

RESEARCH NOTE

Studying honest answers to sensitive issues in politics

New evidence on lobbying influence

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Abstract

Studying lobbying influence in politics has been confronted with the challenge of gaining insights into processes that usually take place behind closed doors and about which honest answers from participants are difficult to obtain. Therefore, innovative methods of indirect measurement of lobby success – via text analysis or interviews – have been used to get at the hidden politics of lobbying. In this research note, we propose an additional technique to study lobby influence much more directly, the randomized response technique (RRT). This method has been successfully used to study doping in elite sports, for instance, but has been almost absent from political research in the past. The note presents the method and illustrates its applicability with a study of lobby influence in German Parliaments. The study reached out to 2386 present and to 850 former MPs (Members of Parliaments). The response dataset added up to 273 present and 160 former MPs, equaling response rates of 11.4% and 18.8% respectively. Despite these low response rates, it was nevertheless possible to estimate rates of lobby-friendly behavior among German MPs at comparably low rates of instruction noncompliance. Although the results should be interpreted cautiously due to the low response rate, the study demonstrates the viability of RRT surveys as a means to study sensitive issues in politics.

Keywords: Randomized response technique; lobbying; interest groups; survey methods

Introduction

An important part of the world of politics takes place behind closed doors. When governments negotiate coalition agreements (Bergman et al., 2021), when key actors from the European Parliament, the Commission, and the Council discuss legislative proposals in the Trilogue format (Naurin, 2007; Rittberger and Goetz, 2018), or when ministers strike deals about the budget (Edwards, 2000) – many of these negotiations are shielded from direct observation. Although legal requirements for secrecy may exist in some cases, e.g., when it comes to questions of national security, information about such matters is often not disclosed because it may be sensitive for the politicians involved: After a night of talks between coalition parties, the heads of each party are keen on presenting themselves as having defended the interest of the parties' voters (and members) as fiercely as possible – and too much information about which deals were actually struck during the night would backfire. Secrecy around politically sensitive issues is not only a headache for news journalists but also for political scientists. Public policy scholars interested in

the dynamics of policy-making often employ process tracing to gather evidence on how certain policy decisions were taken (Blatter and Haverland, 2012). Without access to archives (which may be granted only decades after a decision was taken), it may, however, be impossible to reconstruct, for instance, whether an interest group's influence was instrumental in the development of a certain policy proposal. And scholars studying legislative politics often have to trust answers of Members of Parliament (MP) to their surveys when analyzing dissenting voting behavior without knowing whether MPs answer honestly (Raymond and Worth, 2017).

In this research note, we propose a possible way out of this dilemma. We present a technique for studying 'sensitive issues' that has been used in research on a variety of sensitive topics outside of politics (Le et al., 2023). The proposed indirect estimation method – the randomized response technique (RRT) – offers respondents increased assurance against exposing potentially undesirable behavior to researchers, provided they follow the instructions given in the survey. This, in turn, reduces their tendency to be influenced by social desirability. Besides a discussion of the method itself, we offer an empirical application on a concrete political science research question which touches a sensitive issue, namely the extent to which lobbying influences political decision-making.¹ This field of research seems particularly promising, because the direct study of lobby influence has been limited by the secrecy of the field (Lowery, 2013). Therefore, scholars have been innovative to circumvent this challenge and have collected many empirical insights on interest group strategies (Binderkrantz, 2005; Dür and Mateo, 2023) or their access to and contacts with politics (Eising, 2007) through indirect techniques: by using interviews with lobbyists about their work (Dür and Mateo, 2023) and comparing their responses with actual legislation (Mahoney, 2007) or by resorting to automated text analysis to study how certain positions held by lobbies have found their way into legislation (Klüver, 2013; Cross et al., 2019). Although research on interest group influence has seen major methodological advances in recent years with quantitative large-N-analyses making up the majority of published articles (Pritoni and Vicentini, 2022, p. 41), the basic challenge in how to measure influence in a more direct way remains. In this paper, we argue that RRT surveys can help to address this issue because they enable us to measure general lobbying influence more directly. We illustrate this empirically through a study of Parliamentarians in Germany who were asked to what extent they were open to accept advantages from interest groups in exchange for lobby-friendly voting. Our results indicate not only that the method can be applied fruitfully on sensitive topics in politics allowing us to study parts of political processes that usually take place behind closed doors, but also, substantively, that the influence of interest groups on political decisions in Germany is present, albeit limited.

Studying lobbying in politics

A brief recap of the state of the art

Studying the influence of lobbying on political decision-making is challenging because empirical data on lobbying activities as well as on the direct relationships between lobbyists and political actors are scarce. While 'outside lobbying' activities via the media or the public may still be visible, 'inside lobbying' is often assessed indirectly with the challenge to pinpoint whether activities by lobbyists have actually *influenced* political decisions (Lowery, 2013). Moreover, there are many

¹Although economists sometimes see lobbying as 'a special form of corruption focused on legislative bodies or some other rule-making agency' (Campos and Giovannoni, 2007, p. 1), we stick to the political science interpretation according to which lobbying can be defined more generally as an activity with the aim of influencing policy decisions by (1) inside lobbying, which can be seen as an exchange of 'relevant information with policymakers, and in return, hope to gain access and policy success' and by (2) outside lobbying, which occurs if policymakers are addressed indirectly by 'raising the awareness of a broader audience by communicating through various forms of public media' (De Bruycker and Beyers, 2019, p. 58). More concretely, we are interested in parliamentary lobbying for which the main goals are '(i) to gain political influence on the parliamentary agenda and legislation and (ii) to guarantee their own survival as a group through the representation of their members in the public debate' (Chaqués-Bonafont 2022, p. 994).

different ways how lobbying affects decision-making. Following the ‘resource-exchange’ model, the mechanism mainly entails a ‘mutually beneficial exchange of resources’ with lobbyists making ‘economic donations and campaign contributions in exchange for the legislator’s vote’ (Chaqués-Bonafont, 2022, 996). In a similar vein, interest groups may provide electoral support for a certain party or at least less opposition to policies in exchange for influence (Berkhout 2013, p. 237, Klüver and Pickup, 2018) or affect party stances through donations (although mediated by public party financing, see Allern et al., 2021a). For others, strategically given information to policy-makers is the key channel of influence for interest groups (Bernhagen, 2022, p. 233), still others see lobbying as a long-term investment where interest groups ‘subsidize’ legislators and, in that way, affect their decisions (Hall and Deardorff 2006).

Independent of the channel of influence, though, the question of how to isolate influence remains challenging. Consequently, empirical researchers have used several strategies to answer that question (for overviews, see Eising, 2017 or Pritoni and Vicentini, 2022, Stevens et al., 2024), not least because qualitative evidence from policy research has shown that interest groups do influence the policy process (Baumgartner and Leech, 2001; Kingdon, 2011, p. 46-53).² First, some researchers have focussed on *access* to the policymaking sphere and argued that access is an important precondition for influence. Comparing different arenas in which interest groups can influence politics, Binderkrantz et al. (2015) show for the Danish case, that a small number of groups who have a lot of resources are particularly successful in accessing different arenas. And for Germany, Spohr’s results (Spohr 2021) also indicate that resources as well as direct connections to certain parliamentary groups are key in explaining access of lobbyists to the German Bundestag.

Second, *success* of lobbying has been measured, mostly, by looking at goal attainment. Based on interviews, Mahoney measures lobbying success in the European Union qualitatively as the degree to which the objectives of interest groups are reflected in the final decision outcome differentiating between ‘attained none of their objective, attained some of their objective, fully attained their goal’ (Mahoney, 2007, p. 37). Similarly, Bernhagen et al. (2014) define lobbying success in terms of goal attainment but distinguish further between qualitative and quantitative as well as subjective and objective approaches. Quantitative-objective approaches include, for instance, Klüver’s (2013) landmark study, in which she uses text analysis to see in how far initial positions of lobbyists taken from their statements are related to shifts of legislation in the EU. As an alternative to goal-attainment, some researchers have also used ‘reputational measures’ of influence by asking survey respondents which interest groups influence policy decisions (De Bruycker and Hanegraaff, 2024).

An influential example of qualitative-objective research is Baumgartner et al.’s book on lobbying in the US (Baumgartner et al., 2009), where they evaluate success based on qualitative interviews with lobbyists and politicians. Subjective approaches are instead based on the self-assessment of lobbyists to what degree they have achieved their goals – and this can be done quantitatively as in Eising’s (2007) survey of 800 business associations, or by means of qualitative methods, such as interviews (Voltolini and Eising, 2017). Based on such a subjective approach and a number of telephone interviews with UK-based NGOs active in agricultural policies, Egdell and Thomson (1999) find, for instance, that familiarity with the EU and the provision of information are seen as important ingredients of lobbying success by the NGOs themselves. Similarly, reputational measures of influence can be collected by surveys of interest groups as has been shown in a study on lobbying of the EU (De Bruycker and Hanegraaff, 2024).³

²However, Baumgartner et al. (2009, p. 2) argue that scholars may have overestimated the real impact of lobbying on policies as they tend to focus on what has reached ‘the end stages of the policy process’.

³Furthermore, comparing interview-based studies with population surveys can also allow for investigating to what extent the issues pushed by interest groups are actually congruent with salient topics for the population, therefore allowing us to gauge whether interest groups contribute to the responsiveness of political systems (Klüver and Pickup, 2018, Pakull et al., 2020).

Finally, focussing on *causal mechanisms of influence*, process tracing as a technique of data analysis has made considerable methodological advances in recent years (Kay and Baker, 2015) and has been applied to studying interest group influence both at the national and the EU levels. In a case study on Germany, Schiffers and Plümer (2024) show, for instance, how a network of interest groups succeeded in becoming dominant in public discourse about a policy aiming at introducing a lobby register in the German Parliament in the wake of a lobbying scandal. By deconstructing the policy process the authors show that this ultimately led to the adoption of the lobby register legislation. Similarly, Orach et al. (2017) trace the process that led to the 2013 EU fishery reform and find evidence of interest group influence, mainly from environmental organizations.

Yet, although these efforts have increased our understanding of lobbying influence substantially, access and success cannot be equated with influence because policy change can also be the result of other forces not linked to the efforts of a certain lobby group (see the discussions in Klüver, 2013; Lowery, 2013). Hence, despite the great achievements reached through indirectly measuring lobbying success, we may still miss part of the picture – namely whether lobby *influence* actually takes place.

Why not simply ask politicians? Or: the social desirability problem

Given these challenges in lobby research, a straightforward question is why political scientists have not simply asked politicians whether they have been influenced by lobbying. The answer is as simple as convincing: Politicians (as well as citizens) would probably rarely answer such questions honestly. Research on social desirability has shown that individuals asked about sensitive issues, the answer of which would be socially undesirable, will not answer honestly, even in an anonymous survey (Edwards, 1957). As questions about lobbying can be seen as such sensitive issues, we can suppose that politicians would not openly admit being influenced by an interest group or to adjust their positions in exchange of an advantage. It therefore seems evident that extant work has refrained from measuring involvement in lobbying processes or accepting advantages in exchange for lobby-friendly voting through direct survey questions.

However, looking beyond the field of political science shows that coping with sensitive issues does not rule out the use of survey research. In fact, there is a vibrant field in sports sciences analyzing the extent to which doping is used in elite sports by means of surveys (e.g., Elbe and Pitsch, 2018; Cruyff et al., 2024) – admittedly a very sensitive issue. Similarly, research on wildlife preservation uses surveys to measure the extent of poaching although illegal hunters can be expected to be reluctant in honestly declaring themselves as poachers (Ibbett et al., 2023). How, then, do these studies manage to get honest answers in surveys? In fact, researchers have developed specific techniques to decrease social desirability bias to an extent that allows interpretation of aggregate frequencies. While it is true that this will not revolutionize research on lobbying, it at least contributes to our understanding of how widespread lobby-friendly behavior is. In the next step, we therefore present the method which we used to study the level of acceptance of advantages in exchange for lobby-friendly behavior in German Parliaments.

Before delving into such methodological aspects, however, a clarification about how lobby influence can be conceptualized and measured in surveys is in order. The review of the state of the art has shown that political parties and political actors may consider to engage in exchange with lobby groups for different reasons (see above). In order to conceptualize the linkages between parliamentarians and interest groups in a coherent way, we draw on the work by Allern et al. (2021b, p. 1256), who summarize existing scholarship by distinguishing three possible relationships: (1) interaction, such as guaranteed (mutual) executive representation, or leadership overlap/transfers; (2) resources, such as financial donations or sharing of information; and (3) ideology, which means a more idea-based relationship based on ideological affinity. Given that we are mainly interested in parliamentary lobbying activities and therefore focus less on the long-term ideological affinity, the survey question tapping into lobby influence focused on aspects

related, on the one hand, to resource-exchange and, on the other hand, to interaction. On the *resource-exchange perspective*, we asked whether a legislator was ready to adapt their voting behavior to gain advantage for the party (electoral support) or for personal monetary advantages (financial resources). In order to tap into the *interaction perspective*, we asked whether legislators adjusted voting behavior to gain access to networks or safeguard good relationships. By differentiating between these two aspects, our survey allows us to gauge the relative importance of the respective channels of influence.

Data and methods

Using RRT to research sensitive topics

The reason why RRT reveals more reliable results in research on sensitive topics compared to direct questioning is that it reduces social desirability bias (Himmelfarb and Lickerteig, 1982; Holbrook and Krosnik, 2010) by offering respondents increased assurance against exposing potentially undesirable behavior, provided they follow the instructions. This, in turn, reduces their tendency to be influenced by social desirability and thus yields more reliable results compared to direct questioning (Böckenholt et al., 2009; Krumpal and Voss, 2020; Le et al., 2023; Lensvelt-Mulders et al., 2005; Wolter and Preisendörfer, 2013). Technically, social desirability is reduced by adding noise to the answers given by the respondent, e.g., by randomly instructing the respondents to answer ‘yes’, to answer ‘no’ or to answer honestly to a sensitive question (Fox, 2016). As the respondents handle the randomization themselves, they directly perceive that an individual answer ‘yes’ does not allow to infer that this individual indeed exhibits the sensitive property under study – in our case, e.g., has accepted an advantage from lobbyists. However, as the distribution of the outcome of the randomization device is known to the researchers, we nevertheless can estimate the rate of honest ‘yes’ – answers in the population.⁴

As accepting advantages from lobby organizations is a sensitive topic, and admitting to do so can be risky for respondents, we chose the forced answer RRT (Boruch, 1971, see fig. 1).⁵ Before asking the sensitive questions, we asked the respondents to select one out of five randomly generated 5-digit numbers and to either write the number down (or copy-paste it to their computer) or let the survey software store the list of numbers for them to have them available when answering the survey. Hence, the respondents were assured that researchers would never know which number they had chosen dispelling any concerns that the researchers could trace their choice.

Next, respondents received an instruction (see Fig. 1): ‘If the last digit of your random number is a 3, a 4, or a 5, please answer the first question, if it is a 9, please answer the second question, otherwise, please answer the third question’. The three questions were the two innocuous questions ‘Has every week seven days?’ and ‘Has every week 9 days?’ and one embarrassing question, e.g., ‘Did you during the last legislative term adapt your voting to serve objectives of lobby groups to gain an indirect or direct personal monetary advantage? (e.g., positions in supervisory boards or executive boards, expensive gifts)’. As a result, depending on the last digit of their random number, respondents would either answer the sensitive question or a neutral one. Those who followed the instructions would always answer ‘yes’ to the first and ‘no’ to the second question.

Respondents who understand the instructions will recognize that by following them, a certain proportion of respondents will always answer ‘yes’, meaning an honest ‘yes’ response on the sensitive question would not stand out. Since the researchers don’t know which random number

⁴For this article, we decided to omit the mathematical background of RRTs as this would go beyond the scope of a research note. For the mathematical details of the method, see Feth et al. (2017).

⁵This method is among the most efficient RRTs (Lensvelt-Mulders et al., 2005). A psychological disadvantage of this method originates from respondents without the sensitive attribute who are forced to answer ‘yes’ to the embarrassing question and thus might be prone not to follow the instructions. We avoided this by using two unrelated questions which nevertheless led to a forced ‘yes’ or forced ‘no’ response.

Indirect Question 3

If the 4th digit of your random number ...

a 1,2 or 3, please answer the first question.

if it is a 4, please answer the second question.

if it is another digit, please answer the third question.

1. Does a week have 7 days?

2. Does a week have 9 days?

3. Have you **during the last legislative period** adapted your voting behavior in favor of stakeholder groups to gain **an indirect or direct personal monetary advantage**?

(e.g. positions in supervisory boards or executive boards, expensive gifts)

Yes

No

Figure 1. Example of an RRT question from the perspective of the respondents.

the respondent selected, they cannot infer from a ‘yes’ response to the respondent’s actual behavior: A ‘yes’ could result from answering the neutral question ‘Does a week have 7 days?’, or the sensitive question, and the researchers cannot tell which.

However, because the researchers know the distribution from which the random number was generated, they know the probability that a respondent received a forced ‘yes’ or a forced ‘no’ instruction (p_y and p_n in Fig 2). This allows estimating the proportion of the population exhibiting the behavior in question, in this case, the percentage of respondents who adapt their voting in parliament to lobby pressure in exchange for advantages (see Fig. 2).

It is clear that even when using indirect questioning techniques like the RRT, some respondents do not fully follow the instructions (Locander et al., 1976; Schröter et al., 2016; Wiseman et al., 1975). These individuals are referred to as ‘Instruction-Non-Compliant’ (INC). This noncompliance may be intentional due to a lacking understanding of the privacy protection provided by the RRT and thus fear from being uncovered as a cheater, but INC may also originate from deliberately tampering with the survey by giving wrong answers to (maybe annoying) neutral questions, misunderstanding the instructions, or simply from mistakes. Regardless of the cause, the presence of INC respondents reduces the accuracy of the estimates. To account for this bias, we used the ‘INC detection model’ (based on the ‘cheater detection’ Clark and Desharnais, 1998; named ‘NCD’ Feth et al., 2017).⁶ This model operates on the assumption that RRT estimates are independent of the shares of respondents who answer the innocuous or the sensitive questions. To estimate the share of INC, the sample is

⁶Although originally termed ‘cheater detection’ model in the literature, we avoid the term ‘cheater’ as it is misleading in terms of the reasons for not answering according to the instructions and as it is ambiguous when studying behavior with the RRT which itself is understood as ‘cheating’. This is why we prefer the unambiguous term ‘instruction non-compliance’.

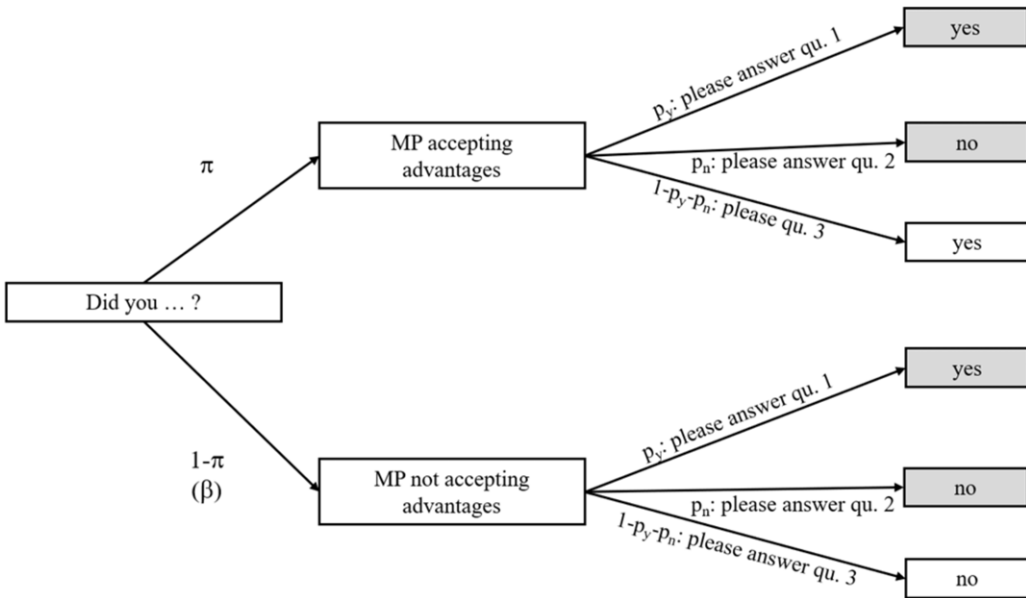


Figure 2. Structure of the forced answer RRT model without INC detection with unrelated questions forcing ‘yes or ‘no’ answers. Gray forced responses.

randomly divided into two, typically equally sized subsamples with different probabilities assigned for answering each type of question (see Figure 3). With this model, researchers can estimate three proportions in the population: π) the rate of honest ‘yes’ responders, β) the rate of honest ‘no’ responders, and γ) the rate of INC. For two RRT subsamples and detection of INC in terms of answering ‘no’ when instructed to answer ‘yes’ the estimation of the population parameters is a maximum likelihood estimation (for details, see Feth et al., 2017, 26 ff.).

We decided to use this model instead of more sophisticated models (e.g., the TCD model, Feth et al., 2017, or the UQMC, Reiber et al., 2023, 2024) with more degrees of freedom. Although these models would have opened more opportunities for our analyses (e.g., to estimate the model fit like in the study by Reiber et al., 2024), these models also require more RRT subsamples. Given the relatively small and also highly specific population under study, we decided to use this less complex model to avoid ending up with too small RRT groups in the finally realized sample.

Studying lobbying influence with RRT: Survey setup and data collection

In our case, the questionnaire was designed to measure the prevalence of accepting advantages from lobby groups among German MPs. It started with a very few introductory sociodemographic questions (sex, age, political position, year of first membership in a parliament, being in the government or the opposition party). This section was followed by three questions related to the different possible channels of lobbying (resource-exchange perspective and interaction perspective, see above) in the RRT setting (see Fig. 1): Did you during the last legislative term adapt your voting behavior to serve objectives of lobby groups ...

- ... to gain an advantage for your party? (e.g., less resistance to future legislation).
- ... to gain a personal non-monetary advantage (e.g., access to networks, safeguarding good relationships).
- ... to gain an indirect or direct personal monetary advantage? (e.g., positions in supervisory boards or executive boards, expensive gifts).

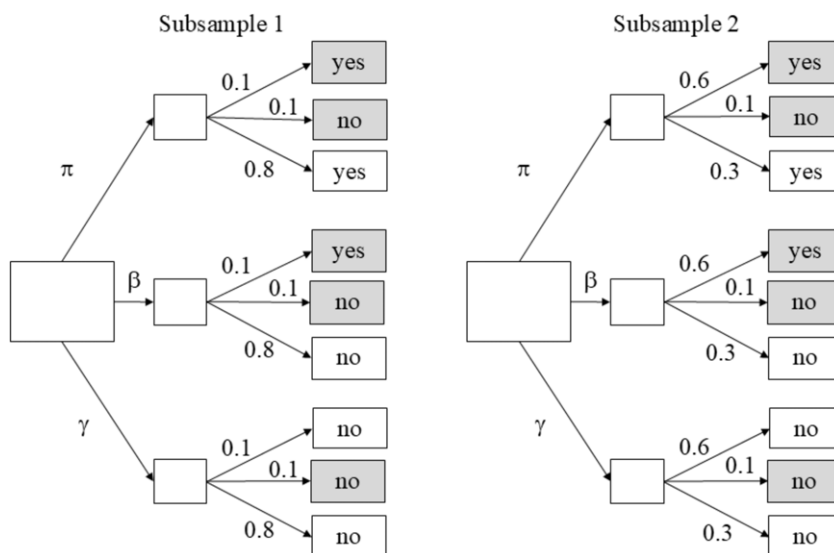


Figure 3. Structure of the ‘forced answer’ model with INC detection. Branching probabilities are given for RRT questions 1 and 3. For questions 2 and 4, the branching probabilities for the 2 subsamples were inverted. Gray: forced answers.

The questions for accepting advantages were each accompanied by two questions for the level of the social norm: Respondents were asked to rate their perception of the prevalence of the behavior among MP being a member themselves, and among the MPs from their own party.⁷ The last question of the survey prompted the respondents to indicate if the survey was in fact answered by the MP, her- or himself as pointed out in the invitation to participate, or if the respondent was an employee of the MP’s staff. As the answer to this question might also be sensitive, we again used RRT.

The survey was administered in German language as an online survey, using limesurvey.⁸ To cover present as well as former MPs, we started in 2019 collecting names for the then present as well as for the two former periods of legislation from the Wikipedia pages for all German national and regional Parliaments. Based on this list, we collected the institutional e-mail addresses from the official parliament webpages, pages of political parties or other sources such as personal websites. This list was updated with new MP names and addresses after new elections and data of MPs who left Parliaments were moved to the list of former MPs. In total, we collected data from 1474 former MPs (2252 e-mail addresses) and 2591 present MPs (with 2952 e-mail addresses).

The survey for former and for present MPs only differed slightly: Former MPs were asked to report about their behavior during their last term elected as MP. Access was granted through individual access codes, which were linked to the e-mail-addresses only at the moment when the invitations were sent out. To preserve the respondents’ privacy and anonymity, this file was securely deleted immediately afterward, leaving only a list of names and e-mail addresses on one computer and a list of valid access codes in the limesurvey database without any reference to names and e-mail addresses. Further steps to safeguard respondents’ anonymity included to limit questions about socio-biographic information, which rendered any attempt to re-identify individual respondents impossible.

⁷After the RRT-questions, respondents were also asked to rate the level of agreement to neutralizing statements concerning accepting advantages, based on the theory of neutralization (Sykes and Matza, 1957) from the sociology of deviance. However, due to the low number of respondents, analyzing correlations between the RRT-questions and the neutralizing statements was not feasible.

⁸The plug-ins for implementing RRT in limesurvey as well as the themes had been programmed by limesurvey consulting (<https://survey-consulting.com/>).

Table 1. Sample distribution by socio-biographic characteristics

MP status	Active MP 205			Former MP 134		
Sex	female	male	different or prefer not to say	No answer		
	132	199	5	3		
Age	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	No answer
	7	40	62	98	130	2

Prior to starting the survey phase, we sent information letters by e-mail to the speakers (Presidencies) of all Parliaments, to leaders of the respective parliamentary groups as well as to all known former MPs. We introduced them to the subject of our study, offered to use a sandbox version of our questionnaire to make themselves familiar with the questioning technique which we used and with additional measures to guarantee their anonymity, and with the scope of the questions. We asked them to support our study that was announced to start two weeks after this first information. Survey invitations were sent to all persons on our list of present and former MP, followed by two reminders after one and two months. The survey phase ran from end of June to the end of August 2024. Taking into account non deliverable mails as well as the number of respondents who informed us that they would not participate for whatsoever reasons, we can conclude that we were able to reach out to 2386 present and to 850 former MPs. The response dataset added up to 273 present and 160 former MPs, equaling response rates of 11.4% resp. 18.8%.

Data quality, weighting and methods

After deleting completely empty records ($n = 25$), the dataset was reduced to only those respondents who had answered at least one of the four RRT questions. By additionally limiting the response set to persons who were MPs in the time since 2010, the remaining dataset consisted of 339 records from 134 former and 205 present MPs (see Table 1).

Neither the distribution by age nor the distribution by the MP status can be compared to the distributions in the reference population as these figures are not available. For the sex, we compared the sample to the population of MPs in German Parliaments. We used all available reference years from BMFSFJ (2024) since 2008 to estimate average sex proportions in all German Parliaments. The mean rate of female respondents was 38.9 resp., when adding the rate of respondents who did not want to disclose their sex or who did not answer, 41.3 %, exceeding the gross mean rate of female MPs in German Parliaments which is 32.0 %. To correct for this return bias, we decided to use weighted statistics for the following analyses. With regard to the response drop-out and additional item nonresponse, we calculated individual weights for each RRT-measured variable in these analyses. Thus, the results for these questions do not originate from the same respondents but are estimators for the prevalence of the behavior in the population, based on a sample which was weighted to correctly reflect the population's sex distribution.

Another possible source of bias could result from the fact that answers to the survey were not given by (former) MPs themselves, but by employees. To check this, we used an RRT question on whether the respondent was indeed an MP. The analysis indicates that the sample consists of nearly only MPs (96.4% 'yes'-answers and only 3.6% answers 'no, I am a different person').⁹

⁹We used an RRT for this question because an answer 'no, I am a different person' might have been embarrassing as it indicates that the respondent (the addressed MP) did not act according to the instructions (to personally answer the survey). However, we cannot use the individual answers to delete invalid records from our dataset because a 'no'-answer can also origin from a forced 'no'-instruction in RRT.

Table 2. Forced response probabilities and number of yes- and no-answers for the RRT questions on accepting advantages

Random subsample	Answer	Non-monetary, party		Non-monetary, personal		Monetary, personal	
		probabilities	number	probabilities	number	probabilities	number
1	Yes	0.1	38	0.6	84	0.1	22
	No	0.1	90	0.1	20	0.1	67
2	Yes	0.6	129	0.1	69	0.6	115
	No	0.1	73	0.1	124	0.1	72

Hence, answers about the lobbying questions (see Table 2) can very well be understood as valid to derive estimators for MP behavior.

In RRT data with INC detection, there are systematic error components. These errors originate from the mathematically ‘unnatural’ marginal conditions that there may be no negative estimators or estimators exceeding 1 and that the sum of estimators must equal 1.¹⁰ Therefore, we use nonparametric bootstrapping to calculate the (BC α) confidence intervals (Davison and Hinkley, 1997; Efron and Tibshirani, 1993). All statistics were calculated in R (R Core Team, 2024). As the standard R-packages for RRT so far do not cover techniques with INC detection, we used self-developed routines to calculate estimators as well as confidence intervals.

Results: lobbying influence in German parliaments

How strongly does lobbying influence decision-making in German Parliaments? Studying this question with our RRT survey delivers interesting insights on the aggregate level: While a smaller share of MPs does indeed adjust its voting behavior in exchange for (monetary and non-monetary) advantages, the large majority of respondents absented from such behavior (Fig. 4). Results therefore indicate that while lobby influence takes place, such behavior remains the exception rather than the rule.

If we differentiate between the different channels of influence, the results show that influence through the interaction channel – e.g., to safeguard access to networks – is less prevalent than through the resource exchange channel. Indeed, the 95% confidence intervals for the honest ‘yes’ estimators both for the questions on accepting non-monetary advantages (electoral support) for the MP’s party and for accepting monetary personal advantages (financial resources) did not include 0 indicating a significant effect. Instead, 95% confidence intervals for honest ‘yes’ answers to the question for accepting non-monetary personal advantages (network access) include the zero (Table 3).

Another noteworthy pattern emerges when comparing these results with the non-RRT questions about what the MPs think about lobbying in German politics. Here, the data indicate an interesting divergence (Table 4): For any one of the three forms of lobby influence, the respondents overestimate the rate of MPs who they *think* would adjust decisions to lobby interests in exchange for advantages. In fact, the *perceived* rates for lobby-friendly voting in the parliament the respondents were members of by far exceeds the upper limits of the 95% confidence intervals of honest yes-respondents, which were calculated from the three RRT questions (compare Tables 3 and 4). Hence, MPs substantially over-estimate lobbying when asked about it in general – a tendency which could have influenced existing research based on interviews.

¹⁰In cases where the ML algorithm reveals sets of estimators that violate these assumptions, the estimation of marginal cases where one or more estimators are forced to equal zero leads to skewed distributions of the remaining estimators (Feth et al., 2017; Pitsch et al., 2013).

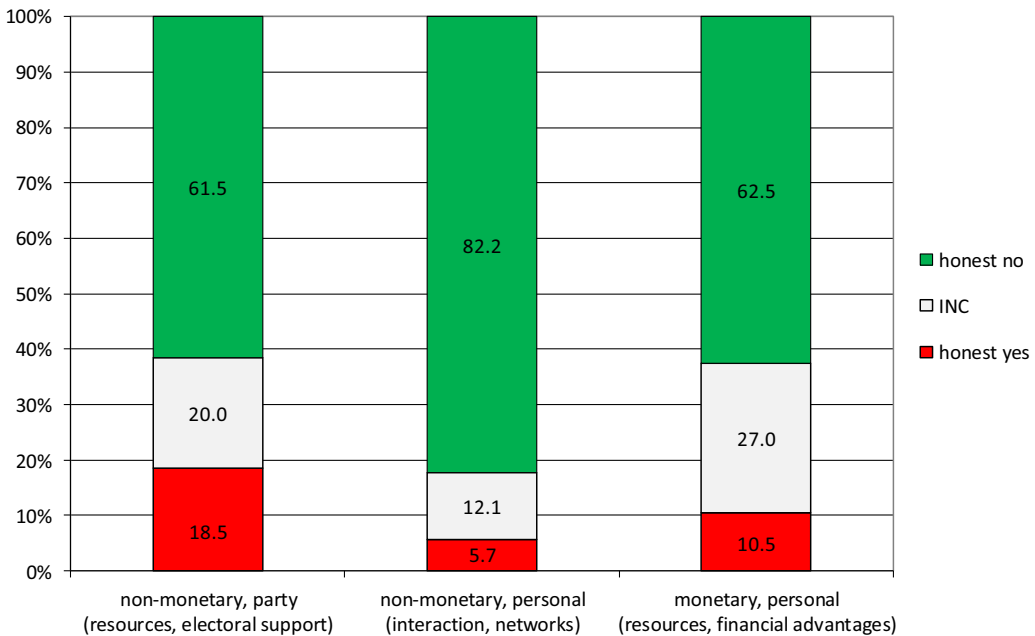


Figure 4. Results from the three RRT questions.

Discussion

The world of politics is sometimes hidden behind closed doors, which evidently poses a challenge to political science research. Scholars have been creative in using innovative techniques to peek behind the curtains and get a glimpse of what these secret processes look like – for instance by using indirect measures that may indicate what dynamics have led to a certain political decision. In this contribution, we have argued that methods from other fields of academia that are particularly geared toward studying sensitive questions, for instance in research about doping in elite sports, can help political scientists to study such hidden aspects of political decision-making.¹¹ More concretely, we have conducted an RRT survey with 339 MPs in German Parliaments in order to elucidate to what extent MPs are ready to adjust their voting behavior in exchange for monetary and non-monetary advantages from lobby groups. Thanks to the fact that participants in RRT surveys clearly see that their responses cannot be traced back to them, we obtained reliable measures about how much German MPs voting behavior is influenced by lobbies: According to our survey, only a small proportion of German MPs is ready to adjust voting behavior due to lobby influence. Results also depend on the channels of influence, with resource-related lobbying having more impact than interaction-driven lobbying. Indeed, for resource-exchange lobbying, 18.5 percent (95% confidence interval: 10.17 to 27.97) of MPs are ready to adjust voting behavior for electoral support for their party and only around 10.5 percent (95% confidence interval: 1.88 to 19.63) are ready to do so in exchange for monetary advantages to them personally. In contrast, for interaction-driven lobbying, no significant effect could be detected for allowing lobbying influence in order to safeguard access to networks. Moreover, we also found that MPs perceive lobby influence to be much stronger than what the RRT measures indicate.

These results contribute in at least four ways to the literature. First, methodologically, they show that RRT surveys are a promising addition to the toolbox of researchers studying ‘secret

¹¹Indeed, there are only some rare applications of RRT techniques in political science, with the most relevant one to our article being the study by Gingerich (2010) about corruption in South America.

Table 3. Best estimates and two-sided bc_a-corrected 95% confidence intervals from 1000 Bootstrap replications (in brackets). Due to bootstrapping, the confidence intervals can be assymetric towards the mean

Accepting advantages	n	Honest ‘yes’	INC	Honest ‘no’
Non-monetary, party (resources, electoral support)	330	18.5 [10.2; 28.0]	20.0 [12.3; 27.2]	61.5 [51.2; 71.9]
Non-monetary, personal (interaction, networks)	297	5.7 [0.0; 15.1]	12.1 [4.1; 20.1]	82.2 [72.3; 92.4]
Monetary, personal (resources, financial advantages)	276	10.5 [1.9; 19.6]	27.0 [18.8; 35.0]	62.5 [52.2; 74.3]

Table 4. Weighted descriptive statistics for the *perceived* prevalence of taking advantages in German parliaments

Accepting advantages	MPs from ...	Mean	95% confidence interval	Median
Non-monetary, party	... any party	52.5	49.4 – 55.6	51.0
	... the respondent’s party	32.1	28.7 – 35.4	21.5
Non-monetary, personal	... any party	44.5	40.7 – 48.4	45.0
	... the respondent’s party	28.6	24.8 – 32.5	20.0
Monetary, personal	... any party	32.0	28.0 – 36.0	25.0
	... the respondent’s party	18.3	14.9 – 21.8	10.0

politics’. Hence, the tool could be used to related research areas, when politics happens behind closed doors. Second, in terms of substance, the results complement existing research on the influence of lobbying which has had a hard time measuring lobbying *influence* due to the sensitivity of the issue. We show that direct influence through resource exchange of monetary and non-monetary advantages for voting behavior is present in politics, but not widespread, whereas the promise of safeguarding interaction through access to networks does not make lobby influence more probable. This result adds to the literature on the importance of different channels and mechanisms of interest group influence (Allern et al., 2021b, Berkhout, 2013). Moreover, the fact that our RRT measures of lobby influence are well below self-reported measures of perceived lobby influence indicate that existing survey- or interview-based studies may actually overestimate interest group influence on political decision-making. Finally, our results also add to comparative research about corruption in politics, which similarly suffers from challenges when it comes to estimating the number of persons involved in corrupt behavior (for an overview, see Lancaster and Montinola, 1997). Existing indicators are often limited by studying corruption perception and only rank countries. With the method presented here, researchers can provide more accurate estimates of rates of corruption occurrence.

Yet, using RRT also comes with some challenges limiting the generalizability of our study – and the applicability of RRT surveys in political science. Clearly, the most important challenge is the need to acquire a high number of responses in order to achieve reliable estimates. In our study, the low response precludes analyzing the influence of social norms or neutralizing techniques on lobby-friendly voting. Nevertheless, the response rates in this study (11.4 for present MPs and 18.8 for former MPs) were not exceptionally low when compared with other studies, also addressing non-student populations by e-mail and inviting them to participate in a self-administered online survey without granting incentives (e.g., Coutts and Jann, 2011: 21%, Pitsch, 2019: 8.5%).

Although a dataset covering more than 300 records from political elites seems high, the randomly forced answering leads to a large share of the records lacking information about the behavior under study. Hence, for future research with MPs using such techniques, it seems promising to gain support by trusted instances for such studies to increase participation.

Choosing a different survey mode might also help to increase the response rate. Research on the effect of survey settings on response rates (Manfreda et al., 2008, Daikeler et al., 2020) indicates a generally lower response rate in online surveys compared with paper-and-pencil surveys. Unfortunately, item non-response rates for highly sensitive topics tend to be lower in self-administered paper surveys compared with online surveys (Gnambs and Kaspar, 2015) rendering the expected net effect of a different survey mode onto the response rate questionable.

Beyond that, the limited response rate additionally raises concerns regarding the validity of the results. One can plausibly assume that MPs did absent from participating in our study to avoid the situation of being asked a sensitive question and embarrassingly having to confess their engagement in questionable conduct. While we framed the survey as a study on ‘moral self-commitment of members of Parliaments’ and thus did not give more ex-ante information except for those respondents who had inspected the sandbox version of our survey, respondents may have dropped out when the first RRT question was presented.

Finally, we have to acknowledge that our research was solely focused on a narrow question related to lobbying, namely the numbers of persons who accepted advantages in exchange for lobby-friendly voting. Therefore, our results offer little support to studying the scope and the influence of lobbying in general, not least because one person can have been involved in multiple processes which were influenced by lobbying.

Data availability statement. The complete data as well as R-scripts are available at https://osf.io/3um6g/overview?view_only=813290f953ec40418cff6e0527f5e38

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