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LEGISLATIVE NETWORKS AND THE SURVIVAL OF CABINET MINISTERS

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LIST OF ABBREVIATIONS

HOR House of Representatives

LDP Liberal Democratic Party

Introduction

In parliamentary democracies, cabinet ministers play important roles in formulating and implementing policies. They are selected mostly from among MPs by the head of government (i.e., Prime Minister), and once they are selected, they serve as a minister and manage government ministries until they get fired or the government terminates. Although minister selection is often analyzed in tandem with the process of government and cabinet formation (Ono 2012; Strøm, Müller, and Bergman 2003), a considerable number of minister selection actually happens during the cabinet term as well, in which some ministers are dismissed and replaced by others (Martínez-Gallardo 2014). This means that some ministers are screened out and allowed to serve only briefly, while others are kept in the cabinet for a long time. To the extent that the patterns of ministerial replacement are poorly explained by the theories of cabinet formation (Fischer, Dowding and Dumont 2012; Huber and Martinez-Gallardo 2008), it is important to ask what determines ministerial dismissal during the cabinet term.

Empirical studies on ministerial turnover suggest that ministers' attributes (Fischer, Dowding, and Dumont 2012), institutional settings (Bäck et al. 2012; Bucur 2017; Huber and Martinez-Gallardo 2008), and external factors (Camerlo and Pérez-Liñán 2015a; Martínez-Gallardo 2014) influence ministerial dismissals. However, these studies do not pay explicit attention to the fact that ministers are embedded in the network of social interactions with other politicians. By ignoring ministers' social relationships with their peers, prior work precludes the possibility that there is a social and relational component in the patterns of ministerial dismissal. This omission may be significant because the important roles of social networks among politicians have been fully addressed in other fields of legislative politics (Fong 2020; Kirkland 2011; Tam Cho and Fowler 2010; Zelizer 2019).

In this study, we draw on social network theories to examine the relationship between networks among politicians and ministerial turnover (Coleman 1988; Granovetter 1985). We argue that the extent to which ministers are embedded in the network with other politicians can affect the probability of their dismissals. Network embeddedness conditions how much ministers are trusted by their peers, including those of oppositions, and able to receive social support. Hence, network embeddedness can potentially function as a buffer against severe challenges and criticisms that ministers face. As a result, network embeddedness can reduce the chance that ministers hinder the effective operation of the cabinet, lowering the incentive of government head to dismiss them during the cabinet term.

To test this argument, we focus on the patterns of ministerial dismissal in Japan. One important challenge we face is the lack of credible relational data among Japanese politicians. To address this issue, we approximate social connections among them by using the information on co-directorship in legislative committees. We expect that if two politicians assume leadership positions in the same committee, it is a great opportunity for them to cultivate an intimate connection through day-to-day operations of the committee, even beyond their partisan differences. We assume that networks built on co-directorship ties should offer a meaningful way to capture informal social relationships among Japanese politicians.

Analyzing ministerial turnover between 1947 and 2017, we demonstrate that ministers who exhibit greater network embeddedness—as measured by closeness centrality in the network of committee co-directorship—are less likely to be dismissed than those with lower embeddedness. This result is robust to the use of an instrumental variable approach, in which we exploit arguably exogenous changes in network structures due to the close elections of network neighbors. Moreover, we show that ministers with greater network embeddedness are less likely

to get attention during the committee debate than those with lower embeddedness, which supports the underlying mechanism of our argument. All in all, our findings highlight the importance of social networks in the process of ministerial turnover.

Determinants of Ministerial Turnover

The issue of ministerial turnover has been analyzed under the principal-agent framework, which concerns the delegation of power from the head of government to individual ministers (Huber and Martinez-Gallardo 2008; Indridason and Kam 2008; Strøm, Müller, and Bergman 2003). According to this approach, ministerial replacement is seen as a strategic action of government heads to overcome two types of delegation problems. First is adverse selection, or uncertainty about the incentives and abilities of individual ministers (Huber and Martinez-Gallardo 2008). By replacing ministers, the heads of government can weed out “bad” ministers and select “good” ones. The second problem is moral hazard, which suggests that ministers have incentives to use their power in a way that runs against the interests of the cabinet (Indridason and Kam 2008). Frequent ministerial replacement limits the opportunities of sharking by ministers, enabling the heads of government to reduce agency loss.

Building on the principal-agent framework, prior studies have identified several factors that influence minister turnover.¹ These factors operate at three different levels, either individual ministers, political institutions, or external contexts. First, at the level of individual ministers, their competence and loyalty are supposed to influence their survival (Camerlo and Pérez-Liñán 2015b). Hence, ministers’ performance to accomplish the goals of the cabinet is one of the most

¹ Minister termination and survival are only weakly connected to the patterns of government termination and survival, meaning that the theories of ministerial turnover should go beyond the theories of cabinet turnover (Fischer, Dowding, and Dumont 2012; Huber and Martinez-Gallardo 2008).

important determinants of their durability (Berlinski, Dewan, and Dowding 2010; Søyland 2017). Prior experiences as a minister also play a critical role in affecting their turnover (Bovens, Brandsma, and Thesingh 2015). Further, some of their attributes, such as age, gender, and education, can predict their survivals (Escobar-Lemmon and Taylor-Robinson 2015; Fischer, Dowding, and Dumont 2012).

Second, institutional factors also play an important role in ministerial turnover because they shape the abilities and constraints of government heads to use the power to reshuffle their cabinets. For example, the prestige of portfolios conditions the probability of firing (Bright, Döring, and Little 2015; Hansen et al. 2013). Coalition governments may show less frequent use of ministerial replacement than single-majority governments because the former needs a larger number of actors to agree on a firing decision than the latter does (Huber and Martínez-Gallardo 2008). For a similar reason, divided governments may show lower rates of ministerial dismissal than unified governments (Bucur 2017). Moreover, the institutional power and autonomy of government heads influence how easily they can dismiss ministers (Bäck et al. 2012; Martínez-Gallardo 2014).

Third, external factors are equally critical for determining ministerial turnover because government heads often use ministerial replacement to respond to changing political environments. For instance, economic and financial crises may increase the necessity of minister reshuffling (Martínez-Gallardo 2014). Shifts in cabinet popularity can trigger ministerial replacement (Camerlo and Pérez-Liñán 2015b). Some evidence further suggests that protest and scandals can affect ministerial turnover contingent on the timing of elections (Camerlo and Pérez-Liñán 2015a).²

² Some empirical evidence suggests that ministerial replacement can improve the popularity of cabinets (Dewan and Dowding 2005; Miwa 2018).

Although prior studies have improved our understanding of ministerial dismissal, what is missing is an insight into how the social networks of individual ministers influence their survival. This omission may be problematic because the importance of social connections has been emphasized in other domains of legislative politics. For example, some studies show that legislators make use of their informal networks for cue-taking and voting decisions (Fong 2020; Ringe, Victor, and Gross 2013; Wojcik and Mullenax 2017).³ Indeed, even seemingly minor interactions in office and seat proximities on the floor can have a considerable impact on legislative behavior (Liu and Srivastava 2015; Masket 2008; Zelizer 2019).⁴ Other studies also demonstrate that the structures of legislative networks determine the collective outcomes of the policy-making process and legislative productivity (Kirkland 2011; Tam Cho and Fowler 2010).

Given the importance of social networks in the legislative process, it is critical to conceive that ministers are embedded in the network of social relationships with other politicians. Such a perspective allows us to evaluate the social and relational aspect of ministerial turnover. In the next section, we advance our argument on how networks among politicians can influence ministers' survival. Specifically, we suggest that network embeddedness prevents ministers from being dismissed from their positions.

Network Embeddedness and Ministerial Turnover

Social network theories suggest that repeated social interactions play a critical role in cultivating trust and reciprocity among individuals (Coleman 1988; Granovetter 1985). On the

³ Montgomery and Nyhan (2017) and Nyhan and Montgomery (2015) also suggest that legislators who are connected by the same third parties, such as campaign firms and legislative staff, tend to show similar behavior.

⁴ However, Rogowski and Sinclair (2012) caution that the effect of social connections on roll-call behavior may suffer from endogenous selection because like-minded politicians who are likely to vote together are more likely to form a social tie.

one hand, this proposition means that the network of social interactions helps establish a basis of social cooperation, and those who are tightly embedded in the network can receive various forms of social support—such as intimacy, respect, emotional closeness, and social approval—from other actors. On the other hand, the above proposition also implies that repeated interactions reduce uncertainty about actors' behavior.⁵ By so doing, network embeddedness makes it easier for actors to establish their legitimacy and avoid unnecessarily conflicts with other actors.

Trust and reciprocity generated by social networks can be important sources of one's job performance. In fact, organizational studies show that network embeddedness creates a workplace environment in which well-connected individuals are treated generously (Gulati 1995). As a result, those with stronger embeddedness tend to face more favorable work climate and less work stress than those with weaker embeddedness do (Hayton, Carnabuci, and Eisenberger 2012). Furthermore, due to the network support they receive, the former exhibit better job performance than does the latter (Brüderl and Preisendörfer 1998; Uzzi 1996; Van Emmerik and Sanders 2004).

The above argument has important implications for the patterns of ministerial turnover. We expect that legislators who are more tightly embedded in the legislative network are more trusted by peers than those with lower embeddedness. Then, once they are appointed to ministerial positions, the network-based social support should provide them with a buffer against hazards they face during their tenure. For example, opposition politicians may have lower incentives to challenge ministers with tight embeddedness than those with fewer connections for fear of jeopardizing established social relations. For the same reason, oppositions may withhold a

⁵ Another important resource that network embeddedness provides is information because actors who are tightly incorporated in the network can have fast access to information that other actors have. We return to this point in our empirical analysis.

harsh criticism against well-connected ministers even when they make inappropriate remarks or cause scandals.

From the perspective of government heads, the above feature of well-connected ministers looks appealing in maintaining the government. Indeed, if ministers who are more tightly embedded in the legislative network face smaller obstacles than those with fewer connections, government heads can expect that the former type of minister is less likely to hinder the effective operation of the cabinet. In this way, network embeddedness reduces uncertainty about ministers' performance and competence, alleviating the problem of adverse selection. As a result, network embeddedness makes the heads of government want to retain well-connected ministers in the cabinet.⁶ Therefore, we expect that:

H1: Network embeddedness is negatively associated with the probability of ministerial dismissal.

And this is because:

H2: Network embeddedness is negatively associated with the extent to which ministers receive severe criticism and challenges from other politicians.

Empirical Analysis

To test our argument, we analyze the patterns of ministerial turnover in the national parliament of Japan—the Diet—between 1947 and 2017. It offers a great case to test our argument because cabinets were reshuffled regularly and frequently without changing the

⁶ Network embeddedness can also increase the chance that the behavior of an actor is monitored and sanctioned by other actors in the network. Hence, network embeddedness reinforces individuals' tendency to uphold the appropriate norms of the organization and refrain from opportunistic behavior (Gulati 1995). This argument provides another mechanism by which network embeddedness lowers the probability of dismissal. Ministers with greater embeddedness may have stronger incentives to follow the norms of appropriate legislative conducts and refrain from agency shirking, which reduces the concern of moral hazard.

composition of governing parties, while at the same time institutional features of cabinet system (such as the size of a cabinet) were kept stable for a long time (Ono 2012).

Below, we first explain how to measure legislative networks in Japan, which makes a unique innovation under the limited availability of relational data among politicians. Then, we elaborate on our empirical strategies and examine our two hypotheses.

Identifying Legislative Networks in Japan

Prior studies have constructed networks among politicians using cosponsor bills (Kirkland 2011; Tam Cho and Fowler 2010), third parties such as congressional staff and consultant firms (Montgomery and Nyhan 2017; Nyhan and Montgomery 2015), or surveys (Ringe, Victor, and Gross 2013; Wojcik and Mullenax 2017). However, some challenges exist in those measures. Cross-partisan cosponsorship of bills rarely occurs in many parliamentary democracies, especially in so-called arena legislatures (Polsby 1975). This makes it difficult to detect non-partisan networks based on bill proposals. Credible information about politicians' connections with external actors is not usually available to the public, because they have strong incentives to hide those informal and private connections. Surveys might be useful to highlight unrevealed social ties among politicians, but one-time surveys do not allow us to detect changes and stability in the relationship for a long period of time. To overcome these challenges, we create politicians' networks based on their co-leadership in legislative committees.

We believe that politicians' shared experiences as committee leaders are a meaningful construction of their social connections in the parliament. In Japan, in particular, committee chairs and directors jointly take a leading role in committee management, such as setting agendas and determining a schedule for deliberation (Morimoto 2017). In this process, they represent

their party and communicate closely with each other behind the closed door. Hence, these are very rare opportunities for MPs to work together across aisle within the parliament and cultivate strong relationships beyond the partisan line. Reflecting mutual relationship they build, committee directors often draft cross-partisan bills together.

We extract data on politicians' assignments to committee chairs and directors in the House of Representatives (HOR) from *Kokkai Giin Hakusho*.⁷ Each committee has one chair and, on average, eight directors.⁸ They are composed of politicians from different parties. It is common for politicians to serve as directors in more than one committee in each session of the parliament.⁹ Further, there are frequent changes in directors between sessions as well as elections.

To construct a network in parliament t , we check whether a pair of politicians previously served as committee leaders (chair or director) at the same time up until parliament $t - 1$. Hence, if politicians i and j assumed the leadership roles in the same committee(s) in any session of the previous parliaments, we assume that they have a social connection in the current parliament.¹⁰ Because of this coding rule, our legislative networks are unweighted. In other words, ties among politicians do not take into account the intensity of their connections (e.g., how many times they served in the same committees or how long they have known each other).

Do these ties capture meaningful social relationships among politicians? To answer this question, we analyze how shared experiences as committee leaders predict bill cosponsorship. In

⁷ It is a website that records the parliamentary activities of individual politicians. See <https://kokkai.sugawarataku.net>.

⁸ In section A of the appendix, we analyze who is more likely to be a committee chair and director.

⁹ Each parliament of the HOR consists of three types of sessions: regular (annual), extraordinary, and special sessions.

¹⁰ Those who have never served as a committee chair or director are isolated in the network.

section B of the appendix, we show that if two politicians led the same committee(s) in the past, they are more likely to make a joint bill proposal at the statistically significant level. This result indicates that politicians who lead the same committee cultivate a long-lasting and intimate relationship.

Our networks are, of course, not without limitations, and we note two points. First, we do not have data on committee assignments before 1947. Due to this censoring, some of the ties that politicians formed before the 23rd parliament may be missing. However, due to the institutional discontinuity caused by World War II, this problem may not be critical. Second, since our networks are based on legislative committees in the HOR, we do not have networks in the House of Councilors (upper house). For this reason, our analysis below focuses only on ministers who have a seat in the HOR.

Using the networks of committee co-directorship, we measure the extent to which individual politicians are embedded in the legislative network. Specifically, we use the measure of closeness centrality, which quantifies to what extent a politician is close to all other politicians in the network. Formally, it is calculated as the inverse of the sum of the shortest paths between the node i and all other nodes:

$$C_i = \frac{N - 1}{\sum_j d_{ij}}$$

where d_{ij} is the shortest path between nodes i and j . By normalizing the inverse of the sum of shortest paths by the size of the network minus one ($N - 1$), we can compare closeness centrality across networks with varying sizes. A greater value in the closeness centrality indicates that the politician can reach others in the network with fewer steps, hence greater embeddedness.¹¹

¹¹ In section C of the appendix, we explore how closeness centrality affects cabinet appointment.

Closeness centrality is a global measure of network positions because it takes account of every tie that is present in the network. In this respect, it is distinct from degree centrality, which is simply the number of direct ties that politicians have. In this study, using closeness centrality is more appropriate than degree centrality because our theory suggests that what matters to ministers' survival is not necessarily with whom they are directly connected. Rather, our argument is that the extent to which they are embedded in the network of social relations within the legislature affects their durability. This point requires us to focus on ministers' social ties beyond their immediate connections.¹²

Resignation

Our unit of analysis is the minister (politician i in cabinet c), and the outcome variable is a dummy indicator of his/her dismissal. It takes the value of 1 if the minister is dismissed in the middle of a cabinet term, and 0 otherwise. According to this definition, ministerial changes that occur during cabinet reshuffles (i.e., the formation of a new cabinet) are not regarded as dismissals. For example, during the Third Abe Cabinet between 2014 and 2017, three cabinet reshuffles occurred in October 2015, August 2016, and August 2017, respectively. If ministers were replaced at the time of these reshuffles, we do not consider that they were dismissed.¹³ Moreover, if ministers change their positions from one post to another in the middle of a cabinet

¹² The importance of indirect ties is illustrated by the fact that people tend to be favorably disposed not only to their friends but also to their friends' friends.

¹³ We use different identifiers for reshuffled cabinets. Hence, the Third Abe Cabinet consists of four different cabinets.

term, the outcome variable takes the value of 0. In our data, ministerial dismissals occur in 6.3 percent of the cases.¹⁴

In the analysis below, we control for several factors that may confound the relationship between network embeddedness and dismissal. First, we include *Age* because it is presumably an important determinant of resignation decisions (Fischer, Dowding, and Dumont 2012). Second, we also control for several personal attributes of politicians that are shown to shape their behavior in Japan and elsewhere (e.g., Baumann, Debus, and Müller 2015; Ono 2015; Smith 2018; Tavits 2009). Specifically, *Female* takes the value of 1 if the minister is a woman. *Dynasty* is a dummy indicator of ministers whose family relatives previously served in parliament. *Local* is a dummy variable that captures the previous local political experiences of politicians (as a governor, mayor, or local assembly member). Then, *Bureaucrat* is a dummy for ex-bureaucrats. Finally, since closeness centrality is strongly affected by the term length of politicians, we also include *Tenure* and its squared term.¹⁵

To assess the effect of network embeddedness on ministerial dismissals, we fit a logistic regression with random effects by cabinet.¹⁶ Since the same politicians are repeatedly appointed to a minister in different cabinets, politician *i* enters into the data multiple times. To account for the possibility that error terms are not independent across the same individuals, we estimate

¹⁴ Data on ministers and their dismissals come from the Cabinet Office (see <https://www.cao.go.jp/index-e.html>). Note that we do not distinguish between the reasons for dismissals because our theory is not about how ministers resign. In some cases, dismissals are due to ministers' suicides or death. We cannot rule out the possibility that social connections within the legislature influence the chance of suicides and death in office as network embeddedness can reduce work-related stress (Hayton, Carnabuci, and Eisenberger 2012).

¹⁵ All these variables are based on the Reed-Smith Japanese House of Representatives Elections Data Set (Reed and Smith 2017). Descriptive statistics are in section D of the appendix.

¹⁶ Since the characteristics of Prime Ministers can also affect ministerial turnover (Fischer, Dowding, and Dumont 2012), it is ideal to rely on a strict within-cabinet comparison, meaning the use of cabinet fixed effects. However, due to the incidental parameter problem, it is not appropriate to include fixed effects in logistic regressions. In fact, if we use cabinet fixed effects, the negative effect of closeness centrality tends to be overestimated.

standard errors using a clustered bootstrap approach, where clusters are defined by each politician.

Table 1 shows the results of our baseline specification. The model is based on a multi-level logistic regression with random effects by cabinet. We find that closeness centrality is negatively associated with ministerial dismissal with $p = 0.01$. This means that ministers with greater network embeddedness, who can reach other politicians in the network with fewer steps, are less likely to be dismissed from their posts in the middle of the cabinet term than ministers with lower embeddedness. This finding is consistent with our first hypothesis.

The effect of network embeddedness is substantive. In our data, the mean value of closeness centrality is 4.33 and its average standard deviation within the cabinet is 0.98. Since the coefficient estimate of closeness centrality is -0.27, one standard deviation increase in closeness centrality from its mean value leads to a 7 percent decrease in the probability of dismissal, holding other things constant.

We also perform two additional tests to reinforce our argument in section E of the appendix. First, we confirm that degree centrality (i.e., the number of direct ties that ministers have) does not predict dismissal. This means that what matters for ministerial survival is not how many friends ministers have but how much they are embedded in the network with other politicians, consistent with our claim. Second, we also find that our results are unchanged when we restrict our observations to LDP cabinets.

Mechanism

Our second hypothesis suggests that there should be a negative association between network embeddedness and the probability of dismissal because ministers with greater network embeddedness are less likely to face severe challenges and criticisms from other politicians. We

next evaluate this mechanism analyzing the extent to which ministers get attention during the budget committee debate.

We focus only on the budget committee debate for several reasons. First, the budget committee is regarded as the most important committee in the Diet. It receives more media attention than the other committees, and debates between cabinet members and opposition parties often become highly intense. Second, the budget committee focuses not only on budget but also on other issues salient in national politics. For example, cabinet performance and the qualification of individual ministers frequently become the central topic of the debate. Third, during the season of budget-making (normally between January and March), all ministers are required to attend the meeting. These features of the budget committee provide an appropriate setting to understand how much ministers are targeted and scrutinized by other politicians.

To construct our outcome, we calculate how often ministers' names appear during the budget committee debate. First, we scrape the original text data of the budget committee debate from the Diet website.¹⁷ Second, for each day of the budget committee meeting, we count the number of speeches made by politicians who are not ministers nor committee chairs. They can be those in either governing or opposition party. Third, we count the number of speeches made by non-ministerial actors that contain the last name of the minister.¹⁸ Finally, we compute:

$$Attention_{id} = \frac{\# \text{ of nonministerial speeches mentioning } i\text{'s last name}_d}{\text{Total \# of nonministerial speeches}_d}$$

¹⁷ See <https://kokkai.ndl.go.jp/#/> .

¹⁸ This approach yields at least two types of measurement errors. First, when politicians mention the last name of a minister, they may refer not to him but to someone else with the same last name. Second, politicians can refer to a minister without referring to his last name, by just calling his position (e.g., saying “Minister of Finance” instead of saying “Minster Tanaka”).

for minister i in meeting day d . Although this does not measure how much ministers are criticized or attacked by other politicians, it at least captures the extent to which they get attention during the debate. We log-transform this variable after adding 0.01 as it shows right skewness.

Our estimation is based on a multilevel linear model with random effects by meeting day. As the analyses above, we control for the individual characteristics of the minister that can shape his network position. We also include factors at the meeting day level that can mechanically influence the extent to which ministers get attention. Specifically, we account for the number of speeches made by non-ministerial actors (i.e., meeting length) and the total number of ministers who attend the meeting. The former (latter) should increase (decrease) the chance that individual ministers receive attention.¹⁹ We cluster standard errors by minister using the cluster bootstrap method.

The results are summarized in Table 2. Closeness centrality is negatively associated with the extent to which ministers' names are mentioned during the budget committee debate.²⁰ Specifically, one standard deviation increase in closeness centrality can lead to a 9 percent decrease in attention. This finding provides indirect support for our second hypothesis that ministers with greater network embeddedness are less likely to be targeted and challenged by other politicians than those with lower embeddedness. This may explain why the former are less likely to be dismissed from the cabinet than the latter.

¹⁹ Descriptive statistics are in section F of the appendix.

²⁰ We assure that our results are robust when we use minister-legislature and minister-cabinet as our units of analysis.

Conclusion

In this study, we explore how social networks influence ministerial dismissal by analyzing the patterns of ministerial turnover in Japan for seventy years between 1947 and 2017. We find the network embeddedness of ministers is negatively associated with the likelihood of their replacement. Moreover, network embeddedness is also negatively correlated with the extent to which ministers are targeted and scrutinized during the parliamentary debate. Together, these results suggest that social relationship among politicians can play a critical role in shaping the process of ministerial dismissal.

The contribution of this study is twofold. First, it offers one way to effectively draw social networks among MPs in arena legislatures using their co-directorship in legislative committees, where MPs representing their parties negotiate and bargain behind the scenes. Second, this study further deepens our understanding of the determinants of ministerial turnover and the role of legislative networks in the policy-making process. While the existing literature has paid attention to the personal attributes of ministers, political institutions, and external political contexts to understand ministerial turnover, no study has yet to examine the effect of legislative networks that politicians develop extensively in the parliament.

Tables

Table 1: Network Embeddedness and Ministerial Dismissal

	Dismissal
Closeness Centrality	-0.27*
	(0.105)
Age	0.02
	(0.020)
Female	1.183
	(0.803)
Dynasty	-0.203
	(0.277)
Local	0.352
	(0.312)
Bureaucrat	0.01
	(0.298)
Tenure	0.185
	(0.235)
Tenure ²	-0.005
	(0.016)
Cabinet RE	Yes
N	1,483
N of Cabinets	94

Note: *p<0.05. The model is estimated with a logistic regression with random effects by cabinet. RE = Random Effect. Clustered bootstrap standard errors in parenthesis (clusters defined by politician).

Table 2: Network Embeddedness and Attention during the Budget Committee Debate

	Attention (log)
Closeness Centrality	-0.056* (0.017)
Age	0.005* (0.002)
Female	0.089 (0.091)
Dynasty	0.009 (0.033)
Local	0.009 (0.032)
Bureaucrat	0.084* (0.038)
Tenure	0.03 (0.028)
Tenure ²	0.001 (0.002)
# of Non-Ministerial Speeches	0.0004* (0.0001)
# of Attending Ministers	-0.040* (0.004)
Meeting Day RE	Yes
N	21,340
N of Meeting Days	1,767

Note: *p<0.05. The model is estimated with a linear regression with random effects by meeting day. RE = Random Effect. Clustered bootstrap standard errors in parenthesis (clusters defined by politician).

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