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Title	Is personal vote-seeking behavior effective?
Authors(s)	Däubler, Thomas, Bräuninger, Thomas, Brunner, Martin
Publication date	2016-04-25
Publication information	Däubler, Thomas, Thomas Bräuninger, and Martin Brunner. "Is Personal Vote-Seeking Behavior Effective?" Wiley, April 25, 2016. https://doi.org/10.1111/lsq.12119.
Publisher	Wiley
Item record/more information	http://hdl.handle.net/10197/12971
Publisher's statement	This is the peer reviewed version of the following article: Thomas Däubler, Thomas Bräuninger, Martin Brunner, Is personal vote-seeking behavior effective?, Legislative Studies Quarterly, doi.org/10.1111/lsq.12119, 41, 2, (419-444), (2016), which has been published in final form at 10.1111/lsq.12119. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions. This article may not be enhanced, enriched or otherwise transformed into a derivative work, without express permission from Wiley or by statutory rights under applicable legislation. Copyright notices must not be removed, obscured or modified. The article must be linked to Wiley's version of record on Wiley Online Library and any embedding, framing or otherwise making available the article or pages thereof by third parties from platforms, services and websites other than Wiley Online Library must be prohibited.
Publisher's version (DOI)	10.1111/lsq.12119

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Is Personal Vote-Seeking Behavior Effective?

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April 2, 2015

Published in 2016 in: Legislative Studies Quarterly 41 (2), 419-444
https://doi.org/10.1111/lsq.12119
(There are very minor changes in the published version due to copy-editing)

Abstract

Does representatives' legislative activity have any effect on their electoral performance? A broad theoretical literature suggests so but real-world evidence is scarce as empirically, personal and party votes are hard to separate. In this article, we examine whether bill initiation actually helps MPs to attract preference votes under flexible list electoral systems. In these systems voters can accept the party-provided rank order or vote for specific candidates, which allows a clear distinction between personal and party votes. The empirical analysis uses data on bill initiation by Belgian MPs in the period 2003-2007 to explain their personal vote in the 2007 elections. We find that particularly single-authored proposals initiated shortly before the upcoming elections are associated with a larger personal vote.

Electoral systems shape politicians' incentives to appeal to voters on the basis of either the party label or their personal record. A broad literature has examined how electoral incentives trigger one or several different forms of personal vote-seeking strategies available to all candidates, such as strengthening local ties (Shugart et al. 2005) or running personalized campaigns (Zittel and Gschwend 2008; Bowler and Farrell 2011). Incumbent MPs have an even larger array of different strategies at their disposal. They can invest time in constituency service (e.g. Bowler and Farrell 1993) or show concern for district interests in parliamentary work, e.g. by seeking particularistic benefits through bill initiation (Crisp et al. 2004) or committee membership (e.g. Stratmann and Baur 2002). The pursuit of a personal vote may also be based on responsiveness to constituents' policy interests which can lead to higher levels of defection from the party line in parliamentary votes (e.g. Hix 2004). While there is considerable empirical evidence that electoral incentives explain variation in personal vote-seeking behavior, very little is known about whether or not such behavior actually *works*, that is whether or not it helps candidates to improve their personal vote.

In electoral systems that use flexible lists voters can choose to cast a vote for the list of candidates as ordered by the party or express preference votes for specific candidates within the list (Marsh 1985; Shugart 2005). Under such electoral rules the incentives to seek a personal vote vary *within* the system (depending on voters' behavior), and we showed that this variation influences MPs' legislative activity (Bräuninger et al. 2012): MPs initiate more single-authored bills (and fewer bills with co-partisans they compete with) if their constituents are more inclined to make use of the preference vote option and thus create stronger incentives to cultivate a personal vote. In this article, we examine whether or not bill initiation actually pays off for MPs. Flexible list systems offer a fertile ground for examining this question, since there is intra-party competition at the ballot, while the optional character of the candidate vote at the same time allows us to separate personal from party votes (cp. Wauters et al. 2010; Crisp et al. 2013). We argue that

the degree of legislative activity and the cosponsoring choices of MPs matter and that effects are stronger for proposals initiated closer to the next elections. The hypotheses are tested using the case of Belgium. We find that especially single-authored bills submitted in the last year of the parliamentary term contribute to an incumbent's personal vote.

In line with the idea that we should test as many observable implications of a theory as possible, our results complement and strengthen the argument that personal vote-seeking incentives can underly individual legislative activity in parliamentary systems. The evidence in this article suggests avenues for further research on this relationship, especially with regard to the underlying mechanisms that we can merely suggest. The remainder of this article is organized as follows. The next section reviews relevant literature on personal vote-seeking and the electoral consequences of parliamentary behavior. We then introduce the institutional context of Belgium and our theoretical arguments. In subsequent sections we present the data and empirical analysis. The final section concludes.

Personal Vote-Seeking: Incentives, Behavior, Payoffs

This article analyses whether or not bill initiation activity by legislators attracts preference votes in subsequent general elections in a flexible-list electoral system. Our interest is linked to the broader research question about the actual effectiveness of personal-vote seeking behavior. Earlier work has shown that intra-party competition is the driving force behind personal-vote seeking behavior (Carey and Shugart 1995; Crisp et al. 2004; Franchino and Mainenti 2013). This literature, however, almost exclusively looks at the link between electoral incentives and the occurrence of personal vote-seeking behavior, but ignores the question whether or not such behavior works. Research on the link between MP behavior and electoral performance, on the other hand, is mostly confined to political systems that lack intra-party competition at the ballot level.[2]

The electoral consequences of bill initiation – which we focus on – have also been studied before. Unlike early studies for the US by Fowler et al. (1980) and Johannes and McAdams (1981), more recent work concludes that bill initiation can indeed improve Congressmen's re-election chances (Box-Steffensmeier et al. 2003), also by attracting campaign funding (Rocca and Gordon 2010). Outside the US setting, Bowler (2010) finds that private members' bills initiated in the UK House of Commons both improve the MP's public perception and slightly increase the actual vote share. Loewen et al. (2014) show on the basis of a natural experiment that the right to propose a bill provides Canadian government MPs with a 7% increase in the probability of winning the seat. While these studies together show that bill initiation can have an electoral payoff, the cited studies on the impact of MP behavior all refer to systems with single member districts.

The effectiveness of personal-vote seeking attributes and behavior has rarely been examined in systems with intra-party competition. Exceptions include the studies by Tavits (2010) who finds that candidates gain from having local ties in Estonia's open list PR system, by Ames (1995) who presents evidence that MPs in Brazil (also open list PR) benefit from offering geographically targeted budget amendments, and by Martin (2010) who reports that MPs with a more constituency-oriented role perfom better than their colleagues in Ireland's STV system. Finally, Crisp et al. (2013) establish a positive impact of breaking party discipline on personal-vote-earning in Slovakia, a flexible-list system with one nation-wide district returning 150 seats. The degree of legislative sponsorship, a control variable in their study, is shown to also increase the number of preference votes.

We share Crisp et al.'s (2013) interest in the effectiveness of personal-vote-seeking in a flexible list system, but we focus specifically on bill initiation and analyze this type of parliamentary behavior theoretically and empirically in much more detail.

Belgium: The Institutional Context

Belgium is a country with mandatory voting and a flexible list PR system (Shugart 2005), and uses several smaller districts with magnitudes between 4 and 24 seats. Citizens can choose between voting for a party list (by marking the respective box at the top of list) and voting for one or several individual candidates within *one* list (Deschouwer 2009:111).[3] As voters have the option to express a party preference *without* voting for any of the candidates, the observed preference votes directly reflect voter preferences for individual candidates. This is different from votes in both single-member-district and some open list PR systems (those Shugart (2005:42) calls quasi-lists) where votes inherently express both party and candidate preferences. This clear separation of party and personal votes makes Belgium a particularly good case for studying the effectiveness of personal vote-earning behavior.

Seats are allocated in two steps: First, seats are distributed *between* parties at the district-level, based on the total of the number of ballots cast for a list plus the number of ballots expressing one or several candidate preferences. After that, seats are allocated *within* parties taking into account both preference votes and list votes. With some slight simplification, a number of votes that equals up to half the number of ballots with list votes is allocated to any candidates who have not cleared the quota based on preference votes. This allocation of list votes starts at the top of the list and finishes when all seats are filled or all the list votes to be distributed are exhausted. This means that candidates have an incentive to campaign for a personal vote, especially if they do not hold one of the top list ranks that allows to benefit from the distribution of list votes. In the 2003 elections, for instance, 18 of the 150 MPs were elected "out of order", i.e. they overtook a partisan colleague placed higher on the list.

In terms of bill initiation, Belgian MPs possess considerable lee-way (Andeweg et al. 2008: 92). A private members bill can be introduced by any single MP or a group of MPs at any time. These low formal barriers to bill introduction make it an interesting tool for seeking a personal vote. Some factors may appear to dampen the personal vote winning potential of private members bills at first glance, but not necessarily strongly so. First, MPs face an informal hurdle, since they must usually ask permission from their party group before introducing a bill (de Winter and Dumont 2006). For government parties (and thus their MPs) the coalition agreement constitutes an additional constraint on what bills can be put forward (de Winter and Dumont 2003). As a consequence, private members' bills are unlikely to reflect policies that are at odds with the party (or government coalition) line. However, the large majority of Belgian MPs does not appear to object to the practice of asking the party leadership for permission.[4] Second, private members bills feature low adoption rates (2003-2007: 6.2%). This does not necessarily speak against their use as tools for signalling effort, though. The fact that Belgian MPs initiated 1638 private members' bills (i.e. more than 100 per MP) in this period indicates that they must have some purpose nevertheless. Whether or not they are effective in attracting preference votes will be analyzed in the remainder of this article.

Theoretical Considerations

Similar to Box-Steffensmeier et al. (2003) and Bowler (2010), we depart from the notion that one of the (proximate) aims of bill initiation by MPs is to signal activity in a sense that "things are taken care of". Also in line with those authors, we argue that the specific content of the proposals is of secondary importance. This is because, as we put forward, drafting bills can contribute to an MP's personal vote through two mechanisms: first by *claiming credit* for addressing and putting issues on the agenda, and second, through an indirect effect of *increasing name recognition* among

constituents. The first line of reasoning referring to credit claiming mirrors a debate from the particularistic spending literature. A classic argument in that field states that constituents reward MPs for diverting spending to their district so that credit attribution is related to actual levels of spending (Levitt and Snyder 1997). In a recent study, Grimmer et al. (2012: 3), however, argue that publicly claiming credit for particularistic spending (e.g., via press releases) is much more important to build greater support among constituents than the total spending. The assumption here is that MPs use messages to "generate a belief" among constituents that MPs have delivered – even if they have had little or no actual influence on the allocation of funds. While we do not mean to say that bills by Belgian MPs refer to "pork-barrel" policies, there is a more general implication that travels to our setting:[5] MPs can use bills in order to show that they are active and in order to claim credit for putting issues on the agenda, even if the proposals themselves are rarely adopted and an indirect impact on policy is difficult to prove. For our context, the finding by Grimmer et al. (2012) that frequent credit claiming messages build greater support suggests that a larger number of bills implies a stronger signal that MPs are taking care of issues.

Note that the credit claiming argument does not rest on the unrealistic assumption that citizens closely follow proceedings in parliament (Arnold 1993). By contrast, the literature on information processing (Lodge et al. 2011) suggests that credit allocations are revised rather unconsciously. Voters may form and revise their impression of the incumbent by integrating new information about the efforts of the MP in a running tally, without intentionally evaluating MPs. Studies in experimental (political) psychology have provided consistent evidence that people can integrate complex information into a summary evaluation even if they are unable to recall that information afterwards (Steenbergen and Lodge 2003). In the same vein, the credit running tally constitutes an account of the MPs effort so that at the ballot, the voter may have the intention to vote for specific MPs (those who have been more active) before seeing the actual ballot and even if they

are unable to recall any specific bill or effort. To simplify things, let us call an individual whose vote is based on this running tally, a *meritocratic voter*.

The second mechanism – based on name recognition, or "visibility" as suggested by Cain et al. (1987) – works at the level of familiarity. Repeated reference to an MP as a bill author, like any other mentioning of the MP's name or any visual exposure, induces a preference for that candidate over less familiar candidates. The psychological literature refers to this mechanism as the "mere-exposure effect" (Zajonc 1968): the frequency of exposure to a particular stimulus object induces a preference for that object. An important difference to the credit claiming mechanism from above is that the mere-exposure model does not require any type of evaluation. This implies that MPs can attract preference votes by getting their name associated with legislative activity – whatsoever the content and substance of the bill may be. For simplicity, we refer to an individual whose vote is based on a mere-recognition mechanism as *déjà vu voter*. We suggest that *déjà vu voters* may not have a clear intention to express a preference for a certain candidate prior to first seeing the individual names on a party list. Instead, they literally *recognize* a name (Mann and Wolfinger 1980:621-622).

In practice, we can expect both mechanisms to be at work, even for one and the same individual citizen. Of course it is likely that there are differences in the relative strength of the mechanisms across citizens, and possibly also with regard to the concerned MPs. Since our subsequent arguments are consistent with both types of mechanisms, we leave the inquiry into these questions to be addressed in future work. While we are not aware of any empirical studies of voters' monitoring of parliamentary behavior in Belgium, there is some hard evidence about Belgian MPs' own assessment of how media cover their parliamentary work. In a recent survey (Deschouwer et al. 2014), Belgian national MPs reported that media covered 26% of initiatives ("e.g. bills, written and oral questions"). National MPs inform the media typically about a half of their initiatives (46%) and in

a simple OLS regression variation in self-reported media contacting efforts explains slightly more than half of the variation in perceived coverage.[6] These subjective perceptions of MPs can also be complemented with results of a study by Vos (2014) for the Flemish regional parliament. She finds that the number of initiated bills has a positive relationship with personal coverage in print media, and this association is statistically significant in several of the models. Taken together, it therefore seems that MPs have at least some influence on whether or not their work will be communicated by media.

In addition, MPs can of course also advertise their proposals on newsletters, personal websites, or social media. Last but not least, media also provide voters with an additional tool that allows citizens to assess the degree of MPs' activity in a very easy way. In the recent past, a number of Belgian print media published summaries of the number of activities (bills, parliamentary questions etc.) MPs had engaged in previously.[7] This practice enables voters to base their decision directly on "meritocratic" grounds even if they do not keep anything like a running tally of MPs' work – the summary data that are required for a merit-based choice are served up on a plate.

We therefore start from the expectation that at least on average the number of an MP's bills that voters have actually heard about increases with the number of all bills the MP has initiated, which leads us to state:

- H1: When an MP initiates a higher number of bills her/his personal vote increases.

For the researcher, considering bill initiation in order to infer personal-vote seeking strategies has a clear advantage. MPs do not only choose whether or not to draft a bill, but also if and with whom they cooperate. Patterns of bill initiation therefore provide more than simply a measure of overall effort. In Bräuninger et al. (2012) we argued that private member bills differ in their

suitability for attracting a personal vote depending on their authorship. Those authors suggested that co-authored bills are generally a less efficient way of signalling effort, since the reduction in preparation costs should be off-set by an increase in decision-making costs, a loss of flexibility and especially an overproportional reduction of the credit to be claimed. Moreover, bills co-authored with co-partisans from the very same district are additionally limited by the feature that they also benefit one or several direct competitors. We therefore introduce the same distinction: *Single-authored bills* are the best choice for claiming credit or increasing visiblity since only single-authored bills can signal "uniqueness" and allow the author to claim all the credit herself. Among co-authored bills there should be a difference between *co-authored bills without district-co-partisan involvement*, for which the credit needs to be shared even if not with direct competitors running on the same list and *bills co-authored with district-co-partisans* which by definition also benefit at least one intra-party competitor.

One might argue that *meritocratic voters* may take the type of authorship into account when updating their belief on the efforts of candidates while the nature of authorship may be less important to the *déjà vu* mechanism since the latter does not involve an active evaluation of parliamentary behavior. Still, authorship may neither be irrelevant for an impact on a *déjà vu voter*. This would be the case if the probability that the names of the author(s) are mentioned and that voters get exposed to these names is affected by the nature of authorship. It is e.g. not implausible that MPs more heavily engage in self-advertising single-authored bills, or that media news report the name of just one MP even though the bill is co-authored by other legislators.

The argument can be summarized as follows:

- H2: The relationship stated in H1 is stronger for *single-authored bills* than for *co-authored bills without district-co-partisan involvement* and it is even more limited for *bills co-authored with district-co-partisans*.

The hypotheses put forward thus far simplify matters in a sense that they assume that the personal vote-gaining impact of *any* bill (of a certain type) is the same at any time. The basic theoretical arguments introduced above suggest at least one factor that is supposed to condition this impact: the timing of the initiation. If MPs initiate bills (also) for vote-seeking purposes, they should give special consideration to promote their legislative efforts when elections draw nearer. Similarly, media can be expected to cover parliamentary affairs more extensively in periods close to elections. On the voter side, the two main mechanisms put forward above also imply temporal differences. Casting a preference vote based on what was dubbed the *meritocratic* mechanism requires a limited amount of attention to politics, and more people will pay such an amount of attention closer to election time. The name recognition logic of the *déjà vu* mechanism also indicates that it is stronger when polling day comes closer: increased advertising makes it more likely that information on bills reaches also a less attentive audience. We can therefore state:

- H3: The relationships stated in H1 and H2 are stronger for bills initiated closer to election time.

We introduce our approach to test these hypotheses in the next section, after having described the data that we will use.

Data and Method

Using Belgium as testing ground, we examine the impact of bill initiation in the 51^{st} legislature of the Chamber (2003-2007) on MPs' electoral performance in the June 2007 elections. While this

results in only a medium-sized sample of observational units, extending the period under study backwards is unfeasible. To tackle endogeneity issues, we want to use past election results as controls when stuyding the impact of MPs' on voter behavior. The elections in 2003 and 2007 were held under by and large the same electoral rules but at the turn of the millenium there had been major changes to the electoral system (including a reduction of the number of electoral districts from 20 to 11) (Pilet 2007). This makes the 1999 election results a problematic control in any analysis of the 2003 elections.

Since the theoretical argument refers to the electoral consequences of the parliamentary behavior of MPs, the individual parliamentarian constitutes the unit of analysis. The Belgian Chamber of Representatives consists of 150 MPs. As cabinet members cannot be MPs and politicians often move between the local, regional and federal level of government, individual changes in the composition of parliament are frequent and candidates from the successor list often take up a mandate. Including the latter, the 51^{st} legislature comprised a total of 201 different MPs.[8]

We disregard any MPs who were not in office at the end of the legislative session, since their post-MP history is likely more important for their electoral performance (should they have run at all). Using information from the official website of the Belgian parliament, we therefore end up with an initial list of 148 MPs.[9] From these 148 MPs who were in office at the end of the session, 111 ran again in the 2007 election. 82 of these re-running incumbents appeared exclusively on the main list, 22 ran only on the successor list, and 7 candidates were included in both lists. For our main analysis, we consider the incumbents who featured as candidates on the main list. When leaving out the Speaker of the Chamber who does not engage in standard parliamentary activities, this gives us a total of 88 observations. We exclude candidates running exclusively on the successor list in 2007, since the mechanisms underlying the decision to express preferences for candidates on the successor list may vary from those that apply to main list candidates.[10]

Our key concern is the potential of bill initiation to create a personal vote by distinguishing oneself from intra-party competitors. We thus have to separate the performance effects of individual MPs from those of their parties. To do so, we can build on the institutional setup of the flexible list system: since voters can refrain from supporting any candidate by casting a list vote, all votes for candidates represent personal votes. As dependent variable, we then model the proportion of preference votes relative to all such votes an MP may plausibly have attracted. This total pool of potential preference votes can be defined in different ways. We use the number of voters of the MP's party list who do not cast a list vote, i.e. those who express a preference for at least one candidate (on the main or successor list). This means that we make two assumptions, which are in line with the intra-party competition argument. First, voters who cast a vote for any candidate first select a party and then from among candidates within the party. Empirical findings from the Netherlands, which employ a similar electoral system, clearly support this notion of hierarchy (cp. van Holsteyn and Andeweg 2010). Second, who casts a list vote and who uses the candidate vote option is not itself a consequence of legislative activity. Rather, we conceive of those using preference votes as an exogenously formed subgroup of citizens that is e.g. *a priori* more attentive to politics (André et al. 2012). In Bräuninger et al. (2012: Appendix 2) we also showed that the extent of preference vote usage at the party-in-a-district level is strongly predicted by past usage and not driven upwards by district MPs' aggregated bill initiation behavior in the previous legislative period.[11] Data on invididual preference votes and the number of voters making use of the candidate option are taken from the official vote statistics as published in Service Public Fédéral de l'Interieur (2003, 2007).

The main independent variables refer to the effort of each MP and that of her list competitors, which we here measure by the number of bills that are submitted to parliament. H2 suggests that the marginal effect of a single bill differs across bill types, and H3 posits an impact of the timing

of initiation. Accordingly, we consider the absolute number of *single-authored bills*, the absolute number of *co-authored bills without district-co-partisan involvement* and the absolute number of *bills co-authored with one or several district-co-partisans* that a parliamentarian introduced in the legislative period. The criterion to distinguish between the second and third type of bills is whether or not any party-in-a-district colleague is one of the co-authors of a bill.

Other characteristics of co-author(s) are not taken into account; for instance, a co-authored bill without district-co-partisan involvement may be co-authored with party colleagues from other districts, with MPs from other parties, or a combination of both. While the three-fold classification covers all initiated private members bills, one should keep in mind that a single multi-authored bill may be classified differently for the different authors. For example, a bill with two co-sponsors MP1 and MP2 from party A in district X and MP3 from party A in district Y is a *co-authored bill without district-co-partisan involvement* only for MP3. For all three types, the number of bills is counted in each of four year-long periods of the 2003-2007 parliamentary session. A graphical summary of bill initiation patterns over the electoral cycle is provided by Figure A1 in the appendix.

Rather than using the raw counts, we use the natural logarithm of the number of each type of bill in each period.[12] This is because the marginal effect of an additional bill is unlikely to be constant, but rather decreasing with the number of already initiated bills (e.g. the difference in the vote-attraction impact of one bill compared to none is stronger than the difference in the impact between four and three).

Since other, partly mechanical factors affect the number of preference votes obtained, several control variables enter the statistical model. We follow a very conservative approach and consider an extensive set of additional factors possibly affecting the dependent variable. Put differently, our aim is to test if bill initiation can further contribute to an explanation of the personal vote, even when the bar for doing so is set high. First, we control for the MPs performance at the

previous, 2003 election using the *lagged dependent variable*, the MP's *list type in 2003* – that is whether she ran on the main or the successor list –, the interaction of the two as well as a measure of electoral safety (the number of votes reached in 2003, after distribution of list votes, expressed in Droop quotas). Second, the position on the party list gives rise to a mechanical effect, since ranks at the top and the bottom of the list are the most eye-catching (Wauters et al. 2010). In addition, candidates placed at top positions may be of higher quality, and they do receive more media attention (van Aelst et al. 2008: 203). We therefore include the *list rank (cardinal)* in 2007 as continuous variable as well as dummies for the *first list place*, the *last list place*, and the *next-to-last list place*. We also consider whether a candidate runs on both the main and the successor list in 2007 (*double list appearance*). Third, as in the analysis in Bräuninger et al. (2012)], we also control for different types of MPs as defined by the origin of their votes (list or preferential votes): using casual nomenclature, *top-list-stars* who cleared the Droop quota but otherwise would have benefited from redistributed list votes serve as reference category. They are compared to *list-vote-receivers* who actually received list votes and *preference-vote-dependants* who are elected only on preference votes.

The circumstance that MPs occupying a *high-level party office* initiate more bills and may well receive more preference votes for other reasons, is taken into account by adding an indicator variable that equals one for any party and parliamentary party group leaders. Both bill initiation and electoral performance may be different for MPs who *lacked a district co-partisan* in parliament, and for MPs from *opposition* parties. We also take into account *overall parliamentary effort*. For each year-long period, we consider the activity in terms of written parliamentary questions, oral parliamentary questions in the plenary, oral parliamentary questions in committee and interpellations, in addition to our three bill types. All seven variables are log-transformed (as described above for the bill variables), and then standardized within activity type (pooled over MPs and years) to

obtain a measure of relative effort for each MP for each activity in each year. We then take the mean over the seven standardized variables for each MP-year as measure of overall effort. Next, we control for an MP's seniority level (dummy variables for *first term* and *second term*) and age (dummy variables for *below 40* and *above 55*), and for an MP's educational background (whether or not she has a higher *university degree* in form of a licentiaat/licencié or doctorate). Finally, the length of the mandate of the MP might have an effect on ability to attract preference votes so that we also include a variable for *incumbency time during session* of the MP in the current legislative period. Biographic information stems from the official parliamentary biographies of the MPs.[13] Descriptive statistics of these data are reported in Table A1 in the appendix.

Since we seek to explain the proportion of preference votes from the pool of preference votes an MP i running on party-in-a-district list j may in principle have obtained, we make use of a Binomial regression model (Gelman and Hill 2007:116-118). The number of voters for the MP's list j who voted for at least one candidate represents the number of trials $n_{j[i]}$, and we model the logit of the proportion π_i as a linear function of covariates. As stated in H3, we suspect that the marginal impact of bill initiation varies over the electoral cycle so that we have aggregated the number of submitted bills over four year-long periods t rather than over the entire legislature. This results in four variables for each of the three bill types. Due to the limited number of observations, we do not seek to test for a time-varying effect of bill initiation by including all these 12 variables as standard covariates in the regression model. Instead, we impose a simple but reasonable constraint, assuming that the effect of the respective type of bill is the same for proposals initiated in the first three years but can differ for those from the last year.

The regression model then looks as follows:

$$
\begin{aligned}
y_i &\sim Binomial(n_{j[i]}, \pi_i) \\
logit(\pi_i) &= \beta_0 + \boldsymbol{\beta_1} \sum_{t=1}^{3} \mathbf{X}_{t;i} \; + \boldsymbol{\beta_2} \; \mathbf{X}_{4;i} \; + \mathbf{Z}_i \boldsymbol{\gamma} + \delta_{j[i]} + \epsilon_i \\
\delta_j &\sim \mathcal{N}(0, \sigma_\delta^2) \\
\epsilon_i &\sim \mathcal{N}(0, \sigma_\epsilon^2),
\end{aligned}
$$

with β_0 as intercept, $\boldsymbol{\beta_1}$ a three-dimensional vector of coefficients for the effects of the different types of bills in years 1-3, $\boldsymbol{\beta_2}$ a three-dimensional vector of coefficients for the effects of the bill types in year 4, and the vector $\boldsymbol{\gamma}$ collecting the coefficients for the control variables $\mathbf{Z}_i$. Since there may be unobserved factors that make all MPs running for the same party-in-a-district do better or worse (the quality of the non-incumbent candidates, for instance), we also include a list-level intercept δ_j. The regression equation is completed by an additional MP-level error term ϵ_i, which allows for extra-Binomial variation at the data level (Gelman and Hill 2007:320-321). Inferences for this multi-level overdispersed binomial regression model are obtained through Markov Chain Monte Carlo simulation in a Bayesian framework. As prior distributions for the model parameters, we choose $(\beta_0, \boldsymbol{\beta_1}, \boldsymbol{\beta_2}, \boldsymbol{\gamma}) \sim \mathcal{N}_{7+k}(\mathbf{0}, 1000 \; \mathbf{I}_{7+k})$ and $\sigma_\delta \sim Uniform(0, 100)$ as well as $\sigma_\epsilon \sim Uniform(0, 100)$. Sampling is implemented in JAGS (Plummer 2003), running three Markov chains with 20,000 iterations each (thinned by a factor of 10; after a burn-in of 10,000 iterations).[14] To check convergence, we relied on the Gelman and Rubin diagnostic (Gelman and Rubin 1992). Full replication materials are available from the authors upon request.

Results and Discussion

Results of the empirical analysis are summarized in Table 1. It shows results from two models, first from a baseline model that only includes the control variables, and second from the main model with the bill initiation variables added. The columns report the mean of the posterior distributions for each model parameter along with 90% Bayesian confidence intervals. At the bottom, we show the results for the standard deviations of the list-level and individual-level error terms. Since the absolute values of the coefficients are not easy to interpret, the initial discussion will concentrate on the sign of the coefficients and therefore the direction of the effects. Below, we will examine the substantial effect of the bill variables more closely with the help of posterior expected values.

[Table 1 about here]

The baseline model points out that the control variables indeed act as strong predictors of the dependent variable. For the following variables, we are more than 95% certain that their coefficients are either positive or negative. First, and as expected, the current preference vote share is partly explained by the past preference vote share ($logit(p_i)_{'03}$), and more strongly so for incumbents who had previously run on the successor list. And clearly, there is an advantage of occupying one of the critical positions on the party list, notably being placed on the *first, last or next-to-last* list place. In addition, the more general pattern is that higher numerical list ranks, i.e. positions closer to the bottom of the list, result in smaller shares of realized preference votes. Compared to the MPs classified as top-list-stars, all the other types obtain more preference votes. Remember that we include the lagged dependent variable, so this essentially means that they improve their personal vote more strongly than the top-list-stars.

Interestingly, MPs who did not have a district co-partisan during the parliamentary term, obtain a smaller proportion of preference votes. This may result from voters feeling less need to express

preferences for such an MP, since their re-election is very likely.[15] An alternative interpretation is that voters can monitor the behavior of those MPs more easily and thus can readily sanction them. Finally, longer incumbency time in the specific legislative period shows a negative association with the personal vote. This suggests that those politicians who succeed into parliament shortly before the upcoming elections attract more preference votes, possibly because they are especially eager to increase their reputation in the remaining time in parliament. Notably, *overall* parliamentary effort does not show a clear association with the personal vote. The mean of the respective coefficients are small or even negative. This result constitutes a first piece of evidence for our argument that counts of specific bill types represent more than an indicator of how hard an MP tries. Finally, consider the following two goodness of fit statistics for the baseline model: the Pearson X^2 statistic amounts to only ≈ 79, for a dependent variable with a mean of 20190 and a standard deviation of 17701.[16] Similarly, calculating the correlation between observed and expected proportions of realized preference votes yields a value of .966. Without any doubt, already the control variables are very strong predictors of the personal vote of Belgian MPs.

In the main model the bill variables are added to the right-hand side of the equation. The findings show that bill initiation behavior of MPs provides valuable insights into their subsequent electoral performance. What is more, the type of bill and the timing of the initiation make a difference. As expected, the strongest association between legislative activity and the personal vote is for single-authored bills initiated in the last year of the legislative session. The coefficient for the respective variable is .165, with a posterior probability of .98 that this figure is greater than zero. For the other bill counts, we can only find one more association that is positive with high posterior probability (.94), namely for proposals prepared without district co-partisans during the first three years of the session. This result is in line with the expectations, since bills co-authored without direct competitors should also allow to improve one's personal vote.

Surprisingly, some of the coefficients are more likely to be negative than positive (single-authored bills and bills initiated with district co-partisans in the first three years, bills co-authored without district co-partisans in the last year). One interpretation of these findings is that those forms of legislative activity do not attract votes, and at the same time create opportunity costs. However, we note that in none of these cases the posterior probability that the association is negative exceeds .90. Unexpected is also the result that bills co-authored together with district co-partisans in the last year rather improve preference vote shares (although the posterior probability is only .80). One explanation is that this type of bills may effectively increase incumbents' name recognition in the competition with non-incumbent candidates. And empirically a large majority of the bills classified as *co-authored with district co-partisans* is not co-authored jointly by all MPs from the same party-in-a-district-list.[17] Therefore, as long as at least one of the re-running incumbents is not part of the authoring team, the cooperating competitors can also gain at the expense of the one(s) not involved.

In sum, we find mixed evidence for H1, which stated a generally positive influence of bill initiation on the personal vote. Considering H2 and H3 jointly, there is clear support for the arguments, as the strongest association is observed for single-authored bills initiated during the last year of the parliamentary session. To put the findings into context, also recall the fit statistics for the control variables in the baseline model. These are further improved in the main model ($X^2 \approx 77, r = .970$), pointing out that patterns of individual legislative activity allow to improve the prediction of the personal vote even when there is very little room for improvement in the first place.

[Figure 1 about here]

Since the coefficients of the Binomial regression model are as such hard to interpret, we substantiate out findings by quantifying the typical effects of bill initiation on the proportion of preference votes realized. Following the general procedure outlined by Hanmer and Kalkan (2013), we set the number of a certain type of bills that an MP initiated in the last year-long period before the election to a certain value (covering the observed sample range of the number of bills of that type in that period), leaving all other variables at the observed values, and then calculate the expected proportion of realized preference votes. We take the mean across MPs in the sample to get the average expected value for the respective number of bills of that type initiated. This whole procedure can be repeated for each draw from the posterior distribution, which gives a measure of uncertainty for the calculated mean expected value.

Results from this approach are displayed in Figure 1. The x-axis shows the number of initiated bills on a logarithmic scale (since logged bill counts were included in the model) and the left-hand side y-axis shows the share of realized preference votes. Black lines represent means and 90% credible intervals. Also shown is the distribution of the number of bills in the last year of the parliamentary term in the sample (grey bars, scale on the right-hand side y-axis). From the left-hand panel it can be seen that the mean expected share of preference votes received increases from approximately 22.5% to 25.1% when an MP initiates one single-authored bill in the last six months before the election rather than none, and to 27.4% when an MP initiates three of these. A much weaker association is visible in the right-hand panel as the number of bills co-authored with district co-partisans moves from zero (22.8%) to four (24.6%). As the number of bills co-authored without district co-partisans increases from 0 to 19, the mean expected value goes somewhat down (from 24.8% to 21.2%). Particularly the substantive size of the relationship for single-authored bills is substantial. The median value of the dependent variable among MPs re-elected in 2007 is 20.4%, whereas the one for unsuccessful ones is 7.6%. The expected changes displayed in Figure 1

can therefore be consequential for real-world re-election prospects. And again, it should be kept in mind that the size of these relationships is inferred while controlling for a long list of very powerful other predictors.

In order to examine the robustness of the results, we ran a couple of sensitivity checks. First, we included an additional control variable capturing whether MPs currently hold a local mandate (mayor, alderman or city councilor) on top of their national parliamentary seat. While the posterior mean of the coefficient is positive, we cannot be 95% certain that holding local office adds to the personal vote on top of the other variables, and the findings for the bill variables are practically unchanged. Second, one might suspect that parties selectively assign or permit bill initiation in order to "feature" certain MPs. To test this alternative explanation, we re-ran the models with an additional dummy variable that is meant to capture endorsement by the party: it equals one if the MP received a better list rank than in the previous election, or if, in case she had held the number one spot before, she maintained it. While we can say with high certainty that the coefficient of this endorsement measure is positive, the substantive findings concerning the bill variables remain the same. Third, we used information on campaign spending in three different variants as additional predictor.[18] Again, none of the patterns concerning the bill covariates changed. All results from the robustness checks are available from the authors on request.

Conclusion

In this article, we have examined whether or not bill initiation actually pays off for MPs in terms of attracting preference votes. It has been shown that the legislative effort and co-sponsoring choices of MPs have noticeable effects. Most clearly, single-authored proposals initiated in the last year of the parliamentary term help MPs improve their personal vote. This is remarkable, since we included a large number of strong predictors of preference vote share as control variables, thus

setting the bar high for finding any effect of legislative activity. The fact that increased levels of certain types of legislative activity seem to contribute to MPs' personal votes gives further credibility to the overall argument that personal vote-seeking incentives can underlie the initiation of private members bills in parliamentary systems. If drafting bills was just one out of many possible indicators of skill or effort, we would hardly find differences according to bill types and the timing of initiation. Submitting a single-authored bill as the next elections approach can be an effective tool for increasing the personal vote.

The results from the analyses presented here also complement those from our earlier work (Bräuninger et al. 2012). There, it was found that more intense intra-party competition and higher levels of preference voting by party-district constituents each lead to more single-authored bills and fewer bills co-authored with district co-partisans. Interestingly, this article here suggests that only one of these strategies pays off as intended in terms of attracting preference votes: single-authored bills indeed work both for the competition with non-incumbents and for the one with district co-partisan MP colleagues. The reluctance to put forward bills co-authored with any district co-partisan colleague in settings with a higher personal-vote-seeking impetus, however, may actually work to the detriment of MPs – there is some indication that this type of bill also improves an incumbent's personal vote. A practical advice to MPs interested in increasing their number of preference votes is to co-operate more often with district party colleagues. As one of the MPs we interviewed (before working on this article) replied when asked about cooperation between MPs from the same party-in-a-district: "If they are intelligent, they will cooperate as much as possible." In any case, the fact that intended and actual effects of personal vote seeking behavior may not always coincide is one reason for conducting empirical analyses like this one.

Our study is limited since the empirical analysis considers only a single country, and it cannot be ruled out that the findings depend on institutional (or idiosyncratic) features of Belgium. Note,

however, that those key institutional characteristics of Belgium that our research design builds upon are neither that exotic nor do they necessarily harm generalizability. The flexible list system (as also used e.g. in Austria, Sweden and the Czech Republic) allowed to separate party and individual votes, but personal vote-seeking incentives are not confined to flexible list systems (Carey and Shugart 1995). The permissive rules for private members' bills, for which similar cases can be found (Mattson 1995), and the differences in co-sponsoring patterns made bill initiation a particularly apt activity to study, but the general argument is not limited to drafting legislative proposals.

Potentially more dangerous for generalization is the opportunity for Belgian voters to express preferences for more than one candidate at the same time. On the one hand, this renders competition among incumbents no longer zero-sum, which may actually make it harder to find the effects postulated in our hypotheses. On the other hand, if voters can support several candidates, the underlying decision-making may be more sensitive to less prominent factors such as legislative activity, compared to a situation where voters can support just one candidate and therefore make use of more readily apparent criteria.[19] This is one reason why similar work into the effectiveness of personal vote-seeking behavior should be carried out for other political systems characterized by intra-party competition, including cases where voters have just one candidate vote.

Future work may also further investigate the mechanisms through which bill initiation actually attracts preference votes. We suggested that there may be *meritocratic voters* who more or less consciously reward active MPs, and *déjà vu voters* whose choice is driven by a passive name recognition mechanism. It would be interesting to find out more about the prevalence of these mechanisms and the factors that influence their strength. Another avenue for further research lies in considering the topic or more generally the content of the legislative proposals. Such studies need to develop theoretical arguments with regard to how content matters, and require respective

data to test them. We presented an analysis of whether or not personal-vote seeking in the context of intra-party competition works. Such studies are worthwhile, since they follow the guideline to examine as many observable implications of a theory as possible. Therefore, we believe that this article represents more than a study on the link between bill initiation behavior and the personal vote in one of the smaller West European countries. In general, more attention should be paid to examining the actual effectiveness of personal vote-seeking behavior in political systems that feature intra-party competition.

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Notes

[1]Funding from DFG grant BR 1851/3 is gratefully acknowledged. Earlier versions of this article were presented at the PartiRep Meeting on Personalization in Antwerp, the 11th Politicologenetmaal in Amsterdam, the 2nd European Political Science Association Annual Conference in Berlin and the LSE Political Science and Political Economy Work in Progress Seminar. We would like to thank participants at these events as well as Peter Loewen for valuable feedback. We are also grateful to Bart Maddens and Jean-Benoit Pilet for providing data on campaign spending by unsuccessful candidates, and to some Members of the Belgian Chamber of Representatives who participated in interviews that served as background information.

[2]Classic examples include Cain et al. (1987) on constituency service, Stein and Bickers (1994) on pork-barrel projects, Erikson (1971) on US and Pattie et al. (1994) on UK legislative voting behavior.

[3]In addition, voters can also indicate preferences for candidates from parallel lists of replacement/successor candidates (Deschouwer 2009:112-118).

[4]A recent MP survey (Deschouwer et al. 2014) asked *More specifically, what is your opinion about party discipline in your parliamentary party when it comes to taking political initiatives only with the parliamentary party's authorization?*. 79.4% of respondents chose the option *should remain as it is*.

[5]After the introduction of directly elected regional parliaments in 1995 , the Belgian parliament rarely deals with sub-national issues (Deschouwer 2009:57-64).

[6]Figures are means across respondents, based on unweighted data.

[7]An example is the article "Nos députés vedettes en font-ils assez? Qui sont les plus actifs? La réponse avec notre classement exclusif" by Le Vif/L'Express, 9 November 2012, Number 45.

[8]The figure of 201 does not include MPs that we removed from the sample since their duration of mandate was shorter than 20 days.

[9]That means the website has no information on two MPs.

[10]While the number of resignations seems to be high we are not plagued by selection issues. Our theoretical argument refers to the actual, not potential electoral performance of re-running MPs so that the population of interest in fact is the set of the 89 incumbent MPs that run for re-election in 2007 on the main list. It is also important to note that what it means to be a successor candidate varies across party-in-a-district lists: in some cases a top rank on the successor list can represent a safe seat (e.g. if a candidate from the main list is almost

surely elected but it is a priori known within the party that she will not take up the mandate), in others a place on the successor list will imply bad prospects.

[11]However, as shown in Table A2 in the Appendix, the key results are practically identical when we consider the number of all voters of a party-in-a-district as the maximum for the number of obtainable votes.

[12]Since it is not possible to take the logarithm of zero, 0.5 is added to all bill counts in a first step.

[13]`www.lachambre.be` under "`Les députés`".

[14]As starting values for the coefficients, we specified in one chain the estimates of a frequentist model without the δ-term and in the other two chains the same estimates ± 2 standard errors. The standard deviations σ_δ and σ_ϵ were initialized with random numbers from a Uniform(0,2) distribution.

[15]Compare the finding by André et al. (2012) that the use of preference votes in Belgian regional elections increases with party magnitude.

[16]The Pearson X^2 is calculated as the squared difference between observed and expected values, divided by the variance of the expected values (Gelman et al. 2003:175).

[17]Throughout the 2003-2007 legislative period, we count 1202 authorships with district co-partisans. From these, only 222 instances (18.4%) include all other district co-partisans as co-authors.

[18]Campaign spending is capped in Belgium (Maddens et al. 2006). The size of the maximum amount depends on district size, and there are graded caps within districts, whose allocation is decided by the parties. The variables we used are: allowed to spend at maximum district cap 0/1; spending as proportion of the individual cap; absolute spending.

[19]We would like to thank Peter Thijssen for pointing this out to us.

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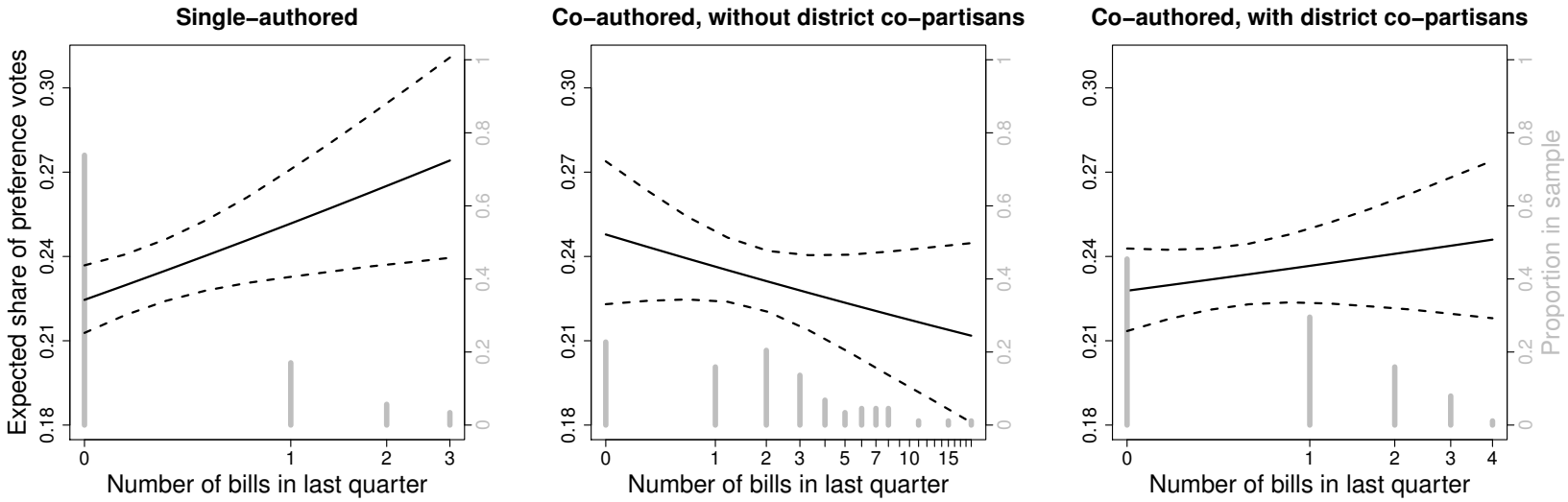
Table 1: Multilevel overdispersed binomial regression of preference votes

	Baseline Model			Main Model		
	5%	mean	95%	5%	mean	95%
Number of bills (log)						
Single authored (years 1-3)				-0.094	-0.039	0.015
Multi-authored w/o district copartisans (years 1-3)				-0.003	0.040	0.083
Multi-authored w/ district copartisans (years 1-3)				-0.055	-0.017	0.019
Single authored (year 4)				0.038	0.165	0.294
Multi-authored w/o district copartisans (year 4)				-0.168	-0.067	0.032
Multi-authored w/ district copartisans (year 4)				-0.054	0.055	0.163
$logit(p_i)_{'03}$	0.299	0.431	0.557	0.323	0.457	0.591
$logit(p_i)_{'03}\times$ Successor list$_{'03}$	0.009	0.257	0.501	-0.045	0.197	0.450
Droop quota$_{'03}$	-0.208	0.106	0.424	-0.092	0.233	0.565
First list place	0.796	1.008	1.218	0.664	0.890	1.111
Last list place	1.755	2.523	3.307	1.746	2.560	3.352
Next-to-last list place	1.334	2.144	2.937	1.302	2.127	2.937
List rank$_{'07}$(*cardinal*)	-0.197	-0.153	-0.110	-0.199	-0.156	-0.112
Double list appearance$_{'07}$	-0.026	0.234	0.504	-0.191	0.090	0.380
MP type$_{'03}$ (*top-list-stars* are baseline)						
Preference-vote-dependants	0.360	0.873	1.373	0.587	1.088	1.588
List-vote-receivers	0.158	0.486	0.810	0.306	0.633	0.963
Successor list$_{'03}$	0.187	0.552	0.928	0.358	0.740	1.127
High-level party office	-0.088	0.153	0.384	0.003	0.256	0.512
Lack of district co-partisan	-0.712	-0.423	-0.133	-0.925	-0.590	-0.253
Opposition MP	-0.057	0.160	0.374	0.071	0.312	0.544
Overall parliamentary effort (years 1-3)	-0.086	0.007	0.101	-0.082	0.040	0.168
Overall parliamentary effort (year 4)	-0.354	-0.080	0.200	-0.582	-0.258	0.060
Seniority (*third or higher term* is baseline)						
First term	-0.033	0.143	0.319	0.013	0.204	0.397
Second term	-0.027	0.162	0.349	0.020	0.225	0.433
Age (*40-55* is baseline)						
Below 40	-0.198	-0.024	0.146	-0.206	-0.029	0.146
Above 55	-0.249	-0.063	0.122	-0.248	-0.059	0.131
University degree	-0.159	-0.000	0.160	-0.174	-0.012	0.147
Incumbency time	-1.827	-1.258	-0.684	-1.869	-1.301	-0.740
Constant	-1.561	-0.761	0.028	-1.884	-1.061	-0.252
σ_δ	0.063	0.181	0.278	0.036	0.163	0.268
σ_ϵ	0.228	0.280	0.342	0.222	0.278	0.344
Pearson X^2		79.45			76.98	
N lists			42			
N MPs			88			

Note: $logit(p_i)_{'03}$ was mean-deviated before calculating the interaction effect and running the model.

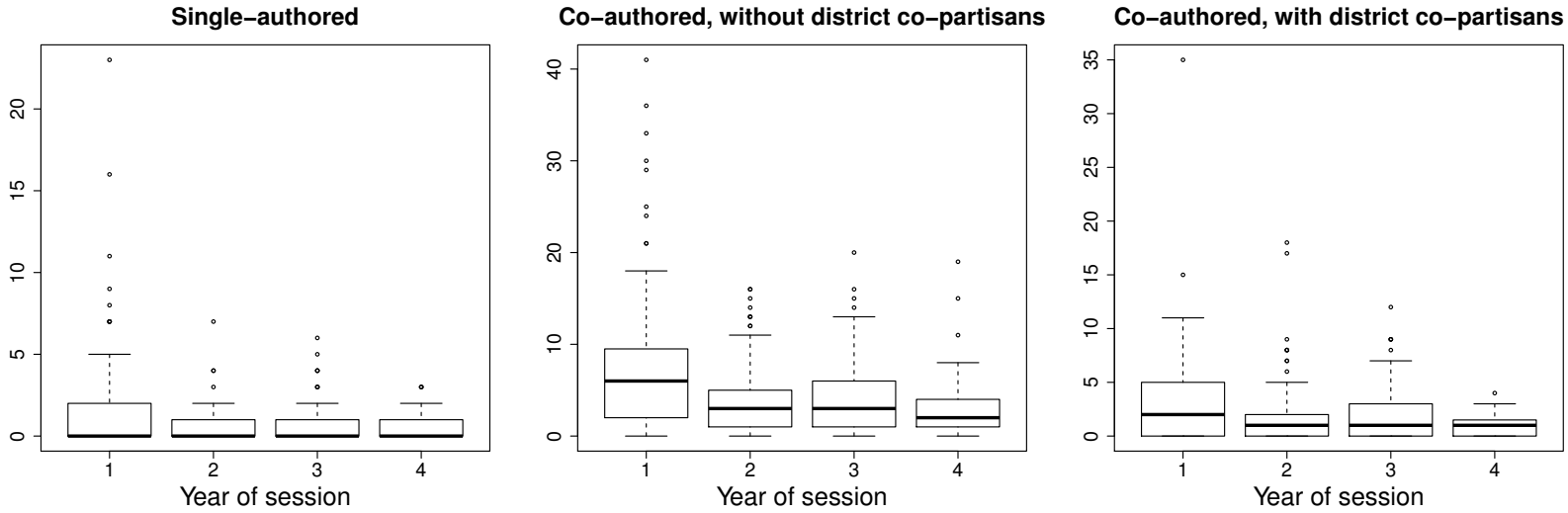
Figure 1: Number of submitted bills and expected share of preference votes given to all candidates (mean across observations)



Note: Figures show mean and 90% credibility intervals. Details of approach described in main text.

Appendix for Däubler et al. "Is personal vote-seeking behavior effective?"

Figure A1: Number of bills initiated over the legislative period



Note: Figures refer to N=88 MPs running on main list in 2007 (without Speaker of the Chamber). The x-axis shows year-long periods of the 2003-2007 legislative session..

Table A1: Descriptive statistics

Continuous variables	Min	Mean	Median	Max
$logit(p_i)_{'03}$ || Successor list$_{'03}$ == 0	-3.56	-1.54	-1.78	.79
$logit(p_i)_{'03}$ || Successor list$_{'03}$ == 1	-4.19	-2.76	-2.58	-1.73
Droop quota$_{'03}$	0.08	0.93	1	1
List rank (cardinal)$_{'07}$	1	3.82	3	24
Overall parliamentary effort (year 1)	-.68	.10	-.12	2.27
Overall parliamentary effort (year 2)	-.68	-.03	-.15	1.50
Overall parliamentary effort (year 3)	-.68	.04	-.08	1.79
Overall parliamentary effort (year 4)	-.68	-.11	-.17	1.62
Incumbency time during session	.03	.94	1	1

Indicator variables	Mean
First list place$_{'07}$	.30
Last list place$_{'07}$	.02
Next-to-last list place$_{'07}$	.02
Double list appearance$_{'07}$	.08
MP type$_{'03}$	
Top-list-stars (baseline)	.10
Preference-vote-dependants	.10
List-vote-receivers	.53
Successor list	.27
High-level party office	.11
Lack of district co-partisan	.08
Opposition MP	.24
Seniority	
First term	.44
Second term	.22
Third or higher term (baseline)	.35
Age	
Below 40	.25
40-55 (baseline)	.62
Above 55	.13
University degree	.76

Note: N=88 MPs running on main list in 2007, without Speaker of the Chamber.

Table A2: Regression results with alternative definition of dependent variable

	Baseline Model			Main Model		
	5%	mean	95%	5%	mean	95%
Number of bills (log)						
Single authored (years 1-3)				-0.048	0.004	0.054
Multi-authored w/o district copartisans (years 1-3)				-0.001	0.041	0.082
Multi-authored w/ district copartisans (years 1-3)				-0.043	-0.008	0.027
Single authored (year 4)				0.029	0.151	0.273
Multi-authored w/o district copartisans (year 4)				-0.133	-0.038	0.055
Multi-authored w/ district copartisans (year 4)				-0.077	0.027	0.127
$logit(p_i)_{'03}$	0.286	0.407	0.528	0.302	0.432	0.560
$logit(p_i)_{'03}\times$ Successor $list_{'03}$	-0.223	0.016	0.251	-0.271	-0.040	0.197
Droop $quota_{'03}$	-0.413	-0.117	0.183	-0.294	0.027	0.341
First list place	0.426	0.632	0.838	0.361	0.576	0.788
Last list place	1.749	2.495	3.223	1.780	2.509	3.253
Next-to-last list place	1.178	1.960	2.725	1.148	1.892	2.662
List $rank_{'07}(cardinal)$	-0.188	-0.147	-0.105	-0.186	-0.146	-0.105
Double list $appearance_{'07}$	-0.127	0.133	0.392	-0.255	0.021	0.303
MP $type_{'03}$ (*top-list-stars* are baseline)						
Preference-vote-dependants	0.067	0.540	1.010	0.215	0.693	1.177
List-vote-receivers	-0.033	0.271	0.566	0.055	0.365	0.671
Successor $list_{'03}$	-0.091	0.250	0.591	-0.024	0.345	0.708
High-level party office	0.073	0.299	0.521	0.063	0.308	0.551
Lack of district co-partisan	-0.745	-0.477	-0.203	-0.971	-0.648	-0.325
Opposition MP	0.126	0.328	0.532	0.209	0.439	0.675
Overall parliamentary effort (years 1-3)	-0.146	-0.057	0.031	-0.183	-0.070	0.045
Overall parliamentary effort (year 4)	-0.252	0.007	0.262	-0.418	-0.121	0.174
Seniority (*third or higher term* is baseline)						
First term	-0.079	0.090	0.262	-0.016	0.162	0.344
Second term	-0.079	0.102	0.283	-0.040	0.150	0.347
Age (*40-55* is baseline)						
Below 40	-0.211	-0.047	0.114	-0.210	-0.039	0.127
Above 55	-0.248	-0.070	0.110	-0.235	-0.056	0.122
University degree	-0.047	0.101	0.252	-0.113	0.047	0.207
Incumbency time	-1.000	-0.467	0.074	-1.090	-0.545	-0.006
Constant	-2.462	-1.703	-0.935	-2.706	-1.931	-1.163
σ_δ	0.032	0.148	0.264	0.037	0.174	0.282
σ_ϵ	0.220	0.274	0.333	0.205	0.259	0.322
Pearson X^2		87.63			88.06	
N lists			42			
N MPs			88			

Note: In this model, the total number of obtainable votes is set equal to the the number of all voters of the party-in-the-district.