotas increase candidates' incentives to curate a personal profile with the voter and, therefore, reduce party discipline.

H1b: In case of blocked ballots, gender quotas reduce candidates' incentives to curate a personal profile with the voters and, therefore, increase party discipline.

This effect should be visible during the period in which quotas are introduced. However, identifying this period is not an easy task. We regularly observe a time lag between the formal decision to introduce a quota and its effective implementation. Here, we argue that hypothesis 1 depends on the discrepancy between the percentage of women prescribed by the quota rule and the percentage of women currently in office. Where parties already fulfil the quota rule, the rule does not imply any additional intra-party competition, and accordingly, it should have no effect on party discipline. In cases of simple quotas, discrepancy is the difference between the percentage stipulated by the quota and the present level of female representation. Operationalising discrepancy is slightly more complicated in cases of double quotas. Double quotas stipulate the percentage of women and their position on the list. Usually, double quotas are designed with the purpose to avoid females being relegated to hopeless positions on the list. Hence, we could determine the realistic number of seats a party can obtain in a given district, identify the number of seats which (following the quota) women should hold of that realistic number and compare that to the de facto number of seats held by women. In the empirical section, we refrain from explicitly testing for double quotas because they are very rare in EP elections. Furthermore, double quotas are incompatible with openly structured ballots.

H2: The effect of quotas on party discipline increases in the discrepancy between the quota rule and the current representation of women.

Moreover, incumbents' strategy to win out intra-party competition by optimising their voting behaviour might have a diminishing marginal utility. If that is the case, the effect of a quota-induced discrepancy on party discipline should be particularly strong where intra-party competition is low without a quota

rule. According to Carey and Shugart (1995), this is the case in small districts. Accordingly, we expect that the size of the effect described in H1 to H2 is stronger in small districts.

H3: The effects described in H1-H2 should be stronger in small than in large districts.

Finally, and importantly, the effect of quotas on party discipline should be gender specific. If effective, quotas should cause a higher percentage of female legislators. Accordingly, the effect of quota-induced competition should hit male incumbents harder than their female colleagues. In fact, female incumbents may even face a reduced level of competition; i.e. they may be protected by the quota rule. If so, we should observe the opposite effect of the one stipulated in Hypothesis 1.

The gender-specific effect of quotas on party discipline depends on two factors. First, the mechanisms that govern the nomination and election process prior to introducing the quota. If successful women in a system without quotas are above average ambitious and competent (see Lyder Hermansen 2017), they are well prepared to take on the additional level of quota-induced competition. If, however, their success is rather due to networking or even to gender being their unique selling point, they are less prepared for reinforced competition. Second, the effect depends on the design and effectiveness of the quota rule. Ineffective quota rules can still increase the overall level of competition among the pool of candidates, but without changing the bias in favour of male candidates. Essentially, the effectiveness of gender quotas depends on whether it successfully undermines the root cause of discrimination. For example, in preferential voting schemes, quota rules are ineffective if the electorate has a male gender bias. In case of structured ballots, quota rules are ineffective if party leadership (representing powerful regional networks, party factions etc.) maintain their gender bias when allocating the attractive position on the list. It is against this background that the existing literature finds double quotas to me most effective. Since we double quotas are almost never used in EP elections, our fourth hypothesis addresses the gender specific effect more generally.

H4: The effect of quotas on party discipline stipulated in H1 is gender specific. It is at least weaker for female incumbents and may even reveal the opposite sign.

In the next chapter, we turn to testing our hypothesis by using data on voting behaviour in the Sixth European Parliament (EP).

The European Parliament

In this section, we study the effect of quota rules on voting behaviour in the Sixth European Parliament (05/2004-05/2009). During that term, women's political representation in the EP was 31 per cent, which was similar to the level inside the Commission (30 per cent). By contrast, the number of women in national governments varied greatly, from 5 per cent in Greece to 60 per cent in Finland in 2007 posts. Overall, the EP had a harmonising effect on female representation in Europe. In countries with low levels of women's descriptive representation, women tended to do better in the EP. In countries with higher numbers of women in the national parliament, on the other hand, the gender gap goes the other way (Kantola, 2009).

We collected information on the quota rules applicable at the elections to the Seventh EP, assuming that incumbents either knew about or anticipated those rules during the Sixth EP. Starting point for our data collection has been the information offered at www.quotaproject.org back in 2011. The Sixth EP consisted of 847 MEPs including replacements. About one third of those MEPs were elected from parties that operated a gender quota (see Table 1). Specifically, this group included 159 male and 97 female MEPs. Considering these numbers by ballot type, the relevance of quota rules was almost twice as high in parties operating structured ballots (195 out of 524) than in parties operating open ballots (61 out of 323). At the country level, we find only seven countries in which none of the parties represented in the

Sixth EP operated a quota, namely Bulgaria, Denmark, Estonia, Finland, Latvia, Lithuania and the Slovak Republic.

[Table 1 about here]

The EP offers a natural laboratory for studying voting behaviour because its members are elected under different rules while still voting on an identical set of proposals. During the Sixth EP, national parties were organised in seven European political groups (EPGs). The literature conceives of MEPs as agents of two principals (Hix et al., 2007). EPGs hold significant privileges inside parliaments, including the allocation of the most prestigious offices, such as Committee membership and rapporteurships. Depending on the electoral rules, the national party can influence an MEP's re-election chances. Existing research finds that in case both principals hold conflicting interests, MEPs are more likely to vote with their EPG if the national party's influence on re-election is limited (Hix, 2004).

Using the Official Journal of the European Union and the Legislative Observatory (OEIL), we compiled a dataset containing information on all amendments proposed in the Sixth EP (2004–9). The dataset contains information on recorded voting behaviour[3] as well as additional information on the vote, such as the procedure, the identity of the authors and the decision-making stage.

Here, we follow Hix (2004) in defining the party line by the voting behaviour of the majority of its members. Furthermore, we exclude all MEPs who participated in less than 2.5 per cent of the legislative votes in our data set, which reduces the number of individual MEPs to a total of 765. In addition, we exclude all parties with less than three seats. Importantly, the voting preferences of the national party and the EPG were identical for almost 89 per cent of these votes. We are exclusively interested in those 11.5 per cent of the votes for which the preferences of the national party contradict those of the EPG.

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[3] Only one fifth of all plenary votes cast during the 6th EP have been recorded. This raises the question whether our results can be generalised to non-recorded votes.

Cases in which an MEP votes against the preferences of both his principals are rare (less than 3 per cent), whereas the usual case in which an MEP votes with both principals is uninformative. Confronted with such a loyalty conflict, legislators decide to follow their EPG roughly two thirds of the time. Accordingly, we focus our analysis on those 170,775 individual voting decisions for which the voting preference of the national party differs from the preference of the EPG.

[Table 2 about here]

Here, we are interested in how far gender quotas in conjunction with electoral rules affect an MEP's likelihood to vote with the EPG and against the national party. Accordingly, the dependent variable is voting behaviour, which equals 1 in case the MEP votes with the EPG and against the national party and 0 otherwise, meaning that the MEP voted with the national party and against the EPG. The most important independent variables are *discrepancy, ballot structure, district magnitude* and *gender*.

We calculate *discrepancy* as the 'percentage of female candidates prescribed by the quota rule' minus 'the percentage of women currently in office'. Empirically, discrepancy varies between -0.47 (i.e. 47 per cent more females than required) and 0.30 (i.e. 30 per cent less females than required). In parties without a quota, the "prescribed" percentage of females is equal to zero, hence most of these parties have a negative discrepancy. As an alternative operationalisation, we used the percentage of female candidates on the party's list for the 2004 elections.[4] The substantive results are very similar.

Table 2 reveals that candidate lists have been open in only five of the 27 countries, namely Bulgaria, Finland, Ireland, Luxembourg and Malta. However, 16 countries operated unblocked ballots, where, accordingly, voters could directly influence which individual candidates should be elected into parliament.

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[4] As a third possible explanation, we considered each party's percentage of female deputies in the respective national parliaments. In fact, this operationalization, even though most disputable in terms of validity, returned the strongest results in support of our argument.

Hence, *ballot structure* is a dummy variable that distinguishes blocked from unblocked ballots. *District magnitude* is self-explanatory, but has – given its skewed distribution – been logarithmised.

We follow Hix's (2004) analysis of EP voting data in applying additional, unobserved fixed effects at the vote level, the country level and the EPG level. With a view to the standard spatial model, we include MEPs' scores from a two-dimensional Nominate model. These left-fight scores are important because we that parties with quotas are on average left to those without quotas. Following Meserve et al. (2009), we split the sample of roll calls, separating the votes cast during the first half of the legislative term from those cast during the second half of the term. As a result, we obtain two sets of Nominate scores, which allow us to prevent any potential endogeneity problem.[5] Furthermore, we control for the distance between MEPs and their EPGs on each of the two dimensions. we approximate the position of the European EPG by the mean of its members' positions. This procedure can be justified with reference to McElroy and Benoit (2012), who find that the position of all major EPGs is relatively close to the mean of its members. In an alternative specification, we exchange MEP's Nominate scores with experts' judgements of party positions (Benoit & Laver 2006). The substantive results remain unchanged.

At the individual level, we control for MEPs' age, gender, attendance rate and tenure (years of service in the EP). Age and tenure are important control variables because the introduction of gender quotas increases the number of young freshman in parliament (Wängnerud 2009), who might vote less disciplined than elder colleagues. At the party level, we control for the seat share and membership in the national government. At the EPG-vote level, we control for voting cohesion at the specific vote in question. We add a dummy indicating whether or not an MEP's own EPG has been authoring the proposal. Finally, we add a dummy indicating whether or not the MEP belonged to the same EPG as the rapporteur.

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[5] Please note that the NOMINATE scores come with a measurement error. Accordingly, we are probably underestimating the standard errors of the effect these scores have on voting behavior.

Results

We estimate a series of four logistic regression models, all of which include the full battery of fixed effects at the level of votes, EPGs and countries. As a consequence, we lose observations for lack of within-group variation. The first model includes all variables, but refrains from adding the theoretically expected interaction effect (see Table 3). The estimates confirm many of the previous findings on voting behaviour in the EP. MEPs are more likely to defect on their EPG if their national party is in the government, and they are more likely to support amendments authored by their own EPG. Their likelihood to defect on their EPG increases in their ideological distance to the EPG median, especially if they are either leaning towards the ideological right or if they are Eurosceptic. Furthermore, MEPs from larger national parties are more likely to vote against their EPG. With a view to our key explanatory variables, we find that MEPS from parties with strict quota rules (which usually go hand in hand with a large discrepancy) are on average less likely to follow their EPG. By contrast, MEPs elected from blocked ballots are more likely to follow their EPG. MEPs from large districts are less likely to follow their EPG. Finally, we observe no systematic difference between female and male MEPs.

The second model includes an interaction term with the variables *Discrepancy, District Magnitude* and *Ballot Structure*. The results are best understood by studying the marginal effects plot (Figure 1). Our theoretical argument expects that quota requirements, if currently unfulfilled, should increase the competition among candidates. This should reinforce party discipline of MEPs elected by structured (aka blocked) ballots. The left side of Figure 1 confirms this expectation. The boost in competition should, however, lower party discipline of MEPs elected by unstructured (aka unblocked) ballots. The right side of Figure 1 also strongly supports this part of our theoretical argument. Hence, our first two arguments are supported by the empirical evidence.

Furthermore, we argue that an incumbent's strategy to win out intra-party competition by optimising

his voting behaviour might have a diminishing marginal utility (H3). Hence, we concluded that the effect

of unfulfilled gender quotas should be particularly strong in small and medium-sized districts, where,

according to Carey and Shugart (1995), intra-party competition is lower. Figure 1 supports this

expectation. The effect of unfulfilled quotas is strongest where districts are small to medium-sized.

In the third model, we add *Gender* to the interaction term between *Discrepancy, Ballot Structure* and

D*istrict Magnitude*. Gender quotas are introduced with the intention to increase female representation

in parliament. Accordingly, effective quota rules should threaten male incumbents more than female

incumbents. In fact, quota rules may even protect female incumbents against competition with male

candidates inside their party. Hence, we expect the effect of discrepancy to be smaller for female than

male MEPs (H4). Figure 1 strongly confirms this argument, but only for unblocked ballots. If subjected to

quota-induced competition, male incumbents are more likely to vote against instructions of their

national party than their female fellow party members. This finding rejects any suspicion that the

electorate in those EU member states may have a male bias (see Fréchette et al., 2008). On the

contrary, gender quotas increase the pool of candidates, thereby boosting competition among

candidates, which, as intended, threatens male incumbents more than their female colleagues.

However, we do not find a significant difference in the effect of quota rules on voting behaviour among

male and female candidates elected from blocked lists. In blocked list systems, party leadership

implements the quota rules by increasing the pool of candidates. Yet, the effect of this quota-induced

competition on incumbents' voting behaviour is not only weaker than in parties operating unblocked

ballots, but it hits male and female incumbents alike. This leads us to conclude that introducing gender

quotas under blocked lists does not effectively substituting male by female legislators – at least in the

perception of the incumbents. Consequently, party leadership implements quota rules such that they

have no short-term effect on the gender ratio in parliament. Previous studies found that quotas are often designed such that they have no immediate impact on the incumbents (see Fréchette et al. 2010; Murray et al., 2012). Our results qualify these findings, indicating that blocked ballots give party leadership significantly more leverage in designing quota rules that protect incumbents.

Discrepancy is a compound variable that subtracts the percentage of female legislators in 2008 from the percentage of female candidates stipulated in the quota rule. The drawback of this measure is its complexity. Therefore, we re-estimated our model 3 using the *Quota* requirement, which ranges from 0 (no quota) to 0.5 (parity), instead of *Discrepancy*. The marginal effect of *Quota* on voting behaviour is depicted in Figure 2, which, however, is very similar to the effect of *Discrepancy* depicted in Figure 1. Comparing the two graphs, the only substantive difference appears in case of unblocked lists and large districts. There, we find an unexpected, yet weakly negative effect of quota requirements on male legislators' probability to vote with their EPG.

In terms of explanatory power, using the *Discrepancy* between quota rules and the ex-ante state of representation (model 3) clearly outperforms the use of the *Quota* rule as such (model 4). This result is perfectly in line with our theoretical argument, which expects that the quota-induced boost in competition should depend on the ex-ante state of female representation.

Conclusion

Gender quotas are a hotly disputed instrument to increase female representation in politics. The proponents of quota rules argue that it is the only way to achieve equal representation within a reasonable time. The opponents argue that quotas threaten individual equality – a fundamental principle of liberal democracy. Over the last years, gender quotas have been introduced by an ever-

increasing number of parties in more and more countries. So has the literature on quota rules, which studies parties' motives for adopting gender quotas as well as the effect of quotas on substantive and nominal representation.

In essence, gender quotas are a manipulation of electoral rules. Following Carey and Shugart (1995), scholars of legislative politics have created an impressive body of literature on the effect of electoral rules on political behaviour in general and voting behaviour in particular. A central question in that literature is in how far electoral rules influence the importance of parties for legislative behaviour and outcomes. So far, this literature remains unconnected to the literature on gender quotas, despite their increasing use worldwide. We aim at closing that research gap.

Today, gender quotas can be found in more than 90 democracies. Here, we focus on the effect of gender quotas on political behaviour in the European Parliament, where the use of quotas has significantly spread over the last 15 years and today more than one third of the deputies belong to parties that operate gender quotas. Building on previous studies of the effect of quotas on political competition, we argue that gender quotas enlarge the pool of candidates and, therefore, boost competition among candidates of the same party for places on the list. Hence, the effect of quotas are similar to the effect of district magnitude describe by Carey and Shugart (1995). Consequently, we argue that the effect of quota-induced competition depends on the ballot structure. In case of unblocked ballots, quotas should decrease party discipline. In case of blocked ballots, it should reinforce the grip of the party leadership and thus strengthen party discipline.

Our empirical evidence strongly supports this argument. In brief, gender quotas cause intra-party competition which either increases (blocked ballots) or decreases (unblocked ballots) the grip of national parties over their members of parliament. Furthermore, we find that the effect of gender

quotas on party discipline is particularly strong in small districts, where, following Carey and Shugart (1995), intra-party competition is generally lower.

If effective, gender quotas should substitute male with female legislators, and the quota-induced boost in intra-party competition should therefore hit male incumbents much harder than female incumbents. Our results support this expectation, but only for parties operating unblocked ballots where quotas cause male incumbents to follow the national party less often. By contrast, we observe no difference in the effect of quotas on the voting behaviour of male and female MEPs for parties that operate blocked ballots. Since blocked ballots give leadership more leverage in designing quotas, this finding confirms previous findings that quotas are frequently designed to minimize the immediate impact on the incumbents. Moreover, the difference suggests that voters, who can influence the position of individual MEPs where ballots are unblocked, do not have a gender bias. By contrast, male incumbents seem – at least in the short run – to rely on their party leaders, who determine the order of candidates on blocked lists.

Overall, our contribution is twofold. First, we contribute to the study of party discipline and cohesion. The results suggest that the introduction of quotas, depending on the ballot structure, either weaken or strengthen the grip of national parties over their MPs. While there is not optimal level party discipline, our findings help to understand while party leaders competing with unblocked ballots might be hesitant to introduce quotas (Besley et al. 2014). Second, we contribute to studies of the effectiveness of gender quotas. Our results clearly support the argument that the introduction of gender quotas reinforces competition among candidates. Moreover, we find that quotas are more "threatening" to male incumbents who compete on unblocked ballots.

The reader should think about the following two caveats before generalizing our findings to national parliaments. First, voting in the EP arouses even less public interest then voting in national parliaments.

Yet, previous research on EP voting finds evidence for the nexus between electoral rules and party discipline described by Carey and Shugart (Hix & Hageman 2009; author 2015). Second, the EU has limited powers in some of the policy areas that are, according to the above literature, of special importance to female legislators such as social services, education and health care.

Overall, our findings have immediate implications for future research on the nexus between gender quotas and political behaviour, which should focus on so-called double quotas. Double quotas prescribe the percentage of female candidates *and* their position on the list. At present, only few, mainly left-leaning parties in the EP operate double quotas (see Dahlerup & Freidenvall, 2010). Furthermore, future research should study the effect of gender quotas on political behaviour longitudinally (see Lyder Hermansen 2017).

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Tables and Figures

Table 1 The Relevance of Gender Quotas in the Sixth EP by Gender and Ballot Structure

ALL		No Quota	Quota	
	Male	**434** **(51.2)**	**159** **(18.8)**	*593* *(70.0)*
	Female	**157** **(18.5)**	**97** **(11.5)**	*254* *(30.0)*
		591 *(69.8)*	*256* *(30.2)*	*847* *(100)*

OPEN		No Quota	Quota	
	Male	**181** **(56.0)**	**44** **(13.7)**	*226* *(69.7)*
	Female	**81** **(25.0)**	**17** **(4.8)**	*97* *(29.8)*
		262 *(81.1)*	*61* *(18.9)*	*323* *(100)*

CLOSE		No Quota	Quota	
	Male	**249** **(47.5)**	**117** **(22.3)**	*366* *(69.8)*
	Female	**80** **(15.3)**	**78** **(14.9)**	*158* *(30.2)*
		329 *(62.8)*	*195* *(37.2)*	*524* *(100)*

Table 2 Characteristics of the Electoral System, the Ballot Structure, and the Average Electoral Standing

Country	System	Closed	Blocked	Seats	Districts	No. of Parties	With Quota Rule
Austria	PR(D'Hondt)	yes	yes	18	1	5	3
Belgium	PR(D'Hondt)	yes	no	24	3	10	6
Bulgaria	STV(Droop)	no	no	18	1	7	0
Cyprus	PR(Hare)	yes	no	6	1	4	1
Czech Rep	PR(D'Hondt)	yes	no	24	1	7	1
Denmark	PR(D'Hondt)	yes	no	14	1	8	2
Estonia	PR(D'Hondt)	yes	yes	6	1	4	0
Finland	PR(D'Hondt)	no	no	14	1	6	0
France	PR(D'Hondt)	yes	yes	72	8	8	4
Germany	PR(Hare)	yes	yes	99	1*	5	4
Greece	PR(Droop)	yes	yes	24	1	4	1
Hungary	PR(D'Hondt)	yes	yes	24	12	4	1
Ireland	STV	no	no	13	4	5	1
Italy	PR(Hare)	yes	no	78	5	14	7
Latvia	PR(St.Lagüe)	yes	no	9	1	6	0
Lituahnia	PR(D'Hondt)	yes	no	13	1	5	0
Luxembourg	PR(Droop)	no	no	6	1	4	3
Malta	STV(Droop)	no	no	5	1	2	1
Netherlands	PR(Hare)	yes	no	27	1	8	2
Poland	PR(D'Hondt)	yes	yes	54	12	9	1

Portugal	PR(D'Hondt)	yes	yes	24	1	4	2
Romania	PR(D'Hondt)	yes	yes	35	1	7	3
Slovakia	PR(Droop)	yes	no	14	1	5	0
Slovenia	PR(D'Hondt)	yes	no	7	1	4	2
Spain	PR(D'Hondt)	yes	yes	54	1	5	4
Sweden	PR(St.Lagüe)	yes	no	19	1	9	5
UK	PR(D'Hondt)	yes	yes	78	11	13	3

*The CDU/ CSU operates 16 regional lists.

Table 3 Regression Results.

(N=136328)	Model 1		Model 2		Model 3		Model 4	
Discrepancy	-0.506***	(0.058)	9.596***	(0.522)	11.12***	(0.581)		
Ballot Structure	1.071***	(0.044)	-3.006***	(0.187)	-3.647***	(0.207)	0.664***	(0.136)
District Magnitude (log)	-0.424***	(0.015)	-1.359***	(0.062)	-1.505***	(0.067)	-0.644***	(0.043)
Gender	0.0343**	(0.016)	0.0316*	(0.017)	-1.785***	(0.264)	0.601***	(0.194)
Discrepancy # Ballot			-13.87***	(0.540)	-15.49***	(0.608)		
Discrepancy # Distr.Magnitude			-2.477**	(0.173)	-2.970**	(0.189)		
Ballot # Distr. Magnitude			1.085***	(0.064)	1.271***	(0.069)	0.184***	(0.047)
Discrepancy # Distr.Magnitude # Ballot			3.456***	(0.180)	4.036***	(0.198)		
Discrepancy # Gender					-7.202**	(1.244)		
Ballot # Gender					2.241***	(0.271)	-0.045	(0.213)
Discrepancy # Ballot # Gender					6.364***	(1.289)		
Distr. Magnitude # Gender					0.579***	(0.088)	-0.251***	(0.064)
Discrepancy # Distr. Magnitude # Gender					2.512***	(0.405)		
Ballot # Distr. Magnitude # Gender					-0.718***	(0.091)		
Discrepancy # Ballot #Distr. Magnitude # Gende					-2.381***	(0.421)		
Quota							14.282***	(0.743)
Quota # Ballot							-17.546***	(0.757)
Quota # Distr.Magnitude							-4.377***	(0.237)
Quota # Distr.Magnitude # Ballot							5.058***	(0.242)
Quota # Distr. Magnitude # Gender							0.125*	(0.074)
Quota # Gender							-9.637***	(1.271)
Quota # Ballot # Gender							8.455***	(1.307)
Quota # Distr. Magnitude # Gender							3.502***	(0.442)
Quota # Ballot #Distr. Magnitude # Gender							-3.307***	(0.454)
Goverment Party	-0.704***	(0.020)	-0.681***	(0.021)	-0.698***	(0.021)	-0.706***	(0.021)
Authoring EPG	0.552***	(0.025)	0.569***	(0.026)	0.566***	(0.025)	0.560***	(0.025)
Nominate Scores Dim 1	-1.187***	(0.092)	-2.228***	(0.101)	-2.204***	(0.103)	-1.885***	(0.101)
Nominate Scores Dim 2	-3.081***	(0.053)	-2.969***	(0.054)	-2.920***	(0.054)	-3.134***	(0.059)
Acitivity Score	0.0774***	(0.008)	0.0673***	(0.009)	0.0666***	(0.009)	0.079***	(0.008)
Tenure in EP	-0.0325***	(0.002)	-0.0221***	(0.002)	-0.0227***	(0.002)	-0.026***	(0.002)
Size of National Party	-0.0197***	(0.008)	-0.0195***	(0.008)	-0.0192***	(0.008)	-0.019***	(0.001)
ALDE	-0.757***	(0.110)	0.659***	(0.119)	0.644***	(0.120)	0.218*	(0.117)
GUE/NGL	0.755***	(0.055)	0.575***	(0.057)	0.581***	(0.057)	0.754***	(0.057)
IND/DEM	2.523***	(0.122)	3.757***	(0.130)	3.756***	(0.131)	3.415***	(0.129)
Verts/ALE	0.517***	(0.128)	1.722***	(0.135)	1.717***	(0.136)	1.458***	(0.134)
PES	-2.402***	(0.088)	-1.383***	(0.094)	-1.355***	(0.094)	-1.686	(0.093)
PPE	-1.011***	(0.139)	0.482***	(0.149)	0.491***	(0.150)	0.021	(0.147)
UEN	-0.582***	(0.136)	0.716***	(0.144)	0.684***	(0.145)	0.385**	(0.143)
Log Likelihood	**-62843.9**		**-62011.4**		**-61912.3**		**-62142.3**	

(**Note:** All models include fixed effects at the level of votes (n=2139) and countries (n=27) that are not shown;
***p<0.01, ** p<0.05, * p<0.1).

Figure 1: Effect of Discrepancy on the Probability to Vote with the EPG and against the National Party (Model 3; 95 per cent Cis) <u>LEFT SIDE:</u>

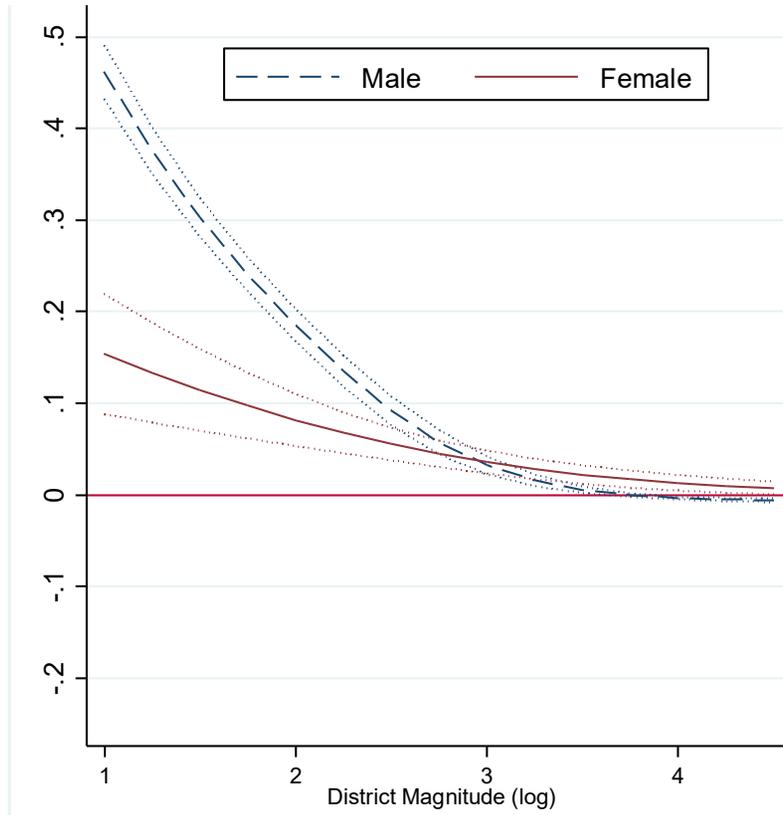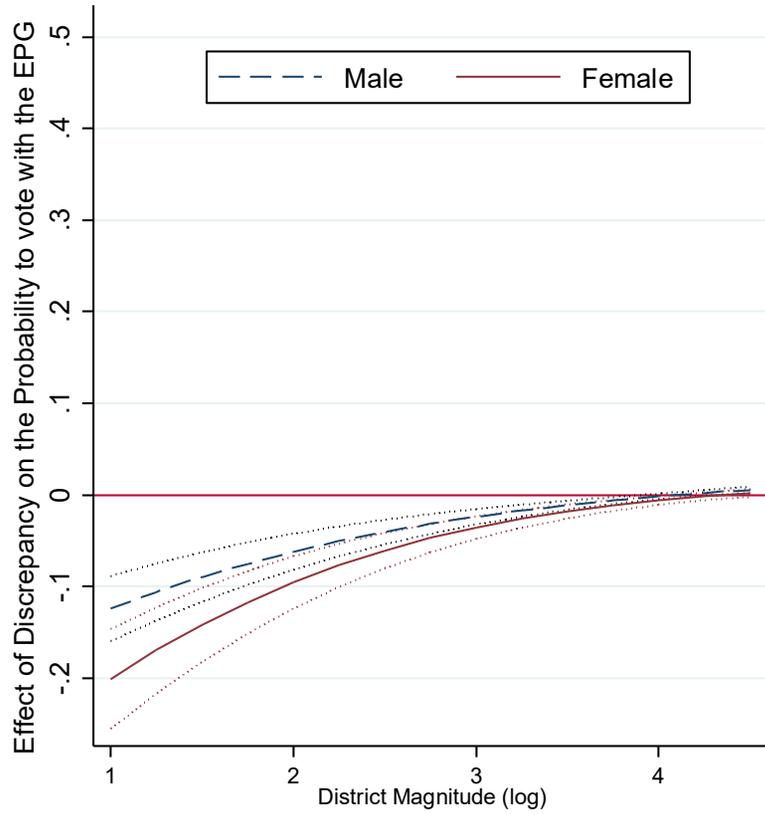Blocked Ballots; <u>RIGHT SIDE:</u> Unblocked Ballots

Figure 2: Effect of Quota Rule on the Linear Prediction of EPG Loyalty (Model 3; 95 per cent Cis) <u>LEFT SIDE:</u> Blocked Ballots; <u>RIGHT SIDE:</u>

Unblocked Ballots