Second-order electoral personalization. Intra-party preference voting in Belgium and the Netherlands

Nagtzaam, M.A.M.

Appendices

A General appendices

A.1. Used party abbreviations

Belgium

Party	Full name	English name
CD&V	Christen-Democratisch & Vlaams	Christian Democratic & Flemish
CDH	Centre Démocrate Humaniste	Humanist Democratic Centre
Ecolo	Ecolo	Ecolo
Groen[1]	Groen	Green
MR	Mouvement Réformateur	Reformist Movement
N-VA	Nieuw-Vlaamse Alliantie	New Flemish Alliance
OpenVLD[2]	Open Vlaamse Liberalen en Democraten	Open Flemish Liberals and Democrats
PS	Parti Socialiste	Socialist Party
PVDA / PTB	Partij van de Arbeid van België / Parti du Travail de Belgique	Workers' Party of Belgium
Sp.A	Socialistische Partij Anders	Socialist Party Different
VB	Vlaams Belang	Flemish Interest

The Netherlands

Party	Full name	English name
CDA	Christen Democratisch Appèl	Christian Democratic Appeal
CU	ChristenUnie	ChristianUnion
D66	Democraten 66	Democrats 66
GL	GroenLinks	GreenLeft
GPV	Gereformeerd Politiek Verbond	Reformed Political League
LPF	Lijst Pim Fortuyn	List Pim Fortuyn
PvdA	Partij van de Arbeid	Labour Party
PvdD	Partij voor de Dieren	Party for the Animals
PVV	Partij voor de Vrijheid	Party for Freedom
RPF	Reformatorische Politieke Federatie	Reformational Political Federation
SGP	Staatkundig Gereformeerde Partij	Political Reformed Party
SP	Socialistische Partij	Socialist Party
VVD	Volkspartij voor Vrijheid en Democratie	People's Party for Freedom and Democracy
50Plus	50Plus	50Plus

[1] In 2003 this party was called Agalev, and between 2004 and 2011 Groen!.
[2] Before 2007 this party was called VLD.

A.2. Analysed elections, legislative periods and governments

Table A.1 Analysed elections, legislative periods, governments (Belgium)

Election	Legislative period		Government (Parties)	Date formed Date dissolved
18-05-2003	51	05-06-2003	Verhofstadt II	11-07-2003
		26-04-2007	(VLD,-MR- sp.a/SPIRIT-PS)	21-12-2007
10-06-2007	52	28-06-2007	Verhofstadt III	21-12-2007
		06-05-2010	(Open VLD-MR-CD&V-cdH-PS)	20-03-2008
			Leterme I	20-03-2008
			(CD&V-cdH-MR-Open Vld-PS)	30-12-2008
			Van Rompuy	30-12-2008
			(CD&V-cdH-MR-Open Vld-PS)	25-11-2009
			Leterme II	25-11-2009
			(CD&V-cdH-MR-Open Vld-PS)	06-12-2011
13-06-2010	53	06-07-2010	Di Rupo	06-12-2011
		24-04-2014	(PS-sp.a-MR-Open Vld-CD&V-cdH)	11-10-2014
25-05-2014	54	19-06-2014	Michel	11-10-2014
		-	(NVA-MR-CD&V-Open Vld)	-

Table A.2 Analysed elections, legislative periods, governments (the Netherlands)

Election	Legislative period	Government (Parties)	Date formed Date dissolved
06-05-1998	19-05-1998	Kok II	03-08-1998
	23-05-2002	(PvdA-VVD-D66)	22-07-2002
15-02-2002	23-05-2002	Balkenende I	22-07-2002
	29-01-2003	(CDA-LPF-VVD)	27-05-2003
22-01-2003	30-01-2003	Balkenende II	27-05-2003
	29-11-2006	(CDA-VVD-D66)	30-06-2006
		Balkenende III	07-07-2006
		(CDA-VVD)	22-02-2007
22-11-2006	30-11-2006	Balkenende IV	22-02-2007
	16-06-2010	(CDA-PvdA-CU)	14-10-2010
09-06-2010	17-06-2010	Rutte I	14-10-2010
	19-09-2012	(VVD-CDA)	05-11-2012
12-09-2012	20-09-2012	Rutte II	05-11-2012
	22-03-2017	(VVD-PvdA)	26-10-2017
15-03-2017	23-03-2017		
	-		

B Appendices for chapter 2

B.1. Respondents which were included and excluded in the experiment

Table B.1 Included and excluded respondents based on vote intention

Country	**Belgium**	**The Netherlands**
Included respondents	Who would vote: ▪ CD&V ▪ N-VA ▪ Open VLD ▪ sp.a ▪ Groen ▪ Vlaams belang	Who would vote: ▪ VVD ▪ PvdA ▪ PVV ▪ CDA ▪ SP ▪ D66 ▪ GroenLinks ▪ ChristenUnie
Excluded respondents	Who would vote: ▪ PVDA ▪ Other party ▪ Blank ▪ Who would not vote. ▪ Who didn't know what to vote or would not say what they would vote.	Who would vote: ▪ SGP ▪ 50Plus ▪ Partij voor de Dieren ▪ Other party ▪ Blank ▪ Who would not vote. ▪ Who didn't know what to vote or would not say what they would vote.

B.2. Explanations of the electoral rules (translated)

Group 1	Group 2
You would vote for [name of party]. On the next screen you will see the ballot for [name of party]. **PAY ATTENTION!** You have the option: - to vote for the party and thereby support the candidate list as a whole, by colouring the circle at the top of the list (below the party logo). OR - to vote for one of the candidates, by colouring the circle in front of that candidate. How would you vote in this case?	You would vote for [name of party]. On the next screen you will see the ballot for [name of party]. **PAY ATTENTION!**[1] You have the option: - to vote for the party and thereby support the candidate list as a whole, by colouring the circle at the top of the list (below the party logo). OR - to vote for one or multiple candidates, by colouring the circle in front of that candidate or candidates. How would you vote in this case?
Group 3	**Group 4**
You would vote for [name of party]. On the next screen you will see the ballot for [name of party]. **PAY ATTENTION!**[2] You have the option to vote for one of the candidates, by colouring the circle in front of that candidate. How would you vote in this case?	You would vote for [name of party]. On the next screen you will see the ballot for [name of party]. **PAY ATTENTION!** You have the option to vote for one or multiple candidates, by colouring the circle in front of that candidate or candidates. How would you vote in this case?

[1] Since group 2 corresponds to the electoral system of Belgium, this line was not included for Belgian respondents.
[2] Since group 3 corresponds to the electoral system of the Netherlands, this line was not included for Dutch respondents.

B.3. Examples of ballot papers

Figure B.1 Example of a ballot for group 1 and 2 (with list vote)

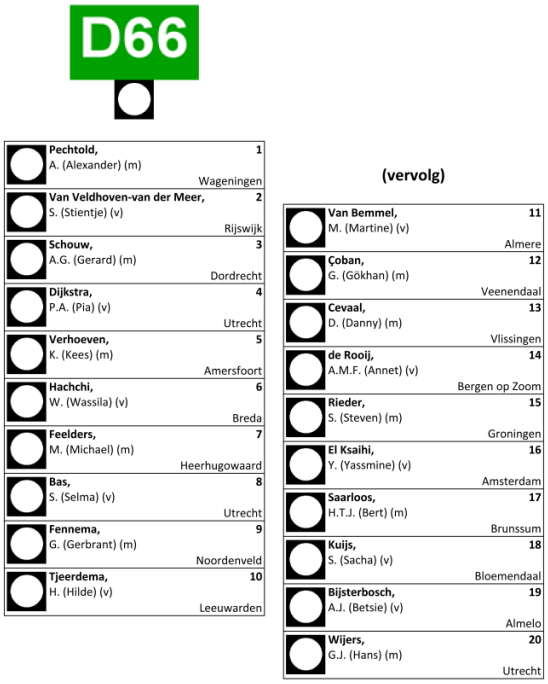
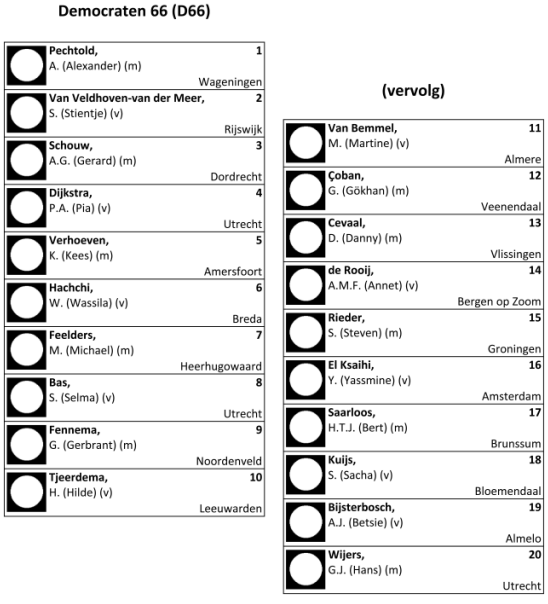


Figure B.2 Example of ballot for group 3 and 4 (without list vote)



B.4. Draft lists of candidates

#	Government / larger parties	Smaller parties
	Belgium: CD&V, N-VA, VLD, Sp.A Netherlands: VVD, PvdA	Belgium: Groen, VB Netherlands: CDA, D66, SP, GL, PVV, CU
1.	Current political leader / party chairman / national figure	Current political leader / party chairman / national figure
2.	(ex) minister / mayor large city / other prominent party member	Prominent member of parliament
3.	(ex) minister / mayor large city / other prominent party member	Prominent member of parliament
4.	(ex) minister / mayor large city / other prominent party member	Relatively unknown member of parliament
5.	(ex) minister / mayor large city / other prominent party member	Relatively unknown member of parliament
6.	Prominent member of parliament	Relatively unknown member of parliament, other ethnicity
7.	Prominent member of parliament	Unknown candidate, but with local experience
8.	Prominent member of parliament	Unknown candidate, but with local experience, other ethnicity
9.	Prominent member of parliament	Unknown candidate, but with local experience
10.	Mayor / other prominent party member	Unknown candidate, but with local experience
11.	Mayor / other prominent party member	Unknown candidate, but with local experience
12.	Relatively unknown member of parliament, other ethnicity	Unknown candidate, but with local experience, other ethnicity
13.	Relatively unknown member of parliament	Unknown candidate
14.	Relatively unknown member of parliament	Unknown candidate
15.	Relatively unknown member of parliament, other ethnicity	Unknown candidate, other ethnicity
16.	Relatively unknown member of parliament	Unknown candidate
17.	Unknown candidate	Unknown candidate
18.	Unknown candidate	Unknown candidate
19.	Unknown candidate	Unknown candidate
20.	Prominent party member	Prominent party member

Other priorities:

- Candidates from all different regions.
- Equal distribution between male and female candidates.

B.5. Lists of candidates

Belgium

CD&V

List position	Candidate	Gender	District
1	Kris Peeters	M	Antwerpen
2	Hilde Crevits	F	West-Vlaanderen
3	Wouter Beke	M	Limburg
4	Joke Schauvliege	F	Oost-Vlaanderen
5	Jo Vandeurzen	M	Limburg
6	Tinne Rombout	F	Antwerpen
7	Eric Van Rompuy	M	Vlaams-Brabant
8	Sonja Becq	F	Vlaams-Brabant
9	Servais Verherstraeten	M	Antwerpen
10	Nicole Van Duyse	F	Oost-Vlaanderen
11	Walter De Donder	M	Vlaams-Brabant
12	Nahima Lanjri	F	Antwerpen
13	Johan Verstreken	M	West-Vlaanderen
14	Vera Jans	F	Limburg
15	Veli Yuksel	M	Oost-Vlaanderen
16	Katrien Partyka	F	Vlaams-Brabant
17	Michel Lacroix	M	Antwerpen
18	Loes Vandromme	F	West-Vlaanderen
19	Thomas Vints	M	Limburg
20	Marianne Thyssen	F	Oost-Vlaanderen

N-VA

List position	Candidate	Gender	District
1	Bart de Wever	M	Antwerpen
2	Liesbeth Homans	F	Antwerpen
3	Geert Bourgeois	M	West-Vlaanderen
4	Nadia Sminate	F	Vlaams-Brabant
5	Ben Weyts	M	Vlaams-Brabant
6	Sarah Smeyers	F	Oost-Vlaanderen
7	Jan Peumans	M	Limburg
8	Annick De Ridder	F	Antwerpen
9	Pol Van Den Driessche	M	West-Vlaanderen
10	Veerle Baeyens	F	Oost-Vlaanderen
11	Eddy Bevers	M	Antwerpen
12	Nabilla Ait Daoud	F	Antwerpen
13	Werner Janssen	M	Limburg
14	An Capoen	F	West-Vlaanderen
15	Seva Ndibesche	M	Brussel
16	Miranda Van Eetvelde	F	Oost-Vlaanderen
17	Dirk Kesteloot	M	West-Vlaanderen
18	Karen Van Herck	F	Vlaams-Brabant
19	Kristof Joos	M	Antwerpen
20	Frieda Brepoels	F	Limburg

VLD

List position	Candidate	Gender	District
1	Maggie De Block	F	Vlaams-Brabant
2	Alexander De Croo	M	Oost-Vlaanderen
3	Gwendolyn Rutten	F	Vlaams-Brabant
4	Sven Gatz	M	Brussel
5	Annemie Turtelboom	F	Antwerpen
6	Bart Tommelein	M	West-Vlaanderen
7	Carina Van Cauter	F	Oost-Vlaanderen
8	Bart Somers	M	Antwerpen
9	Lydia Peeters	F	Limburg
10	Ward Vergote	M	West-Vlaanderen
11	Tim Vandenput	M	Vlaams-Brabant
12	Khadija Zamouri	F	Brussel
13	Gwenny de Vroe	F	Vlaams-Brabant
14	Egbert Lachaert	M	Oost-Vlaanderen
15	Meral Özcan	F	Limburg
16	Frank Wilrycx	M	Antwerpen
17	Stefanie Platteau	F	West-Vlaanderen
18	Jos Mombaers	M	Vlaams-Brabant
19	Daisy Zaenen	F	Limburg
20	Herman De Croo	M	Oost-Vlaanderen

Sp.a

List position	Candidate	Gender	District
1	John Crombez	M	West-Vlaanderen
2	Ingrid Lieten	F	Limburg
3	Bruno Tobback	M	Vlaams-Brabant
4	Freya Van den Bossche	F	Oost-Vlaanderen
5	Daniel Termont	M	Oost-Vlaanderen
6	Yasmine Kherbache	F	Antwerpen
7	Hans Bonte	M	Vlaams-Brabant
8	Inga Verhaert	F	Antwerpen
9	Bart Van Malderen	M	Oost-Vlaanderen
10	Hilde Claes	F	Limburg
11	Alain Top	M	West-Vlaanderen
12	Meryame Kitir	F	Limburg
13	Jan Bertels	M	Antwerpen
14	Karine Jiroflée	F	Vlaams-Brabant
15	Fouad Ahidar	M	Brussel
16	Tine Soens	F	West-Vlaanderen
17	Guy Van Acker	M	Oost-Vlaanderen
18	Patricia Vanluyten	F	Vlaams-Brabant
19	Daan Deckers	M	Limburg
20	Johan Vande Lannotte	M	West-Vlaanderen

Groen

List position	Candidate	Gender	District
1	Meyrem Almaci	F	Antwerpen
2	Kristof Calvo	M	Antwerpen
3	Elisabeth Meuleman	F	Oost-Vlaanderen
4	Johan Danen	M	Limburg
5	Ann Moerenhout	F	Vlaams-Brabant
6	Imade Annouri	M	Antwerpen
7	Martine de Meester	F	West-Vlaanderen
8	Hassan Amaghlaou	M	Limburg
9	Evita Willaert	F	Oost-Vlaanderen
10	David Van Moerkercke	M	West-Vlaanderen
11	Müzeyyen Çaliskan	F	Antwerpen
12	Edward Van Keer	M	Vlaams-Brabant
13	Marijke Vanlauwe	F	West-Vlaanderen
14	Ludo Vanzeer	M	Limburg
15	Sarah Wouters	F	Antwerpen
16	Irfan Izgin	M	Vlaams-Brabant
17	Nina De Wolf	F	Oost-Vlaanderen
18	Tom Daerden	M	Limburg
19	Lisa Buysse	F	Antwerpen
20	Wouter Van Besien	M	West-Vlaanderen

VB

List position	Candidate	Gender	District
1	Filip Dewinter	M	Antwerpen
2	Anke Van dermeersch	F	Antwerpen
3	Tom Van Grieken	M	Antwerpen
4	Barbara Pas	F	Oost-Vlaanderen
5	Chris Janssens	M	Limburg
6	Barbara Bonte	F	Oost-Vlaanderen
7	Jan Jans	M	Limburg
8	Mireille Buyse	F	Vlaams-Brabant
9	Alain Quataert	M	West-Vlaanderen
10	Femke Pieters	F	Oost-Vlaanderen
11	Leo Joosten	M	Limburg
12	Dominiek Sneppe	F	West-Vlaanderen
13	Johan Verwerft	M	Antwerpen
14	Anna Boey	F	Limburg
15	Jan Meulepas	M	Vlaams-Brabant
16	Katie Van der Heyden	F	Oost-Vlaanderen
17	Wim Van Outryve	M	West-Vlaanderen
18	Anja Dury	F	Vlaams-Brabant
19	Wim Van Outryve	M	West-Vlaanderen
20	Gerolf Annemans	M	Antwerpen

The Netherlands

VVD

List position	Candidate	Gender	Municipality
1	Mark Rutte	M	's-Gravenhage
2	Edith Schippers	F	Baarn
3	Stef Blok	M	's-Gravenhage
4	Jeanine Hennis-Plasschaert	F	Nederhorst den Berg
5	Ard Van der Steur	M	Warmond
6	Anouchka Van Miltenburg	F	Zaltbommel
7	Halbe Zijlstra	M	Wassenaar
8	Helma Neppérus	F	Voorschoten
9	Ton Elias	M	's-Gravenhage
10	Annemarie Jorritsma-Lebbink	F	Almere
11	Hans Van der Hoeve	M	Epe
12	Malik Azmani	M	Stegeren
13	André Bosma	M	Middelburg
14	Sjoerd Potters	M	Waalwijk
15	Dilan Yeşilgöz-Zegerius	F	Amsterdam (NH)
16	Chantal Nijkerken-de Haan	F	Schinveld
17	Tjeerd Waterlander	M	Heerenveen
18	Sabine Koebrugge	F	Groningen
19	Linn Binnert	F	Assen
20	Hans Van Baalen	M	's-Gravenhage

PvdA

List position	Candidate	Gender	Municipality
1	Diederik Samsom	M	Leiden
2	Jet Bussemaker	F	Amsterdam
3	Lodewijk Asscher	M	Amsterdam
4	Jetta Klijnsma	F	's-Gravenhage
5	Jeroen Dijsselbloem	M	Wageningen
6	Mariëtte Hamer	F	Maassluis
7	Martijn Van Dam	M	's-Gravenhage
8	Tanja Jadnanansing	F	Amsterdam
9	Ahmed Marcouch	M	Amsterdam
10	Leontien Kompier	F	Vlagtwedde
11	Hans Van der Pas	M	Rhenen
12	Keklik Demir-Yücel	F	Deventer
13	Jacques Monasch	M	Sneek
14	Manon Fokke	F	Maastricht
15	Mehmet Kavşitli	M	Middelburg
16	Attje Kuiken	F	Breda
17	Raymond Wanders	M	Emmen
18	Carine Bloemhoff	F	Groningen
19	Nelly Den Os	F	Lelystad
20	Maarten Van Rossem	M	Utrecht

PVV

List position	Candidate	Gender	Municipality
1	Geert Wilders	M	's-Gravenhage
2	Fleur Agema	F	's-Gravenhage
3	Martin Bosma	M	Amsterdam
4	Reinette Klever	F	Ermelo
5	Raymond Roon	M	Almere
6	Lilian Helder	F	Venlo
7	Léon De Jong	M	's-Gravenhage
8	Annette Raijer	F	Almere
9	Rene Eekhuis	M	Almere
10	Daniëlle De Winter	F	's-Gravenhage
11	Karen Gerbrands	F	's-Gravenhage
12	Gidi Markuszower	M	Amstelveen
13	Edgar Mulder	M	Zwolle
14	Elly Broere-Kaal	F	Soest
15	Ton Van Kesteren	M	Groningen
16	Yvonne Waterman	F	Wouwse Plantage
17	Peter Van Dijk	M	Goes
18	Jitske Eizema	F	Leeuwarden
19	Liesbeth Beving	F	Eelde
20	Ronald Sörensen	M	Rotterdam

CDA

List position	Candidate	Gender	Municipality
1	Sybrand Van Haersma Buma	M	Voorburg
2	Mona Keijzer	F	Volendam
3	Raymond Knops	M	Hegelsom
4	Agnes Mulder	F	Assen
5	Pieter Omtzigt	M	Enschede
6	Susan Faal-Takak	F	Rijssen
7	Wilma Van der Rijt-Van der Kruis	F	Heeze
8	Efstathios Andreou	M	Rotterdam
9	Sander Van Waveren	M	Utrecht
10	Ank Muller	F	Vlissingen
11	Elske Van der Mik	F	Deventer
12	Turan Yazir	M	Rotterdam
13	Zegert Vis	M	Lochem
14	Karin Dunning	F	Haren
15	Fokke Molenaar	M	Urk
16	Ananta Khemradj	F	Rotterdam
17	John Heller	M	Breda
18	Aletta Van Meer-Ruiten	F	Ermelo
19	Marike Postma	F	Menameradiel
20	Herman Wijffels	M	Maarn

SP

List position	Candidate	Gender	Municipality
1	Emile Roemer	M	Boxmeer
2	Renske Leijten	F	Haarlem
3	Ronald Raak	M	Amsterdam
4	Tjitske Siderius	F	Zwolle
5	Michiel Van Nispen	M	Breda
6	Sadet Karabulut	F	Amsterdam
7	Thijs Coppus	M	Horst aan de Maas
8	Aisha Akhiat	F	's-Gravenhage
9	Pim Siegers	M	Nieuw Pekela
10	Nicole van Gemert	F	Utrecht
11	Lies van Aelst	F	Gorinchem
12	Hasan Inekci	M	Nieuwegein
13	Frank Wulms	M	West Maas en Waal
14	Petra Meelker	F	Hoogezand-Sappemeer
15	Rinus Pankow	M	Schouwen-Duiveland
16	Roya Moayyed	F	Amsterdam
17	Barend Houtman	M	Smallingerland
18	Laura Van Os	F	Meppel
19	Hemrika Vanessa	F	Lelystad
20	Huub Oosterhuis	M	Amsterdam

D66

List position	Candidate	Gender	Municipality
1	Alexander Pechtold	M	Wageningen
2	Stientje Van Veldhoven-van der Meer	F	Rijswijk
3	Gerard Schouw	M	Dordrecht
4	Pia Dijkstra	F	Utrecht
5	Kees Verhoeven	M	Amersfoort
6	Wassila Hachchi	F	Breda
7	Michael Feelders	M	Heerhugowaard
8	Selma Bas	F	Utrecht
9	Gerbrant Fennema	M	Noordenveld
10	Hilde Tjeerdema	F	Leeuwarden
11	Martine Van Bemmel	F	Almere
12	Gökhan Çoban	M	Veenendaal
13	Danny Cevaal	M	Vlissingen
14	Annet de Rooij	F	Bergen op Zoom
15	Steven Rieder	M	Groningen
16	Yassmine El Ksaihi	F	Amsterdam
17	Bert Saarloos	M	Brunssum
18	Sacha Kuijs	F	Bloemendaal
19	Betsie Bijsterbosch	F	Almelo
20	Hans Wijers	M	Utrecht

GroenLinks

List position	Candidate	Gender	Municipality
1	Jesse Klaver	M	's-Gravenhage
2	Liesbeth Van Tongeren	F	Amsterdam
3	Rik Grashoff	M	Delft
4	Linda Voortman	F	Utrecht
5	Bas Eickhout	M	Utrecht
6	Huri Sahin	F	Zoetermeer
7	Pepijn Boekhorst	M	Nijmegen
8	Saideh Hashemi	F	Alkmaar
9	Carel Bruring	M	Goes
10	Lisa Westerveld	F	Nijmegen
11	Gea Smith	F	Assen
12	Ahmed Harika	M	Rotterdam
13	Roland van der Put	M	Almere
14	Leanne Jansen	F	Dronten
15	Rene Vink	M	Almelo
16	Hayat Barrahmun	F	Venlo
17	Jos Van Egmond	M	Smallingerland
18	Katinka Waelbers	F	Oss
19	Bea Moolenaar	F	Groningen
20	Tof Thissen	M	Roermond

ChristenUnie

List position	Candidate	Gender	Municipality
1	Arie Slob	M	Zwolle
2	Carola Schouten	F	Rotterdam
3	Joël Voordewind	M	Amsterdam
4	Carla Dik-Faber	F	Veenendaal
5	Gert-Jan Segers	M	Hoogland
6	Ixora Balootje	F	Rotterdam
7	Arne Schaddelee	M	Houten
8	Ravenna Kotadiny	F	Amsterdam
9	Jurgen Van Houdt	M	Enschede
10	Anja Haga	F	Leeuwarden
11	Harmke Vlieg-Kempe	F	Assen
12	Anil Kumar	M	's-Gravenhage
13	Arnout Van Kempen	M	Sint-Michielsgestel
14	Lenny De Wolf	F	Meppel
15	Ronald Kleiweg	M	Veendam
16	Gea Gort	F	Rotterdam
17	Maarten Van der Boon	M	Barneveld
18	Tannie Kruit-de Bruijne	F	Vlissingen
19	Marielle Woord	F	Urk
20	Andries Knevel	M	Amsterdam

B.6. About the validity of the experiment

An important issue is whether respondents understood the electoral rules under which they were asked to cast a vote. If respondents did not understand that they had different options than they are used to from real elections[102], this very likely has an impact on the validity of the experiment.

No questions were included in the survey to test whether respondents noticed, or understood the electoral rules (i.e. the experimental treatment). It is therefore difficult to say whether respondents understood the electoral rules. However, some insight could be gained by looking at the time respondents spent on the page where the electoral rules were explained. Table B.2 shows a comparison between the average time Dutch and Belgian respondents did spent on this page. It is clear that Belgian and Dutch respondents took more or less the same time to read the explanation in the first and fourth group: i.e. systems which neither are used to. It also shows that compared to the Dutch respondents, Belgians were quicker in reading the explanation for their own system (group 2). This is the other way around for group 3, which means that Dutch respondents have read the explanation of their own system faster than Belgian respondents did[103]. These results suggest that in general respondents have read the explanations accurately.

Table B.2 Time spent on page with explanations of rules (country comparison)

Group	Country	N	Mean	SE	T-test
1	Belgium	183	10.44	0.43	t(360.0)=-1.791
	The Netherlands	181	11.57	0.46	
2	Belgium	194	9.44	0.45	t(369.5)=-3.177**
	The Netherlands	185	11.61	0.51	
3	Belgium	194	7.86	0.33	t(365.6)= 3.119**
	The Netherlands	179	6.52	0.28	
4	Belgium	195	8.73	0.36	t(392.2)= 0.131
	The Netherlands	201	8.80	0.34	

Note: *p< .05; **p< .01; ***p< .001
Source: Own dataset. The average time is given in seconds. Respondents who spent more than 30 seconds on the page with the explanation of the electoral rules are excluded from this analysis (3.5 per cent of all respondents).

Table B.3 provides information about the difference between respondents who made use of the options to cast a list vote or a multiple preference vote and the respondents who did not use these options. In all comparisons the group of respondents using an additional option on average spent more time on the page with the explanation of the voting rules than the group of respondents who did not use an additional option. In the Netherlands most of these differences are statistically significant, while in Belgium they are not. This is an

[102] With the exception of Belgian respondents who were assigned to the 2nd group (list vote and multiple preference votes) and Dutch respondents who were assigned to the 3th group (single preference vote).
[103] This might also be a consequence of not including 'pay attention' in the explanation (see appendix B.2).

indication that some respondents, especially in the Netherlands, may not have been aware of the fact that they had other options because of 'speeding through the survey'. On the other hand, since Dutch respondents on average spent more time on the page with the explanation of the rules in those groups were additional rules were explained, this does not seem to be problematic in terms of the overall results of the experiment. At least this might indicate a conservative estimation for the use of the list vote and multiple preference votes in the Netherlands.

Table B.3 Time spent on page with explanations of rules (choice comparison)

Group	Category	N	Mean	SE	T-test
Belgium					
1	No listvote	108	9.94	0.57	t(163.2)=-1.406
	Listvote	75	11.16	0.66	
2	No listvote	125	8.82	0.53	t(122.4)=-1.767
	Listvote	69	10.56	0.83	
	No multiple pref. votes	132	9.33	0.56	t(123.9)=-0.360
	Multiple pref. votes	62	9.67	0.78	
4	No multiple pref. votes	87	7.68	0.49	t(191.5)=-2.732**
	Multiple pref. votes	108	9.59	0.50	
The Netherlands					
1	No listvote	146	10.98	0.50	t(49.9)=-2.568*
	Listvote	35	14.02	1.07	
2	No listvote	147	10.92	0.57	t(62.9)=-2.876**
	Listvote	38	14.27	1.01	
	No multiple pref. votes	163	11.03	0.52	t(25.1)=-2.776*
	Multiple pref. votes	22	15.90	1.68	
4	No multiple pref. votes	171	8.68	0.36	t(37.0)=-0.777
	Multiple pref. votes	30	9.50	0.99	

Note: *p< .05; **p< .01; ***p< .001
Source: Own dataset. The average times are given in seconds. Respondents who spent more than 30 seconds on the page with the explanation of the electoral rules are excluded from this analysis (3.5 per cent of the total respondents).

B.7. Additional cross tabs

Table B.4 Effect of list vote on votes for the list-puller

In combination with single preference vote (Group 1 versus 3)						
	Belgium *χ2 (1) = 25.351, p < .001; φ = .256*			**The Netherlands** *χ2 (1) = 6.537, p = .011; φ = .131*		
	List vote			List vote		
	No	Yes	Total	No	Yes	Total
Not voted for list-puller	38%	64%	51%	33%	46%	40%
Voted for list-puller	62%	36%	49%	67%	54%	60%
Total (N)	195	192	387	183	197	380
In combination with multiple preference votes (Group 2 versus 4)						
	Belgium *χ2 (1) = 20.983, p < .001; φ = .229*			**The Netherlands** *χ2 (1) = 8.119, p = .004; φ = .142*		
	List vote			List vote		
	No	Yes	Total	No	Yes	Total
Not voted for list-puller	34%	57%	46%	27%	40%	33%
Voted for list-puller	66%	43%	54%	73%	60%	67%
Total (N)	198	203	401	210	195	405

Source: Own dataset.

Table B.5 Effect of list vote on voters for other candidates

In combination with single preference vote (Group 1 versus 3)						
	Belgium *χ2 (1) = 12.756, p < .001; φ = .182*			**The Netherlands** *χ2 (1) = 1.868, p = .172; φ = .070*		
	List vote			List vote		
	No	Yes	Total	No	Yes	Total
Not voted for other candidate	62%	79%	70%	67%	73%	70%
Voted for other candidate	38%	21%	30%	33%	27%	30%
Total (N)	195	192	387	183	197	380
In combination with multiple preference votes (Group 2 versus 4)						
	Belgium *χ2 (1) = 34.822, p < .001; φ = .295*			**The Netherlands** *χ2 (1) = 5.927, p = .015; φ = .121*		
	List vote			List vote		
	No	Yes	Total	No	Yes	Total
Not voted for other candidate	26%	55%	40%	61%	73%	67%
Voted for other candidate	74%	45%	60%	39%	27%	33%
Total (N)	198	203	401	210	195	405

Source: Own dataset.

Table B.6 Effect of available number of preference votes on votes for list-puller

In combination with compulsory candidate vote (Group 3 versus 4)						
	Belgium *χ2 (1) =0.553, p =0.457; φ =* .038			**The Netherlands** *χ2 (1) =2.079, p =0.149; φ =* .073		
	Preference votes			Preference votes		
	Single	Multiple	Total	Single	Multiple	Total
Not voted for list-puller	38%	34%	36%	33%	27%	30%
Voted for list-puller	62%	66%	64%	67%	73%	70%
Total (N)	195	198	393	183	210	393
In combination with list vote (Group 1 versus 2)						
	Belgium *χ2 (1) =1.687, p =0.194; φ =* .065			**The Netherlands** *χ2 (1) =1.532, p =0.216; φ =* .063		
	Preference votes			Preference votes		
	Single	Multiple	Total	Single	Multiple	Total
Not voted for list-puller	64%	57%	60%	46%	40%	43%
Voted for list-puller	35%	43%	40%	54%	60%	57%
Total (N)	192	203	395	197	195	392

Source: Own dataset.

Table B.7 Effect of available number of preference votes on votes for other candidates

In combination with compulsory candidate vote (Group 3 versus 4)						
	Belgium *χ2 (1) = 52.582, p < 0.001; φ = .366*			**The Netherlands** *χ2 (1) = 1.163, p = 0.281; φ = .054*		
	Preference votes			Preference votes		
	Single	Multiple	Total	Single	Multiple	Total
Not voted for other candidate	62%	26%	44%	67%	61%	64%
Voted for other candidate	38%	74%	56%	33%	39%	36%
Total (N)	195	198	393	183	210	393
In combination with list vote (Group 1 versus 2)						
	Belgium *χ2 (1) = 25.377, p < 0.001; φ = .253*			**The Netherlands** *χ2 (1) = 0.004, p = 0.951; φ = .003*		
	Preference votes			Preference votes		
	Single	Multiple	Total	Single	Multiple	Total
Not voted for other candidate	79%	55%	66%	73%	73%	73%
Voted for other candidate	21%	45%	34%	27%	27%	27%
Total (N)	192	203	395	197	195	392

Source: Own dataset.

B.8. Additional logistic regression models

Table B.8 Voting for list-puller & other candidates (with country dummy)

	List-puller	**Other candidates**
(Constant)	0.586**	-1.020***
	(0.208)	(0.216)
Option to cast a list vote	-0.864***	-0.864***
	(0.126)	(0.126)
Option to cast multiple preference votes	0.333*	1.344***
	(0.164)	(0.169)
Netherlands	0.518**	0.142
	(0.183)	(0.188)
Political interest (Ref. = not interested)		
Somewhat interested	0.144	0.347*
	(0.147)	(0.150)
Highly interested	0.467*	0.328
	(0.212)	(0.215)
Party member	0.102	0.334
	(0.202)	(0.202)
Evaluation difference (Ref. = No difference)		
List-puller < party	-1.322***	0.761***
	(0.164)	(0.158)
List-puller > party	0.599***	-0.370*
	(0.147)	(0.149)
Education (Ref. = low)		
Middle	-0.136	0.093
	(0.160)	(0.161)
High	-0.664***	0.367*
	(0.167)	(0.166)
Multiple pref. votes * Netherlands	-0.248	-1.012***
	(0.253)	(0.253)
-2LL	1509.385	1497.759
Cox and Snell's R^2	0.147	0.138
Nagelkerke R^2	0.197	0.187
N	1243	1243

Note: *p< .05; **p< .01; ***p< .001. Standard errors in parentheses.
Source: Own dataset.

C Appendices for chapter 3

C.1. Included parties and list-pullers the Netherlands

Party	1998	2002	2003	2010	2012
CDA	de Hoop Scheffer	Balkenende	Balkenende	Balkenende	van Haersma Buma
CD	Janmaat				
CU		Veling	Rouvoet	Rouvoet	Slob
D66	Borst-Eilers	de Graaf	de Graaf	Pechtold	Pechtold
GPV	Schutte				
GL	Rosenmöller	Rosenmöller	Halsema	Halsema	Sap
PvdD				Thieme	Thieme
LPF		Fortuijn	Herben		
PvdA	Kok	Melkert	Bos	Cohen	Samsom
PVV				Wilders	Wilders
SGP		van der Vlies	van der Vlies	van der Staaij	van der Staaij
SP	Marijnissen	Marijnissen	Marijnissen	Roemer	Roemer
VVD	Bolkestein	Dijkstal	Zalm	Rutte	Rutte

C.2. Descriptive statistics for variables entered in logistic regression models

Table C.1 Descriptive statistics chapter 3 (the Netherlands)

Variable	Mean	SD	Min	Max
Preference vote	0.23	0.42		
Education				
Elementary (REF)	0.08	0.28		
(Lower) Vocational	0.15	0.36		
Secondary	0.12	0.32		
Middle level vocational. higher level secondary	0.32	0.46		
Higher level vocational. University	0.33	0.47		
Political interest				
Low (0) (REF)	0.06	0.24		
1	0.42	0.49		
2	0.25	0.43		
3	0.18	0.39		
High (4)	0.09	0.29		
Political knowledge				
Low (0) (REF)	0.41	0.49		
1	0.25	0.43		
2	0.18	0.38		
3	0.10	0.30		
High (4)	0.06	0.25		
Qualified for politics				
Fully agree	0.03	0.18		
Agree	0.22	0.42		
Disagree	0.45	0.50		
Fully disagree (REF)	0.29	0.45		
Age of respondent	47.54	16.73	16	99
Woman	0.51	0.50		
Country of origin (Ref. = Netherlands)				
Netherlands	0.88	0.33		
Western country	0.07	0.26		
Non-western country	0.05	0.22		
Living outside *Randstad*	0.57	0.50		
Urbanization				
Very strongly urban (REF)	0.16	0.36		
Strongly urban	0.26	0.44		
Mildly urban	0.21	0.41		
Hardly urban	0.22	0.42		
Not urban	0.15	0.36		
Party member	0.05	0.22		
Evaluation score list-puller - evaluation score party	-0.12	1.44	-9	9
Evaluation score list-puller	7.36	1.68	0	10
Number of candidates on party list	57.65	17.91	25	80
Older party	0.73	0.44		

Table C.2 Descriptive statistics chapter 3 (Belgium)

Variable	Mean	SD	Min	Max
Preference vote	0.50	0.50		
Education				
Low (REF)	0.09	0.28		
Middle	0.58	0.50		
High	0.34	0.47		
Political interest	4.79	2.78	0	10
Political knowledge				
Low (0) (REF)	0.19	0.40		
1	0.30	0.47		
2	0.26	0.44		
3	0.18	0.38		
High (4)	0.07	0.25		
Age	47.97	17.32	18	84
Woman	0.50	0.50		
Member political party	0.07	0.25		
Candidates on list	25.17	7.75	10	37
Party old	0.58	0.49		

C.3. Additional logistic regression models

Table C.3 Preference voting in the Netherlands (including political knowledge)

	Model 1		**Model 2**	
(Constant)	-1.934***	(0.338)	-1.454**	(0.385)
Education (Ref. = Elementary)				
(Lower) Vocational	0.081	(0.188)	0.088	(0.193)
Secondary	0.203	(0.185)	0.252	(0.189)
Middle level vocational, higher level secondary	0.433*	(0.176)	0.460*	(0.181)
Higher level vocational, University	0.496**	(0.173)	0.505**	(0.178)
Political interest (Ref. = 0 (Low))				
1	-0.086	(0.208)	-0.006	(0.212)
2	0.105	(0.214)	0.165	(0.218)
3	0.200	(0.218)	0.277	(0.223)
4 (High)	0.298	(0.235)	0.430	(0.240)
Qualified for politics (Ref. = fully disagree)				
Disagree	0.105	(0.096)	0.138	(0.097)
Agree	0.193	(0.112)	0.231*	(0.114)
Fully agree	0.496*	(0.198)	0.503**	(0.201)
Political knowledge (Ref. = 0 (Low))				
1	0.261**	(0.094)	0.312**	(0.096)
2	0.364**	(0.121)	0.425***	(0.123)
3	0.388**	(0.130)	0.427**	(0.132)
4 (High)	0.428**	(0.152)	0.516***	(0.155)
Age	-0.014***	(0.003)	-0.012***	(0.003)
Woman	0.386***	(0.076)	0.371***	(0.078)
Living outside *Randstad*	0.152	(0.082)	0.166*	(0.083)
Urbanization (Ref. = Very strongly urban)				
Strongly urban	-0.355**	(0.119)	-0.370**	(0.121)
Mildly urban	-0.298*	(0.125)	-0.327*	(0.127)
Hardly urban	-0.367**	(0.131)	-0.403**	(0.133)
Not urban	-0.237	(0.140)	-0.273	(0.143)
Candidates on list	0.020***	(0.004)	0.019***	(0.004)
Party old	-0.105	(0.142)	-0.132	(0.144)
Evaluation score list-puller			-0.100***	(0.026)
Evaluation score list-puller - evaluation score party			-0.194***	(0.031)
-2LL	4658.198		4537.517	
Cox and Snell's R2	0.063		0.087	
Nagelkerke R2	0.094		0.131	
N	4536		4536	

Note: *p< .05; **p< .01; ***p< .001. Standard errors in parentheses. Election dummies are included in model, but not presented here. Based on the elections of 1998, 2002 and 2010.

Improvement model 2: χ^2 120.681, df = 2, p < .001.

Source: DPES 1970-2006 integrated file; DPES 1998; DPES2002/03; DPES 2010.

Table C.4. Preference voting in the Netherlands (including country or origin)

	Model 1		**Model 2**	
(Constant)	-4.002***	(0.807)	-3.332***	(0.897)
Education (Ref. = Elementary)				
(Lower) Vocational	0.862	(0.567)	0.880	(0.570)
Secondary	0.820	(0.594)	0.811	(0.597)
Middle level vocational, higher level secondary	1.193*	(0.544)	1.200*	(0.546)
Higher level vocational, University	1.112*	(0.549)	1.110*	(0.551)
Political interest (Ref. = 0 (Low))				
1	-0.144	(0.408)	-0.043	(0.417)
2	0.077	(0.416)	0.164	(0.425)
3	0.172	(0.425)	0.281	(0.434)
4 (High)	0.506	(0.447)	0.646	(0.456)
Qualified for politics (Ref. = fully disagree)				
Disagree	0.130	(0.186)	0.144	(0.188)
Agree	0.488*	(0.019)	0.519	(0.212)
Fully agree	0.775*	(0.326)	0.804*	(0.331)
Age	-0.007	(0.005)	-0.006	(0.005)
Woman	0.325*	(0.141)	0.340*	(0.143)
Living outside *Randstad*	0.164	(0.151)	0.209	(0.153)
Country of origin (Ref. = Netherlands)				
Western country	0.313	(0.246)	0.318	(0.249)
Non-western country	-0.321	(0.409)	-0.281	(0.415)
Urbanization (Ref. = Very strongly urban)				
Strongly urban	-0.212	(0.219)	-0.229	(0.222)
Mildly urban	-0.152	(0.230)	-0.196	(0.233)
Hardly urban	-0.109	(0.239)	-0.180	(0.242)
Not urban	-0.308	(0.275)	-0.327	(0.279)
Candidates on list	0.016	(0.008)	0.012	(0.008)
Party old	0.358	(0.260)	0.502	(0.266)
Evaluation score list-puller			-0.108*	(0.051)
Evaluation score list-puller - evaluation score party			-0.23***	(0.062)
-2LL	1433.579		1397.855	
Cox and Snell's R2	0.044		0.064	
Nagelkerke R2	0.074		0.108	
N	1665		1665	

Note: *p< .05; **p< .01; ***p< .001. Standard errors in parentheses. Election dummies are included in model, but not presented here. Based on the election of 2010.

Improvement model 2: χ^2 35,724, df = 2, p < .001.

Source: DPES 2010.

Table C.5. Preference voting in the Netherlands (including member political party)

	Model 1		**Model 2**	
(Constant)	-1.955***	(0.337)	-1.481**	(0.385)
Education (Ref. = Elementary)				
(Lower) Vocational	0.114	(0.188)	0.128	(0.192)
Secondary	0.280	(0.184)	0.339	(0.188)
Middle level vocational, higher level secondary	0.500**	(0.175)	0.536**	(0.179)
Higher level vocational, University	0.606***	(0.171)	0.631***	(0.175)
Political interest (Ref. = 0 (Low))				
1	-0.046	(0.207)	0.036	(0.211)
2	0.174	(0.212)	0.243	(0.217)
3	0.303	(0.216)	0.395	(0.221)
4 (High)	0.403	(0.232)	0.546*	(0.237)
Qualified for politics (Ref. = fully disagree)				
Disagree	0.136	(0.095)	0.171	(0.097)
Agree	0.235*	(0.111)	0.275*	(0.113)
Fully agree	0.510**	(0.199)	0.517*	(0.202)
Age	-0.012***	(0.003)	-0.011***	(0.003)
Woman	0.360***	(0.076)	0.340***	(0.077)
Living outside *Randstad*	0.148	(0.082)	0.160	(0.083)
Urbanization (Ref. = Very strongly urban)				
Strongly urban	-0.356**	(0.119)	-0.370**	(0.121)
Mildly urban	-0.301*	(0.125)	-0.329**	(0.127)
Hardly urban	-0.362**	(0.130)	-0.395**	(0.132)
Not urban	-0.236	(0.140)	-0.271	(0.142)
Member political party	0.286	(0.147)	0.332*	(0.150)
Candidates on list	0.020***	(0.004)	0.019***	(0.004)
Party old	-0.097	(0.142)	-0.117	(0.143)
Evaluation score list-puller			-0.097***	(0.026)
Evaluation score list-puller - evaluation score party			-0.190***	(0.031)
-2LL	4670.474		4553.622	
Cox and Snell's R2	0.060		0.084	
Nagelkerke R2	0.090		0.126	
N	4535		4535	

Note: *p< .05; **p< .01; ***p< .001. Standard errors in parentheses. Election dummies are included in model, but not presented here. Based on the elections of 1998, 2002 and 2010.

Improvement model 2: χ^2 116.852, df = 2, p < .001.

Source: DPES 1970-2006 integrated file; DPES 1998; DPES2002/03; DPES 2010.

D Appendices for chapter 4

D.1. Assigned positions for reference texts

In the tables below the scores which are assigned to the reference texts are given. Scores are taken from the Chapel Hill Expert Survey (CHES) 1999-2014 trend file (Bakker et al., 2015; Polk et al., 2017). For each legislative period the row labelled 'CHES' shows from which year in the survey the scores are used for the corresponding legislative period; for each legislative period the scores from the survey-year closed to start of the legislative term are used

Belgium

Party	**2003-2007**	**2007-2010**	**2010-2014**
CD&V	5.95	5.56	5.79
CDH	5.65	5.50	4.50
Ecolo	2.56	2.83	2.29
Groen	2.64	1.89	2.29
MR	6.35	6.67	7.00
N-VA	6.22	7.89	7.57
OpenVLD	6.23	6.78	6.93
PS	3.35	3.50	2.50
Sp.A	3.50	3.22	3.43
VB	9.55	9.67	9.86
CHES	*2002*	*2006*	*2010*

The Netherlands

Party	**1998-2002**	**2002-2003**	**2003-2006**	**2006-2010**	**2010-2012**	**2012-2017**
CDA	5.20	6.13	6.13	6.09	6.29	6.78
D66	4.40	4.63	4.63	4.45	5.00	5.56
GL	2.60	2.50	2.50	2.18	2.57	2.33
LPF		8.38	8.38			
PvdA	3.80	4.00	4.00	3.73	3.86	3.67
PVV				8.80	8.62	9.25
SP	1.10	1.63	1.63	1.64	1.64	1.00
VVD	6.90	7.38	7.38	7.45	7.86	7.89
CHES	*1999*	*2002*	*2002*	*2006*	*2010*	*2014*

D.2. Measuring policy positions using Wordscores

Once texts for individual members of parliament are prepared and reference texts are chosen, assigning a score to them using Wordscores is relatively easy. However, choosing the appropriate reference texts and preparing the virgin texts is not that easy. Several choices have to be made. This appendix addresses some issues of scoring texts using Wordscores. Some of the decisions which are made and discussed in section 4.3.3 are further explained in this section. In addition, some alternatives are discussed and the final choice defended.

D.2.1 Additional information about the process

The text files created for the MPs and parties were pre-processed using the computer program JFreq (Lowe, 2011). Since Wordscores counts words to estimate a position of a text, it would not make sense to include all Belgian parties in one analysis, since the country is bilingual. Therefore for Belgium two analyses are conducted: one for Flanders (Dutch speaking part of the country) and one for Wallonia (French speaking part of the country)[104]. With JFreq also a document-term matrix was created, containing for each document the frequency of all words in the entire corpus. Separate matrices were made for each legislative period in the Netherlands, the French-speaking MPs in Belgium and the Dutch-speaking MPs in Belgium. Based on the document-term matrices the policy positions of individual MPs were estimated, using the Quanteda-package in R (Benoit & Nulty, 2016).

Some MPs are excluded from the analysis. Only MPs from parties who at least received four seats in each period they were represented in parliament are included in the analysis. In the end, the goal of the analysis is not so much to say something about the *exact* ideological position of a candidate, but more about how that ideological position *deviates* from the party line. Since the deviation is measured by calculating the difference between the average party score and the MP score, parties with one candidate are automatically ruled out: there is no difference to calculate. For very small parties with only two or three MPs the difference would not be that meaningful as well. With such small parties the difference would say just as much about the MPs own position as it would say something about the position(s) of the other one or two MP(s).

This procedure leads to the inclusion of eight parties for the Netherlands. Six of them are represented in the entire period between 1998 and 2017: CDA, D66[105], GroenLinks, PvdA, SP and VVD. Two parties were represented in fewer legislative periods:

[104] In addition for each extracted paragraph of a speech it was determined whether the paragraph was primarily French or Dutch, using the *detectlanguage* function in Google spreadsheets. Most of the paragraphs were detected as either Dutch or French. For those paragraphs for which the function reported a different language, the language of the paragraph was coded manually. Paragraphs from MPs in Flanders which were primarily French, were excluded from the text file of that MP; and vice-versa. Furthermore, some paragraphs were in German; these were also excluded.

[105] Between 2006 and 2010 D66 only held 3 seats. However, the party is included since in the other legislative periods it had a substantially larger parliamentary party group.

LPF (2002-2003 and 2003-2006) and PVV (2006-2010, 2010-2012 and 2012-2017). In each legislative period these parties together held at least 138 (out of 150) seats. For Belgium 10 parties are included: CD&V, CDH, ECOLO, Groen, MR, N-VA, openVLD, PS, sp.a, VB. These parties together held at least 144 (out of 150) seats.

For Belgium, one other issue complicates the analysis. Some parties form a single parliamentary group in parliament, which might make it unclear what the party average is. For example, both green parties (Groen and ECOLO) form one parliamentary group in parliament. In the analysis these two are considered to be two different parties. This is partly a pragmatic choice: since Groen is the Flemish party and ECOLO the Walloon party, MPs of both parties speak in a different language and therefore have to be treated as two separate parties. But since they both participated in different regions of the country, and therefore one voter may only choose for candidates from ECOLO or only choose for candidates from Groen, this also makes sense on a substantial ground.

A more difficult choice is what to do with the CD&V / N-VA cartel in the 2007 elections (Pilet & Van Haute, 2008). The two parties formed an alliance before the elections and participated as one 'party'. However, the alliance did not survive the entire legislative period. In September 2008 the alliance came to an end and continued as two separate parliamentary parties. In the 52nd legislative period (after the 2007 elections) 154 plenary sessions were held. In 52 of these the alliance existed, but in a large majority of the sessions the parties both had their own parliamentary group. All members of the CD&V and N-VA cartel will therefore be treated as being a member of either the CD&V parliamentary party group or the N-VA parliamentary party group for the entire legislative period[106].

Initially, Wordscores produces raw scores for each virgin text. These raw scores tend to cluster around the mean of the scores of the reference texts. The reason for the clustering of scores is that all texts contain 'meaningless' words, which are more or less used equally (in relative terms) across all texts. These raw scores are therefore difficult to interpret, since the scale on which they are placed is no longer intuitive. For example: if the original scale on which the reference texts were scored runs from 0 to 10, the scores for the virgin texts all will be closer to around 5. Therefore, within the original scale they do not make much sense anymore. For the regression models these raw scores are used, as suggested by Benoit and laver (2007, p. 109) since they "are informative relative to each other". The advantage of using these raw scores for the regression analysis is that the results cannot be influenced by the way in which the raw scores were transformed. Transforming the raw scores has the advantage that they become intuitive again, but there are different ways in which they can be transformed and each way will result in a (slightly) different outcome.

To get some notion whether the Wordscores analysis produces valid estimates, in this section boxplots containing the results of the analysis will be presented. However, for these boxplots the interpretation of scores plays a role and for this purpose in this section

[106] In all other cases MPs are grouped in the same way as parliamentary groups were organized.

transformed scores are presented. There are different ways to transform the raw scores produced with Wordscores. One option is to use the original transformation method (Laver et al., 2003). However, Martin and Vanberg (2008) point out some difficulties with this transformation. If scores are transformed based on the original method, they depend on the combination of virgin texts and are no longer placed on the same scale as the reference texts, which complicates the interpretation of the scores. Therefore they propose another method. The scores presented below are transformed with the method proposed by Martin and Vanberg (from now on referred to as MV-method). The advantages of this method are that the transformed scores are independent of the included virgin texts and that the texts are placed on the same scale as the original scale which was used for the reference texts (Martin & Vanberg, 2008 also fur further details of the calculation of the transformed scores).

Table D.1 shows the number of plenary sessions and submitted written questions analysed in each legislative period for the Netherlands. For 1,931 plenary sessions and 38,265 written questions all contributions by MPs are extracted from these documents. Since one member in one legislative period is considered as an individual case, in total 1,106 MPs held a seat between 1998 and 2012. For 960 of them it was possible to estimate their policy position based on contributions in plenary sessions, and for 862 the position based on written questions could be estimated. Some MPs were excluded because they were a member of one of the smallest parties and some members never participated in a debate or submitted a written question: members of parliament who became a minister in the newly formed government for example. In addition some MPs were excluded because their total contribution of speeches and questions did not exceed 500 words. Since for shorter texts the uncertainty of the policy positions obtained by Wordscores increases (Laver et al., 2003, p. 315), these texts are excluded. Figure D**.1** shows the policy positions which were measured based on these texts, in the form of a boxplot per party per legislative period. For the purpose of interpretation the policy position which are shown in this figure are the transformed scores, based on the MV- method. These boxplots suggest that the way the policy positions are measured works. It shows variation within political parties of policy position from individual MPs. At the same time, individual politicians from a party seem to cluster around an expected party position.

In Belgium the policy positions for members of parliament from three legislative periods (2003-2007, 2007-2010 and 2010-2014) were measured. All contributions by MPs in 353 plenary sessions and from 53,158 written questions were extracted from the parliamentary documents to create separate documents for each MP. From 181 Dutch speaking and 133 French speaking MPs it was possible to determine a policy position based on their contributions to plenary sessions. Based on written questions, a position could be estimated for 272 Dutch speaking MPs and 189 French speaking MPs (see table d.2). Figure D.2 shows per party and per legislative term a boxplot for the policy positions of individual MPs. The transformed scores according to the MV-method based on the documents containing

Figure D.1 Policy positions of Dutch MPs per party per legislative period

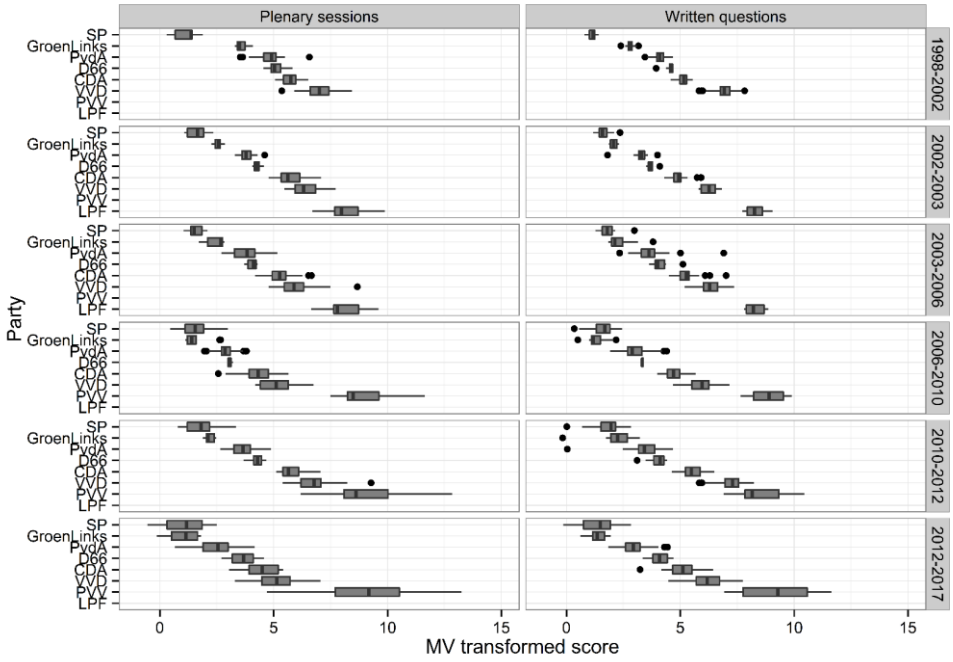


Table D.1 Analysed documents to measure positions of MPs (the Netherlands)

Legislative period	MPs	Plenary sessions			Written questions		
		Analyzed[1]	MPs[2]	Words[3]	Analyzed[1]	MPs[2]	Words[3]
1998-2002	189	403	161	73055	5577	144	8864
2002-2003	173	61	136	11957	1044	90	2145
2003-2006	187	389	167	66170	7185	157	11582
2006-2010[4]	186	353	167	69469	5813	158	14803
2010-2012	176	228	158	49224	6345	149	11420
2012-2017	195	497	171	107548	12301	164	23225
Total	1106	1931	960	64800	38265	862	12920

Source: own dataset.

[1] Number of plenary sessions / written questions for the entire legislative period, from which texts from individual MPs were obtained.

[2] Number of MPs from parties included in the analysis and whose own document contained at least 500 words.

[3] Average length of the text in words (before pre-processing) for those MPs mentioned in the previous column.

[4] In this period there were 383 plenary sessions. However, from 30 of them (between April and October 2009) the minutes were only available in a format from which it was not possible to automatically extract all speakers and their speeches. Therefore these plenary sessions are excluded.

Figure D.2 Policy positions of Belgian MPs per party per legislative period

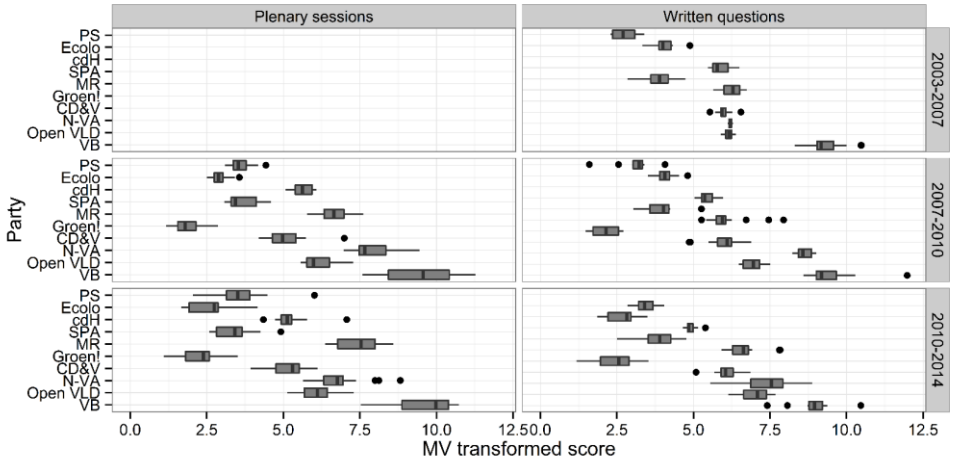


Table D.2 Analysed documents to measure positions of MPs (Belgium)

Legislative period	MPs	Plenary sessions			Written questions		
		Analyzed[1]	MPs[2]	Words[3]	Analyzed[1]	MPs[2]	Words[3]
Dutch speaking parliamentarians							
2003-2007	115	-	-	-	10555	90	19263
2007-2010	106	154	89	18330	15538	91	26776
2010-2014	102	199	92	25844	14548	91	30484
Total	323	353	181	22149	40641	272	25650
French speaking parliamentarians							
2003-2007	89	-	-	-	2341	56	7407
2007-2010	89	154	70	13980	5172	67	15074
2010-2014	90	199	63	21007	5004	66	16118
Total	258	353	133	17308	12517	189	13167

Source: own dataset.

[1] Number of plenary sessions / written questions for the entire legislative period, from which texts from individual MPs were obtained.

[2] Number of MPs from parties included in the analysis and whose own document contained at least 500 words.

[3] Average length of the text in words (before pre-processing) for those MPs mentioned in the previous column.

D.2.2 Combing speeches and questions or not?

With the texts obtained from official documents containing the speeches and written questions two things can be done: 1) combine speeches and written questions into a single virgin text, or 2) create two different virgin texts per MP, one with his or her speeches in plenary sessions and one with the written questions. I prefer the second option, both for theoretical and methodological reasons. The theoretical considerations are discussed in chapter 4. There are, however, also methodological reasons to choose for two different sets of virgin texts. Speeches and questions are two different types of texts. First of all, questions are shorter than regular contributions to the parliamentary debate. Second, questions are written while contributions to the debate in parliament are spoken. This leads to a different use of words. Since Wordscores is based on counting words, combining both would create possible problems. For example, if both texts would be combined the score of an MP might depend on the ratio questions/speeches, which would not be meaningful[107]. It is therefore from a methodological point of view, better to keep the texts separated and estimate two different scores based on the two sets of texts.

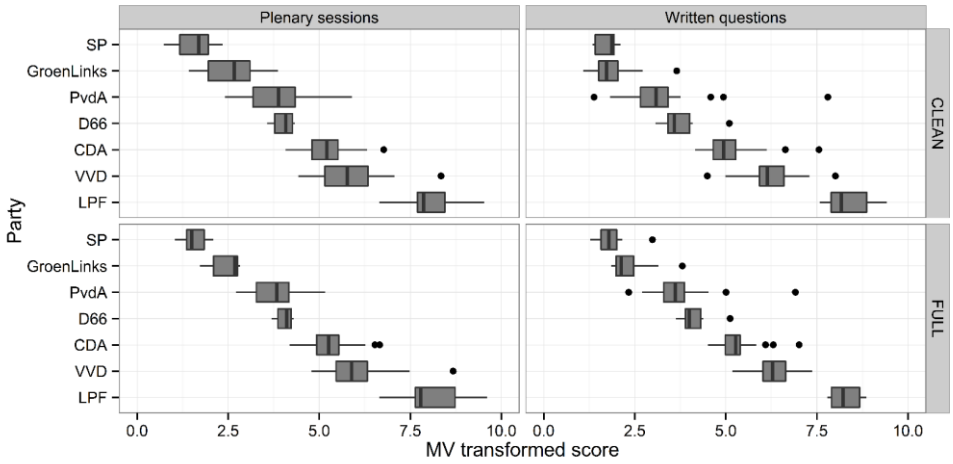
D.2.3 Preparing the virgin texts

The second decision to be made is to what extent virgin texts should be prepared and adjusted before using Wordscores to estimate the policy positions for the texts. The minimum requirements are to delete common stop words, which are useless in these texts anyway. Since we would expect that each MP would use them approximately in the same way, these stop words would receive an average score and would only pull all MPs more towards the middle of the range on which the texts are scored. In addition, words were reduced to their stems. I only excluded general stop words, so no stop words which are specific for parliament. For example, the word 'Speaker' is used many times, without having a substantive meaning. This is not problematic for the analysis. Assuming that all members approximately use these terms on a relative equal basis, the only effect it has is that scores would all move somewhat more to the centre. One thing which I tested was to see whether it made a difference to exclude words from the reference texts and virgin texts which were only used by a single MP.

Figure D.3 shows the effect of also excluding single word usage (CLEAN) compared to only removing stop words (FULL), for the legislative period 2003-2006 in the Netherlands as an example. Removing these words has only a small effect. The correlation between deviation from the average score based on the FULL-method and deviation from the average score based on the CLEAN-method is extremely high (.911, $p = < .01$). Since this does not have an effect, in the analyses presented in chapter 4 and 5 the FULL-models are used.

[107] This does not mean that I argue that the ratio on its one is not interesting. However, in the context of estimating positions with Wordscores it is not.

Figure D.3 Effect of removing individual use of words in Wordscores



D.2.4 Choosing the reference texts

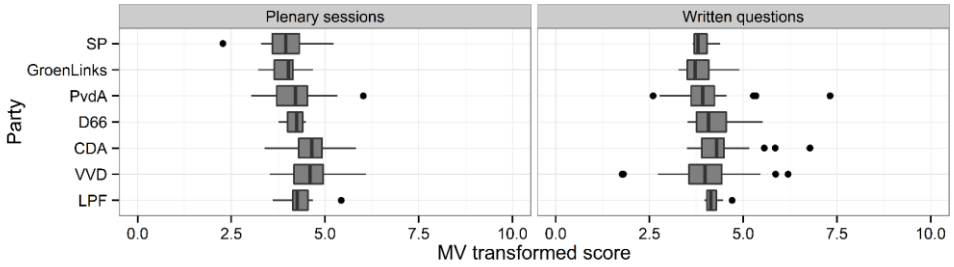
Choosing the right reference texts is the next step. There are various options. First, one could use the manifesto of the party to use as a reference texts. However, this would results in a comparison of two different texts. Manifestos have a different 'language' than (spoken) speeches or (much shorter) written questions. Therefore we would compare texts which in essence already are different, which would not work. A second option is to use the text of the parliamentary party group leaders and use their texts as reference texts. The advantage would be that we would compare speeches with speeches and written questions with written questions. However, while based on face validity this provides relatively good results, at least to how the MPs of different parties are scored towards each other, this has a major setback. The number of words which can be scored is namely extremely low: leaders do not always discuss all topics (as extensively) as specialists do. To overcome these problems, as explained in the methodological section in chapter four, I combine all virgin texts of MPs in one text, which serves as the reference texts for that party.

D.2.5 Including the estimated text in the reference text or not?

There is one important and potential problematic consequence of the choice to combine the virgin texts of co-partisans into a single party reference text. For each virgin text for which a score is estimated, in one of the reference texts the same virgin text is included. rom a theoretical point of view this can be defended: the goal of the Wordscores analysis presented in this book is to measure the deviation of an MP to the *average* party score. Thus, that the MP for which the deviation is estimated also influences the average seems justified. However, the question is which effect this has in methodological terms. Do we still get valid results when this choice is made? In order to asses this I did two tests. First, I run the Wordscores without words which are only used by a single MP as already discussed. Second,

I run the Wordscores without the virgin text for which a score is estimated included in the reference text. In this procedure when we want to score 150 virgin texts, instead of using 1 set of reference texts (which is the normal procedure) we need 150 different sets of reference texts. In each set of reference texts the text of MP-x is excluded and based on that set of reference texts a score is estimated for MP-x. In the end this results in 150 scores of separate Wordscores analyses, one for MP-1, one for MP-2 etc. These 150 scores are then combined as if they came from one single Wordscores analysis. Of course, this solution is not ideal, since the reference texts are not identical for all virgin texts, but it is the best estimation of the effect of an overlap in virgin- and reference texts. Figure D.4 shows the distribution of scores for texts, with the virgin text excluded from the reference text, for the legislative period between 2003 and 2006 in the Netherlands. What it shows is that all scores assigned to MPs move towards the middle of the scale. We still see that the boxplots for the parties are roughly in the order in which we would expect them, but the overlap is relatively large. This is even more so for the analysis based on the written questions. Including the virgin texts in the reference texts thus pulls the boxplot of a party more towards the position on which we would expect that party. This could be problematic; however, I am only interested in intraparty competition. And if we would calculate the deviation based on the analysis presented in Figure D.4 and compare it with the deviation used in the analyses in chapter 4 and 5, there is a very high and statistically significant correlation (0.803, $p < 0.01$). While we should be aware of this effect, it thus seems that the results can be used for the analyses presented in this chapter. Including the virgin texts in the reference texts does not create major problems for the validity of a measurement of intraparty competition.

Figure D.4 Effect of excluding an MP's own text from the reference text



D.3. Descriptive statistics for analyses chapter 4

Table D.3 Descriptive statistics for analysis chapter 4 (the Netherlands)

Variable	N	Mean	Median	SD	Min	Max
Preference votes	3591	-0.82	-0.88	0.68	-2.66	1.63
Woman	3591	0.33	0.00	0.47	0.00	1.00
First woman on list	3591	0.02	0.00	0.14	0.00	1.00
Non-western background	3591	0.06	0.00	0.23	0.00	1.00
First non-western background	3591	0.02	0.00	0.13	0.00	1.00
List position (log)	3591	1.26	1.32	0.37	0.30	1.90
List position (relative to elected members)	1869	1.04	1.22	0.50	0.02	1.50
List-pusher	3591	0.02	0.00	0.14	0.00	1.00
Member of parliament t-1	3591	0.18	0.00	0.38	0.00	1.00
Minister t-1	3591	0.01	0.00	0.10	0.00	1.00
Junior minister t-1	3591	0.01	0.00	0.10	0.00	1.00
Party - Candidates	1869	58.04	57.00	17.38	20.00	80.00
Party - Evaluation list-pusher	1869	7.27	7.45	0.69	3.76	8.32
Party - Old	1869	0.73	1.00	0.45	0.00	1.00
Party - Government t-1	1869	0.49	0.00	0.50	0.00	1.00
Party - Left Right scale	1869	5.23	5.20	2.21	1.00	9.25
Party - Populist	1869	0.18	0.00	0.38	0.00	1.00
Deviation (Plenary sessions)	433	0.02	0.02	0.02	0.00	0.14
Deviation (Written questions)	394	0.05	0.04	0.05	0.00	0.44

Table D.4 Descriptive statistics for analysis chapter 4 (Belgium)

Variable	N	Mean	Median	SD	Min	Max
Preference votes	6943	0.60	0.54	0.34	-0.24	1.73
Woman	6943	0.49	0.00	0.50	0.00	1.00
First woman on list	6943	0.06	0.00	0.24	0.00	1.00
Non-western background	6943	0.05	0.00	0.21	0.00	1.00
First non-western background	6943	0.02	0.00	0.15	0.00	1.00
List position (log)	6943	0.81	0.90	0.38	0.00	1.38
List-pusher	6943	0.08	0.00	0.27	0.00	1.00
Member of parliament t-1	6943	0.06	0.00	0.23	0.00	1.00
Minister t-1	6943	0.01	0.00	0.09	0.00	1.00
Junior minister t-1	6943	0.00	0.00	0.04	0.00	1.00
Party - Effective candidates	3430	17.64	19.00	5.48	4.00	24.00
Party - Old	3430	0.56	1.00	0.50	0.00	1.00
Party - Government t-1	3430	0.51	1.00	0.50	0.00	1.00
Party - Populist	3430	0.13	0.00	0.33	0.00	1.00
Party - Left Right scale	3430	5.32	5.56	2.40	1.89	9.86
Deviation (Plenary sessions)	174	0.04	0.03	0.04	0.00	0.18
Deviation (Written questions)	262	0.06	0.04	0.06	0.00	0.45

E Appendices for chapter 5

E.1. Rank difference for non-incumbents and incumbents

Table E.1 Rank difference for non-incumbents and incumbents (the Netherlands)

Election	Category	N	%	Mean RD	SE	T-test
Non-incumbents						
1998	Not running in 2002	86	53.8	3.20	1.11	t(155.7)=1.170
	Running in 2002	74	46.3	1.31	1.17	
2002	Not running in 2003	67	38.3	2.44	1.65	t(120.6)=-0.234
	Running in 2003	108	61.7	2.88	1.08	
2003	Not running in 2006	141	78.8	1.90	0.80	t(69.4)=2.140*
	Running in 2006	38	21.2	-1.32	1.27	
2006	Not running in 2010	185	82.6	2.52	0.88	t(73.5)=0.275
	Running in 2010	39	17.4	2.08	1.37	
2010	Not running in 2012	212	66.9	1.58	0.91	t(231.2)=-0.926
	Running in 2012	105	33.1	2.92	1.14	
2012	Not running in 2017	258	76.6	1.28	0.76	t(150.1)=-0.297
	Running in 2017	79	23.4	1.70	1.17	
Incumbents						
1998	Not running in 2002	60	31.7	-3.40	1.33	t(147.4)=-1.191
	Running in 2002	129	68.3	-1.27	1.19	
2002	Not running in 2003	35	21.0	-4.00	1.74	t(53.6)=-0.862
	Running in 2003	132	79.0	-2.31	0.90	
2003	Not running in 2006	69	37.5	-1.71	0.99	t(181.9)=-0.692
	Running in 2006	115	62.5	-0.57	1.31	
2006	Not running in 2010	59	32.6	-2.10	1.90	t(98.1)=0.521
	Running in 2010	122	67.4	-3.25	1.10	
2010	Not running in 2012	53	30.1	-3.98	1.36	t(98.1)=-0.379
	Running in 2012	123	69.9	-3.37	0.89	
2012	Not running in 2017	78	40.0	-2.94	1.31	t(159.2)=-0.607
	Running in 2017	117	60.0	-1.93	1.02	

Note: $^{*}p< .05$; $^{**}p< .01$; $^{***}p< .001$

Source: Own dataset. Included are all candidates who participated in election t in all districts from the same position, of parties who at least won a seat in the elections between 1998-2017.

Table E.2 Rank difference for non-incumbents and incumbents (Belgium)

Year	Category	N	%	Mean RD	SE	T-test
Non-incumbents						
2003	Not running in 2007	706	74.2	-0.41	0.20	t(438.8)=-3.863***
	Running in 2007	245	25.8	1.08	0.33	
2007	Not running in 2010	585	61.7	-0.39	0.20	t(679.5)=-2.417**
	Running in 2010	363	38.3	0.49	0.30	
2010	Not running in 2014	902	83.2	-0.13	0.17	t(257.2)=-1.836
	Running in 2014	182	16.8	0.64	0.38	
Incumbents						
2003	Not running in 2007	34	24.5	0.62	0.79	t(42.97)=0.574
	Running in 2007	105	75.5	0.13	0.30	
2007	Not running in 2010	28	19.7	1.29	1.06	t(32.31)=0.981
	Running in 2010	114	80.3	0.20	0.33	
2010	Not running in 2014	58	43.0	0.41	0.61	t(64.2)=1.098
	Running in 2014	77	57.0	-0.27	0.15	

Note: $^{*}p< .05$; $^{**}p< .01$; $^{***}p< .001$
Source: Own dataset. Included are all effective candidates of parties who won at least one seat in the elections between 2003-2014.

E.2. Descriptive statistics for analyses chapter 5

Table E.3 Descriptive statistics for analyse chapter 5 (the Netherlands)

Variable	Mean	Median	SD	Min	Max
I - Effect preference votes on legislative behaviour (plenary sessions) (N=923)					
Deviation from average party score (plenary sessions)	0.03	0.02	0.03	0.00	0.19
Preference votes (% individual threshold)	0.27	0.13	0.31	0.01	1.00
List position (relative to elected members)	0.69	0.67	0.41	0.02	4.43
Government party	0.58	1.00	0.49	0.00	1.00
MP t-1	0.47	0.00	0.50	0.00	1.00
II - Effect preference votes on legislative behaviour (written questions) (N=839)					
Deviation from average party score (written questions)	0.06	0.04	0.05	0.00	0.44
Preference votes t (% individual threshold)	0.26	0.13	0.30	0.00	1.00
List position t (relative to elected members)	0.70	0.70	0.40	0.02	4.43
Government party	0.54	1.00	0.50	0.00	1.00
MP t-1	0.47	0.00	0.50	0.00	1.00
III - Effect rank difference t-1 on list position t (N=1040)					
Position t (log)	1.12	1.18	0.41	0.00	1.88
Rank difference t-1	-1.03	-1.00	11.66	-43.00	45.00
Position t-1 (log)	1.19	1.26	0.38	0.30	1.87
MP t-1	0.61	1.00	0.49	0.00	1.00
Minister t-1	0.02	0.00	0.14	0.00	1.00
Junior minister t-1	0.02	0.00	0.15	0.00	1.00
Woman	0.33	0.00	0.47	0.00	1.00
IV - Effect preference votes on becoming (junior) minister (N=915)					
Government	0.08	0.00	0.27	0.00	1.00
Minister	0.04	0.00	0.20	0.00	1.00
Junior minister	0.04	0.00	0.21	0.00	1.00
Preference votes (% individual threshold)	0.20	0.08	0.27	0.00	1.00
Women	0.37	0.00	0.48	0.00	1.00
Government t-1	0.06	0.00	0.24	0.00	1.00
Minister t-1	0.03	0.00	0.17	0.00	1.00
Junior minister t-1	0.03	0.00	0.18	0.00	1.00
Position t (log)	1.41	1.51	0.37	0.30	1.90

Table E.4 Descriptive statistics for analyse chapter 5 (Belgium)

Variable	Mean	Median	SD	MIN	MAX
I - Effect preference votes on legislative behaviour (plenary sessions) (N=231)					
Deviation from average party score (plenary sessions)	0.04	0.03	0.03	0.00	0.18
Preference votes t (% individual threshold)	0.56	0.52	0.25	0.10	1.00
List position t (relative to elected members)	0.62	0.50	0.92	0.00	7.67
Government party	0.63	1.00	0.48	0.00	1.00
MP t-1	0.64	1.00	0.48	0.00	1.00
II - Effect preference votes on legislative behaviour (written questions) (N=328)					
Deviation from average party score (written questions)	0.06	0.04	0.06	0.00	0.45
Preference votes t (% individual threshold)	0.56	0.51	0.26	0.10	1.00
List position t (relative to elected members)	0.69	0.50	1.06	0.00	11.50
Government party	0.60	1.00	0.49	0.00	1.00
MP t-1	0.62	1.00	0.49	0.00	1.00
III - Effect rank difference t-1 on list position t (N=931)					
Position t (log)	0.64	0.70	0.43	0.00	1.38
Rank difference t-1	0.46	0.00	4.34	-15.00	23.00
Position t-1 (log)	0.66	0.70	0.41	0.00	1.38
MP t-1	0.28	0.00	0.45	0.00	1.00
Minister t-1	0.03	0.00	0.17	0.00	1.00
Junior minister t-1	0.01	0.00	0.07	0.00	1.00
Woman	0.45	0.00	0.50	0.00	1.00
IV - Effect preference votes on becoming (junior) minister (N=1639)					
Minister	0.03	0.00	0.18	0.00	1.00
Junior minister	0.01	0.00	0.11	0.00	1.00
Government	0.04	0.00	0.20	0.00	1.00
Preference votes t (% individual threshold)	0.30	0.21	0.26	0.03	1.00
Women	0.49	0.00	0.50	0.00	1.00
Minister t-1	0.03	0.00	0.16	0.00	1.00
Junior minister t-1	0.00	0.00	0.07	0.00	1.00
Government t-1	0.03	0.00	0.18	0.00	1.00
Position t (log)	0.84	0.90	0.37	0.00	1.38

E.3. The causal link between preference votes & deviation from the party

In two chapters of this book I test the relationship between the number of preference votes for a candidate and the deviation from the party line by that candidate. In the fourth chapter, where I focus on what factors impact the electoral success of a candidate, I test whether deviating from the party line in a certain legislative period affects the number of preference votes a candidate receives in the subsequent elections. In chapter five I test whether the preference votes a candidate receives influence whether he or she deviates more from the party line in the legislative period which follows after the election. In both chapters I do not find a strong relationship between both variables. It seems that in either direction both variables do not influence each other.

However, if preference votes and deviation from the party line have a relationship, which works in both ways and reinforces each other, then maybe the methods used in the fourth and fifth chapter were not sufficient to pick up the effects. Therefore, I conducted some additional analyses. I test the relationship not with all possible cases in my dataset, but only around the first legislative term of a candidate to see whether the results change. By looking only at the first time an event happens the problem of the possible reinforcing relationship disappears. For example, if a candidate served as an MP in three legislative terms, instead of including three cases for that candidate, only the first legislative term would be included. Furthermore, for the Netherlands, for which I have data over a longer time period, for some candidates I show the evolution of their preference votes and behaviour in parliament to see if we can find any patterns.

Table E.5 shows the replication of the analyses from chapter 4 (see table 4.4, page 87 and table 4.7, page 92). This table only shows the relevant variables for this additional analysis; the other variables included in the analyses are not presented here. Only candidates are included who at a certain election were a member of parliament in the legislative period before the election for the first time. The results for the Netherlands are based on the elections between 2003 and 2017 and for Belgium of the 2010 and 2014 elections. The results do not change dramatically if we only look at the effect of a first legislative period for a candidate on his or her number of preference votes. The only differences are that the effect of deviation from the party line measured based on written questions has a positive influence on preference votes for candidates lower on the list. However, this difference is very small. With regard to Belgium we see in the third model that deviating from the party line has a negative influence on preference votes in the next election for all candidates. This latter finding is in contrast with the results presented in chapter 4, where the effect for candidates lower on the list was positive instead of negative. The effects for written questions are bigger. Deviating from the average party score has a substantial positive effect for those candidates lower on the list: they get a bonus of 5 percentage points preference votes. However, all in all we should conclude that the effects are limited when we only look

Table E.5 Effect of deviation on preference votes after first legislative period

	The Netherlands		Belgium	
	Model 3	**Model 4**	**Model 3**	**Model 4**
(Intercept)	1.557*	1.435*	1.416***	1.431***
	(0.733)	(0.673)	(0.082)	(0.083)
List position	-0.413*	-0.536**	-0.639***	-0.886***
	(0.177)	(0.194)	(0.091)	(0.105)
Deviation (Plenary sessions) t-1	2.591		-0.342	
	(3.324)		(0.775)	
Deviation (Written questions) t-1		-4.736*		0.027
		(1.882)		(0.446)
Deviation*list position	-2.350	4.006	-3.194	1.949
	(4.361)	(2.873)	(2.041)	(1.021)
AIC	193.8	163.0	-47.2	-46.8
BIC	242.8	210.3	-9.2	-9.6
Log likelihood	-79.9	-64.5	39.6	39.4
Observations	132	119	79	76

Note: *p< .05; **p< .01; ***p< .001. Regression coefficients with standard errors in parentheses. Other variables which were included in the origin models in chapter 4 were included, but the results for these variables did not change and are therefore not presented here. The same applies to the random intercepts for parties, elections and (for Belgium) districts.
Source: own dataset.

at the effects of deviating from the party for those candidates who were a member of parliament for the first time. The first event analysis for this part (replication of analysis chapter 4) is less convincing than it is for the next part (replication of analysis chapter 5), since by definition the election of a candidate after his or hers first legislative period is already the second election in which the candidate participates. The behaviour of the MP therefore could have been influenced by the number of preference votes he or she received in his or her first election. This problem is not applicable when replicating the analysis for chapter 5, since here we look at the relationship between the election results of a candidate's first election and the behaviour of the candidate in his or her first legislative term.

Table E.6 shows the replication of the analyses presented in chapter 5 (see table 5.1, page 107 and table 5.2, page 107), to test whether candidates who receive more preference votes, deviate more from the average party score in the legislative period after the election. For the Netherlands I include candidates from the elections between 2002 and 2012 (five elections) and for Belgium from 2007 until 2010 (two elections)[108]. I only include a candidate if he or she did not participate in the previous election. The effects of preference votes on the behaviour of an MP are visualized in figure e.1. The results based on this selection are not essentially different from the results presented in the fifth chapter. First, the effects of preference votes on the behaviour of MPs remain limited. Second, the direction of the effects is the same in almost all models. Only in the Netherlands the effect of preference

[108] I do not include the Dutch elections of 1998 and the Belgium elections of 2003, because I have no data for all candidates whether they participated in the previous election or not.

votes on the deviation from the average party score, based on written questions, changes from a positive to a negative effect. However, in both cases the effect stays very limited and therefore we can hardly say that this has a substantial influence.

Table E.6 Effect of preference votes on deviation in first legislative period

	The Netherlands		Belgium	
	Plenary sessions	**Written questions**	**Plenary sessions**	**Written questions**
(Constant)	0.030**	0.063***	0.033**	0.097***
	(0.008)	(0.013)	(0.012)	(0.022)
Preference votes	0.010	-0.013	0.001	-0.047
	(0.007)	(0.014)	(0.021)	(0.043)
List position	0.004	0.010	0.015*	-0.008
	(0.004)	(0.009)	(0.006)	(0.011)
Government party	-0.001	-0.004	-0.018	-0.035*
	(0.005)	(0.009)	(0.009)	(0.017)
AIC	-1147.8	-681.1	-201.9	-134.6
BIC	-1122.7	-656.9	-186.6	-119.1
Log likelihood	580.9	347.5	108.9	75.3
Observations	267	235	50	51

Note: *p< .05; **p< .01; ***p< .001. Regression coefficients with standard errors in parentheses. Random intercepts for parties, elections and (in the case of Belgium) districts were included, there was no variation between the intercepts for the different groups.
Source: Own dataset.

Figure E.1 Effects of preference votes on deviation in first legislative period

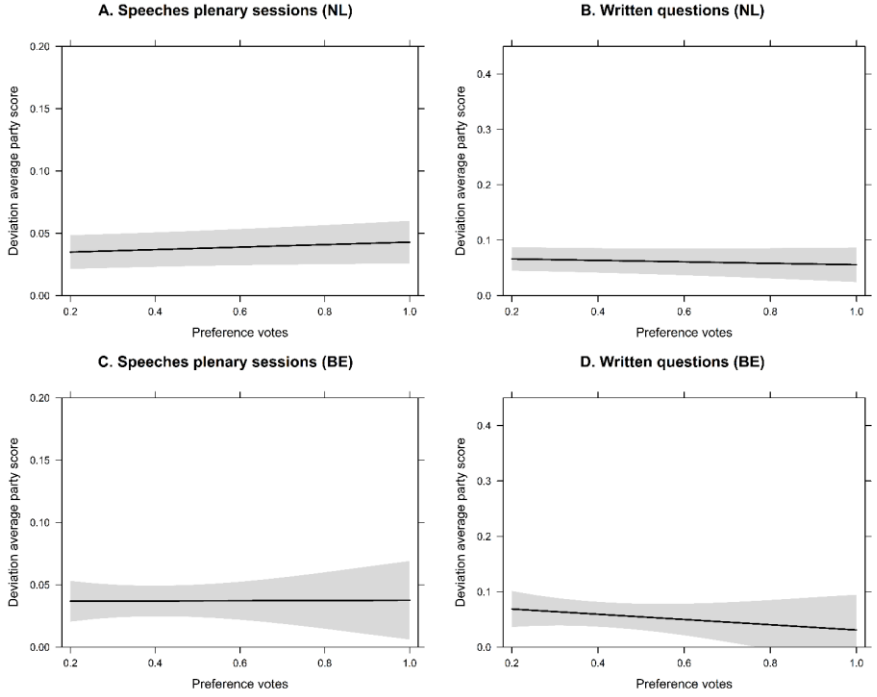
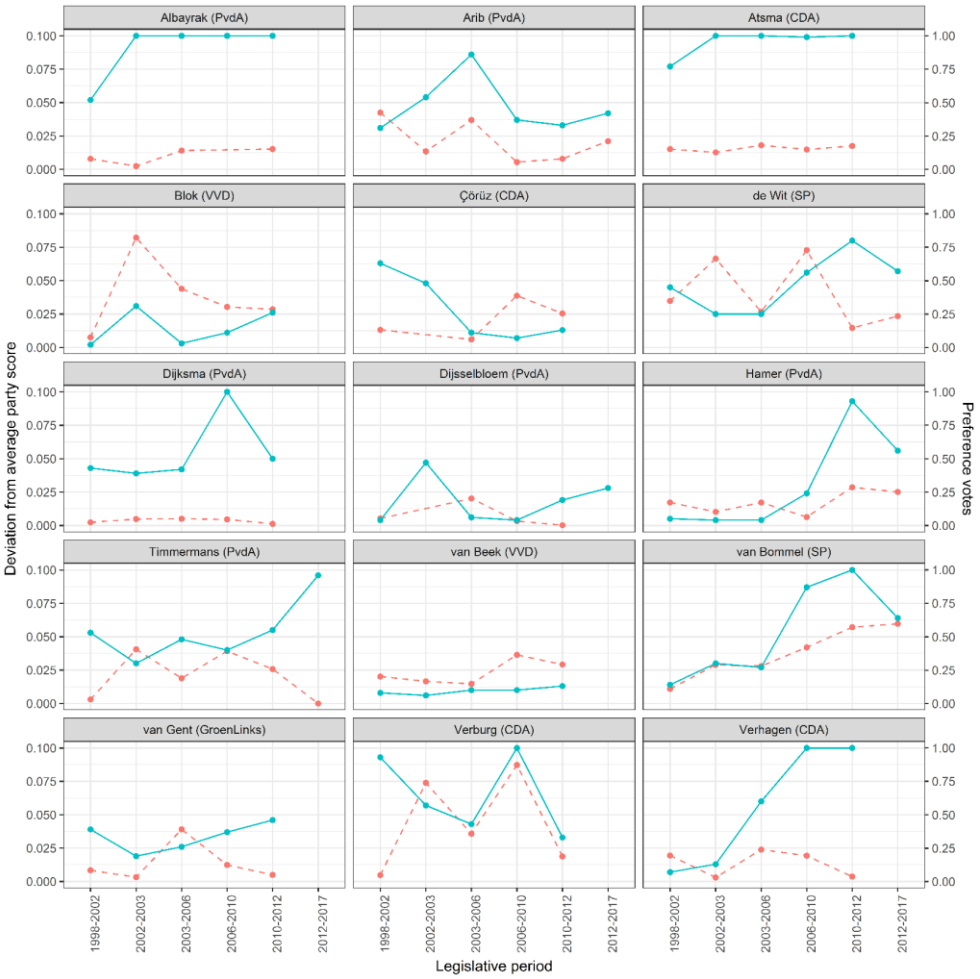


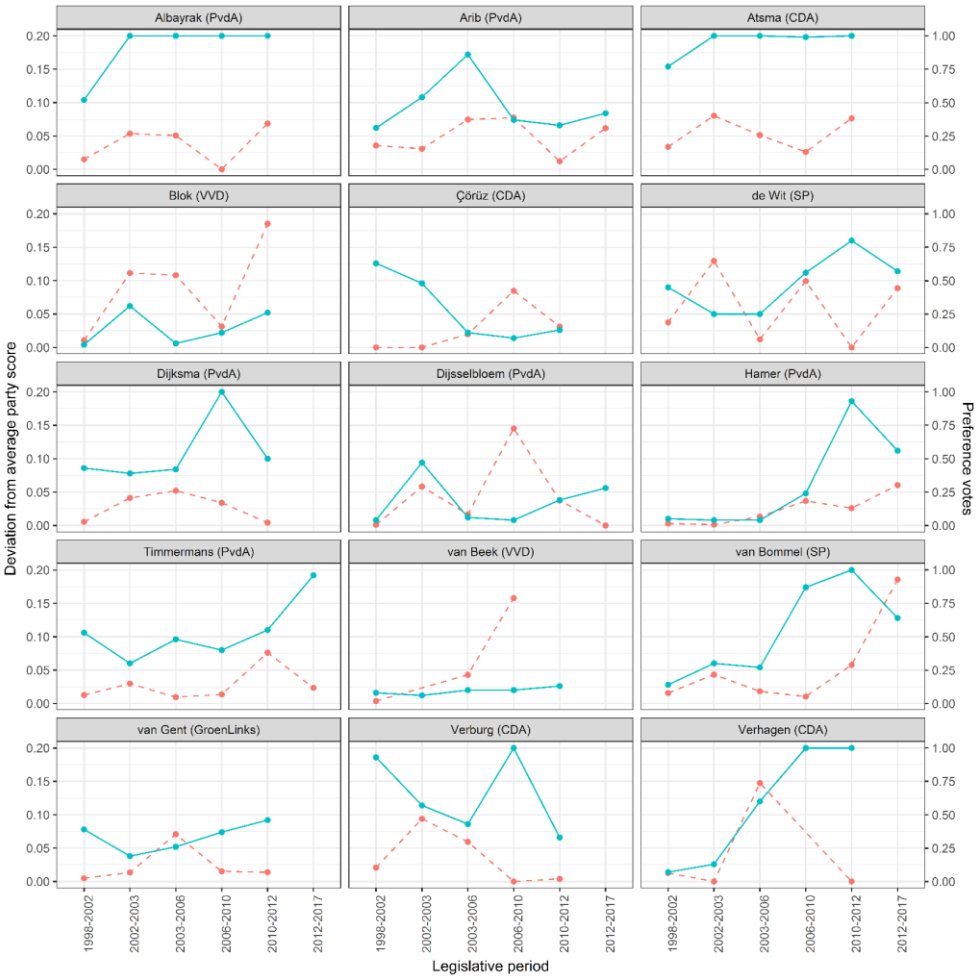
Figure E.2 and figure e.3 show the evolution of preference votes for candidates who were an MP for 5 or 6 legislative periods in the Netherlands between 1998 and 2017, and their deviation from the average party score. In figure e.2 the deviation is based on the text analyses of speeches in plenary sessions and in figure e.3 on the written questions MPs submitted. These figures show no clear pattern. It also does not look like different types of MPs exist. There is for example not a group of MPs who constantly deviate more from the party line if they receive more preference votes, and vice versa. There are also no MPs who constantly receive more preference votes if they deviate more from the party line in the previous legislative period. Based on the additional evidence presented in this appendix the conclusions of chapter 4 and chapter 5 still stand.

Figure E.2 Preference votes & deviation from the party (Plenary sessions)



The solid line represents the evaluation of the preference votes for a candidate, as a percentage of the individual threshold, with a maximum score of 1 (right y-axis). The dashed line represents the deviation from the average party score (left y-axis).

Figure E.3 Preference votes & deviation from the party (Written questions)



The solid line represents the evaluation of the preference votes for a candidate, as a percentage of the individual threshold, with a maximum score of 1 (right y-axis). The dashed line represents the deviation from the average party score (left y-axis).