The Dutch Parliamentary Behaviour Dataset

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Original Article

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Abstract   This research note introduces the Dutch Parliamentary Behaviour Dataset, a record of parliamentary (voting) behaviour in the Dutch *Tweede Kamer* (Second Chamber, House of Representatives) since 1945. The Dutch Parliament was often excluded from past comparative work on legislative (voting) behaviour because behavioural data were not available in an accessible format. By digitizing the parliamentary archives and compiling the data in a structured format, we have created a comparatively rich dataset, that is made publically accessible for other researchers. In this research note, we describe the dataset and data collection process and provide some examples as how the data might be used in the growing quantitative literature on legislative behaviour.

Introduction

While most legislatures have over time always maintained records of Members of Parliament's (MPs') legislative activities such as voting, speech and the introduction of bills, motions (resolutions) and amendments, these records were not always available to researchers in accessible and structured forms. Scholars on legislative behaviour therefore limited their analyses in term of the time periods and countries covered, resorted to more qualitative or descriptive treatments of parliamentary behaviour or primarily relied on elite interviews in their studies of parliamentary work. The recent increased availability of parliamentary behavioural data in digital

formats enables researchers to harvest the power of large-N analyses, contributing to a quantitative turn in legislative studies.

Comparative data availability does remain an issue, however. The step from parliamentary records to ready-to-use datasets requires some investment of time, resources and skills, and as a result comparative work is relatively scarce (but see Carey, 2007, 2008; Coman, 2016; Hix and Noury, 2016; Kam, 2009; Sieberer, 2006). A case that has particularly been left out of comparative work is The Netherlands.[1] One reason is that Dutch parliamentary voting is normally recorded by party group, not individual MP, and thus it was regarded as unsuitable for the study of variations in party group unity (Andeweg and Thomassen, 2011, p. 658). As we illustrate below, there are still many applications for which these data are extremely useful. A second, more practical obstacle, is the fact that a structured dataset of Dutch Parliamentary activity was simply not available. This note introduces the Dutch Parliamentary Behaviour Dataset, which includes information on parliamentary voting behaviour in the Dutch *Tweede Kamer* (Second Chamber, House of Representatives) since 1945, as well as a rich array of complementary metadata.

Below we first describe how we collected the data and how we created the dataset. We then describe some salient over-time developments in parliamentary voting in the Dutch Parliament. We end with three illustrations of the potential use of this type of data: the analysis of party-level voting patterns, co-sponsorship of parliamentary proposals by individual MPs from different parties and individual MP activity in parliament.

A Brief History of the Study of Parliamentary Voting in the Dutch Second Chamber

The collection and analysis of parliamentary voting data in The Netherlands dates back to the 1970s (Van Tijn-Koekebakker *et al*, 1970).[2] One of the reasons why Dutch political scientists took an interest in parliamentary voting is the fact that the Dutch research community served as an early hub of data theory and measurement methods, in particular those that involve scaling (Daalder and Wolters, 1987). The earliest application of multidimensional scaling of parliamentary voting in The Netherlands (known to us) is Van Tijn-Koekebakker *et al*'s (1970) study of 49 roll call votes held in the Second Chamber between 1965 and 1966. Follow-up studies include the analysis of voting in one particular year (Wels and Wolters, 1982), more comprehensive studies of voting over a longer period of time (Van der Brug, 1997; Wolters, 1984), a comparison of voting in the Second Chamber and the First Chamber (Wolters, 1978a) and an analysis of voting on motions concerning specific issues such as abortion, nuclear power and nuclear energy (Van der Brug, 1997). Research was not only conducted by quantitative scholars: Visscher's

(1994) dissertation, for example, is a very detailed and mostly qualitative analysis of parliamentary voting on bills and amendments.

The 1970s' increased interest in parliamentary voting behaviour coincided with the rise of social choice theory in The Netherlands. As a theoretical approach, social choice theory is also quite apt to study voting in parliament. Social choice theory accounts for the possibility of voting paradoxes and the strategic use of voting paradoxes for political purposes. An early debate in the study of parliamentary voting between Lijphart (1975) and Van den Doel (1975) concerned the extent to which these voting paradoxes actually occurred (see also Wolters, 1980, 1984). According to social choice theory, the occurrence or absence of these voting paradoxes is explained by the number of dimensions of political contestation. The question whether the underlying parliamentary space was one- or two-dimensional was thus a key issue in the study of voting in the Dutch Parliament. Van Tijn-Koekebakker *et al*'s (1970) initial finding that the Dutch Parliament could best be described as multidimensional (for the period 1965–1966), was called into question by a number of follow-up studies that found more evidence of the Dutch Parliament operating as a single-dimensional space (for the period 1967–1989) (Van der Brug, 1997; Wolters, 1984). The inconsistency of the earlier findings was blamed on an artefact of the employed scaling methodology (Daalder and Wolters, 1987).

Methodological issues concerning the correct way to scale parliamentary voting were thus of great interest to the early explorers of parliamentary voting (Daalder and Wolters, 1987; Mokken and Stokman, 1985; Wolters, 1978b, 1984). These methodological issues were also the subject of considerable academic debate, in particular between Wolters (1984) and Poole and Rosenthal (1984). Their debate focused to what extent theoretical notions like the utility functions of MPs ought to inform vote-scaling methods. Poole and Rosenthal developed their own methods, W-NOMINATE and Optimal Classification (see for instance Rosenthal, 1984), and the models underlying Poole's methods had a stronger theoretically motivation compared to Wolters' work (Poole, 2008; Poole and Rosenthal, 1984).

Most of the studies mentioned above were built on the Zwijndregt archive, named after the head clerk of the Second Chamber, which covered voting on legislation and amendments between 1963 and 1971. This database was consequently expanded by the Parliamentary Documentation Centre. The Parliamentary Documentation Centre data used in Wolters (1984) cover the period 1963–1977, while Visscher (1994) covers the period 1963–1986. Wouter van der Brug (1997) added parliamentary motions on specific subjects between 1972 and 1989.

The interest of spatial model builders in parliamentary voting in the Dutch Parliament declined in the 1980s, and new studies tended to focus on the dimensionality of the voter space instead. Van der Brug's (1997) dissertation (which primarily focused on the voter level) was the last study to include parliamentary voting data before a decade-long silence. Paradoxically, this silence

in the study of Dutch parliamentary voting behaviour coincided with the explosion of the study of voting behaviour in other European parliaments, with a large number of studies applying NOMINATE or similar scaling methods to voting in cases such as the Swiss *Nationalrat* (Hug and Schulz, 2007), the Danish *Folketing* (Hansen, 2008), the Irish *Dáil* (Hansen, 2009), the French *Assemblée National* (Rosenthal and Voeten, 2004), the British House of Commons (Spirling and McLean, 2007) and the European Parliament (Hix, 2001).

Between 1997 and 2011, no studies on parliamentary voting in The Netherlands were published (to our knowledge). Starting in 2011, Otjes and Louwerse published a number of articles examining parliamentary party group voting patterns in The Netherlands (Otjes and Louwerse, 2013, 2014a, b, 2015; Otjes, 2011, 2012). This kind of spatial voting analysis is not the only way in which parliamentary voting data can be used, however. Fivaz *et al* (2014), for example, match parliamentary voting behaviour to election pledges in The Netherlands and Switzerland. For her dissertation, Van Vonno (2016) used the data to calculate the strength of party group voting unity over time, verifying the widely held assumption that party unity is 'nearly complete' in the Dutch Second Chamber (Andeweg and Thomassen, 2011, p. 658). Otjes and Louwerse (2014b) and Louwerse *et al* (2016) also use voting patterns to calculate a measure of the strength of the division between coalition and opposition, showing that the division is stronger when coalitions consist of right-wing parties only than when coalitions comprise both left-wing and right-wing parties. This type of data also enables the study of related phenomena such as the sponsorship of motions and amendments (Louwerse and Otjes, 2015; Otjes, 2014). In parallel, Van der Pas and Jansen (2011) studied voting in the Dutch parliament from a spatial modelling perspective, whereas Popping (2013), Goeree and Popping (2014) and Popping and Wittek (2015) approached it from a social choice perspective.

Existing data sources on parliamentary voting in the Dutch Second Chamber

Those interested in analysing Dutch parliamentary votes have two possible sources. First, the Parliament itself provides a search engine for parliamentary votes on its website (Tweede Kamer, 2016). This only includes votes as of September 2008, however, and does not allow users to download information on all (or a subset of) votes for analysis. The website is aimed at those searching for information on a small number of specific votes; it does not allow for the structured analysis of a larger body of votes.[3]

Second, the work of Maarten Marx and collaborators on Dutch parliamentary data is particularly noteworthy. His *Political Mashup* and *Digging Into Linked Parliamentary Data* projects aim to structure parliamentary data, including

parliamentary minutes, and annotate it with rich metadata (Political Mashup, 2016). The projects mainly deal with parliamentary debates: who speaks on what, and is interrupted by whom. These data are structured in eXtensible Markup Language (XML) format and are accessible via a web search facility. Votes held after 1995 are annotated using similar methods as in our dataset. The data are, however, not available in a readily accessible dataset form that social scientists can directly work with. While Marx' work is extremely useful, we feel that making parliamentary voting data available in a more accessible way will let more researchers use it.

Apart from these two large projects, there have been some private initiatives aimed at proving access to parliamentary voting behaviour. In the past a website called *Politix* summarised parliamentary proposals and registered party voting behaviour, initially hand-coded and later using automated methods. This website is no longer available, however. The website *Partijgedrag* contains information on party voting behaviour on parliamentary motions for the period since March 2010 (Oost, 2016). This is a private initiative by Elwin Oost, a software developer. The website allows users to compare party voting behaviour by issue, but downloading the full database is not possible.

Data collection for the Dutch Parliamentary Behaviour Dataset

The data for the Dutch Parliamentary Behaviour Dataset come from two main sources, and both are online repositories: *Staten-Generaal Digitaal* (covering the period between 1945 and 1995) and *Officiële Bekendmakingen* (1995 onwards).

For the *Staten-Generaal Digitaal* project, the National Library of The Netherlands compiled a complete record of parliamentary documents from various libraries and collections, put these documents on microfilms and digitized them (Koninklijke Bibliotheek, 2016). We downloaded all parliamentary minutes in PDF format, which also contained optical character recognition (OCR) version of the text. We cleaned up these texts as much as possible, removing page headers and footers. Still, this process resulted in some errors, especially in documents dating back before 1974, which used a rather small font. Moreover, as voting in parliament was relatively infrequent before 1945, and the quality of paper records in the interwar period is quite bad, our dataset is limited to the period since 1945. In the subsequent processing, we took into account frequent text-recognition mistakes.

The *Officiële Bekendmakingen* (2016) website, which we used for the parliamentary data from 1995 onwards, provides the data in various digital file formats (including XML, which we used).[4] This greatly facilitated scraping vote information from files, and thus mistakes were much less frequent. Moreover, the XML files provide a large amount of metadata. We downloaded both parliamentary minutes and the parliamentary documents that were voted on, as the latter

contained topic classifications as well as information on proposal (bills, amendments and motions) sponsors. Although the XML files from the *Officiële Bekendmakingen* website are rich, they report results of votes only as text, not as readily machine-readable information.

We exploited the fact that voting results in the parliamentary minutes obtained from the *Staten-Generaal Digitaal* and the *Officiële Bekendmakingen* are (almost) always reported using the same phrases. Using regular expressions (but taking into account variations in phrasing over time), we identified both the announcement of votes and the reported results in the texts. Usually, the vote announcement clearly indicates what is voted on (a bill, amendment or motion) and includes a unique identifier, although this information is sometimes absent in older documents.

For the post-1995 data, we obtained additional metadata, such as the topic classification and the sponsors of amendments and motions. We derived this information from the parliamentary documents, when available; otherwise we used the topic classification of the vote as included in the parliamentary minutes. As the topic classification is derived from official records, we cannot provide inter-coder reliability for the assignment of particular categories. For pre-1995 votes, this metadata is not available. Instead we tried to identify the primary sponsor of proposals from the vote announcement in the minutes. The dataset contains the order in which sponsors were listed, which makes it possible, for the post-1995 period, to distinguish between main sponsors and co-sponsors of a proposal.

How the parliamentary minutes report the voting results depends on the voting procedure used.[5] Roll call votes, which involve each individual MP declaring his/her position ('aye' or 'nay')[6] after having his/her name called out, are relatively rare in the Dutch Second Chamber. For these votes, the official minutes will simply list the names of the MPs voting in favour and against. We compare these names with the biographic database of the Parliamentary Documentation Centre (Parlement.com, 2016), adding party group affiliation to each MP, and the five-number unique identifier to each voting result.

Since 1983, non-roll call votes formally take place by a show of hands, which was deemed 'more efficient, because quicker' (*Kamerstukken* II 17856, Nr. 6 reprint, our translation) than the method of rising in place that was usually used before that time. Since 1969, the results of these 'regular' voting procedures are systematically recorded by party group (Wolters, 1984; Visscher, 1994, p. 65). Usually the minutes only mention the party groups that voted that in favour of a proposal, unless only one party group voted against, in which case only that party group is listed as having voted against instead. We use the Parliamentary Documentation Centre database to identify which other parties were also represented in Parliament on the day of a specific vote, and count them as voting against (or for) the proposal.[7] There are some exceptions to the rule that voting by show of hands is recorded by party group: if an MP wishes to dissent from his/her party group's line, the MP contacts the Speaker of the House before the vote, so

that an 'annotation' can be made. When this occurs, we include this individual voting decision in the dataset, for example, MP De Vries (PvdA) might be listed under those voting against while his party is listed under those voting in favour. This occurs in around 2.3 per cent of the votes in our dataset.

Two other exceptions occur mainly in the pre-1995 data. First, before 1969 the parliamentary records do not always mention how parties voted in a vote by rising in place (only reporting whether the vote passed or failed); therefore our dataset does not include these votes.[8] Second, sometimes a large majority supported a proposal, but only one party (often the Communist Party) disagreed. In such cases, it was common for a party to ask for an 'annotation' to be included in the parliamentary minutes that they were 'deemed to have voted against'. These votes are recorded as if they are normal party-level votes. In our dataset, about 3 per cent of the votes concern annotations either by parties or individuals. These two exceptions imply that the data from before 1969 are not as complete as the more recent data. Note that we only include proposals that were actually voted on, so bills, amendments and motions that are adopted without a vote do not feature in the dataset,[9] while those that receive unanimous parliamentary support in an actual vote are included.

Our approach to scraping information from the parliamentary minutes generally yields good results. But as mentioned above, mistakes in phrases, either because of text-recognition errors or because of errors in the source files, could mean that some votes were not picked up or may have been processed incorrectly by our scripts.[10] Although this will likely not affect large-N analyses of parliamentary voting, if one is interested in voting behaviour on a specific topic or during a short time frame, some caution is warranted.

In comparative terms, our dataset contains a high level of detail. For example, the Belgian roll-call voting data available from Van Aelst and Louwerse (2014) lack detailed information on the subject of the vote taken. The German roll-call voting dataset by Bergmann *et al* (2016) collected data on 1,983 roll call votes in the 1949–2013 period. Their dataset, which has not been made publicly available at the time of writing, contains detailed information on the bills that were voted on and who requested the roll call vote. The voting data on the United Kingdom made available by *The Public Whip* do contain full roll call records for the 1997–2015 period, with limited metadata on the proposals voted on (The Public Whip, 2016). Comparative data on 22 European democracies from Coman (2016) contain little to no metadata on the proposals. Very detailed information on voting in the European Parliament is made available by VoteWatch.eu (2016), and the project website also features many tools for analysis. Analysis of all data, including historical data, is, however, a premium (paid) feature. All in all, the Dutch Parliamentary Behaviour Dataset contains a comparatively high level of detailed information, especially for the post-1995 period.

The Dutch Parliamentary Behaviour Dataset

The dataset includes about 63,000 votes taken in the Dutch Second Chamber between 1945 and 2015. Just fewer than 2,000 of these are roll call votes, all others are regular votes: votes by show of hands or the older comparable method of rising in place, and votes that include 'annotations'. Whereas the total number of parliamentary votes increased dramatically as of the early 1970s (see Figure 1), the number of roll call votes actually declined to about a dozen or so per year. From September 1969 onwards, the parliamentary records start mentioning the party-level results of regular votes. As mentioned above, before 1969 the parliamentary minutes did not always include party groups' positions for the 'regular' votes taken by rising in place. This, in part, accounts for the increase in number of votes in our dataset in the 1970s: from fewer than 100 to about 500 per year. From 1978, the number of votes increased further to around 1,000 votes per year (with some considerable variation between years). The most spectacular increase in the number of votes has taken place since 2000, with the number of recorded votes rising from about 1,000 to more than 2,000 per year.

In terms of what gets voted on, we witness a huge increase in the use of parliamentary motions (see Figure 1). Most of these are substantive (rather than procedural): they express a certain view and ask the government to take some kind of action. Motions are often used as a signalling tool by the opposition, who introduce many of them even if they are doomed to fail (Bovend'Eert and Kummeling, 2010, p. 352). Amendments are the second most frequent category that gets voted on. Bills form a small minority of proposals that are voted on,
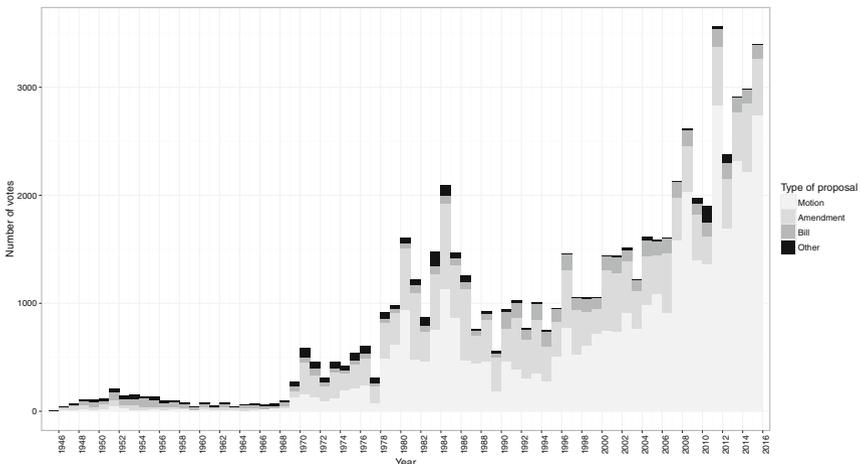

Figure 1: Number of parliamentary votes in the Dutch Second Chamber 1945–2015.

although we should keep in mind that some technical bills are be adopted without a vote, and are thus excluded from our dataset. This also holds for procedural motions.

The votes taken after 1994 are classified by topic in the official database (Officiële Bekendmakingen, 2016). There are 17 categories and 110 subcategories. These categories are not mutually exclusive. The category 'Finances' is used most frequently with 37 per cent of all proposals falling in this category. The main reason for this is that all votes that were initiated during the budget debates are included in this category. This also includes motions that have no budgetary implications. Other frequently used categories include 'Economy' (14 per cent), 'Healthcare' (14 per cent), 'Justice' (12 per cent) and 'Nature and the Environment' (12 per cent).

Parliamentary votes are not just relevant objects of study because of the patterns of voting, but also for analysing which actors proposed the motions and amendments that were voted on. We identified the sponsors of parliamentary motions and amendments. About 40 per cent of proposals is sponsored by more than one MP; nine per cent even had four or more sponsors. Below we will discuss how this information can be used in analyses of parliamentary activity and the study of co-sponsorship.

Application: analysing patterns of party voting behaviour over time

One obvious application of parliamentary voting data is in spatial modelling. As mentioned above, in the field of legislative studies the main methods are W-NOMINATE and Optimal Classification. In this example we use Optimal Classification.[11] The fit of these models is expressed by the Percentage of Correctly Classified Choices (PCCC) and the Aggregate Proportional Reduction in Error (APRE).[12] Poole (2005) does not offer threshold values for when these measures are sufficiently high, but we will take a PCCC of 90 per cent to be sufficient and an APRE of 0.75.

Two main drivers of parliamentary voting behaviour have been identified in the literature. The first concerns voting along the main ideological divide in a country, for example, left and right (Hix and Noury, 2016; Otjes, 2012). The second dominant division in voting behaviour is between the parties included in the coalition and those in opposition (Hix and Noury, 2016; Louwerse *et al*, 2016). In multiparty parliamentary systems, governing parties are 'bound together by constitutional rules of collective cabinet responsibility' (Laver, 2006, p. 137) and are therefore expected to vote alike. How opposition parties vote is an open question: they may take the cue of Lord Stanley: 'the Duty of an Opposition [is] to oppose everything and propose nothing'[13] but they may also follow their own policy preferences and sometimes favour the governments' agenda.

Figure 2a–d illustrates party group voting patterns in the Dutch Second Chamber under different cabinets. We selected four cabinets that illustrate the different kinds of governments The Netherlands has had since 1977: centre-right majority cabinets of Christian-democrats and liberals (Van Agt I), centre-left majority cabinets of Christian-democrats and social-democrats (Van Agt II), purple majority cabinets of liberals and social-democrats (Kok II) and right-wing minority cabinets (Rutte II). Table 1 provides information on the model fits for each period. Figure 2a depicts voting under the Van Agt Cabinet (1977–1981). What stands out is these data could have been modelled in terms of single horizontal dimension as both the PCCC and
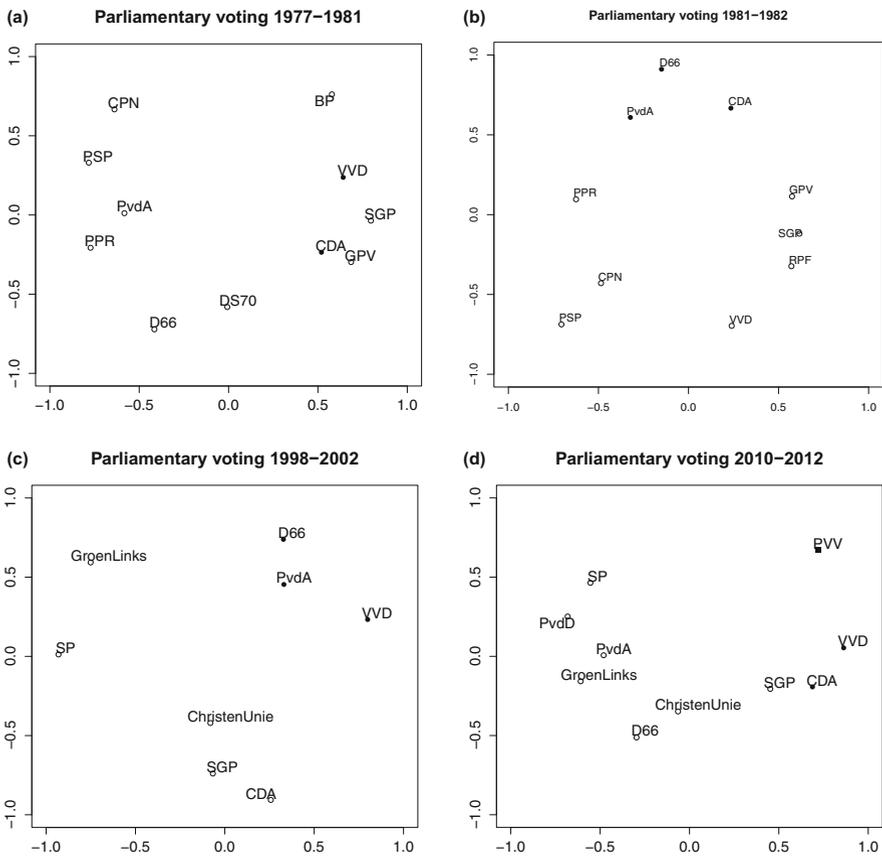

Figure 2: (a) Parliamentary voting 1977–1981 (Van Agt I Cabinet). (b) Parliamentary voting 1981–1982 (Van Agt II Cabinet). (c) Parliamentary voting 1998–2002 (Kok II Cabinet). (d) Parliamentary voting 2010–2012 (Rutte I Cabinet).
Note: Filled dots denote government parties. PVV square dot in 2010–2012 represents its support party status.

Table 1: Optimal Classification results for four periods in the Dutch Second Chamber based on parliamentary voting behaviour: Percentage of Correctly Classified Choices (PCCC) and the Aggregate Proportional Reduction in Error (APRE)

Period	Votes (n)	PCCC (%)		APRE	
		1D	2D	1D	2D
1977–1981	4136	94	96	0.80	0.89
1981–1982	713	92	96	0.74	0.89
1998–2002	3691	88	96	0.54	0.87
2010–2012	5574	92	96	0.75	0.87

the APRE are quite high. This main divide therefore appears to be between left (CPN, PSP, PvdA, PSP and D66) and the right (BP, VVD, CDA, SGP and GPV). The vertical dimension, which is of less importance, separates the established parties from parties with a stronger anti-establishment rhetoric (CPN, PSP and BP). Furthermore, the government coalition parties, VVD and CDA, are clearly in the right-wing camp. The fact that the VVD and CDA are surrounded by SGP and GPV on the one side and BP and DS70 on the other indicates that there are almost no votes where CDA and VVD vote in one way and all the other parties vote in another way.

Figure 2b presents the second cabinet Van Agt (1981–1982). Here, the APRE in particular does warrant a two-dimensional interpretation of the structure of parliamentary voting behaviour. The horizontal dimension explains most votes and divides left from right. The vertical dimension divides coalition parties (CDA, PvdA and D66) from the opposition. This creates four quadrants: the left-wing governing parties (D66 and PvdA), the right-wing governing party (CDA), the right-wing opposition (VVD, GPV, RPF and SGP) and the left-wing opposition (PPR, CPN and PSP).

Figure 2c shows parliamentary voting under the second cabinet Kok (1998–2002). The APRE and the PCCC both indicate that two dimensions are necessary. Parties form three clusters: the coalition parties (the left-wing parties PvdA and DD6 and the right-wing VVD) are located in the upper right corner. The left-wing opposition parties GL and SP are positioned in the upper-left corner. The Christian-democratic opposition parties CDA, SGP and CU are located in the lower half of the figure. The figure shows a strong division between coalition parties and the opposition parties.

Figure 2d illustrates parliamentary voting patterns during the Rutte I cabinet (2010–2012), in which the VVD and CDA formed a minority coalition, which was supported by the PVV. Voting during this period can be modelled as one-dimensional. The dominant horizontal dimension separates the right-wing coalition parties as well as the SGP from the left-wing opposition. The second dimension appears to be related to the division between anti-establishment parties, such as the SP and the PVV and the older establishment parties.

These spatial models illustrate the utility of this kind of data to show the main divisions in parliamentary politics during different cabinets. It shows that indeed the divisions between left and right and government coalition and opposition play a role in parliamentary voting. The extent to which these divisions matter differs from cabinet to cabinet (Otjes and Louwerse, 2014b): if the left–right division and the opposition–coalition division coincide, voting behaviour can be described by one dimension.

Application: co-sponsorship

The analysis of parliamentary voting need not be restricted to the actual voting decisions: *what* is voted on is very much a political question as well. Sponsorship of amendments and motions is not only informative of the issues parties pay attention to, but also gives insight in the extent to which individuals and parties work together. We are able to track sponsorship of parliamentary motions and amendments since 1995. Since then, just over 40 per cent of the parliamentary motions and amendments voted on have been proposed by more than one MP (see Figure 3).

Most studies of co-sponsorship focused on the role of ideological and policy preferences, finding that MPs with similar policy opinions are more likely to sponsor the same proposals (Alemán *et al*, 2009; Peress, 2013). Louwerse and Otjes' (2015) analysis shows, however, that specialisation is the driving factor of co-sponsorship in the consensual Dutch system. They use the individual-level co-sponsorship information available from the Dutch Parliamentary Behaviour Dataset and analyse it in dyadic form: the extent to which two MPs co-sponsor proposals.
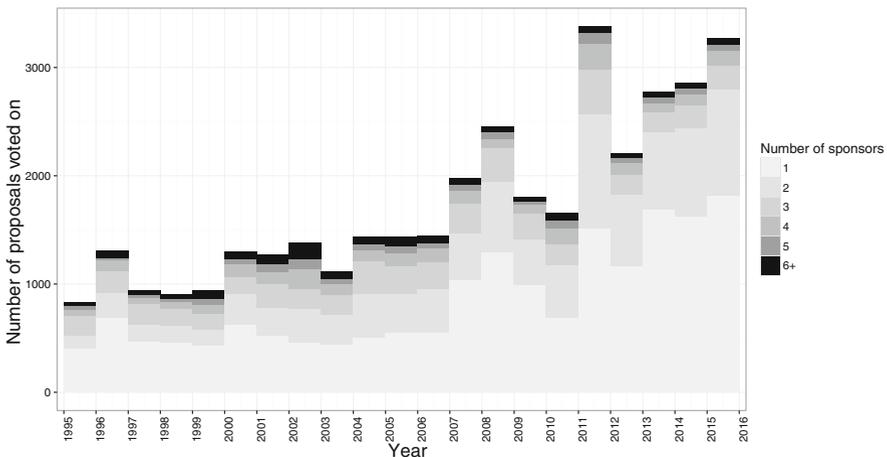

Figure 3: Co-sponsorship of parliamentary proposals over time (1995–2015).

They show that co-sponsorship is much higher for pairs of MPs who work on similar topics. Other explanations of co-sponsorship, such as ideology and belonging to the government coalition or an opposition party, come into play only if there is at least some degree of co-specialisation.

While co-sponsorship is generally regarded as a way to solicit support for an amendment or motions, sometimes multiple MPs of the same party co-sponsor proposals.[14] This might be taken as an indicator of a lack of interest in the proposal achieving a majority. We see that this behaviour is indeed more prevalent among opposition parties that have a more specialised issue focus: PvdD (10.0 per cent), PVV (8.0 per cent) and AOV (6.5 per cent) are parties that show high degrees of co-sponsorship among members of the same parliamentary party group.

Future analyses could extend this line of work by studying co-sponsorship at the party level, using it as an alternative way to obtain party ideal positions in parliament. Moreover, voting and co-sponsorship data can be combined to arrive at even more useful ideal position estimates (Peress, 2013).

Application: party unity and individual activity

The spatial modelling analysis above (see first illustration) is built on the assumption that a party's position can be derived from the voting behaviour of its individual MPs, and thus that MPs toe the party line when voting in parliament. And indeed, party voting unity is, and always has been, high in the Dutch Second Chamber. While this high level of party unity has been acknowledged before by observers of Dutch politics, the Dutch Parliamentary Behaviour Dataset makes it possible to actually calculate the level of party unity for a substantial period of time. Starting out at around 96.32 in 1945, the average Rice score[15] for all votes (regular and roll call combined) per parliamentary term climbed to above 99.00 by halfway the 1960s. Since the 1980s, average Rice scores have been above 99.90. Dissent, when it occurs, is usually limited to only one or two MPs, and is more likely to take place for votes taken through roll call which have become less frequent over time (Van Vonno, 2016). This seems to provide some evidence for the hypothesis that parties request roll calls strategically when they suspect disunity in other parties (Depauw and Martin, 2009). And although there are certainly a number of examples of this occurring, a closer look at the parliamentary minutes reveals that it is usually the Speaker of the House who requests that the vote take place through roll call. This occurs immediately after a regular vote for which the result is unclear, or after a debate during which it is evident that there are MPs who wish to vote differently from the rest of their party (Van Vonno, 2016).

There is anecdotal evidence of MPs who do not agree with their party's position not showing up in parliament or for a voting session, or leaving the floor during a particular vote (Bovend'Eert and Kummeling, 2010, p. 526). For a vote held by the

regular show of hands procedure these purposive absences have no effect on the end result because voting is registered per party group (for regular votes an individual MP's position is only registered upon request of the MP himself). For roll call votes, however, absences can be relevant for the end result of a vote, since a majority of the total number of MPs signed in as present in the building is required for the vote to pass (Van Vonno, 2016). The data show, however, that in general absences that are recorded are characteristic of small party groups consisting of one, occasionally two, MPs. This makes sense since if these MPs are not present on the plenary floor themselves there is no one to cast a vote for their party group, and therefore the parliamentary records show that they (and thus their entire party group) are absent.

With so little variation, statistical modelling using individual MPs' voting behaviour, as either a dependent or independent variable, is not really feasible (Andeweg and Thomassen, 2011, p. 658). Individual MPs' legislative activity is not limited to voting, however, and parties are likely to not only be concerned with their MPs' voting behaviour (i.e. the topic of most studies on party unity), but their MPs' other parliamentary activities conducted on behalf of the party (Louwerse and Otjes, 2015). For this reason, we would like to extend the dataset with additional information on individual activity (questions, private member bills) in the future.

Conclusion

The Dutch Parliamentary Behaviour Dataset offers extensive information about a pivotal aspect of parliamentary behaviour: voting. The data are not only useful for students of legislative politics, but can also be helpful in analyses of related subfields, such as political representation, coalition formation and the relationship between politics and the media. The availability of metadata on proposal sponsorship as well as topic classification makes it a comparatively rich dataset. The data and a detailed codebook will be made publicly available upon publication of this research note and will be updated regularly. Future versions of the dataset are planned to go beyond voting and sponsorship data and also include written parliamentary questions, information on the number and length of parliamentary speeches and sponsorship of private member bills.

About the Authors

Tom Louwerse is an Assistant Professor of Political Science at the Institute of Political Science, Leiden University. His research interests include political

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Notes

1 Coman's (2016) analysis of voting behaviour in 22 parliaments includes only 20 parliamentary (roll call) votes for The Netherlands between 2006 and 2009.

2 The Netherlands was certainly not the first country in which scholars examined parliamentary voting empirically. Studies of voting in the U.S. Congress, for example, date back to the 1920s (Rice 1925).

3 One of the anonymous reviewers pointed out that the *Tweede Kamer* does currently store this information in XML format, but unfortunately these files are not published online.

4 For some years (1995, 1996 and 2009) parts of the records are missing, at least as XML files.

5 See Van Vonno (2016) for a more detailed description of the history of voting procedures in the Dutch Second Chamber.

6 Abstention is not formally possible in the Dutch Parliament. Theoretically, an MP can symbolically abstain by not showing up to a voting session, or by leaving the floor temporarily for particular vote. This may have an effect on the end result for roll call votes, but has no effect on the end result for votes held using the regular voting procedure.

7 This can pose a problem for party groups consisting of only a single MP. The minutes occasionally do record such an MP as absent (and therefore not voting at all). If this is the case, we process this information, but the wording used is non-standard and therefore it is possible that not all instances were captured. Therefore, analyses of voting behaviour of party groups consisting of only one MP should be conducted with some caution.

8 As we do not 'scrape' this information from the parliamentary texts, we cannot estimate how often this occurred. We note that the number of roll call votes was higher in these years, which suggests that parties were more likely to ask for a roll call in order for their voting behaviour to be recorded.

9 The adoption of bills, amendments and motions without a vote is referred to as the *hamerslag* (gavel knock) procedure, which is usually used for procedural matters and proposals of a technical nature.

10 A manual inspection of 100 randomly selected votes from the pre-1995 data, which are more prone to errors, revealed that in 2 cases were there issues with regard to the correct identification of MP names and party labels.

11 This is a method specifically developed by Poole (2005) to uncover the dimensional structure underlying votes in parliament. It treats each vote as a cutting point, separating the parties that vote "yea" from the parties that vote "nay". If one does this for a large number of votes, Optimal Classification positions parties that vote similarly on one side of a dimension and parties that vote differently on the other side. For a given number of dimensions, Optimal Classification gives a spatial representation of voting behaviour. Cutting points become cutting lines or cutting (hyper)planes as dimensionality increases.

12 The first is simply the number of votes that are placed on the right side of the cutting line, while the second takes into account the lop-sidedness of the vote.

13 Lord Stanley *Hansard's Parliamentary Debates* June 4, 1841.

14 We thank one of the anonymous reviewers for suggesting this example.

15 The Rice score (1925) is the most common party unity score. It is calculated per party and per vote by taking the absolute difference in the percentage of votes for and votes against. It ranges from 0 (when the party is split 50–50 in terms of its MPs voting for and against) to 100 (when all MPs from the same party vote the same).

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