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**DO PARTIES AND VOTERS REWARD PARLIAMENTARY BEHAVIOR?
EVIDENCE FROM ESTONIA**

MA Thesis

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Author's declaration

I have written this Master's thesis independently. All viewpoints of other authors, literary sources and data from elsewhere used for writing this paper have been referenced.

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Tatiana Lupacheva

Abstract

While a wide range of literature has discussed how institutional incentives account for variation in parliamentary behavior of members of parliament (MPs), what is less clear is to what extent the behavioral strategies are eventually effective for goal-seeking purposes. The thesis addresses this puzzle by examining electoral consequences of parliamentary behavior of legislators. Specifically, it looks at whether the level of parliamentary activism of MPs affects their consequent performance at candidate nomination process, defined as running for the same party and as ranking on party lists, and at electoral stage, defined as personal vote and as gaining legislative seat. Statistical analysis is applied to the data from the 2015 and 2019 legislative elections and preceding parliamentary terms in the Republic of Estonia. The empirical results show that parties and voters reward more active behavior, although the extent varies across the types of parliamentary activities and the two examined elections. These signs of parties' and voters' retrospective evaluation of parliamentary work have implications for understanding the mechanisms of delegation and accountability in representative democracies.

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Introduction

Democratic governance rests on the idea that politicians act on behalf of citizens, and that citizens can reward or sanction their representatives through the means of election. Members of a parliament (MPs) are agents of two principals – parties and voters, and therefore are accountable to both of them. It is a common view that MPs have goals related to retaining their legislative mandate and adopt certain strategies in order to achieve them. Electoral rules and internal organization of parties, including candidate selection methods, lay out the general foundation of what MPs should do in order to fulfill their goals. While a wide range of literature has discussed how institutional incentives account for variation in parliamentary behavior, what is less clear is to what extent the behavioral strategies are eventually effective for goal-seeking purposes.

The thesis addresses this puzzle by examining electoral consequences of parliamentary behavior of members of parliament. The overarching research question is formulated as follows: Do parties and voters reward more active parliamentary behavior? Specifically, the thesis looks at whether the level of parliamentary activism of MPs affects their consequent electoral performance at candidate selection process, defined as running for the same party and as ranking on party list, and electoral stage, defined as MP's personal vote share and as gaining legislative seat. With reliance on the assumptions from rational choice institutionalism, it is hypothesized that all things being equal, more active behavior in parliament should bring electoral payoffs for MPs. Understanding how parties and voters retrospectively evaluate the behavioral strategies of legislators has implications for the role of parliaments and for the mechanisms of delegation and accountability in representative democracies.

The thesis tests the hypotheses on the data from the 2015 and 2019 parliamentary elections in the Republic of Estonia. The case of Estonia is particularly suitable for the research question at hand due to its peculiar electoral system with mixed incentives for relying on party platform or developing personal reputation and as a large amount of data on parliamentary activities is publicly available. The method of regression analysis is used to test the expectations.

The scarce earlier studies showed that more active MPs are likely to be re-selected by their parties for consequent elections, although the level of activism does not improve ranking on the list (Däubler et al 2018; Marangoni and Russo 2018). Some evidence also exists for voters' reward of parliamentary behavior. For instance, bill initiation brings small but significant personal vote gains (Bowler 2010; Däubler et al 2016; François and Navarro 2019; Loewen et al 2013). Similar evidence of a modest robust positive effect on personal vote was found for the use of oral parliamentary questions (François and Navarro 2019) and for an overall effort in questions and bill sponsorship (Däubler et al 2018). The connection between parliamentary activism and seat-gaining so far was shown by François and Navarro (2019) for French legislative elections.

This thesis contributes to existing academic literature in several ways. Empirical works on electoral consequences of parliamentary behavior have traditionally covered majoritarian systems (e. g. Crisp et al 2004; Bowler 2010), so the study adds to a more recent scholarship on proportional systems. While examining the impact of parliamentary activities on electoral outcomes, scholars usually look at solely parties' or voters' rewards, therefore not attempting to assess how various actors react to the same behavioral strategies¹. Moreover, largely due to data availability, the studies had to limit their focus to the most recorded activities – commonly either private member bills, parliamentary questions, or voting deviations from the party line, thus not addressing how the level of activism varies across the different types, and which of them are the most electorally beneficial for MPs.

The principal aim of this thesis is to estimate electoral outcomes of strategic usage of parliamentary activities for goal-seeking purposes. The ambition is twofold – first, the question is raised of whether parliamentary behavior matters for parties and voters, and second, which activities are more beneficial is examined. Theoretically, the objectives include addressing existing works on determinants and outcomes of parliamentary behavior, and positioning the case of Estonia into these discussions. Empirically, the thesis aims 1) to compile the dataset that encompasses several types of parliamentary activities, 2) to examine the overall features and patterns of variability among them, and

1 A recent exception which focuses on both parties' and voters' rewards is Däubler et al (2018), albeit their work does not take seat-gaining prospects into consideration

3) to test the impact of parliamentary behavior on electoral prospects through the means of regression analysis.

These aims and objectives are realized in the four main parts of the thesis. The first chapter briefly discusses the concepts of representation and accountability, provides a review of theoretical works on determinants of parliamentary behavior, and outlines the role of parliamentary activities for goals-seeking purposes. The second chapter looks at the structure of the Estonian electoral system and its key characteristics of parliamentary work. Based on these discussions and existing evidence, several suggestions and expectations for empirical testing are formulated. The third chapter contains the operationalization of concepts, specifies data sources and data collection procedures, and explains methodological choices. Finally, the fourth chapter is devoted to empirical analysis and discussion of the results.

1. Party and personal representation and political behavior in parliamentary democracies

Representation, responsiveness, and accountability are essential parts of democratic governance. Elections provide mechanisms for parties and candidates to gain representation, and for voters to hold their representatives accountable. The following chapter attempts to disentangle the comprehensive chain of representation and precise ways in which voters, parties, and legislators impact each other. The principal purpose is to lay out the determinants of political behavior of members of parliament and to identify the levels at which they operate. This allows to consequently identify the possible payoffs from behavioral strategies, their location and intensity.

The following part first discusses the concepts of delegation and accountability, and the roles prescribed to parties and individual politicians in the mechanisms of representation. Next, attention is turned to explaining the motives behind the behavioral strategies of members of parliament. For the search of determinants, the works that rely on the new institutionalism theory, specifically on its rational choice strand, are consulted. Having established what affects the preferences of legislators and strategies of their realization, the usefulness of parliamentary activities for goal-seeking purposes is addressed.

1.1 Delegation and accountability in parliamentary democracies: concepts and implications

From the normative perspective of political theory, representation often has a problematic relationship with democracy as it essentially contradicts the idea of direct rule of people (e.g. Pitkin 2004). Still, modern nation states inevitably rely on the creation and functioning of representation mechanisms that aggregate and translate citizens' preferences into rules by which a society exists. Representation consists of two crucial elements – delegation of power from people to authorities and a reverse chain of accountability. Such channels of delegation and accountability are hierarchical and complex, rely on certain sets of rules, and involve several actors and institutions that

directly and indirectly influence each other (Mitchell 2000, 337). Despite such complexity, the main link that ensures the democratic nature of governance is between voters and their representatives (Strøm 2000). Thus, which mechanisms and tools at hand allow citizens to select and control decision-makers is essential for examining modern democratic governance (Ibid, 267).

In economic theories, the relationship between citizens and politicians is described through the principal-agent framework. Citizens – a principal – delegate their power to elected politicians – an agent – due to a lack of time and competence to make decisions (Strøm et al 2003). Although principal-agent model, as any other game-theoretic model, simplifies reality, it provides a set of precise yet generalizable starting points which are useful for examining political behavior.

If an agent is obliged to act in a certain way on behalf of a principal, and if a principal can sanction or reward an agent through formal or informal mechanisms, then it is concluded that the foundation for a principal-agent accountability exists (Fearon 1999, 55). In political context, there are some disagreements on whether the sanction is based on retrospective evaluation of an agent's performance – a pure accountability model, or rather a prospective assessment of an agent's qualifications and promises regarding the future – a mandate model (Manin et al 1999, 44). To a varying extent, elections combine the elements of both. Voters can rely on various prospective and retrospective measures and seek informational cues in agent's last performance as well as take future pledges into consideration while making their electoral choices (Ashworth 2012, 187-8). Such signals include perceptions of one's own welfare, benefits from adopted policies, politician's programs and personal qualities (Fearon 1999, 59). In addition, past and future are interconnected not only in voters' minds, but also in the ways how politicians adapt their strategies depending on what kind of behavior and qualities voters have supported in the past (Ibid, 71). In this way, a certain level of retrospective benchmarking exists even if elections are seen as a purely mandate mechanism.

The key element of the principal-agent model is the scarcity of information available to a principal. Whether it is deciding to keep or to dismiss an agent, or choosing which agent will maximize the principal's preferences, an agent always has more information

about his or her own performance, preferences, and qualities than a principal does. This creates a risk of various manipulations based on the hidden information (Strøm 2000, 270). In democratic regimes, the major role in prevention of such risks is prescribed to political competition (Strøm et al 2003). In this sense, elections are similar to market in which power-seeking actors offer their policies in exchange for voters' support (Schlesinger 1984, 381). This market base of elections entails actors need to timely catch the signals from voters and act respectively in order to survive (Ibid).

In practice, the electoral market largely relies on political parties, which structure the competition and affect each part of the delegation chain (Müller 2000, 310). Parties narrow choices available to voters and reduce transaction costs between voters, elected politicians, and cabinet (Ibid, 329-330). The importance of parties as key political actors results from electoral rules, structure of parliamentary work, career resources, political finance specifics, all of which affect the capacity of a single individual to influence political processes (Ibid, 327). Party affiliation and good intra-party reputation is often a precondition for obtaining political offices, and parties generally have high standards for their members (Mitchell 2000, 338-9).

A typical party has goals related to maximizing electoral support in order to control government, obtaining benefits from holding political office, and influencing public policy (Strøm 1990, 566-7). To better understand party competition and its implications for democratic representation, it is useful to view parties not as unitary actors, but as complex entities with self-imposed constraints on behavior of its members, internal dynamics and struggle for influence, and arising from them challenges (Ibid, 569). Members share general interests and objectives, but also have their own preferences that may not be perfectly compatible with party's leadership. This creates an additional collective action problem within the broader chain of delegation, which is especially important in parliamentary systems. Despite the formal assumption that members of parliament are bounded by their own conscience, parties need to ensure the coherency of voting behavior of its legislators to ensure accountability of the government (Bowler et al 1999, 3). To deal with it, parties have a number of ex ante and ex post tools as

selection based on compatibility of interests and incentives, monitoring of performance and the following sanction of reward (Strøm 2000, 271; Müller 2000, 316).

When it comes to positional deviation, parties in parliamentary democracies are generally seen as having strong internal discipline and capacity to condition the behavior of voters. Nevertheless, many electoral systems encourage some level of direct connection between voters and individual legislators, which has an impact on party cohesion (Riera 2011, 59). In addition, it is easier for voters to hold a specific individual accountable for government performance than a broader entity such as governing coalition or a party (McAllister 2007, 580). In the light of declining partisanship, erosion of social cleavages, increased role of the new forms of media, attention has been turned to assessing whether voters in parliamentary democracies show more candidate-centered voting behavior (McAllister 2007; van Holsteyn and Andeweg 2010, 628). On the supply side, the behavior of politicians as well as media coverage of individual candidates is concerned as well.

Thus, the phenomenon of personalization – a process, in which individual actors become more important at the expense of political parties (Rahat and Sheafer 2007, 65), has been in focus of many recent works on political behavior. While there are some debates on whether politics have indeed become more personalized across time, which is largely due to inconsistencies in employed conceptualizations and measurements (Pedersen and Rahat 2019), the instances of personalized behavior are generally empirically observable across various cases. Personalized strategies of MPs can be described as more active and more individual work in parliament, or campaigning with a focus on a candidate rather than on his or her party. For voters, it is an increased value of personal qualities of politicians, and their abilities to realize voters' preferences and pledges made during campaigns (Colomer 2011, 3). Empirical evidence suggests that party and personal strategies of MPs are weakly, negatively correlated (Pedersen and van Heerde-Hudson 2019, 22), which implies that the choice is strategic and somewhat mutually exclusive.

Still, individual behavior does not necessarily threaten party cohesion and can be nested in party representation. The evidence of whether parties or candidates are of foremost

importance for voters' electoral behavior is rather mixed. On the one hand, voters follow party cues, but are also able to differentiate between candidates based on their qualities (Marsh 2007). Even if parties are still centered for electoral choice, personalization within parties can happen as a result of electoral systems that support a voter-candidate link (van Holsteyn and Andeweg 2010, 663).

To sum up, democratic governance is tied to the ideas that politicians act on behalf of citizens, and the latter can reward or sanction their representatives through the means of election. Parties are viewed as central organizations in parliamentary democracies that guide voters by providing cheap informational short-cuts about general policy positions and emphasis (Colomer 2011, 6). Simultaneously, personal representation adds to the quality of representation through assigning individualized responsibilities and establishing more explicit connections to the community (Ibid, 6-7). Members of parliament are accountable to both voters and parties, and therefore behave in ways which reflect the focus of representation. The chain of delegation is a series of collective action dilemmas, in which actors try to balance individual and collective preferences (Hall and Taylor 1996, 12). Personal and party representation can be mutually exclusive or, on the opposite, perfectly compatible. Examining conditions for developing the behavioral strategies and how voters and parties as principals consequently reward or sanction certain patterns of behavior sheds light on the mechanisms of democratic delegation and accountability.

1.2 Institutional determinants of behavioral strategies

Studying political behavior and consequences of it requires to position the discussion into a broader theoretical framework, which provides generalizable concepts that can be further applied to specific observations. Behavior of members of parliament is most fruitfully studied through examining institutional environment in which political actors exist. Institutions are generally understood as formal and informal constraints that structure political, economical, and social interactions (North 1991, 97). The new institutionalism theory, with its key focus on how formal and informal constraints

influence political and social outcomes (Hall and Taylor 1996, 5), is particularly appropriate for examining the behavior of political actors.

There are three strands within the new institutionalism depending on emergence and more precise ways of institutional influence: rational choice, sociological, and historical institutionalism (Ibid). The first kind – rational choice institutionalism – first appeared in the studies of American congressmen (Ibid, 10) and has become the dominant framework for analyzing behavior of MPs.

Rational choice institutionalism views institutions as equilibrium rules by which actors agree to play (Shepsle 2006, 24-5). This assumption has several important starting points for examining political behavior. First, institutions reduce uncertainty and predetermine the channels of obtaining political power. Second, political actors are rational and their goals can be specified. Third, behavioral strategies are well-calculated and instrumental for goal-seeking purposes. Last and most important in the context of this work, strategies result in certain predictable payoffs (Ibid).

This simple framework yields several implications. Institutions provide MPs with a sense of which goods are available and who is a principal provider of them, therefore affecting the ways of how MPs think of representation (Crisp et al 2007, 727). The prior assumption of rationality of legislators entails that if they find their goals realistic, they will adopt certain behavioral strategies within the institutional frames and resources available to them (Strøm, 1997). Although strategies are not directly observable, it is possible to identify them from the actual behavior (Ibid, 162). Variation in the patterns of MPs' behavior is assumed to have predictive power for achievement of political goals (Ibid, 171).

The scholarship which applies the rational choice institutional framework to studying determinants of individual strategies defines MPs' goals in the two somewhat different ways. The first approach assumes that legislators are seeking votes in order to keep the political office (e.g. Crisp et al 2004; Bowler 2010). Thus, behavior of MPs is assumed to have an "electoral connection". The second approach loosens the assumption of viewing all MPs as seeking solely re-election, and further suggests that goals can as well be related to re-selection or career prospects within party or legislature (Strøm

1997, 160). Re-selection and re-election are crucial objectives since they are instrumental for obtaining further parliamentary goods, and can be goals in themselves as well. Both approaches are consistent with the assumptions of rational choice institutionalism and stress the importance of institutions in shaping political behavior. At the same time, the second approach that sees goals as not limited to re-election is more flexible in allowing for variation in goals and respective behavioral strategies within a single electoral system.

As scarcity of resources as time and energy is equally common for all MPs, it is important to lay out the set of potential institutional determinants that can explain the variation in the patterns of individual behavior, as well as levels and conditions on which they operate. In this regard, the impact of electoral institutions is viewed as crucial for defining goals and strategies of their realization.

Institutional arrangements of electoral procedures have an impact on parties, candidates, and voters, and therefore constitute the main arena for the search of determinants of political behavior (Karvonen 2004, 209). To characterize electoral systems, the difference can be made in relation to inter-party and intra-party dimensions (Shugart 2005, 37). Inter-party dimension refers to how seats are allocated to parties, and intra-party – how seats are given to candidates (Ibid). For the former, the conventional distinction is among proportional and majoritarian systems. For the latter, open-list systems, in which voters have some level of impact on intra-party seat allocation, are opposed to closed-list systems, where votes have no influence (Ibid, 42). It is fair to note that in practice the two dimensions are rarely dichotomous and mixed variants are common.

A need to develop personal reputation, which refers to being recognized from and evaluated on the individual qualities and records instead of relying on the aggregate party support for re-election (Riera 2011, 57), is seen as a major determinant of behavior of MPs. Proportional systems have traditionally been considered as less obvious cases for observing incentives to rely on personal reputation due to low visibility and lack of opportunities for blame options (Pedersen and van Heerde-Hudson 2019, 19). The seminal work of Carey and Shugart (1995) provides theoretical

arguments that electoral rules determine the extent, to which candidates will seek to develop their personal reputations or to rely on their party's image. In this line of argumentation, proportional systems can have intra-party competition mechanism that will motivate candidates to adopt personalized behavioral strategies.

The first factor is control over access to and position on a ballot (Carey and Shugart 1995, 420-21). Candidate selection methods, although generally less stable than electoral rules, can be viewed as institutions that impact behavioral strategies (Atmor et al 2011, 20). Whether candidates view their party or voters as the main principal depends not the least on who controls nomination. In exclusives forms of selection, where nomination committee controls access to ballot, reputation within party leadership matters most. In more inclusive instances when the wider public is invited to the process of candidate selection, there are more incentives for developing personal reputation (Ibid, 22). Thus, centralized control over nomination allows party leadership to control the behavior of its members and to ensure the cohesive legislative behavior (Bowler et al 1999, 7). Depending on electoral rules, parties can not only propose candidates, but also impact the amount of individual votes by altering the order of candidates on a list. While in general voters' control over ballot ranking allows candidates to be more independent from their parties, top position on a national list of a popular party essentially guarantees the election no matter what a personal vote is (Atmor et al 2011, 29).

The second and third factors regard the type of vote and how votes are transferred into seats. An opportunity for voters to cast a vote for a specific candidate rather than for multiple candidates or a party increases personal reputation seeking (Carey and Shugart 1995, 422). The ways of transferring individual votes into legislative seats also has an impact as it determines the possibility of getting elected no matter what co-partisans' votes are (Ibid, 421-2). Based on this, open lists systems provide candidates with more incentives for personal vote-seeking than closed systems (Ibid, 418). Such systems vary to the degree of how preferential the vote is – i.e., to what extend voters define the intra-party ranking, in accordance to which seats will be distributed among candidates (Shugart 2005, 42). Overall, preferential voting has strategic effect on candidates'

behavior and motivates them to work on their personal reputations (Karnoven 2004, 204).

Empirically, candidate nomination procedures and electoral rules are not completely distinct elements. For instance, in countries with open-list proportional representation systems parties usually exercise central or regional control over ballot access (Bowler et al 1999, 7), which implies that there should be less variation in behavioral strategies within the same system.

The last commonly considerable electoral factor is the size of electoral district. As argued by Carey and Shugart (1995, 430-1), the increase in district magnitude leads to more personal vote-seeking in systems with intra-party competition, otherwise leads to more party reputation-seeking. More recent critique of this argument noted that it is the ratio of the number of co-partisans to district magnitude which should matter (Crisp et al 2007). As the ratio can vary at a district level, the indicator should be party-specific (Ibid, 727-8). Moreover, closeness of competition also matters for personal vote-seeking, so another suggestion to include a candidate-specific indicator that can vary within parties at a district level was offered (Selb and Lutz 2015, 355).

To sum up the arguments from this line of theoretical works, the dominant approach views actors' behavioral strategies as a function of electoral incentives and candidate selection methods. If electoral system impacts candidates' behavior, it should be possible to study the effect indirectly at the aggregate level. When it comes to empirically observed relationship between the outlined factors and importance of personal reputation for electoral outcomes, studies generally notice a considerable correlation on cross-national level, although various intervening variables affect the relationship (Riera 2011, 59). Thus, it is fair to note that institutional structures do not automatically translate into a certain behavioral strategy or guarantee a payoff from it.

Some scholars also show that behavior of MPs is not necessarily connected to personal vote-seeking goals. Parties have a variety of positive and negative selective incentives to influence candidates' actions outside of electoral arena (Boggild and Pedersen 2017, 12). Such incentives include a sanction for free-riding or deviating behavior as well as a reward for keeping with the party line (Ibid, 4). Therefore, MPs can aim to increase

their intra-party visibility in order to obtain goods provided by parties. Goods can include career prospects within parties, legislatures, or on sub-national level. Therefore, it is not only parties' control over access to ballot and list order, but also their influence over career opportunities that affect MPs' behavior and their views of representation. This approach goes beyond the electoral connection of strategies, although re-election is still crucial as it is often a precondition for obtaining further benefits.

When it comes to parties' goals and strategies, similarly to individual candidates they seek to maximize their electoral support. With the weakening of strength of party identification, sound personal reputations of individual candidates can increase turnout among party's supporters and their voting choice (Crisp et al 2013, 569). Parties benefit from strong and popular candidates, and at the same time popular candidates would gain more from a system, in which their election comes directly from their personal votes (Karvonen 2004, 209). The impact of candidates' personal vote-seeking attributes has even been shown to affect voters' inter-party choice in closed-list PR systems (Riera 2011, 77). Some works also suggest that MPs which enter parliamentary arena with high preference votes are placed in better list positions in consequent elections (Crisp et al 2013) and have significantly higher chances of career promotions (Folke et al 2016). Strong personal reputation is associated (Tavits 2009) and sometimes caused by an independence from party (Crisp et al 2013, 659). As a result, there is a potential collective action problem between candidates and their parties (Carey and Shugart 1995, 419). Party leaders often face a situation when concessions to party unity have to be made in order to achieve high electoral results (Crisp et al 2013, 659). Parties are likely to combine vote- and policy-seeking strategies and to balance having popular candidates with personalized behavior and "party soldiers" to ensure party cohesion (Dodeigne et al 2019).

Overall, members of parliament can have goals related to retaining their legislative mandate or pursuing other political offices, and adopt certain strategies that are assumed to be largely prescribed by the institutional environment. There are various constraints and incentives that operate at systemic, party-, and district-levels. Electoral rules, candidates selection procedures, as well as intra-party tools for sanctioning or rewarding

lay out the general foundation of what MPs should do in order to fulfill their goals, although determinants and goals can often be interconnected.

A few words should be said about the potential non-institutional determinants that can account for variation as well. As such, individual-level characteristics as age and gender have an impact on individual behavior (Pedersen and van Heerde-Hudson 2019, 24). To some extent, such determinants can be consequences of parties' strategies and voters' perceptions of representatives. An example can be made about the role of gender for behavior in parliament. The evidence shows that female MPs are significantly less likely to appear on parliamentary floor: the differences are not so much observed in "soft" policy areas as social welfare and immigration, but are pronounced in "harder" policy issues as economics and energy (Bäck et al 2014, 505). This supposedly has connections to which issue areas voters view female MPs as more competent than male MPs and how parties strategically make use of that to increase electoral support (Ibid, 514). In addition, psychological reward for constituency service proves to be a determinant of behavior of MPs, at least in the system with little reward from personal reputation is available in terms of re-election or re-selection prospects (Norris 1997). In addition, short-term factors and dynamics of party competition should be considered in explaining political behavior of individual actors (Bowler et al 1999, 17). Thus, behavioral strategies result from a combination of personal preferences, external pressures related to overall parties' goals, as well as from factors of a more random nature (Ibid, 5).

It is fair to note that concern over one's own performance in parliament is not exclusive to cases where institutions provide incentives and pressures for it. Another recognized, albeit less popular perspective is to look at behavior of legislators through sociological institutionalism. This strand of the new institutionalism concerns not only formal institutional constraints and incentives, but also informal symbols, norms, moral templates and expectations within a certain environment (Hall and Taylor 1996, 14). It does not reject the importance of electoral rules or candidates selection methods as such, but stresses that formal and informal institutions are reciprocal (Searing 1991, 1241-2).

This approach therefore assumes that parliamentary institutions and norms within them affect the roles MPs develop and how they act according to these roles (Ibid).

There is an indeed some evidence that behavior of MPs results from socialization and norms among peers, precisely of parties and committees (Louwerse and Otjes 2016). The arguments about whether the behavior of MPs can be best explained through strategic calculations for goal achievement or informal norms within parliamentary institutions are not completely incompatible, but they essentially lead to the development of different expectations regarding the outcomes of behavior and inner mechanisms behind them (Marangoni and Russo 2018, 6). The roles approach gives less theoretical leverage over proposing the reward by both parties and voters as norms vary among parties and committees, including differences across left-right axes and government-opposition status (Louwerse and Otjes 2016, 782). Nevertheless, electoral factors were also shown to affect how MPs view their representative roles, and the influence was stronger in comparison to the one of parliamentary socialization (Chiru and Enyedi 2015).

To summarize these discussions, the existing scholarship identifies a number of determinants of parliamentary behavior. As these determinants are located on various levels, there should be considerable variation in the patterns of behavior that is possible to observe empirically in cross-national as well as in single case studies. The grounds of rational choice institutionalism allow to expect that outcomes of these strategies can be systematically observed. Considering the emphasis that is placed on institutional determinants of behavioral strategies in the literature on legislative studies, examining their actual payoffs is important for validating these theoretical mechanisms.

1.3 The use of parliamentary activities for goal-seeking purposes

The assumption of goal-seeking behavior of members of parliament leads to the question of how and at which arenas the strategies can be empirically observed. There are various tools and communication channels for realizing the goals. For instance, the strategies can be identified through self-reported attitudes, in the focus and substance of

electoral campaigns, in the use of social media and appearances in the media in general, or in the intensity of constituency service. Nevertheless, most of these tools require additional financial or human resources, which are not equally available to all MPs. As access to parliamentary activities comes directly by means of holding legislative mandate regardless of other factors, the use of activities is likely to reflect well the effort put in realizing goal-seeking strategies.

Parliamentary behavior broadly refers to the involvement in parliamentary decision-making process and attempts at influencing it (Strøm 1997, 162). Behavior can be examined in terms of activism, substantial content of activities, deviations from the party line in issue position taking or issue emphasis. There is no straightforward way of defining what “good” parliamentary behavior is and how to measure it with an appropriate for research purposes precision. This work looks at parliamentary behavior as the extent to which individual MPs engage in legislative and non-legislative parliamentary activities available to them. This quantitative approach therefore concerns an overall productivity, or frequency with which an MP uses parliamentary tools.

Parliaments are inevitably associated with initiating legislation. Similarly, behavior in parliament has predominantly been studied in terms of voting or efforts in bill initiation. This trend partly comes from data availability, as records on votes and draft submission are usually well-tracked and publicly accessible. Besides these activities, there is a number of other tools that individual MPs can use. As such, legislators can exercise control over executive power through requesting an elaborate answer on a certain issue. There are various formats of doing so depending on a matter and depth of the subject. Commonly, MPs have an option of submitting an interpellation or a written question, or asking an executive directly during sessions. In addition, an MP can address others through the means of parliamentary speeches and engage in debates to present and defend his or her position. Overall, legislative activities as bill initiation directly aim on policy making, while non-legislative activities as speeches and questions are tools for debates and cabinets’ accountability to MPs (Green-Pedersen 2010, 348-9). Thus, several tools are available to individual legislators to fulfill their goals and duties.

There are somewhat various views in the literature on whether parliamentary activities should be regarded as party service or as an expression of a more individual work. According to one of the perspectives, the more active use of non-legislative activities as questions and interpellations to ministers results from increased issue competition across parliamentary parties (Ibid, 348). Activities are therefore used to attract attention of other parties to issues on which parties are perceived by the general public as competent, which is assumed to bring electoral gains. More broadly, increased issue competition results from decline in class voting and increased partisan dealignment, emergence of new issues, and consequent importance of short-term factors in attracting votes (Walgrave et al 2015, 779). In this line of reasoning, MPs use parliamentary activities to mainly fulfill the broader vote-seeking goals of their parties.

Less party-centered view is common for studies which examine how voters respond to individual parliamentary behavior. According to these works, both legislative and non-legislative parliamentary activities are used by MPs to build their personal reputation and increase electoral support from voters. There are several mechanisms, through which parliamentary activities can help MPs in this. The most weight is generally placed on the so called private members bills (PMB) – bills initiated by a member of parliament by oneself or in co-authorship with other members. As most of the adopted bills in parliamentary systems are initiated by government, it is puzzling why MPs decide to spend their limited resources on drafting bills with little chances of being passed at all (e.g. Bowler 2010; Solvak and Pajala 2016). Sponsorship of private member's bills provides an MP with opportunities to put on the agenda his or her preferred policy and to increase public awareness about it, while allowing to take individual credit for it (Bräuninger et al 2017, 532). This may be especially relevant for bringing up concerns of local constituents on national agenda (Crisp et al 2004, 843-844). There is no party or faction label attached to it, so the responsibility for the bill is shared solely by its initiators. PMBs are particularly useful for backbenchers, which do not have leverage over general legislative agenda (Bowler 2010, 477). Thus, the benefits of targeting even minor issues are large enough for the MPs, as PMBs allow to claim credit and to increase public attention to both an issue and an MP (Bräuninger et

al 2017, 532). Although PMBs can be used for policy motives, what is generally considered as more important is their public oversight.

Besides the traditional view on non-legislative activities as means of holding government accountable, such tools also allow to bring up concerns of constituents (Martin 2011). While interpellations are generally submitted on national issues of broad public interest, written questions can be used to raise more narrow questions. Thus, written questions seem to be especially handfult for constituency service.

Speeches create a platform for influencing policy outcomes and explaining policy positions to other MPs, including co-partisans, as well as to voters (Proksch and Slapin 2012, 521). Parliamentary floor can be used by parties and their representatives to set the agenda as well as to respond to salient issues. Speeches and debates therefore reflect well which issues are the most relevant on the agenda and the overall dynamics of party competition. Outside of the national context, speeches are often viewed as party-controlled activity, with access to which being given to the most loyal and experienced MPs (Louwarse and Otjes 2016, 779). In this light, speeches are rarely examined in terms of their impact on electoral performance. Still, rules regarding access to parliamentary floor vary across countries, and intuitively can depend on the size of parliament and the number of legislative parties. For individual MPs, being visible on parliamentary floor is likely to bring media attention and consequently increase recognition among voters and speeches are therefore a useful tool for intra-party competition (Proksch and Slapin 2012, 521-2).

Although more active individual behavior does not necessarily imply some level of deviation from the party line, resources as time and energy are limited. As activities have somewhat different logic and can be used for various purposes, the way MPs allocate their effort to various activities can potentially be rewarded to a different extent by parties and voters. Opportunities to adopt more active behavior and to stand out among co-partisans are especially relevant for intra-party competition, no matter whether party supporters or leadership are in the main focus. In addition to media attention to parties and legislators, the records of parliamentary activities can be published on parties' or MPs' websites and emphasized in campaigns (Williams and

Indridason 2018, 214). It is very likely that MPs are aware of the positive consequences of parliamentary work (Proksch and Slapin 2012, 522) and will use them as their resources allow.

Overall, this chapter has discussed the concepts of delegation and accountability from the normative perspectives, and further positioned behavior of members of parliaments as agents of parties and voters into a broader delegation chain, thus stressing the various incentives and pressures coming from having multiple principles. The principal-agent model and arguments from institutions-centered literature on political behavior constitute the key theoretical pillars of this thesis. While there is a strong theoretical argumentation for explaining the determinants of parliamentary behavior through institutional incentives, it remains largely unclear how beneficial parliamentary behavior turns out to be in elections. The existing scholarship allowed to map out several determinants of behavior as well as levels and arenas, where strategies and their outcomes can be located. Context-specific details should be further applied to this general theoretical framework in order to produce testable hypothesis for empirical analysis of the consequences of parliamentary behavior.

2. Proposed connections between parliamentary behavior and electoral fortunes in the context of Estonia

The previous chapter indicated the presumed existence of various incentives provided by systemic, party-level, and individual factors that impact the behavior of members of parliament. Among the determinants the major weight is placed on electoral incentives. The use of parliamentary activities for vote-seeking purposes is argued to be largely a phenomenon of European parliamentary systems, where preferential voting is common (Bräuninger et al 2012, 608; Karvonen 2004, 208). This study looks at the case of the Republic of Estonia, which after the restoration of independence adopted open-list proportional representation system for parliamentary elections. Besides the elements of preferential voting, peculiar seat allocation methods, and party-centered candidate selection rules, the Estonian case provides a fruitful platform for examining how MPs make use of parliamentary activities and which payoffs it brings due to a large amount of publicly accessible data.

Studying the outcomes of individual behavioral strategies implies the use of a member of parliament as the unit of analysis. Altogether, the thesis is a factor-centric large-N study based on data from a single country. Due to the lack of work examining current parliamentary behavior in Estonia and constraints imposed by data availability and its richness, the research covers two parliamentary terms: 2011-2015 and 2015-2019. Examining electoral consequences of parliamentary behavior in a single-case study allows to keep systemic factors as constant. While narrow time frame decreases the possibility of influence of other factors, focusing on two consequent parliamentary terms allows to observe the potential short-term effects and dynamics.

The following chapter seeks to outline the institutional and organizational context of the examined case of Estonia, and to position it into a broader theoretical framework. Based on these discussions and evidences from existing empirical works, several hypotheses are drawn to further guide the analysis.

2.1 Characteristics of electoral system

Incentives and constraints provided by the electoral system have a crucial role for actors' behavioral strategies and their outcomes. The 101 members of Estonian parliament – the Riigikogu – are elected for a four-year term through proportional open-list system from 12 multi-mandate constituencies, with voters casting one vote.

Parties submit lists for each of the electoral districts and an overall national list as well as determine the order of candidates. Generally, candidates are nominated by party selection committees with consideration of national and regional leadership. Although the process of institutionalization of candidate selection has achieved progress across the years, some formal ambiguity as reflected in parties' statuses still exists (Aylott 2014). This allows party leadership to alter their strategies depending on specific goals and circumstances (Ibid, 339). On the aggregate level, the degree of inclusiveness of electorate and territorial centralization varies among the parties (Ibid), but overall party leadership has significant influence over access to and ranking on the ballot (Pettai 2005, 470).

Voters are given one vote, which they can give to a candidate from district party list or support an independent candidate. The rules regarding vote pooling are rather peculiar, which makes Estonia an interesting case for disentangling party and personal representation. The allocation of mandates takes place through three rounds and accordingly creates different types of mandate. First, candidates who achieve a sufficient number of personal votes to meet the simple (Hare) quota requirement in electoral district receive personal mandates. No vote pooling takes place at this stage. The next two tiers regard parties that overcame the 5% threshold by the total sum of votes received by their candidates nationwide. District mandates are given to candidates among the eligible parties in the order of received votes on the district level. Overall party support is important to candidates to be considered for seat allocation at first place, but personal vote re-arranges the list order and therefore is crucial too. Finally, as some mandates remain after calculation of quotas, they are given proportionally to parties through modified d'Hondt formula, and parties then distribute compensation mandates among candidates in the order of fixed national list (Elections of the

Riigikogu, 2017). For this type of mandate, what matters is nationwide party vote and position on a predetermined national list. Currently, the majority of mandates are district, around a quarter of MPs have compensation mandates and 10-15% have a personal one.

On the one hand, if electoral chances depend on candidates' individual votes, alone or in combination with party votes, they have reasons to work on their personal recognition (Carey and Shugart 1995, 419). As the type of vote can be described as preferential, it provides incentives for candidates to adopt vote-seeking strategies. The Estonian electoral system gives candidates an opportunity to be elected upon personal vote, thus preserves the direct link between citizens and their representatives. Therefore, MPs with personal mandates can behave more independent from their party (Pettai and Madise 2006, 296) as their individual reputation is crucial (Slovak 2013, 46). Intra-party personal vote matters for the most commonly received district mandates as well. In addition, small district magnitudes ranging from 5 to 15 seats could be expected to increase a candidate-voter connection (Pettai 2005, 482).

On the other hand, personal mandates are rare. Politicians with significant political experience are likely to fill this type of mandate, and most of the holders of personal mandates take ministerial positions and transfer their seats to substituting politicians. There are little reasons to expect that their personal vote depends on behavior in parliament. Party results matter more for compensation mandate, which makes possible to be elected solely from pooled party vote by having high national list placement, although the number of such mandates is generally lower in comparison to district mandates (Pettai and Madise 2006, 296). In addition, parties determine the order of candidates on district lists, which results in a certain degree of control over which candidates will be eventually elected. In this way, such semi-personalistic system (Pettai 2005, 467) creates incentives for relying on either personal or party reputation, but largely on some level of combination of both. In principle, this can lead to a potential collective action problem, as strong candidates gain from a more personalized behavior, and while parties also benefit from having popular candidates, they need to ensure party cohesion (Karvonen 2004).

Intuitively, the type of mandate an MP expects to receive should impact the behavior in parliament and predetermine electoral strategies. The existing case-specific evidence of this is scarce, but an earlier study shows that backbenchers are more oriented towards national interests as identified through surveys, presumably as the result of electoral rules (Pettai 2005, 483). When it comes to allocation of time to various activities and duties, Estonian MPs view parliamentary debates and work in committees as the most time-consuming activities, followed by government oversight, national party meetings, and voter concern. District activities, meetings with interest groups and with local party are the least time-consuming (Ibid, 466). When asked what would be the most likely sanction for voting against the party line, the majority of legislators name a warning, followed by “nothing” and “no re-nomination” (Ibid, 476).

Overall, although the electoral system in Estonia allows for intra-party competition at the ballot level, essentially it combines the elements of both open and closed electoral systems. Preferential voting drives candidates to develop their personal reputations as they need to stand out among the co-partisans. At the same time, top position on national list of a popular party can secure re-election even with a small number of personal votes, which in the case of Estonia can be true for compensation mandates. Generally, parties exercise a considerable level of control over access to and rank on the ballot. Thus, the electoral system creates incentives for both party and personal reputation seeking. When it comes to the empirically observed patterns, institutional rules regarding seat allocation have a certain level of impact over behavior of MPs as well as for parties’ candidate selection strategies, but party-level factor and short-term dynamics play a role as well.

2.2 Organizational specifics of parliamentary work

The organization of parliamentary work affects the ways members of parliament make use of activities for goal-seeking purposes, as it regulates which tools are available to MPs and the extent to which various technical and partisan constraints limit their exercise.

In Estonia, there are several activities at MPs' disposal to influence policy- and decision-making processes and to exercise control over the executive branch. The most commonly associated with parliaments activity is initiation of legislative bills. A right to initiate the law belongs to an individual MP, a faction, a committee, and the government (Riigikogu Rules of Procedure and Internal Rules Act 2007). A member of parliament can submit drafts by oneself, or in co-authorship with other members or factions, and there is no limit on the number of bills an MP can initiate (Ibid). As in other parliamentary systems, a large share of adopted in Estonia bills is initiated by the executive. The cost of bill proposal for an individual MP depends on the rules that can limit the possible frequency, topic or time for initiating a draft. In Estonia, there are no significant constrains in terms of content or timing, but standard technical requirements are applied (Solvak 2013, 45). While an earlier study concluded that formal requirements do not seem to substantially constrain members of parliament as the numbers of initiated private member's bills are relatively high (Ibid), the recent statistics show a significant decline in bill sponsorship by individual MPs across years (13th Riigikogu Statistics, 116).

Besides bill sponsorship, there are several non-legislative activities that allow MPs to exercise parliamentary control of the executive power and to express his or her position. Interpellations are used to get information from executives on national issues of general public interest (Riigikogu: Tasks and organisation of work, 2019). In Estonia, a large number of interpellations and bills are written collectively. Written questions to executives are used to get information about more individual matters (Ibid). In addition, MPs have an option of asking ministers an oral question each working week, for which they need to register in advance. Faction affiliation is taken into consideration when allocating question time to ensure equal access of all parliamentary parties to the floor (Riigikogu Rules of Procedure and Internal Rules Act, 2007). In order to deliver a speech with a statement relative to the agenda of a committee or raise a question, an MP submits a request to do so to the chair of the sitting.

Therefore, there is a number of legislative and non-legislative tools for influencing policy- and decision-making, exercising government control, and expressing an opinion

that are available at MPs' disposal, which vary in purposes, technical constraints as well as in time and effort needed to use them. This suggests the possibility of having different extent of payoffs coming from parties and voters for a more active engagement with various parliamentary activities.

2.3 Hypotheses

The discussed theoretical grounds of rational choice institutionalism and evidence from existing works allow to produce several predictions that can be tested empirically. Given the mixed signals coming from the institutional electoral settings of Estonia, the executive dominance over legislative power and a limited impact of individual MPs on policy making, testing how both parties and voters respond to parliamentary behavior will contribute to understanding the role of parliaments in parliamentary democracy and individual accountability and responsiveness.

Several important points from the above discussions should be stressed. First, voters and parties are principals who wish to maximize their preferences and take cues in past behavior to form expectations about the agent's abilities and future performance. Second, performance and talent are latent traits, meaning there is no sole indicator by which principals can evaluate their agents. Although behavior of MPs is not limited to the parliamentary arena, it constitutes the most important measure of their qualities and performance which can be observed empirically. Third, principals make their decisions based on scarce information available to them. The scarcity of information is crucial for developing expectations about the strength of observed reward. Principals generally need to rely on additional sources for monitoring the agents' performance (Strøm 2003 et al). Parties' reward should be more evident in comparison to voters as it results from a more purposeful monitoring and as the number of agents is here smaller. In contrast, it is commonly assumed that the average voter does not have a strong interest in and a knowledge of politics (e.g. Downs 1957). Thus, the starting hypothesis is formulated as follows:

H1: The evidence of parties' reward or sanction of parliamentary behavior of MPs is more consistent and strong in comparison to the one of voters.

Although candidates have a technical option to run with no party affiliation, in practice such strategy can hardly ever be electorally successful considering the key role of parties in shaping political competition. As a result, the first step on the road to securing re-election is associated with ensuring party nomination. The supply side of legislative recruitment, provided by both candidates and parties, is shaped by systemic and contextual factors related to the structure of political career opportunities, party characteristics, and electoral rules (Gouglas et al 2018, 643). Parties have goals regarding votes, policies, and office and seek best performing members in order to achieve them. There is a range of options available to party leadership, as prospects of legislative or party career paths and re-election fortunes for keeping MPs' behavior in accordance with the party line (Bowler et al 1999, 9). The strength of these incentives accordingly determines the behavior of MPs (Ibid, 12).

Earlier studies have shown an increase in the chances of being re-selected with more active bill sponsorship and the use of parliamentary questions (Däubler et al 2018; Marangoni and Russo 2018). Viewing parliamentary activities as having an electoral connection also implies that MPs with no intentions of seeking re-election would not strive for high levels of activism (Fearon 1999, 59). Then it should be either assumed there is more than such last-term effects, or the potential issue of causality needs to be kept in mind to interpret the results accordingly. Whatever the direction is, the existence of association between parliamentary activism and consequent participation in elections with the same party affiliation can be expected:

H2: More active parliamentary behavior is positively associated with higher chances of being re-selected for consequent election.

The scarce existing evidence demonstrated that parliamentary behavior does not significantly improve standing on the list (Marangoni and Russo 2018; Däubler et al 2018). Heading a party district list and belonging to the top of national list significantly improves the chances of gaining a seat in the electoral systems as in Estonia. As it essentially reflects which MPs parties want to be re-elected, there are good reasons to test whether parties use individual records to make strategic decisions regarding ranking on the list:

H3: More active parliamentary behavior improves the chances of higher standing on party lists in consequent elections.

Electoral incentives drive MPs to increase their personal recognition among voters, and voters reward active MPs in the more candidate-centered electoral systems (Däubler et al 2018). Nevertheless, empirical studies on voters' reward of parliamentary behavior are cautious at making causal claims or outlining explicit theoretical mechanisms that may account for these associations. The arguments usually build upon the assumption that a more active involvement in parliamentary activities increases an MP's overall visibility among the public through media attention, and consequently – personal recognition among voters (Ibid, 932-33). The effect of parliamentary activism on voters' electoral behavior can be direct or indirect. In the former scenario, it is assumed that voters are aware of MPs' performance in parliament by relying on third-party monitors as media, and that they reward individual parliamentary effort as such or specific issues addressed by an MP in parliament. Based on survey results, Williams and Indridason (2018, 223) concluded that voters indeed value the legislative effort of members of parliament. Alternatively, the effect on voters can be indirect, i.e. through name recognition with no assumptions being made about citizens' knowledge of politics and their values. As was shown by works on political psychology, name recognition can impact electoral decision making, especially in environment where little further information besides candidates' names is available (e.g. Kam and Zechmeister 2013). As it is hard to account for the possible internal mechanisms and in the absence of a strong theoretical support, the aim of this part of analysis is to explore empirically the link between parliamentary activities and electoral support.

Previous studies have found that bill initiation brings small but significant personal vote gains (Bowler 2010), although the impact was also shown to vary depending on timing (Däubler et al 2016), the number of authors (Däubler et al 2016; François and Navarro 2019), and whether an MP's party belonged to government or opposition (Loewen et al 2013). Similar evidence of a modest robust positive effect on personal vote was established for the use of oral parliamentary questions (François and Navarro 2019) and for an overall effort in questions and bill sponsorship (Däubler et al 2018). As Estonian

electoral system requires voters to choose a candidate from party list, it can be expected that:

H4: More active parliamentary behavior is positively associated with a higher MP's personal vote in consequent elections.

While re-selection, list placement, and personal vote are important elements of electoral competition, they are largely instrumental for the eventual goal of re-election. In the context of Estonian electoral system, few candidates can ensure seat gaining by having sufficiently high personal vote, some get elected solely from party national list, and for most of the allocated mandates both nationwide party vote and personal votes are important. Thus, seat gaining as a function of both voters' and parties' reward is a crucial indicator reflecting the effectiveness of goal-seeking strategies. Such connection between parliamentary activism and seat-gaining so far was shown by François and Navarro (2019) for French legislative elections. Therefore, the following hypothesis is presented for empirical testing:

H5: More active parliamentary behavior improves the chances of re-election in consequent elections.

MPs have limited resources as time and effort when it comes to engaging into parliamentary work. Parliamentary activities are used for diverse purposes, and technical restrictions applied to initiating bills, exercising parliamentary control, and delivering speeches vary as well. As a result, activities have different logic, determinants, and empirical consequences (François and Navarro 2019). This gives ground for a final hypothesis:

H6: The strength of impact of parliamentary behavior on MP's electoral prospects varies across the types of activities.

3. Operationalization, data sources, and methods

The principal aim of this thesis is to determine whether parties and voters reward more active parliamentary behavior of members of parliament. With this research question at hand, there are several methodological options of how and on which data one can build the analysis. Parties' attitudes, including intentions regarding re-selection and list placement can in principle be captured through elite interviews or surveys. Voters' reward can be identified by the means of mental simulations and experiments, surveys, or focus groups. Such approaches would provide more leverage over causality of relationship and would allow to go beyond of observing association or a lack thereof. Despite the benefits, there are also several shortcomings as other factors and contextual environment are not taken into account, and that attitudes simply may have little to do with the eventually observed decision to reward or sanction an MP. Thus, proceeding with the actual electoral data and drawing measurements based on electoral rules in the examined country is opted for. The following chapter aims to explain the measurements of employed concepts, sources of the data used in the research and data collection procedures. Decisions regarding the methods of data analysis are elaborated as well.

3.1 Operationalization of concepts

The hypotheses aim to test the relationship between how active parliamentary behavior is on the one hand, and parties' reward during candidate nomination and list formation processes, as well as voters' reward at polls on the other. The aim of the following part is to explain the ways of measuring the behavior and its outcomes, and potential party- and candidate-level characteristics that may be of importance for the examined relationship. As the research relies on inferential statistics for analysis, which is further specified in part 3.3, the measurement of concepts and its level of precision are especially important for the choice of methods, estimation and interpretation of results.

Parties' reward of MPs' parliamentary behavior is measured through two proxies. The first dependent variable is binary as getting re-selected to run under the same party list ('1') or not running in consequent elections or running with a different party affiliation

(‘0’). Refusing an MP in re-nomination against his or her wish is an extreme sanction, but the variable is also likely to tap into whether party leadership sent a signal to an MP to not consider electoral participation, or whether an MP decided not to run on his or her own. In the latter case, the last-term effect, as discussed previously, should be noticeable.

Securing a good list position is a second dependent variable, which concerns only those MPs that were re-selected. Having electorally beneficial list position is hardly a goal as such, but it can significantly improve the chances of retaining a mandate. It shows well which MPs parties find valuable and intend to help in getting re-elected, or which MPs are anticipated to help in gaining party support on the level of districts. Good standing on the lists is a binary indicator, which takes the value ‘1’ if an MP stands either first in the district party list or belongs to the top-N positions on the national list, where N is the number of mandates acquired by the party in previous election, and takes the value ‘0’ in case of other positions. Generally, parties receive 10-30 mandates depending on their size. The employed operationalization captures parties’ attitudes towards an incumbent MP and is useful as some parties place MPs with chances of getting high personal vote in the end of national list. Besides, it indicates party’s evaluation while taking party size into account.

The Estonian electoral system does not allow to differentiate between party and personal votes: the voters are given one vote which they cast for a candidate within a party list. Personal vote is therefore not an explicit, but an appropriate measure of the third dependent variable – voters’ evaluation of parliamentary behavior. Candidates’ share of district vote can theoretically range from zero to one, but in practice the values are clustered close to zero. To deal with this, personal vote is calculated following the Allik’s (2015, 436) logit transformation, which allows to employ interval values clustered close to zero as dependent variable in inferential statistical analysis:

$$Y = \log \left(\frac{V_i/V_d}{1 - V_i/V_d} \right),$$

where Y is a logit transformation of personal vote,

V_i is a number of votes cast for a candidate i ,

V_d is a number of total votes cast in a district d .

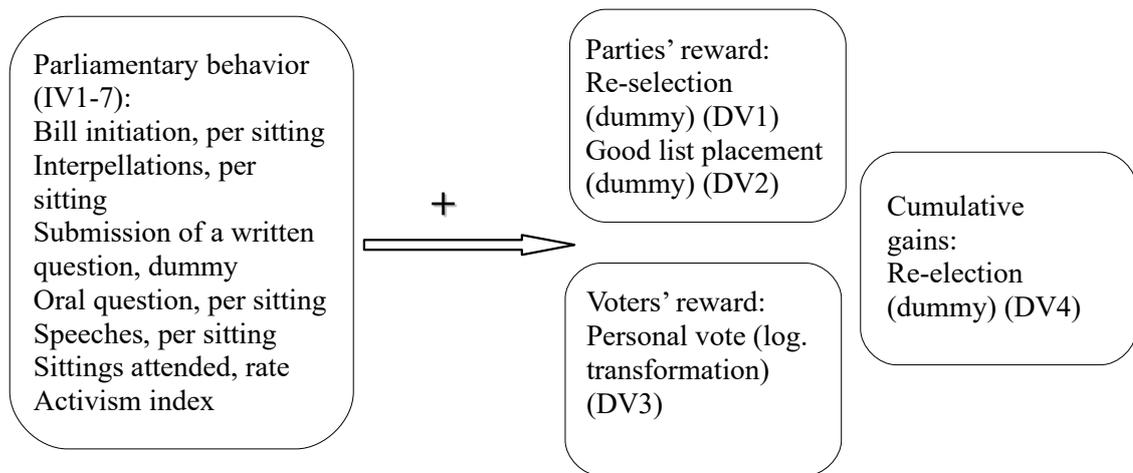
The higher values of the logit transformation reflect the underlying higher values of personal vote, and *vice versa*. When it comes to subsequent interpretation, although the transformation alters how easily the precise impact of parliamentary behavior on personal vote can be estimated, it does not therefore change the direction of relationship.

The independent variable of interest is parliamentary behavior of MPs. There are many ways to think of what constitutes “good” parliamentary behavior and how it can be measured. Based on available data and specifics of parliamentary work, it is here assessed through several quantitative indicators: bill initiation (by oneself or in co-authorship with other MPs), written questions and interpellations to ministers, oral questions, and speeches. In addition, the summary index of activism is created based on factor analysis scores. For the purpose of comparability, the indicators are calculated in relation to the number of served sessions to include substitute MPs. This way of measurement is useful since those who take executive offices have to leave their mandates in parliament. As the size of parliament is small, the number of substitute MPs relative to full-time legislators is high. Essentially, this approach measures productivity, and not substantive parliamentary output. The one exception in this operationalization is for written questions. As the median value is zero in both terms, a dummy variable is created instead and coded as ‘1’ for submission of at least one written question during a legislative term and ‘0’ if an MP did not use this tool of parliamentary control. In addition, the attendance rate in relation to sittings during which an MP held a mandate is included. Figure 1 (p. 37) illustrates the main indicators of interest and their proposed relationship.

The research is factor-centric, which requires to control for factors with better explanatory power. Although no model specification can cover all range of explanations, scholars have looked at such factors as local ties, personalized campaigns, constituency service, as well as district and party effects for explanation of electoral

success of MPs (Däubler et al 2016, 419). Considering a small number of seats in parliament, and consequently a modest number of observations, parsimony of explanatory statistical model is preferred (Finlay and Agresti 1986, 442). Having this in mind, several conventional party- and individual-level factors that can account for some variation in electoral performance of MPs are further identified and operationalized.

Figure 1. Illustration of key employed indicators and their proposed relationship



A party-level dummy variable ‘Opposition’ is coded as ‘1’ if an MP belonged to an opposition party at the end of a legislative term and ‘0’ in case of a government party affiliation. For parties, being in government is generally associated with short-term electoral losses as government performance is more scrutinized by the media and the overall public. Next, two individual-level dichotomous variables reflecting parliamentary status are used. A variable ‘First term’ takes a value ‘1’ if an MP serves its first term in parliament and ‘0’ in case an MP has prior legislative experience. A variable ‘Substitute’ indicates whether an MP holds a replacement mandate (‘1’) or received a mandate directly from election results (‘0’). It is likely that newcomers and substitute MPs will have less chances of receiving rewards from voters as they are less known and experienced, and will be more strictly monitored by parties on their performance. Two demographic characteristics describing age and gender of MPs are also included to

account for a possible bias associated with these factors. Age is measured in years at the moment of elections. The effect of age on political phenomena is often proves to be non-linear, i.e. it is positive or negative until a certain point and changes its direction thereafter. To account for this, a non-linear quadratic term is added to all analyses in order to check whether it gives a better fit and to estimate how constant is the relationship between MP's age and his and her electoral fortunes. Finally, two linear variables controlling for position on district and national lists are employed for part of the analysis to control for whether higher standing on the list increases voter support and chances of getting re-elected.

In order to compare the impact of the indicators, they are standardized in relation to co-partisan MPs for re-selection and list position models as expectations regarding what is an active behavior can vary from party to party. Making an assumption of what voters take as a reference category is not as straightforward. On the one hand, personal voting is likely to be nested in party voting. On the other, considering electoral volatility and the existence of undecided voters with weak partisan attachment, it is also reasonable to calculate indicators with relation to all MPs. Due to that, indicators are scaled among all MPs for the main personal vote and seat-gaining models, but the other approach is used as well for validation and is discussed in the empirical part.

3.2 Data sources and data collection techniques

Estonia provides a unique opportunity for examining parliamentary behavior due to a large amount of publicly available data. Tools of automated data collection were used to gather all necessary quantitative information on parliamentary activities from the Riigikogu's application programming interface (API). In brief, an API relies on the request-response cycle between the client and the server, which allows to access big quantities of data through a defined set of rules (Cooksey 2014). Thus, by sending requests to the parliament's server with the use of R programming language, the dataset that covers the records on activities and attendance, party affiliation, and personal details was compiled.

Electoral statistics on candidate nomination and personal vote share comes from the Electoral Committee of Estonia. For additional information regarding legislative experience, the type of mandate, and offices held during the term, the statistics summarized by the Chancellery of the Riigikogu and published after each legislative term were used. Thus, all identified data sources are official and can be considered reliable. As data collection process largely relies on automated techniques, descriptive tests were conducted to determine and check the possible illogical discrepancies that can bias statistical analysis.

The research covers two parliamentary terms: 2011-2015 (12th Riigikogu) and 2015-2019 (13th). This decision comes from constraints imposed by data availability and its richness, as well as from relevancy of this time frame due to the lack of works examining current parliamentary behavior in Estonia. The data is disaggregated by two legislative terms due to various patterns of parliamentary activities and as association can be expected to vary across time as a result of short-term dynamics.

A typical length of a parliamentary term is around 460 sittings. The data includes MPs, which were present in at least 10 sittings². Those MPs, which left their mandates to take ministerial or local offices, mandates in the European Parliament as well as faction leaders are disregarded for regression analysis. As holding such offices is likely to be a powerful explanatory factor in having strong reputation among party leadership and being well-known among voters, excluding these cases allows to narrow the focus on the role of behavior in parliament.

To examine the impact on re-selection and list position, a more narrow time frame should be established as lists are composed ahead of the formal end of a legislative term. A technical deadline for submission of electoral lists is two months before the election day, nevertheless, it is reasonable to expect that parties start compiling the lists in advance. Therefore, the activities prior to 6 months before the election day are considered for these parts of analyses.

2 When this threshold is applied to the data, the minimum number of sittings increases to 34 for the 12th and 12 for the 13th Riigikogu

3.3 Methods of analysis

In order to assess the relationships among variables, the thesis employs the statistical method, which relies on “mathematical manipulations of empirically observed data [...] which cannot be manipulated situationally” (Lijphart 1971, 684). First, descriptive statistics are examined to see the overall features of parliamentary behavior across the terms. Next, factor analysis is applied to parliamentary data to reveal patterns of variability among activities, and to detect which of them are interconnected and therefore can be reduced to an additional latent measurement. In order to directly address the research question, the analysis relies on the conventional method of regression modeling, which allows to estimate the contribution of the explanatory variables – indicators of parliamentary behavior – to the variation in MPs’ performance at candidate selection and electoral stages – the outcome variables. The choice of the type of regression model mainly proceeds from the type of employed dependent variable. For dummy variables – re-selection, list placement, and re-election, binary logistic regression is used, and ordinary least squares (OLS) linear regression is constructed for a continuous variable measuring personal vote.

The method of regression analysis models electoral payoff from adopted strategies as a function of empirically observable patterns of behavior and additional effects coming from party- and candidate-level characteristics plus error terms. To understand the implications of this approach, it is helpful to distinguish between explaining and predicting the payoff³. As was previously discussed, much of the scholarship on voters’ reward of parliamentary behavior does not address explicitly the inner mechanisms accounting for the existence of this link, as doing so would require methods as experiments or surveys, or/and collecting additional data such as on media attention. Thus, statistical modeling in this case aims to examine how well the level of parliamentary activism predicts electoral fortunes. At the same time, applications of statistical models to political science topics are generally not used to forecast the future, meaning the word “predict” should be understood in terms of statistical associations that are observable at the moment of examined events, not inferences about the future.

3 For a thorough discussion of conceptual differences between predicting and explaining and their statistical implications see Shmueli 2010

4. Empirical analysis: The impact of parliamentary behavior on electoral prospects

The following chapter is devoted to analyzing empirically the connection between individual parliamentary behavior and electoral fortunes. First, descriptive statistics and overall patterns of variability are discussed. The main empirical part presents and interprets the results of multivariate regression analysis, which allows to estimate the direction and precise effect of parliamentary activities on four indicators of electoral performance of members of parliament. Lastly, the results are summarized and positioned into a broader discussion.

The empirical analysis concerns two parliamentary terms in Estonia – the 12th and 13th Riigikogu. To give a sense of legislative dynamics, the composition of parliamentary terms is briefly outlined. During the 12th Riigikogu (2011-2015), there were four parliamentary factions, and the center-right coalition government of Reform party and Union of Pro Partia and Res Publica was formed. A year prior to elections, the composition has changed with Social Democratic party replacing Union of Pro Partia and the new prime minister taking over.

Two new factions entered the parliamentary arena after the 2015 election, including a right-wing conservative party that gained more support in the next election. The coalition government of Reform, Social Democrats, and Pro Patria and Res Publica Union was initially formed. The cabinet soon resigned following a no-confidence vote, and Center Party replaced Reform party in government. It was also the first time in nearly 15 years when Reform Party, the largest Estonian party, was in opposition. Therefore, both terms witnessed coalition changes and significant party competition dynamics, with two largest parties – Reform and Center – heading the cabinets of the most part of each terms respectively.

4.1 Descriptive statistics and patterns of variability

Before presenting the results of regression analysis, descriptive statistics and overall patterns of variability in parliamentary activities are discussed. Table 1 reports the

descriptive summary of individual-level indicators of parliamentary behavior, with both overall numbers and indicators per sitting being shown.

Table 1. Descriptive statistics of parliamentary activities

Indicator	2011-2015 (XII)				2015-2019 (XIII)			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Bills	3.27	2.69	0	14	8.43	5.52	0	25
Per sitting	0.009	0.006	0	0.03	0.024	0.012	0	0.055
Interpellations	34.75	58.52	0	254	35.15	45.55	0	162
Per sitting	0.086	0.133	0	0.549	0.096	0.131	0	0.583
Written questions	1.57	3.43	0	26	2.53	5.79	0	32
Per sitting	0.005	0.010	0	0.067	0.006	0.013	0	0.069
Oral questions	137.84	158.20	2	810	127.20	180.27	1	930
Per sitting	0.385	0.394	0.019	2.189	0.356	0.440	0.004	2.178
Speeches	41.59	45.86	0	374	43.07	49.10	0	262
Per sitting	0.115	0.102	0	0.808	0.119	0.114	0	0.562
Attendance	0.89	0.07	0.60	1.00	0.89	0.07	0.65	1.00
N	131				137			

Source: Author's calculations based on open data of the Estonian parliament
MPs which participated in 10 and more sittings are included

In general, there is substantial variation among the level of individual parliamentary activism. Oral questions are the most common activities of Estonian MPs, with mean values of around 130 oral questions across each term. It is the only activity, which is used at least once by the MPs that attended 10 and more parliamentary sittings. Speeches and interpellations follow in the level of activism. On average, MPs deliver 40 speeches per term, and send approximately 35 interpellations to executives. Bill sponsorship and written questions constitute the most rare activities. Considering the costs associated with time and effort for these activities, it should come as no surprise that they are rarely used by MPs. The dynamics of parliamentary control differ between the two terms, with higher numbers of written questions being raised during the 13th term. Still, most MPs send no written questions. In the 12th term, only 52 out of 131 MPs used this tool of parliamentary control at least once, and for the 13th term the

numbers are 53 out of 137. Regarding bill initiation, the values vary across the terms: the average MP signed 3 bills in the 12th term and 8 bills in the 13th. Finally, MPs attend approximately 89% of sittings, and attendance rates are similar across the two examined terms.

The values of standard deviation show how disperse the individual-level observations are. This allows to assess in general terms how equally MPs use parliamentary tools available to them, or how decentralized and diffused the usage of activities is. In the context of this work, it is useful to understand which activities are likely to be centralized in a sense that only few MPs allocate their resources to them. How centralized is the usage has implications for understanding the potential causality of examined effects. Speeches are often viewed as party-controlled activities, with access to parliamentary floor being guarded by faction leaders and given to high-profile MPs. (e.g. Bäck et al 2014, Martin 2011). In this scenario, high values of standard deviation could be expected.

As can be seen, the access to parliamentary floor is moderately equal, which can be a consequence of the small size of parliament in Estonia. The frequency of asking oral questions is nevertheless more diverse. To recall, addressing oral question to ministers is the only activity for which party affiliation is taken into consideration in allocating question time, as stated in formal documents which regulate the parliamentary work. The use of written questions and interpellations are rather centralized, especially the former type: MPs rarely submit written questions, but those who do use this tool often. Interpellations are usually co-authored with noticeable partisan patterns in their exercise, suggesting that inter-party differences should be larger than intra-party ones. Written questions are usually single-authored and have a purpose of asking a question on individual matters, which partly explains the high numbers of standard deviation relative to the mean. The most equally distributed are the values of bill initiation, which is in line with the views on bill sponsorship as an “open-access” activity.

Running correlation test between the indicators (Appendix 1) shows that some activities are highly interconnected, while few have no association at all. The range of coefficients is larger for the 12th term than for the 13th. To further investigate the patterns of

variability, exploratory factor analysis is conducted and reported in Table 2. Factor analysis detects variables that are closely inter-correlated and allows to reduce the number of indicators to fewer artificial latent factors. The scores of factor analysis express the correlation of separate variables with a latent factor (Finlay and Agresti 1986, 532-3). The number of factors was determined upon conducting relevant tests. For the 12th Riigikogu, a two factor solution was possible while a single factor was extracted for the 13th term. This shows higher variance among the patters of individual parliamentary activism in the 12th Riigikogu.

Table 2. Factor analysis applied to the indicators of parliamentary activities

	12 th Riigikogu (2011-2015)		13 th Riigikogu (2015-2019)
	Factor 1	Factor 2	Factor 1
Bills			0.493
Interpellations	0.341	0.937	0.595
Written questions	0.774		0.678
Oral questions	0.960		0.841
Speeches	0.639		0.807
Attendance			
Variance explained	0.341	0.159	0.413

As can be seen, attendance is a distinct indicator of parliamentary behavior and does not have association with any of the substantive measures. For other activities, there are differences across the terms. Bill initiation is a rather distinct indicator as well, although it correlates more with other activities and loads on the latent factor in the 13th term. Patterns of the 13th Riigikogu are more consistent with conventional views on purposes of different tools and case-specific characteristics, with higher similarities within talking activities, as well as within more individual and more collective tools as bills and interpellations. The ways in which MPs of the 12th Riigikogu made use of various activities show less inter-correlation patterns. Still, empirically observed indicators that are employed in analysis more or less constitute a latent measure of parliamentary behavior.

To summarize descriptive statistics and the results of factor analysis, there is variation in the levels of parliamentary activism across MPs, specific types of activities, and across the two examined terms. Combined, this allows to proceed with regression analysis to assess the implications of these differences for electoral outcomes.

4.2 Multivariate regression analysis

The following section presents the results of multivariate regression analysis of the impact of parliamentary behavior on electoral performance. Regression models allow to estimate the change in dependent variable, here – in the odds of re-selection, good list placement, re-election, and in the share of personal vote, from the change in values of explanatory variables – parliamentary activities. As several explanatory variables are included in models, the estimated impact of each of them should be interpreted while keeping the values of other variables as constant.

The hypotheses presented before concern four indicators of electoral payoffs. The next four subsections are respectively devoted to presenting and interpreting the output of regression models.

4.2.1 Re-selection

First, the impact of parliamentary behavior on re-selection prospects is examined. The analysis includes those MPs, that were not ministers, members of the European Parliament or faction leaders and held or used to hold a mandate at the moment of six months prior to election day. The minimum threshold of 10 attended sittings is applied as well.

Four models are specified for each of the two parliamentary terms. Models 1-3 include the variables indicating attendance rates, number of sponsored bills per sitting, and submission of at least one written question during the term. Due to significant correlation, the variables of interpellations, oral questions, and speeches per sitting are

entered separately. Model 4 includes a summary index of activism, constructed based on the results of factor analysis.

Table 3. Determinants of re-selection of incumbent MPs

<i>Dependent variable: Re-running for the same party (1)</i>								
Binary logistic regression. Reported are coefficients with standard errors in parentheses. Activities are calculated per sitting and standardized within parties								
	2015				2019			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Attendance	-0.309 (0.344)	-0.266 (0.355)	-0.306 (0.342)		0.255 (0.238)	0.292 (0.245)	0.230 (0.240)	
Bills	0.223 (0.318)	0.199 (0.313)	0.204 (0.321)		-0.025 (0.255)	-0.039 (0.253)	-0.097 (0.253)	
Written questions (dummy)	-0.115 (0.621)	-0.167 (0.620)	-0.120 (0.612)		1.096* (0.581)	1.101* (0.593)	0.954 (0.600)	
Interpellations	0.547 (0.415)				-0.336 (0.257)			
Oral questions		0.529 (0.362)				-0.231 (0.248)		
Speeches			0.257 (0.328)				0.077 (0.283)	
Activism index				0.554 (0.347)				-0.043 (0.234)
Opposition	-1.124* (0.662)	-1.232* (0.656)	-1.197* (0.644)	-1.226* (0.639)	-1.550*** (0.506)	-1.465*** (0.499)	-1.463*** (0.495)	-1.352*** (0.478)
First term	0.466 (0.701)	0.393 (0.690)	0.593 (0.696)	0.391 (0.678)	0.296 (0.501)	0.243 (0.508)	0.365 (0.516)	0.476 (0.472)
Substitute	0.325 (0.714)	0.508 (0.714)	0.371 (0.708)	0.555 (0.704)	-0.753 (0.561)	-0.496 (0.521)	-0.491 (0.519)	-0.763 (0.493)
Male	0.034 (0.690)	0.115 (0.698)	0.067 (0.693)	-0.042 (0.684)	0.172 (0.559)	0.274 (0.546)	0.252 (0.554)	0.247 (0.530)
Age	-0.059 (0.268)	-0.092 (0.269)	-0.057 (0.271)	-0.084 (0.266)	0.229 (0.165)	0.203 (0.164)	0.194 (0.163)	0.221 (0.156)
Age ²	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.001)
Constant	2.344 (6.623)	3.239 (6.702)	2.119 (6.679)	3.118 (6.632)	-5.258 (4.385)	-4.697 (4.391)	-4.474 (4.361)	-4.723 (4.137)
Observations	98	98	98	98	101	101	101	101
Log Likelihood	-39.451	-39.210	-40.086	-39.476	-54.459	-54.882	-55.279	-57.263
Nagelkerke R ²	0.184	0.191	0.165	0.183	0.236	0.226	0.217	0.170

Note: * p<0.1; ** p<0.05; *** p<0.01

It is expected that more active parliamentary behavior is positively associated with being re-selected by the same party to participate in consequent elections. The binary character of this dependent variable requires the use of logistic regression modeling. To confirm the hypothesis, the regression coefficients should be positive and reach conventional levels of statistical significance. The results are presented in Table 3 (p. 46).

Overall, the indicators do not show statistically significant effects on re-selection prospects. Among the main independent variables of interest, the only exception to this is the impact of submitting at least one written question in the case of the 2019 election. The effect is substantially large: the odds of being re-selected by the same party increases by nearly 3 times with a submission of at least one written question (Model 5). Nevertheless, the effect is significant only at $p < 0.1$, which can be considered as a debatable level of statistical significance. Thus, there is little to no substantial support to confirm the hypothesis that more active MPs are more likely to be re-selected for elections by the party they were affiliated with during the term.

Other individual-level factors describing parliamentary experience and demographic characteristics lack statistical significance as well. The only consistently significant effect among the control variables is a party-level factor, which describes whether an MP belonged to an opposition party before the consequent election. The effect is negative and present across both legislative terms. To make sense of magnitude, MPs from opposition parties were 3 to 5 times less likely to be re-selected. This generally implies that opposition parties in Estonia had a higher turnover during the 2015 and 2019 elections.

Overall, the results of this part of analysis contradict previous findings by Marangoni and Russo (2018) and Däubler et al (2018) in the cases of Italy, and Sweden and the Czech Republic respectively. Both studies found that a threat of re-selection is a principal tool for parties to sort out less active members. Several interpretation for this can be offered. As re-selection is not solely determined by parties, the lack of last-term effects can mean that the Estonian MPs planning retirement are not less active in comparison to those seeking to retain their mandate. Intuitively, the small size of

parliament and country in general can play a role for which sanctions are used by parties and how they impact the behavior. In addition, parties' internal rules of candidate selection should to some extent vary from party to party, so higher variance in these party-specific rules and norms can explain the lack of observed effects on the aggregate level.

To sum up, it is concluded that individual parliamentary activism and experience as well as demographic factors are poor predictors of re-selection in the case of Estonia.

4.2.2 List placement

The second measure of parties' reward of parliamentary behavior looks at whether an MP was placed into a "good position" on electoral lists, with such placement being viewed as contributing to re-election. Incumbent members of parliament that were re-selected by their parties are included. Obtaining a good position means either being a leader of party district list, or belonging to the top of national list. For each party, the top of national list is defined in terms of the number of mandates the party had during the legislative term.

Placing an incumbent MP in a beneficial for re-election position is assumed to tap into parties' attitudes towards the legislator. It reflect whether a party finds an MP valuable and wishes him or her to continue serving in parliament. It is expected that more active behavior increases the odds of having a beneficial for re-election placement on either district or party list. Model specifications are the same as in the previous part of analysis.

The results of binomial logistic regression analysis are presented in Table 4 (p. 49). The values for activities per sitting are standardized within parties, meaning that regression coefficients indicate the change in dependent variable per one standard deviation, i.e. per a typical distance of each observation from the party mean. The support for the hypothesis is mixed, but there is more evident in comparison to re-selection prospects.

Table 4. Determinants of higher list placement of incumbent MPs

<i>Dependent variable: Good list placement (1)</i>								
Binary logistic regression. Reported are coefficients with standard errors in parentheses. Activities are calculated per sitting and standardized within parties								
	2015				2019			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Attendance	0.219 (0.315)	0.268 (0.315)	0.107 (0.328)		0.216 (0.372)	0.001 (0.360)	-0.087 (0.384)	
Bills	0.463 (0.338)	0.466 (0.348)	0.439 (0.348)		-0.772** (0.383)	-0.871** (0.400)	-1.234** (0.501)	
Written questions (dummy)	-0.604 (0.626)	-0.878 (0.651)	-0.819 (0.645)		1.016 (0.791)	0.965 (0.779)	0.682 (0.815)	
Interpellations	-0.040 (0.333)				0.597 (0.525)			
Oral questions		0.549* (0.320)				0.872* (0.518)		
Speeches			0.652* (0.365)				1.794*** (0.684)	
Activism index				0.446 (0.294)				0.729 (0.473)
Opposition	0.612 (0.562)	0.704 (0.580)	0.715 (0.573)	0.482 (0.531)	0.656 (0.785)	0.648 (0.798)	0.987 (0.946)	0.571 (0.743)
First term	-0.973 (0.633)	-1.014 (0.629)	-1.023 (0.636)	-0.670 (0.577)	-1.415 (0.933)	-0.865 (0.842)	-0.991 (1.025)	-0.719 (0.733)
Substitute	-2.210*** (0.666)	-2.014*** (0.667)	-1.762** (0.697)	-1.363** (0.569)	-1.524* (0.785)	-1.928*** (0.743)	-2.221** (0.871)	-1.589** (0.721)
Male	0.080 (0.667)	-0.076 (0.681)	0.083 (0.682)	-0.125 (0.666)	0.318 (0.800)	0.214 (0.808)	0.186 (0.976)	0.110 (0.780)
Age	-0.332 (0.295)	-0.420 (0.300)	-0.435 (0.311)	-0.333 (0.272)	0.413 (0.283)	0.431 (0.320)	0.368 (0.366)	0.157 (0.287)
Age ²	0.003 (0.003)	0.003 (0.003)	0.004 (0.003)	0.003 (0.003)	-0.005* (0.003)	-0.005 (0.003)	-0.004 (0.003)	-0.002 (0.003)
Constant	11.355 (7.901)	13.850* (8.127)	13.967* (8.394)	10.771 (7.221)	-6.526 (7.470)	-7.285 (8.379)	-4.978 (9.706)	-0.435 (7.503)
Observations	81	81	81	81	68	68	68	68
Log Likelihood	-42.662	-41.076	-40.686	-43.823	-31.511	-30.638	-26.694	-32.955
Nagelkerke R ²	0.367	0.405	0.413	0.339	0.395	0.422	0.533	0.352
<i>Note:</i>	* p<0.1; ** p<0.05; *** p<0.01							

According to the models for 2019, more active bill sponsorship negatively affected the chances of being placed in a good list position. If taken into account that bill initiation is usually considered as a tool for building personal reputation, which MPs are free to use as opposed to more party-controlled activities as speeches or oral questions, this finding seems less counter-intuitive. In this sense, parties have no substantial reasons to secure re-election for MPs that work on their personal recognition among voters. At the same time, this finding can be interpreted with consideration of which MPs use this tool at first place. As such, the negative effect can imply not the sanction of such MPs *per se*, but rather that bills initiation is more often used by backbenchers. In addition, most of the bills are co-signed by a group of MPs, and in many cases the number of authors is rather large. As previous tests of centralization showed, the values of bill sponsorship are the most equally distributed across legislators. Co-sponsorship of bills therefore brings little potential gains in candidate nomination process as the credit for it is shared among all of its authors.

Next, two non-legislative activities – oral questions and speeches increase the odds of being higher on the lists across both elections. To compare magnitudes, in 2019 the odds of being placed in a good list position were 2.4 higher with an increase by one standard deviation in the use of oral questions, and as much as 6 times for speeches. The impact is smaller in the case of the 2015 elections: the same increase in both activities nearly doubles the odds, with slightly larger impact being noticed for more active use of parliamentary speeches.

Generally, speaking in parliament is considered to be a rather controlled activity in a sense that MPs need to be selected first by their parties or to receive an approval from the chair in order to deliver a speech. As reflected in formal documents regulating the work of the Riigikogu, these restrictions are present for asking oral questions. Thus, the causal effect should not be overestimated as MPs with better intra-party reputation could more likely be allowed to deliver speeches or ask oral questions. Nevertheless, it still remains clear that having been more present on parliamentary floor than co-partisans predicts higher list placement in consequent elections.

Consistent with conventional expectations, substitute members of parliament have substantially less chances of being placed in a good list position. For instance, in the 2015 election substitute MPs had almost 6 times less chances of being placed in a beneficial list position than those who obtained their mandate directly through election results (Model 3). Substitute members constitute around one third of all MPs that held a mandate at some point during the term.

Overall, parties to some extent use parliamentary behavior for retrospective evaluation. There is some support for the hypothesis that more active behavior is rewarded by parties through placement into high ranks on the lists. This connection was positive for non-legislative activities, precisely – speeches and oral questions, while being negative for bill initiation. Although parliamentary activism does not seem to matter for re-selection prospects, once MPs are nominated by their parties, their behavior in parliament becomes a better predictor of being placed higher on district and national party lists. Having said that, it remains possible that good intra-party reputation is a precondition for more frequent appearances on parliamentary floor, as well as that rank-and-file MPs are more likely to sponsor bills in comparison to frontbenchers. Therefore the potential issue of reversed causality should be kept in mind while interpreting parties' reward of parliamentary behavior.

4.2.3 Personal vote

Next, the impact on voters' support of incumbent members of parliament is examined. It is expected that higher levels of parliamentary activism are positively associated with personal vote. As was previously discussed, the impact can be direct if voters are aware of and value parliamentary activism, or indirect by increased name recognition among voters. Therefore, the following analysis hardly taps directly into the question of how well-informed voters are, so it should not be viewed as aiming to test citizen knowledge. In addition, it should be kept in mind that the order of candidates on district lists is determined by parties. To account for this, an additional control variable describing ranking on district list is added in this part of analysis. Variance inflation factors were

calculated in order to assess the possibility of multicollinearity, and the tests revealed no such problem for any of the presented models.

The dependent variable is a logit transformation of MP's personal vote share in consequent elections. Due to this, the interpretation of coefficients is mostly directional. To confirm the hypothesis, positive coefficients are expected. Table 5 (p. 53) presents the results of multiple linear regression models across both parliamentary terms. The activities are scaled among all MPs.

The positive association of some measures of parliamentary activism with higher list position can potentially complicate answering the question regarding voters' reward of more active MPs, as higher placement on district list is beneficial for MP's electoral results and therefore the impact can be indirect. It comes as no surprise that according to the models presented here, district list placement has significant impact on vote. As list ranking is measured in a linear way, negative coefficients for this variable mean that higher standings have a positive impact on personal vote. Nevertheless, existing literature gives some evidence that voters do not blindly support the top candidates, but are able to evaluate their quality and cast their votes according to that (e.g. Riera et al 2011).

To recall, the effect on list placement was positive for oral questions and speeches for both elections, and negative for more active bill sponsorship in 2019. While it is worth keeping in mind the possibility that parties' reward of more active MPs can predetermine voters' support of parliamentary behavior, it is also fair to note the discrepancies in the rewards by these two principals. The positive impact of speeches holds true in the case of personal vote across both elections. However, in comparison to list placement models, no association is found for oral questions, and two new effects, albeit at 10% level of significance appear. The summary index of activism predicted higher personal vote in the 2015 election. In 2019, submission of at least one written question shows the positive effect. Previously, this indicator was found to have an impact on the odds of re-selection, but not on being placed higher on the lists.

Table 5. Determinants of personal vote of incumbent MPs

<i>Dependent variable: Personal vote share (transformed)</i>								
OLS regression. Reported are coefficients with standard errors in parentheses. Activities are calculated per sitting and scaled among all MPs								
	2015				2019			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Attendance	-0.080 (0.083)	-0.094 (0.081)	-0.120 (0.081)		0.075 (0.106)	0.033 (0.112)	0.010 (0.107)	
Bills	0.045 (0.079)	0.062 (0.077)	0.058 (0.074)		0.199 (0.128)	0.075 (0.127)	0.023 (0.122)	
Written questions (dummy)	0.268 (0.195)	0.148 (0.192)	0.118 (0.179)		0.476* (0.250)	0.345 (0.245)	0.240 (0.247)	
Interpellations	0.012 (0.104)				-0.222 (0.138)			
Oral questions		0.138 (0.092)				0.077 (0.132)		
Speeches			0.212** (0.086)				0.223* (0.121)	
Activism index				0.166* (0.084)				0.172 (0.111)
District list	-0.126*** (0.025)	-0.125*** (0.025)	-0.124*** (0.024)	-0.125*** (0.024)	-0.206*** (0.037)	-0.195*** (0.038)	-0.189*** (0.037)	-0.188*** (0.038)
Opposition	0.162 (0.182)	0.118 (0.166)	0.093 (0.161)	0.156 (0.166)	0.285 (0.218)	0.208 (0.247)	0.254 (0.217)	0.176 (0.218)
First term	0.017 (0.172)	-0.002 (0.170)	0.015 (0.166)	-0.026 (0.168)	0.003 (0.233)	-0.014 (0.237)	0.040 (0.234)	0.047 (0.216)
Substitute	-0.379** (0.174)	-0.359** (0.172)	-0.321* (0.169)	-0.389** (0.171)	-0.067 (0.243)	-0.011 (0.245)	0.021 (0.237)	-0.122 (0.227)
Male	-0.012 (0.184)	0.0001 (0.181)	0.077 (0.181)	-0.025 (0.179)	0.297 (0.236)	0.256 (0.242)	0.227 (0.236)	0.249 (0.240)
Age	-0.055 (0.062)	-0.056 (0.061)	-0.064 (0.060)	-0.052 (0.060)	-0.195** (0.083)	-0.165* (0.083)	-0.192** (0.082)	-0.161* (0.082)
Age ²	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.0005 (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002* (0.001)
Constant	-1.978 (1.570)	-1.856 (1.547)	-1.787 (1.512)	-1.850 (1.523)	1.104 (2.151)	0.525 (2.163)	1.179 (2.137)	0.726 (2.120)
R ²	0.413	0.429	0.455	0.405	0.441	0.422	0.448	0.402
Adjusted R ²	0.332	0.350	0.380	0.348	0.346	0.324	0.354	0.331
Observations	92	92	92	92	77	77	77	77
Residual Std. Error	0.722 (df = 80)	0.712 (df = 80)	0.695 (df = 80)	0.713 (df = 83)	0.865 (df = 65)	0.880 (df = 65)	0.860 (df = 65)	0.875 (df = 68)

Note:

* p<0.1; ** p<0.05; *** p<0.01

In addition to parliamentary work, being a substitute member was associated with lower personal vote in the 2015 election. The impact of age is present in the 2019 election: it is positive for the linear variable and negative for the quadratic term. This means the U-shaped association between age and personal vote, with younger and older incumbent MPs having higher electoral support. This finding is somewhat surprising as a reversed direction could have been expected, as middle-age candidates are generally viewed as receiving more votes. All things being equal, it is fair to assume that older age and associated with it political experience can be beneficial for incumbent MPs. Still, some outliers can be noticed in the data with the instances of young and old MPs with large vote shares⁴. Therefore, the role of age for voters' decision making is likely to be context-specific and vary across elections.

The models presented in this part included indicators, which are scaled in relation to all MPs. It is puzzling whether voters majorly rely on party cues while casting a vote for a candidate. Using measures that are scaled in relation to co-partisans only could seem to be more justified considering the weight placed on parties in parliamentary democracies. At the same time, parliamentary activism can impact the inter-party choice of undecided voters, and the media is likely to focus on MPs that are active on the aggregate level, not just within parties. To check if the results are different between these two measurement approaches, the same analysis was repeated while using party-standardized values of parliamentary behavior. Full models are available in Appendix 2. Figure 2 shows the key similarities and discrepancies between the measures.

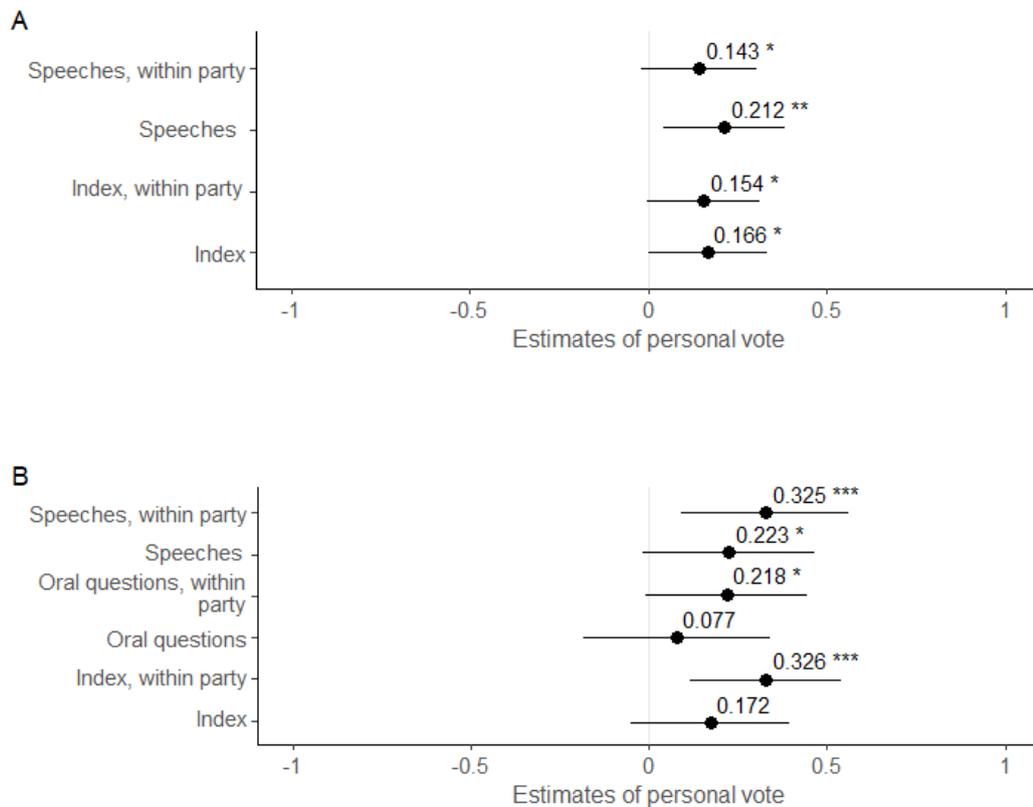
For 2015 (A), both approaches to measurement have similar positive impact. The opposite can be observed for the 2019 election (B). When standardized in relation to co-partisan MPs, speeches show substantially larger and more statistically significant impact as opposed to the inter-party indicator, and the effects of oral questions and summary index appear. In addition, the dummy variable of submitting at least one written question, when entered in the models with party-standardized variables, predicts higher vote share across both elections. Overall, both measures has similar predictive

4 For example, highly popular among voters MPs included Jaak Madison (27 y.o.), Mart Helme (69 y.o.)

power on the estimates of personal vote for 2015, while intra-party measurement of activism shows better results for the 2019 election.

Figure 2. Differences in the predicted impact of activities on personal vote between measurements

A – 2015, B – 2019



To summarize the findings, there is an evidence to support the assumption that voters reward more active MPs, although the effect is limited to several indicators of parliamentary activism such as speeches, written and oral questions as well as overall index. Voters therefore directly or indirectly reward certain behavioral patterns of their representatives. The only consistent across time and measurement approaches impact is

the one of speeches, which was also present in the list placement models. Although the inner mechanism is not clear, being visible on parliamentary floor predicts higher electoral support at polls. Besides, it remains somewhat unclear whether personal vote comes from higher levels of activism within party or in parliament in general, as the effects are different between the two examined elections.

4.2.4 Re-election (seat-gaining)

So far it has been concluded that parliamentary activism does not matter significantly for re-selection, has mostly positive impact on standing higher on the lists, and that personal vote has positive association with some of the activities. Thus, parties and voters do to some extent reward MPs with more active behavior in parliament. These rewards are important for understanding the principal-agent relationship, but largely instrumental considering the peculiarities of electoral system and the ways mandates are distributed. The final set of regression models examines whether more active parliamentary behavior is eventually effective for the main goal of re-election, which is a function of both voters' and parties' attitudes towards a candidate.

Model specifications are the same as before. Re-gaining legislative seat is a dummy variable, and binomial logistic regression model is applied. It is expected that indicators of parliamentary behavior should have positive impact on the odds of being re-elected. The results are presented in Table 6 (p. 57).

Considering the number of statistically significant positive effects, parliamentary activism of incumbent MPs predicted well the chances of retaining a mandate after the 2015 election. The indicators of interpellations, oral questions, speeches, and index have positive and significant effects. The largest impact is the one of interpellations and an overall activism: the odds of being re-elected are nearly 2.5 times higher with an increase by one standard deviation in their values, and around 2 times higher for speeches and oral questions.

Table 6. Determinants of re-election of incumbent MPs

<i>Dependent variable: Gaining legislative seat in consequent elections (1)</i>								
Binary logistic regression. Reported are coefficients with standard errors in parentheses. Activities are calculated per sitting and scaled among all MPs								
	2015				2019			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Attendance	-0.036 (0.336)	-0.027 (0.322)	-0.044 (0.327)		-0.027 (0.378)	-0.101 (0.374)	-0.177 (0.368)	
Bills	0.092 (0.287)	0.016 (0.271)	-0.062 (0.273)		0.969** (0.482)	0.423 (0.407)	0.168 (0.408)	
Written questions (dummy)	-0.063 (0.697)	0.040 (0.658)	0.219 (0.623)		-0.243 (0.861)	-0.524 (0.780)	-0.734 (0.799)	
Interpellations	0.907** (0.428)				-1.192** (0.519)			
Oral questions		0.771** (0.364)				-0.060 (0.384)		
Speeches			0.735* (0.440)				0.558 (0.498)	
Activism index				0.920*** (0.355)				0.051 (0.337)
District list	-0.211* (0.121)	-0.205* (0.111)	-0.212* (0.109)	-0.206* (0.112)	-0.939*** (0.300)	-0.786*** (0.266)	-0.691*** (0.260)	-0.717*** (0.254)
National list	-0.010 (0.008)	-0.010 (0.008)	-0.007 (0.008)	-0.011 (0.008)	-0.035** (0.015)	-0.022* (0.012)	-0.021* (0.012)	-0.018 (0.011)
Opposition	0.116 (0.629)	0.511 (0.578)	0.586 (0.568)	0.338 (0.585)	1.964** (0.826)	1.764** (0.831)	1.769** (0.770)	1.543** (0.706)
First term	-0.350 (0.625)	-0.463 (0.636)	-0.404 (0.620)	-0.463 (0.624)	-1.330 (0.835)	-1.192 (0.767)	-1.006 (0.779)	-0.924 (0.696)
Substitute	-1.434** (0.701)	-1.392** (0.693)	-1.251* (0.674)	-1.385** (0.701)	-2.305** (0.915)	-1.781** (0.831)	-1.739** (0.813)	-1.562** (0.705)
Male	0.490 (0.729)	0.641 (0.753)	0.688 (0.754)	0.670 (0.767)	-0.877 (0.822)	-0.856 (0.798)	-0.888 (0.806)	-0.760 (0.772)
Age	-0.387 (0.242)	-0.477** (0.234)	-0.463** (0.230)	-0.448* (0.235)	-0.457 (0.391)	-0.248 (0.357)	-0.352 (0.368)	-0.240 (0.334)
Age ²	0.003 (0.002)	0.004* (0.002)	0.004* (0.002)	0.004* (0.002)	0.004 (0.003)	0.002 (0.003)	0.003 (0.003)	0.002 (0.003)
Constant	11.418* (6.099)	13.360** (6.012)	12.359** (5.854)	12.852** (5.985)	18.365 (11.240)	12.687 (10.125)	15.130 (10.419)	11.417 (9.358)
Observations	92	92	92	92	77	77	77	77
Log Likelihood	-41.950	-42.147	-42.915	-41.376	-28.940	-32.044	-31.257	-32.771
Nagelkerke R ²	0.477	0.437	0.459	0.488	0.624	0.565	0.580	0.550

Note:

* p<0.1; ** p<0.05; *** p<0.01

While more active bills sponsorship was a negative predictor of re-selection for the 2019 election, according to Model 5 it is eventually beneficial for retaining the mandate. As opposed to the positive impact of a more active use of interpellations for the 2015 models, the effect of a similar magnitude is negative for 2019. Considering that purpose of interpellations is parliamentary supervision of government, these puzzling dissimilar outcomes for re-election purposes can be related to the dynamics of party competition and differences in cabinet composition. This illustrates that the impact of short-term factors on parliamentary behavior and its electoral consequences should not be overlooked.

Other things being equal, opposition MPs were more likely to be re-elected in 2019. To recall, opposition parties also had higher turnover according to the re-selection models presented earlier. The pre-selection among opposition parties was strict, but resulted in good individual electoral results for remaining legislators. Substitute MPs have very little chances of gaining a full mandate. The models predict that substitute status decreased the chances of being elected by approximately 4 times in 2015 and 7 times in 2019.

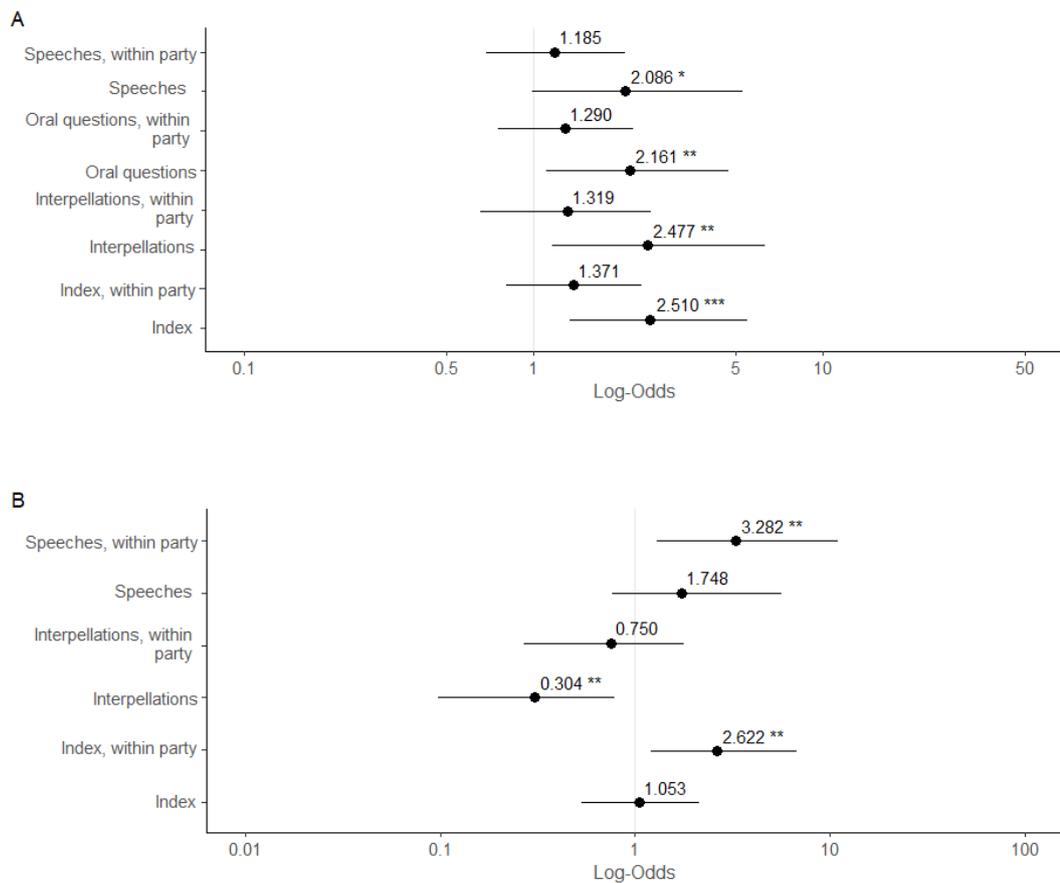
When it comes to the effect of predetermined by parties list standings, lower position on district list has consistent and negative impact on re-election. Similarly, negative effect of national list standing is significant, albeit for the 2019 election only. Finally, the demographic variable of age had a U-shaped association with the re-election chances in the 2015 election.

As in the previous part of analysis, the same models were constructed by using party-standardized measures of parliamentary behavior. Shown on Figure 3 (p. 59) are odds ratios. Differences between the measurements are larger for seat-gaining than for personal vote models. While being more active in relation to all MPs is a good predictor of being re-elected in the 2015 models (A), the effects disappear if only intra-party activism is considered. For 2019 (B), the negative impact of interpellations is no longer significant. The effect of bill initiation remains the same, and two new indicators show statistically significant positive impact. Specifically, delivering more speeches than co-partisans improves the odds of retaining the seat. The summary activism index has a

positive impact too. These two indicators, when standardized among co-partisans, were shown to have positive association with personal vote, and with good list placement in the case of speeches for the 2019 election.

Figure 3. Differences in predicted likelihood of re-election between measurements

A – 2015, B – 2019



Overall, the data shows that more active behavior in parliament was a good predictor of the chances of retaining the mandate in the case of 2015, but not the 2019 elections. On the contrary, being more active than co-partisans improved MPs' re-election chances in 2019, but not in the 2015 elections. When compared to other dependent variables,

parliamentary behavior has more connection to re-election than to instrumental payoffs in the form of list placement or personal vote. Therefore, if more active work in parliament is considered as strategic behavior aimed on realizing the goal of retaining a legislative mandate, this strategy, other things being equal, proves to be generally effective.

4.3 Summary of results and discussion

This chapter aimed to explore empirically how parties and voters respond to varying levels of parliamentary activism of individual MPs. Positive electoral outcomes have at the very least an association with more active behavior in parliament, and potentially are spillovers from it.

Table 7 (p. 61) summaries the findings for the main independent variables of interest. The impact is predominantly in the expected positive direction. In brief, parliamentary behavior has an electoral connection, although another important finding is that the extent and strength of it varies across time and types of activities. Two hypotheses regarding the comparative effect of activities and monitoring capacities of parties and voters can now be fully addressed.

Although existing literature places weight on the potential of more active bill initiation in bringing personal vote, the evidence is scarce in the case of the Estonian parliamentary elections. Sponsoring more bills was positively associated with retaining a seat in the 2019 elections, but simultaneously had a negative impact on the odds of being placed higher on district or national lists. Given that in existing studies the relationship was shown to be conditioned on the number of co-authors or closeness to election day, the impact can become more evident by including such factors into analysis.

The effect of interpellations is similarly mixed: submitting more requests to the executives in comparison to other MPs had positive outcomes for seat gaining in 2015, but negative in the 2019 election. As interpellations are mostly written collectively with partisan patterns of co-authorship, it is likely that the rewards for a more active use of

this type of activity vary among parties and reflect well the dynamics of party competition and cabinet composition.

Table 7. Illustrative summary of main empirical findings

In relation to:	Co-partisans				All MPs Co-partisans			
	Re-selection		List placement		Personal vote		Seat gaining	
	2015	2019	2015	2019	2015	2019	2015	2019
Bills				-*				+* +*
Interpellations							+*	-
Use of written Q's		+			+	+		
Oral questions			+	+		+	+*	
Speeches			+	+*	+* +	+ +*	+	+*
Attendance								
Activism index					+ +	+*	+*	+*

Shown effects are those significant at least at $p < 0.1$

*Effects significant at least at $p < 0.05$

While the majority of MPs do not address any written questions to the executives during their term, submission of at least one question was the only indicator that showed association with re-running for the same party (2019), with the effect being positive. Voters also seem to have consistently supported the MPs who engaged in this activity across both elections.

The significant positive impact of oral questions and speeches was often noticeable in comparison to other activities. Both measures had connections to the odds of being placed higher on the lists in both terms. The impact of oral questions was also shown in the vote share and seat-gaining models, albeit with differences across elections. Delivering more speeches was consistently rewarded by parties through higher list placement as well as by voters, and improved the chances of retaining a legislative seat. Some variances between the usage of speeches in comparison to all MPs and among co-partisans are noticeable for the seat-gaining models. Although as was previously

discussed the causality of this relationships is in question, how often an individual MP appeared on parliamentary floor gives a good idea about his or her future electoral performance.

The only measure that showed no connection to any of the dependent variables is attendance. The variation in attendance rates is rather low, and the measure does not correlate with more active use of activities. Attending more sessions therefore is far from being the same as engaging more often in parliamentary work.

Finally, the activism index, constructed following the scores of factor analysis, also predicts well many of the rewards. The employed indicators of activism are at least part of a latent measure of performance that voters find valuable. Overall, it is clear that activities vary in their impact on electoral prospects and the hypothesis can be confirmed.

When the rewards by parties and voters are compared, parties respond to a more narrow set of indicators, precisely to speeches and oral questions, but with more consistency across the elections. The lack of impact on re-selection prospects can partially be explained by different norms and expectations regarding behavior in parliament across parties. As the number of observations does not allow to disaggregate the data or to take party effects into consideration, methods like elite interviews with party representatives can shed light on this question. Voters reward these activities as well, which suggests a possibility that voters reward more hard-working MPs only indirectly by voting for top list candidates. Nevertheless, voters are also responsive to non-legislative activities such as written questions. In addition, an overall index of parliamentary activism shows good connections to personal vote. There are chances that parliamentary activism goes hand in hand with qualities and non-parliamentary behavior that voters support in individual MPs. For cumulative gains, most of the activities predict the payoff, meaning that MPs generally succeed in calculating which strategies they should adopt and on rewards by which of the principals they should predominantly rely.

Employing two different approaches for estimating more active behavior as compared to all MPs or to co-partisans only did not contribute to disentangling party and candidate voting, as patterns were different across the two examined elections. As some

of the discrepancies are hard to interpret, it would be beneficial to use such methods as survey or mental simulations to understand voters' preferences.

The results are generally consistent with the new institutionalism assumptions and illustrate the theorized impact of systemic factors as electoral rules on behavioral strategies. Nevertheless, the observed differences in both patterns of behavior and their outcomes between the two examined legislative terms imply the importance of short-term factors and a need for comparative perspective that takes political dynamics into consideration. The discrepancies are mostly noticeable for parliamentary supervision through the means of interpellations. Cabinet composition was different in the two examined terms. Reform Party – one of the largest Estonian parties was in opposition in the 13th Riigikogu after being in government in the four preceding terms. The number of parliamentary factions has increased after the 2015 elections as well. In addition, a populist right-wing party gained supported during the last of the terms, which can account for some of the observed contradictions. Finally, availability of parliamentary data for automated collection and increasing attention of the media to it can play a significant role for observing both parties and voters reward of activism. Therefore, tracing these patterns and differences across time can reveal the factors affecting the mechanisms of delegation and accountability and allow to take other actors into consideration.

Finally, it is important to discuss the extent to which these empirical findings are specific to the examined case of Estonia. Some of its characteristics as peculiar system of seat allocation can somewhat limit the generalization of empirical results. Still, the logic of principals' reward of agents and levels on which it can be noticeable is not specific to Estonia. Many systems provide such opportunities and mixed incentives, and determinants of behavior are rarely straightforward. Variation in parties' internal rules and candidate selection methods can be expected in other cases too. Still, some of the findings regarding parties' reward differ from the existing evidences from Western and Central European parliamentary democracies. The size of parliament can be of a matter for behavior of legislators, as well as for parties and voters. Therefore, more cross-

national comparison will help to understand which systemic and party-related factors can impact the mechanisms of accountability.

Conclusion

The thesis looked at whether parliamentary behavior of members of parliament can bring gains with regard to parties' and voters' support at elections, which has implications for understanding the mechanisms of delegation and accountability in parliamentary democracies. The principal objective was to estimate electoral outcomes of strategic usage of parliamentary activities for goal-seeking purposes, and how the outcomes vary across different activities and principals to whom MPs are accountable.

The thesis relied on the principal-agent model and theoretical works within rational choice institutionalism in order to produce a number of testable expectations for the case of Estonia. Within this theoretical framework, it was discussed that preferential voting gives citizens an opportunity to express their direct support for a candidate and consequently drives MPs to work on their personal reputation and recognition. At the same time, the rules of seat allocation and party-centered candidate selection methods allow parties to exercise control over MPs and reward or sanction their behavior. Therefore, the case of Estonia allows to see how both parties and voters react to parliamentary behavior in the environment with dual incentives.

Parliamentary behavior was defined quantitatively as a more active usage of legislative and non-legislative activities available at MPs' disposal. Such activities include bill initiation, various forms of supervision of government, as well as parliamentary speeches. Attendance rates were considered as well, and an overall index of activism was calculated.

Tools of automated data collection were used to compile a dataset of parliamentary activities from the two parliamentary terms. The method of regression analysis was applied to the data in order to answer the research question. Empirical results show the general signs of retrospective evaluation of MPs' productivity in parliament. As opposed to existing studies, there was no support for the expectation that parties in Estonia strategically refer to the records on activities in deciding which MPs will be re-nominated. Once MPs are re-selected, their parliamentary behavior becomes a better predictor of being placed higher on district or national party lists, although this finding

is limited to speeches and oral questions. When it comes to voters, they reward MPs that are active across several activities, with both activism in relation to all MPs and among co-partisans showing significant effects depending on a specific election. Finally, the cumulative gains from parties' and voters' reward in a form of gaining a legislative seat can be partly predicted by using indicators of parliamentary behavior. In addition, the analysis shows that some indicators of parliamentary work are more electorally beneficial than the others, and the dynamics are partly different across time.

The results give an overall positive answer to the question of whether parties and voters reward more active parliamentary behavior. At the same time, the causal direction of this relationship is unlikely to be equally straightforward for parties and voters, as well as for different types of activities. Lastly, several suggestions for further work that could clarify the mechanisms of accountability between voters, parties, and legislators are offered.

First, this and similar studies did not position individualized parliamentary activities within the frame of personalized politics, thus it is unclear whether electoral gains are due to strategies that deviate in one way or another from the party line or to activism on behalf of the party. To do so, the deviations from the party line in issue position taking and issue emphasis can be taken into consideration to develop a measure of personalized parliamentary activism.

Second, when it comes to the possible mediating factors, media visibility, or the extent to which media pays attention to individual MPs and which factors increase the likelihood of media coverage can impact the amount of electoral gains from parliamentary behavior. Even if empirical evidence of such mediating link would unlikely be surprising, examining the inner mechanisms contributes to internal validity of studies. Another fruitful direction in the search for mediating factors is looking at differences in parliamentary activism not only in a quantitative way, but also qualitatively in regard to the substantive topics. In the party-centered literature on issue competition, it was shown that parties respond to the increase in issue salience at party-system level (Abou-Chadi et al 2019) and among the public (Klüver and Sagarzazu 2016), although the strategies can vary depending on party size and communication

channels. On the individual level, it can be expected that the salience of addressed by an MP issues to voters should be relevant for their reward of MP's behavior. In addition, patterns of behavior and their impact on voters and parties can vary across the legislative terms as proximity to elections can intensify vote-seeking strategies and as media coverage of everyday politics varies from the one of election campaigns (Binderkrantz and Green-Pedersen 2009; Green-Pedersen et al 2017).

Third, behavior of MPs across time has been predominantly studied at the level of parliamentary arena. MPs can also use social media and personal web-pages for constituency and party service as the matters of political representation and accountability are not restricted to parliaments (Pedersen and Rahat 2019, 5). On the one hand, the observed behavioral strategies can be expected to be consistent across the different arenas as they both should contribute to the fulfillment of certain goals. On the other, being active in parliament and in social media require different investment of scarce resources as time and effort, and the possible technical and partisan restrictions can vary as well. The developments in automated data collection and unsupervised techniques of analysis allow to include social media in examining personalized behavior throughout the legislative term alongside the parliamentary activities, and to look at congruence and consequences of strategies across several arenas.

Therefore, existing scholarship provides conceptual and measurement-related grounds as well as cues and evidence from empirical works, which, if put together, allow to move further in examining the chain of representation and to assess empirically the inner mechanisms of how principals evaluate their agents.

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Appendix 1.

Correlation matrix for the indicators of parliamentary behavior

2011-2019 (12th Riigikogu)

	Bills	Written Q's	Interpell.	Oral Quest.	Speeches	Attendance
Bills	1	-0.12	-0.06	-0.01	0.02	0.00
Written Q's	-0.12	1	0.35***	0.41***	0.37***	-0.13
Interpellations	-0.06	0.35***	1	0.75***	0.51***	-0.01
Oral questions	-0.01	0.41***	0.75***	1	0.63***	-0.05
Speeches	0.02	0.37***	0.51***	0.63***	1	0.05
Attendance	0.00	-0.13	-0.01	-0.05	0.05	1

N = 131;

* p<0.05; ** p<0.01; *** p<0.001

2015-2019 (13th Riigikogu)

	Bills	Written Q's	Interpel.	Oral Quest.	Speeches	Attendance
Bills	1	0.36***	0.45***	0.37***	0.37***	0.13
Written Q's	0.36***	1	0.47***	0.45***	0.49***	0.15
Interpellations	0.45***	0.47***	1	0.57***	0.49***	0.13
Oral questions	0.37***	0.45***	0.57***	1	0.71***	0.24*
Speeches	0.37***	0.49***	0.49***	0.71***	1	0.17*
Attendance	0.13	0.15	0.13	0.24	0.17*	1

N = 137;

* p<0.05; ** p<0.01; *** p<0.001

Appendix 2.

Determinants of personal vote of incumbent MPs.

<i>Dependent variable: Personal vote share (transformed)</i>								
OLS regression. Reported are coefficients with standard errors in parentheses. Activities are party-standardized								
	2015				2019			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Attendance	-0.064 (0.083)	-0.059 (0.081)	-0.093 (0.083)		0.071 (0.109)	0.022 (0.109)	0.020 (0.105)	
Bills	0.029 (0.080)	0.027 (0.079)	0.027 (0.078)		0.158 (0.121)	0.092 (0.119)	0.101 (0.113)	
Written questions (dummy)	0.292* (0.175)	0.243 (0.174)	0.251 (0.172)		0.425* (0.240)	0.350 (0.231)	0.209 (0.234)	
Interpellations	-0.003 (0.100)				-0.048 (0.123)			
Oral questions		0.126 (0.080)				0.218* (0.113)		
Speeches			0.143* (0.081)				0.325*** (0.118)	
Activism index				0.154* (0.080)				0.326*** (0.106)
District list	-0.125*** (0.025)	-0.128*** (0.025)	-0.125*** (0.024)	-0.132*** (0.024)	-0.206*** (0.039)	-0.204*** (0.038)	-0.193*** (0.037)	-0.190*** (0.036)
Opposition	0.200 (0.165)	0.214 (0.163)	0.225 (0.163)	0.279* (0.154)	0.229 (0.215)	0.238 (0.207)	0.277 (0.202)	0.276 (0.201)
First term	0.017 (0.173)	-0.010 (0.171)	0.006 (0.170)	-0.035 (0.169)	-0.004 (0.226)	0.093 (0.225)	0.108 (0.217)	0.209 (0.205)
Substitute	-0.389** (0.177)	-0.341* (0.176)	-0.309* (0.179)	-0.360** (0.174)	0.009 (0.254)	0.031 (0.236)	0.119 (0.232)	-0.032 (0.219)
Male	-0.023 (0.188)	-0.050 (0.182)	-0.010 (0.181)	-0.070 (0.180)	0.261 (0.240)	0.281 (0.232)	0.202 (0.227)	0.277 (0.227)
Age	-0.050 (0.062)	-0.060 (0.061)	-0.059 (0.060)	-0.074 (0.060)	-0.199** (0.089)	-0.221** (0.085)	-0.252*** (0.084)	-0.222*** (0.080)

Age ²	0.0005 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 ** (0.001)	0.002 *** (0.001)	0.002 *** (0.001)	0.002 *** (0.001)
Constant	-2.125 (1.581)	-1.836 (1.547)	-1.974 (1.534)	-1.373 (1.529)	1.249 (2.345)	1.857 (2.232)	2.572 (2.199)	2.038 (2.069)
Observations	92	92	92	92	77	77	77	77
R ²	0.409	0.426	0.431	0.404	0.428	0.458	0.487	0.456
Adjusted R ²	0.327	0.348	0.352	0.347	0.331	0.366	0.400	0.392
Residual Std. Error	0.724 (df = 80)	0.713 (df = 80)	0.711 (df = 80)	0.714 (df = 83)	0.875 (df = 65)	0.852 (df = 65)	0.829 (df = 65)	0.834 (df = 68)

Note:

* p<0.1; ** p<0.05; *** p<0.01

Appendix 2 (continued)

Appendix 3

Determinants of re-election of incumbent MPs.

<i>Dependent variable: Seat-gaining</i>								
Binary logistic regression. Reported are coefficients with standard errors in parentheses. Activities are party-standardized								
	2015				2019			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Attendance	-0.060 (0.307)	-0.027 (0.299)	-0.060 (0.305)		0.120 (0.398)	-0.036 (0.402)	-0.125 (0.412)	
Bills	0.041 (0.299)	0.032 (0.299)	0.039 (0.296)		0.785** (0.394)	0.635 (0.417)	0.520 (0.417)	
Written questions (dummy)	0.590 (0.563)	0.568 (0.567)	0.585 (0.568)		-0.200 (0.791)	-0.346 (0.784)	-0.860 (0.825)	
Interpellations	0.277 (0.339)				-0.288 (0.470)			
Oral questions		0.255 (0.270)				0.475 (0.403)		
Speeches			0.170 (0.275)				1.188** (0.540)	
Activism index				0.315 (0.271)				0.964** (0.429)
District list	-0.208* (0.110)	-0.211* (0.108)	-0.206* (0.107)	-0.229** (0.108)	-0.806*** (0.258)	-0.769*** (0.259)	-0.704*** (0.258)	-0.637*** (0.245)
National list	-0.006 (0.008)	-0.006 (0.008)	-0.005 (0.008)	-0.005 (0.008)	-0.022* (0.013)	-0.020 (0.013)	-0.027* (0.014)	-0.022* (0.013)
Opposition	0.824 (0.558)	0.816 (0.560)	0.818 (0.561)	0.957* (0.539)	1.721** (0.761)	1.893** (0.778)	2.142** (0.835)	1.920** (0.773)
First term	-0.341 (0.611)	-0.402 (0.620)	-0.359 (0.608)	-0.473 (0.609)	-1.282 (0.798)	-1.155 (0.816)	-1.150 (0.852)	-0.723 (0.734)
Substitute	-1.378** (0.662)	-1.339** (0.663)	-1.324** (0.666)	-1.373** (0.646)	-1.931** (0.871)	-1.846** (0.849)	-1.455* (0.862)	-1.510** (0.747)
Male	0.369 (0.679)	0.428 (0.688)	0.458 (0.686)	0.431 (0.674)	-0.970 (0.848)	-0.947 (0.856)	-0.880 (0.858)	-0.825 (0.813)
Age	-0.476**	-0.475**	-0.460**	-0.495**	-0.389	-0.519	-0.636	-0.481

	(0.226)	(0.224)	(0.222)	(0.219)	(0.380)	(0.410)	(0.412)	(0.373)
Age ²	0.004*	0.004**	0.004*	0.005**	0.003	0.004	0.005	0.004
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.004)	(0.004)	(0.003)
Constant	12.533**	12.567**	12.005**	13.249**	16.063	19.698*	22.323*	17.617*
	(5.782)	(5.734)	(5.663)	(5.606)	(10.821)	(11.792)	(11.535)	(10.456)
Observations	92	92	92	92	77	77	77	77
Log Likelihood	-44.565	-44.443	-44.697	-44.895	-30.234	-29.697	-27.105	-29.720
Nagelkerke R ²	0.426	0.429	0.424	0.420	0.600	0.610	0.658	0.610
<i>Note:</i>	* p<0.1; ** p<0.05; *** p<0.01							

Appendix 3 (continued)