

Appendix

RESULTS

Table A1 relates disproportionality to district magnitude using regressions with panel-corrected standard errors. The only difference between Model 1 and Model 2 is the presence of the inverse of the number of seats (1/DM) in addition to DM in order to determine whether there is a diminishing return of DM. For the diminishing marginal return to be confirmed, two conditions must be satisfied: 1/DM should be of the opposite sign of DM and the R² should be larger in the model including both DM and 1/DM than in the simple DM model. This is precisely what is observed here. DM has a negative effect on disproportionality but with diminishing marginal returns since DM and 1/DM show opposite signs with a significant increase in R² between models 1 and 2. Note that we follow the approach adopted by Carey and Hix. Model 2 is used for the simulations presented in Figure 1.

Table A1: The Non-Linear Effect of District Magnitude on Disproportionality

	Model 1	Model 2
	b/se	b/se
DM	-1.39*** (0.04)	-0.19*** (0.03)
1/DM		37.84*** (1.99)
Order	-0.70* (0.30)	-0.70* (0.30)
Fractionalization	6.66** (2.43)	6.66** (2.43)
Brussels	-0.18 (0.40)	-0.18 (0.40)
Constant	-1.39 (9.45)	-22.20* (9.46)
R2	0.44	0.90
N	288	288

Regressions with panel-corrected standard errors that control for both group-specific and period-specific effects (xtpcse command in Stata). * p<.05; ** p<.01; *** p<.001

Table A2 shows the relationship between the effective number of parties and district magnitude. DM has a positive effect (model 3), while 1/DM (model 4) has a negative effect and increases R², confirming the diminishing marginal returns of an increase in DM. Model 4 is used for the simulations presented in Figure 2. Those are basically the same models as in Table A1 except for the dependent variable.

Table A2: The Non-Linear Effect of District Magnitude on the Effective Number of Parties

	Model 3	Model 4
	b/se	b/se
DM	0.08*** (0.00)	0.00 (0.00)
1/DM		-2.61*** (0.06)
Order	-0.09** (0.03)	-0.09** (0.03)
Fractionalization	0.92*** (0.24)	0.92*** (0.24)
Brussels	0.06 (0.04)	0.06 (0.04)
Constant	-1.20 (0.92)	0.23 (0.92)
R2	0.34	0.84
Obs.	288	288

Regressions with panel-corrected standard errors that control for both group-specific and period-specific effects (xtpcse command in Stata). * p<.05; ** p<.01; *** p<.001

**Table A3: District Magnitude and the Probability of Combined Good Outcomes
(Disproportionality and ENPP)**

	Model 5	Model 6
	b/se	b/se
DM	0.03 (0.04)	-0.10* (0.05)
1/DM		-8.21* (3.44)
Order	0.31* (0.15)	0.31* (0.15)
Fractionalization	-4.20*** (1.25)	-4.18*** (1.24)
Brussels	-0.6 (0.51)	-0.51 (0.34)
Constant	13.93** (4.77)	16.61*** (4.86)
Sigma u	0.71 (0.25)	0.34 (0.19)
Pseudo R2	0.11	0.16
Obs.	288	288

Probit estimation with panel-corrected standard errors that control for both group-specific and period-specific effects (xtprobit command in Stata). * p<.05; ** p<.01; *** p<.001

Robustness checks

The estimated coefficients of DM-squared in Table A4 confirm that the relationship between DM and Disproportionality, and the Effective Number of Parties or Good Outcomes is non-linear. When DM-squared is significantly different from zero and its sign is the opposite of DM's, the relationship changes at a decreasing rate.

Table A4: The Quadratic Effect of District Magnitude on Disproportionality, the Effective Number of Parties and the Probability of Combined Good Outcomes

	Model 7 Disproportionality	Model 8 Effective Number of Parties	Model 9 Good Outcomes
	b/se	b/se	b/se
DM	-6.35*** (1.11)	0.41*** (0.09)	0.44** (0.14)
DM-squared	0.22*** (0.05)	-0.01*** (0.00)	-0.02** (0.01)
Order	-0.70* (0.31)	-0.09*** (0.03)	0.31* (0.15)
Fractionalization	6.66** (2.50)	0.92*** (0.20)	-4.17*** (1.24)
Brussels	-0.18 (3.46)	0.06 (0.28)	-0.53 (0.35)
Constant	14.90 (10.79)	-2.27** (0.88)	12.41** (4.75)
Sigma u			0.37 (0.19)
(Pseudo) R2	0.78	0.67	0.16
N	288	288	288

Models with panel-corrected standard errors that control for both group-specific and period-specific effects.

* p<.05; ** p<.01; *** p<.001

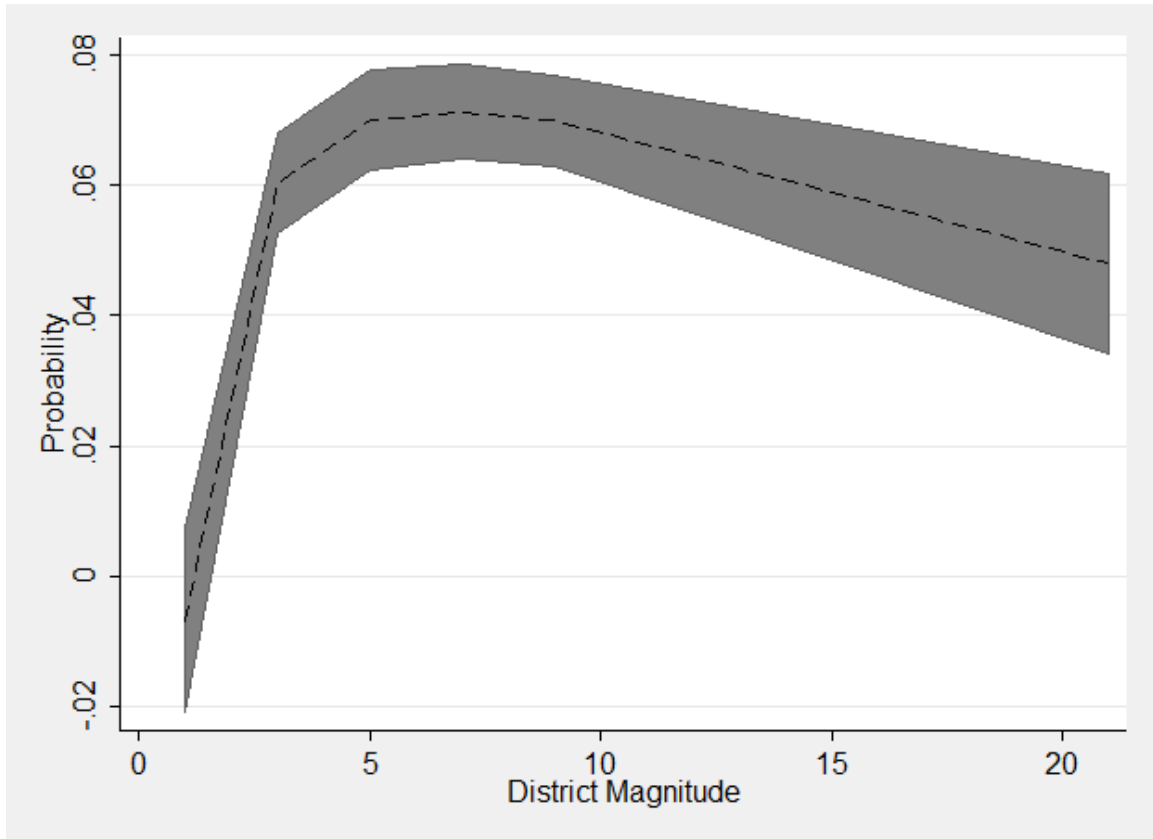
Table A5: District Magnitude and the Probability of Combined Good Outcomes with the Carey and Hix Thresholds.

	Model 10
	Good Outcomes
	b/se
DM	-0.06 (0.04)
1 / DM	-4.35 (2.79)
Order	0.24 (0.18)
Fractionalization	-3.29* (1.46)
Brussels	-0.37 (0.28)
Constant	12.00* (5.64)
Sigma u	0.00 (0.14)
Pseudo R2	0.15
N	288

Models with panel-corrected standard errors that control for both group-specific and period-specific effects.

* p<.05; ** p<.01; *** p<.001

Figure A1: District Magnitude and the Probability of Combined Good Outcomes with Carey and Hix Thresholds



The simulations are produced from Model 10 in Table A5.

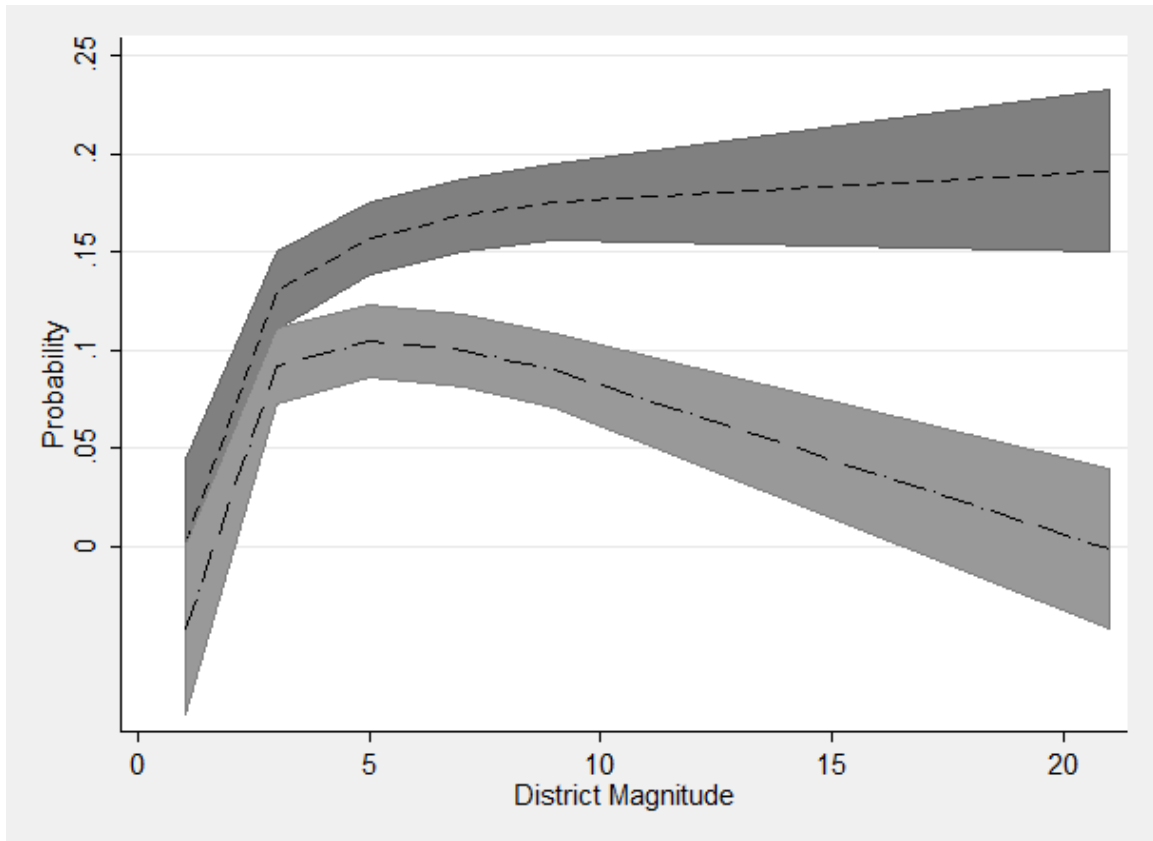
Table A6: The Effect of District Magnitude on Disproportionality (Models 11 and 12), the Effective Number of Parties (Models 13 and 14) and the Probability of Combined Good Outcomes (Models 15 and 16) with interactions between the Order of Elections and Fractionalization.

	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16
	b/se	b/se	b/se	b/se	b/se	b/se
DM	-1.39*** (0.04)	-0.19*** (0.03)	0.08*** (0.00)	0.00 (0.00)	0.03 (0.04)	-0.10* (0.05)
1/DM		37.84*** (1.99)		-2.61*** (0.06)		-8.16* (3.43)
Order	-5.33 (11.5)	-5.33 (11.5)	0.80 (1.11)	0.80 (1.11)	-2.60 (6.34)	-2.46 (6.32)
Fractionalization	4.27 (6.41)	4.27 (6.41)	1.37* (0.62)	1.37* (0.62)	-5.90 (3.95)	-5.79 (3.93)
Brussels	-0.18 (0.40)	-0.18 (0.40)	0.06 (0.04)	0.06 (0.04)	-0.60 (0.51)	-0.51 (0.34)
Order X Frac	1.20 (2.97)	1.20 (2.97)	-0.23 (0.29)	-0.23 (0.29)	0.76 (1.66)	0.72 (1.65)
Constant	7.88 (24.84)	-12.93 (24.84)	-2.98 (2.40)	-1.54 (2.41)	20.44 (15.1)	22.77 (15.02)
Sigma u					0.71 (0.25)	0.33 (0.16)
(Pseudo) R2	0.44	0.90	0.34	0.84	0.11	0.17
N	288	288	288	288	288	288

Table A7: The Effect of District Magnitude on Disproportionality (Models 17 and 18), the Effective Number of Parties (Models 19 and 20) and the Probability of Combined Good Outcomes (Models 21 and 22) with interactions between DM and 1/DM and Fractionalization

	model17	model18	model19	model20	model21	model22
	b/se	b/se	b/se	b/se	b/se	b/se
DM	1.96 (1.42)	-0.99 (1.11)	-0.23** (0.08)	-0.18 (0.11)	-0.29 (0.80)	-2.83* (1.35)
1/DM		-92.59 (70.81)		1.83 (1.98)		-215.99* (102.36)
Order	-0.70* (0.30)	-0.70* (0.30)	-0.09** (0.03)	-0.09** (0.03)	0.31* (0.15)	0.33* (0.16)
Fractionalization	13.29** (5.01)	-5.24 (6.57)	0.29 (0.25)	0.92 (0.50)	-4.96* (2.28)	-18.62** (6.77)
Brussels	-0.18 (0.40)	-0.18 (0.40)	0.06 (0.04)	0.06 (0.04)	-0.61 (0.52)	-0.52 (0.35)
Frac. X DM	-0.87* (0.37)	0.21 (0.29)	0.08*** (0.02)	0.04 (0.03)	0.09 (0.21)	0.71* (0.35)
Frac. X 1/DM		33.69 (18.28)		-1.15* (0.51)		53.79* (26.05)
Constant	-27.07 (19.41)	23.85 (25.45)	1.22 (0.99)	0.21 (1.93)	16.85 (8.71)	72.29** (26.42)
Sigma u					0.71 (0.25)	0.36 (0.19)
(Pseudo) R2	0.44	0.91	0.35	0.85	0.11	0.19
N	288	288	288	288	288	288

Figure A2: District Magnitude and the Probability of Combined Good Outcomes under Highly Fractionalized Elections and Weakly Fractionalized Elections



The simulations are produced from Model 22 in Table A7. The highly fractionalized elections are shown in light grey and the weakly fractionalized elections in dark grey.

Table A8 presents the 16 experimental sessions. Half were located in Brussels (Belgium) and the other half in Montreal (Canada) between June 2012 and February 2013. The main treatment was the district magnitude (DM). The last three columns show some demographics for the subjects in each session: mean age, sex and occupation.

Table A8: Experimental sessions

ID SESSION	Location	Time	DM	Nb.Subjects	Age(mean/s.d.)	Male(%)	Student(%)
1	Brussels	2012-06-25	1	21	24,7 (3,7)	57	76
2	Brussels	2012-06-25	3	21	23,4(2,5)	52	100
3	Brussels	2012-06-27	5	21	23,1 (2,6)	57	95
4	Brussels	2012-09-26	7	21	20,3 (1,3)	48	95
5	Brussels	2012-09-28	9	21	21,3 (1,4)	33	100
6	Brussels	2012-07-02	21	21	23,6 (4,6)	38	95
11	Montreal	2013-02-05	1	21	34,3 (11,5)	52	38
12	Montreal	2013-02-05	3	21	28,5 (7,7)	67	76
13	Montreal	2013-02-06	5	21	28,3 (5,9)	19	71
14	Montreal	2013-02-06	7	21	28,8 (9,9)	48	57
15	Montreal	2013-02-12	9	21	35,3 (11,8)	57	57
16	Montreal	2013-02-12	21	21	29,3 (6,4)	57	57

Experimental design

The basis of the experimental design is the organization of elections with sessions/groups of 21 voters. The number of seats is different in each session/group. Each DM (1, 3, 5, 7, 9, and 21) is repeated in Montreal and Brussels. The group of 21 subjects simultaneously cast a vote for party A, party B, party C or party D. They cannot abstain.

Subjects received a fix amount of 3 Euros or 10 Canadian Dollars and a variable amount (on average 19 € or CAN\$) based on the electoral results. The mean individual payoff at an election is 16 points. The total payoff in points is divided by 20 to convert into money (€ or CAN\$). For more details, see the section “Electoral experiment: Information presented to subjects”.

The payoff for each individual depends on her type and the electoral result. The information given to subjects is presented in details in the “Sheet of paper distributed to each subject” (next page). After each series of three elections, the distribution of types changes, as presented in Table A9. The distributions are the same in every group. In order to reduce the probability that a participant gets bored, each individual’s type changes from one series to the next.

Table A9: Order of Presentation of the Different Distributions

Series	Type 1	Type 2	Type 3	Type 4
1	6	5	5	5
2	5	6	5	5
3	5	5	6	5
4	5	5	5	6
5	7	6	4	4
6	6	7	4	4
7	4	4	7	6
8	4	4	6	7

Note: The distribution for practice is Series 1.

The Hare quota largest remainder electoral rule was used. The number of seats (or DM) determines the size of the quota. The total number of votes is divided by the number of seats to set the quota of votes needed to win one seat. For instance, if DM is 3, the quota is 7 ($21 \div 3$). The number of votes received by each party at a given election is divided by the quota to determine the number of seats and the remaining votes. Each party wins a seat for every "quota". If seats remain unallocated, the party with the most remaining votes wins a seat. In the case of equal numbers of remaining votes, the party with the largest total number of votes wins the seat. This is the tie breaking rule currently used in Belgium (Bouhon and Reuchamps, 2012). In case of equal numbers of remaining votes and total votes, there is a random draw.

Recruitment in Montreal is from a subject bank and is assisted by the software ORSE (Greiner, 2004). In Brussels, the subjects are mostly students selected randomly from a larger group who

volunteered to participate in experiments about elections. The subjects did not know the purpose of the study; they were told that it was a voting experiment.

Sheet of paper distributed to each subject

Types of voters

	Payoff associated with party A	Payoff associated with party B	Payoff associated with party C	Payoff associated with party D
TYPE 1	30 points	20 points	10 points	0 points
TYPE 2	20 points	30 points	10 points	0 points
TYPE 3	0 points	10 points	30 points	20 points
TYPE 4	0 points	10 points	20 points	30 points

$$\begin{aligned} \text{Election Payoff} &= \% \text{ Seats of party A} \times \text{Payoff associated with party A} \\ &+ \% \text{ Seats of party B} \times \text{Payoff associated with party B} \\ &+ \% \text{ Seats of party C} \times \text{Payoff associated with party C} \\ &+ \% \text{ Seats of party D} \times \text{Payoff associated with party D} \end{aligned}$$

Electoral experiment: Information presented to subjects

Here is an example (DM=5) of the instructions presented to subjects in the lab prior to the experiment. This is our translation of the original instructions in French. The instructions for other DM are the same except for the number of seats at stake and consequently the quota.

Today you will participate in a voting experiment.

The experiment will consist of eight series of three elections in which you will act as voters.

The session will last a maximum of 2 hours.

Course of events

The session is divided into three steps:

1st: The elections

2nd: The post-election survey

3rd: Collecting your payment

The electoral experiment

There will be eight series of three elections.

At each series, each participant will be randomly assigned to a voter type.

The gain associated with each party varies from one type to another.

Political parties

At each election, there are four political parties (A, B, C, D).

There are 4 different types of voters.

Each type has a different set of preferences among the parties

Types of voters

In front of you there is a sheet of paper distinguishing type 1, type 2, type 3 and type 4.

The sheet indicates for each type how many points are associated with each party.

We will explain later how this is used to calculate the electoral payoff.

Voters

There are 21 voters.

A type is randomly assigned to every participant at the beginning of each series of three elections.

Each participant will keep this type for those three elections.

You will participate in 8 series of three elections. Each series will have a different distribution of types of voters.

At each election, we will tell you how many voters (including yourself) are of each type.

Your final payoff

At the end of the experiment, we will convert your points into money.

We will divide your cumulative points by 20 to determine the value of your payoff in dollars.

Example: $400 \text{ points} / 20 = \$ 20$.

Your payoff

At each election, the number of points you earn depends on the number of seats won by each party and your type.

The more seats the parties with regard to which your associated payoff is high the more points you gain.

The seats

Five seats are at stake in each election.

Each party can win 0 to 5 seats.

How are the five seats allocated?

A party wins one seat for every 4.2 votes received.

If the party gets 5 votes, it wins at least 1 seat;

If the party gets 9 votes, it wins at least 2 seats;

If the party gets 13 votes, it wins at least 3 seats;

If the party gets 17 votes, it wins at least 4 seats;

If the party gets 21 votes, it wins 5 seats.

If less than five seats are allocated, the parties with the most remaining votes are awarded the remaining seats.

In the case of equal numbers of remaining votes, the party with the largest total number of votes wins the seat.

In the case of equal numbers of remaining votes and total numbers of votes, there is a draw.

Example of seat distribution

Party A gets 7 votes

Party B gets 6 votes

Party C gets 4 votes

Party D gets 4 votes

Parties A and B each get one seat because they have obtained one time the quota of 4.2 votes.

The other parties have no seat since they all received less than 4.2 votes.

Party A gets 7 votes, 1 seat and 2.8 remaining votes

Party B gets 6 votes, 1 seat and 1.8 remaining vote

Party C gets 4 votes, 0 seat and 4 remaining votes

Party D gets 4 votes, 0 seat and 4 remaining votes

3 seats out of 5 remain to be allocated. These 3 remaining seats go to parties C, D, and A.

The final outcome is thus: party A gets 2 seats, and party B, C, and D each one seat.

How is your gain calculated?

At the end of each election, you will receive points based on:

- 1 - your payoff associated with each party determined by your type;
- 2 - the number of seats won by each party.

As indicated in the "Types of voters" sheet, the electoral gain is equal to:

% seats won by party A x Payoff associated with party A +
% seats won by party B x Payoff associated with party B +
% seats won by party C x Payoff associated with party C +
% seats won by party D x Payoff associated with party D.

Example of electoral payoff

For this example, the result is:

- Party A gets 2 seats, so 40 % of the seats
- Party B gets 1 seat, so 20 % of the seats
- Party C gets 1 seat, so 20 % of the seats
- Party D gets 1 seat, so 20 % of the seats
- Your Type is 1.

I invite you to look at Type 1 in the sheet you received. The payoff associated with Party A is 30 points, the payoff associated with party B is 20 points, the payoff associated with party C is 10 points and the payoff associated with party D is 0 points.

The payoff for Type 1 is:

$$= 40\% \times 30 \text{ pts} + 20\% \times 20 \text{ pts} + 20\% \times 10 \text{ pts} + 20\% \times 0 \text{ pts}$$

$$= 12\text{pts} + 4\text{pts} + 2\text{pts} + 0\text{pts}$$
$$= 18 \text{ points}$$

Note that the payoff at each election is not the same for all Types. You can see on the sheet:

For Type 2, the payoff associated with Party A is 20 points, the payoff associated with party B is 30 points, the payoff associated with party C is 10 points, and the payoff associated with party D is 0 points. *The electoral payoff is therefore 16 points.*

For Type 3, the payoff associated with Party A is 0 points, the payoff associated with party B is 10 points, the payoff associated with party C is 30 points, and the payoff associated with party D is 20 points. *The electoral payoff is therefore 12 points.*

For Type 4, the payoff associated with Party A is 0 points, the payoff associated with party B is 10 points, the payoff associated with party C is 20 points, and the payoff associated with party D is 30 points. *The electoral payoff is therefore 12 points.*

When you are voting

We will tell you on the screen:

- Your type.
- Your payoff associated with A, B, C and D.
- The number of voters of each type among the 21 voters (including yourself).

You will:

- Vote for one of the four political parties.
- Answer the following two questions before voting:

The two questions

1) Among the other 20 voters (excluding yourself) how many voters do you think will vote for each party at this election?

2) On a scale where 0 means NO CHANCE and 10 means that it is CERTAIN, what are the odds that your vote decides which party will get one more seat?

After each election

You will be informed about:

- the number of votes, the number of seats and the percentage of seats won by each party;
- the payoff associated with each party;

- your electoral payoff.

After the 24 elections, you will have to answer a short questionnaire.

After completing this questionnaire, you will receive your final payoff converted into money.

In order to meet the two hour deadline to complete the whole experiment, a limit is set for the duration of each election.

You have:

- 100 seconds to answer the two questions, 60 seconds to vote and 50 seconds to see the results for the first election of each series.

- 70 seconds to answer the two questions, 45 seconds to vote and 35 seconds to see the results for the following elections.

At the end of each election we will ask you to click the tab "continue".

The time remaining is shown at the top right of your screen.

A practice before starting

To ensure that everyone understands the rules, we would like you to participate in two elections.

No payoff is given for these two practice elections.

It is possible to ask questions during this practice by raising a hand.

There is no time limit during the practice.

NOW PLEASE START THE PRACTICE

The experiment is now complete.

Please answer the following questions.

Post-electoral questionnaire

For each of the following, please tell us which option you prefer.

For example, on the first line : would you rather have one chance out of 10 of winning \$ 2.00 and nine chances out of 10 of winning \$ 1.60 OR one chance out of 10 of winning \$ 3.85 and nine chances out of 10 of winning \$ 0.10 ?

One of the 10 lotteries will be randomly selected. You will earn one of the two amounts identified in the option you choose, after a draw with the probabilities associated with the two amounts corresponding to your option.

- Lottery 1: 1/10 to get \$ 2.00, 9/10 to get \$ 1.60 OR 1/10 to get \$ 3.85, 9/10 to get \$ 0.10
- Lottery 2: 2/10 to get \$ 2.00, 8/10 to get \$ 1.60 OR 2/10 to get \$ 3.85, 8/10 to get \$ 0.10
- Lottery 3: 3/10 to get \$ 2.00, 7/10 to get \$ 1.60 OR 3/10 to get \$ 3.85, 7/10 to get \$ 0.10
- Lottery 4: 4/10 to get \$ 2.00, 6/10 to get \$ 1.60 OR 4/10 to get \$ 3.85, 6/10 to get \$ 0.10
- Lottery 5: 5/10 to get \$ 2.00, 5/10 to get \$ 1.60 OR 5/10 to get \$ 3.85, 5/10 to get \$ 0.10
- Lottery 6: 6/10 to get \$ 2.00, 4/10 to get \$ 1.60 OR 6/10 to get \$ 3.85, 4/10 to get \$ 0.10
- Lottery 7: 7/10 to get \$ 2.00, 3/10 to get \$ 1.60 OR 7/10 to get \$ 3.85, 3/10 to get \$ 0.10
- Lottery 8: 8/10 to get \$ 2.00, 2/10 to get \$ 1.60 OR 8/10 to get \$ 3.85, 2/10 to get \$ 0.10
- Lottery 9: 9/10 to get \$ 2.00, 1/10 to get \$ 1.60 OR 9/10 to get \$ 3.85, 1/10 to get \$ 0.10
- Lottery 10: 10/10 to get \$ 2.00, 0/10 to get \$ 1.60 OR 10/10 to get \$ 3.85, 0/10 to get \$ 0.10

In addition to the experiment payoffs and those made in the lottery (previous question), you have a chance to win an additional gain in the next game.

Two persons will be drawn at random from your group. These people will get extra money.

In the following two boxes, specify how you would like to share a prize of 100 points with another participant you do not know.

You can keep 100 points, you can give it all or you can divide the points in any way as long as the total of the two boxes is 100 points.

In the left box, enter the amount you want to keep.

In the right box, specify the amount you want to give. If you give nothing, enter 0.

The first person drawn at random will receive the amount she wants to keep while the second person drawn at random will receive the amount the first person decided to give.

Enter the amount you want to keep: Enter the amount you want to give:

Q1 In what year were you born? 19__

Q2 Are you? 0 = "a female", 1 = "a male"

Q3 Are you a student? 0 = "No", 1 = "Yes, full-time", 2 = "Yes, part-time"

Q4 Do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: It is the duty of every citizen to vote in an election. 1 = "strongly agree" 2 = "somewhat agree", 3 = "somewhat disagree", 4 = "strongly disagree"

Q5 Do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statement: To preserve democracy, it is essential that the vast majority of citizens vote in elections. 1 = "strongly agree" 2 = "somewhat agree", 3 = "somewhat disagree", 4 = "strongly disagree"

Q6 If you did not vote in an election, would you feel very guilty, somewhat guilty, slightly guilty or not guilty at all? 1 = "very guilty" 2 = "somewhat guilty", 3 = "slightly guilty", 4 = "not at all guilty"

Q7 On a 0 - 10 scale, do you consider yourself as someone generally careful or as someone who likes to take risks?

0 = "you are extremely careful" 10 = "you like to take risks"

The intermediate values are used to qualify your answer.

Q8 What is your level of interest in politics in general? Give a score between 0 and 10, where 0 means that you have no interest in politics, and 10 you have a lot of interest

0 = "no interest" 10 = "A lot of interest"

The intermediate values are used to qualify your answer.

Q9 In general, would you say that you feel very close, pretty close, somewhat close or not close at all to a political party? 1 = "very close", 2 = "pretty close", 3 = "somewhat close" 4 = "not close at all"

Q10 Brussels

Which political party do you feel closest to?

1="Nieuw-Vlaamse Alliantie (N-VA)"; 2="Parti socialiste (PS)"; 3="Christen-Democratisch en Vlaams (CD&V)"; 4="Mouvement réformateur (MR)"; 5="Socialistische Partij Anders (sp.a)"; 6="Vlaams Belang"; 7="Centre démocrate humaniste (cdH)"; 8="Open Vlaamse Liberalen en Democraten (Open VLD)"; 9="Ecolo"; 10="Groen!"; 11="Lijst Dedecker (LDD)"; 12="Parti populaire (PP)"; 13="Fédéralistes Démocrates Francophones(FDF) ";14="other"; 0="no party"

Q10 Montreal

Which provincial political party in Quebec do you feel closest to?

101="Parti Québécois (PQ)"; 102="Parti Libéral du Québec (PLQ)"; 103="Coalition Avenir Québec (CAQ)"; 104="Québec Solidaire (QS)"; 105="Option Nationale (ON)"; 106="Parti Vert"; 14="other"; 0="no party"

Q11 Personally, during the experiment did you take into consideration the previous election results to decide how to vote in the next election? 1 = "Often" 2 = "Sometimes" 3 = "Never"

Q12 -15 Brussels

B Q12 Have you ever had the right to vote in a communal, provincial, regional, federal or European election? 0 = "no", 1 = "yes" 2 = "I do not know"

B Q13 Did you vote in the last federal general election on 13 June 2010? 0 = "yes", 1 = "no, no right to", 2 = "No, not voted"

B Q14 Which party did you vote for in the last federal election, June 13, 2010?

1="Nieuw-Vlaamse Alliantie (N-VA)"; 2="Parti socialiste (PS)"; 3="Christen-Democratisch en Vlaams (CD&V)"; 4="Mouvement réformateur (MR)"; 5="Socialistische Partij Anders (sp.a)"; 6="Vlaams Belang"; 7="Centre démocrate humaniste (cdH)"; 8="Open Vlaamse Liberalen en Democraten (Open VLD)"; 9="Ecolo"; 10="Groen!"; 11="Lijst Dedecker (LDD)"; 12="Parti populaire (PP)"; 13 = " Other" , 0 = "I did not vote"

B Q15 Which party will you vote for in the next federal election in 2014?

1="Nieuw-Vlaamse Alliantie (N-VA)"; 2="Parti socialiste (PS)"; 3="Christen-Democratisch en Vlaams (CD&V)"; 4="Mouvement réformateur (MR)"; 5="Socialistische Partij Anders (sp.a)"; 6="Vlaams Belang"; 7="Centre démocrate humaniste (cdH)"; 8="Open Vlaamse Liberalen en Democraten (Open VLD)"; 9="Ecolo"; 10="Groen!"; 11="Lijst Dedecker (LDD)"; 12="Parti populaire (PP)"; 13="Fédéralistes Démocrates Francophones(FDF) "; 14 = "Other" 15 = "I will not vote" 16 = "I do not have the right to vote"

Q12 -15 Montreal

M Q12 Have you ever had the right to vote in a provincial or federal election? 0 = "no", 1 = "yes" 2 = "I do not know"

M Q13 Did you vote in the last provincial election on September 4, 2012? 0 = "yes", 1 = "no, no right to", 2 = "No, not voted"

M Q14 Which party did you vote for in the last Quebec provincial election on September 4, 2012?

101="Parti Québécois (PQ)"; 102="Parti Libéral du Québec (PLQ)"; 103="Coalition Avenir Québec (CAQ)"; 104="Québec Solidaire (QS)"; 105="Option Nationale (ON)"; 106="Parti Vert"; 13 = " Other", 0 = "I did not vote"

M Q15 Which party will you vote for in the next Quebec provincial election?

101="Parti Québécois (PQ)"; 102="Parti Libéral du Québec (PLQ)"; 103="Coalition Avenir Québec (CAQ)"; 104="Québec Solidaire (QS)"; 105="Option Nationale (ON)"; 106="Parti Vert"; 14 = "Other" 15 ="I will not vote" 16 = "I do not have the right to vote"

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

I see myself as:

Q_p1 Extraverted, enthusiastic:

Q_p2 Critical, quarrelsome:

Q_p3 Dependable, self-disciplined:

Q_p4 Anxious, easily upset:

Q_p5 Open to new experiences, complex:

Q_p6 Reserved, quiet:

Q_p7 Sympathetic, warm:

Q_p8 Disorganized, careless:

Q_p9 Calm, emotionally stable:

Q_p10 Conventional, uncreative:

1 = "Disagree strongly", 2 = "Disagree moderately", 3 = "Disagree a little", 4 = "Neither agree nor disagree", 5 = "Agree a little", 6= "Agree moderately" 7 = "Agree Strongly"

Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements?

Q_p11 I prefer complex problems to simple problems.

Q_p12 I like a job that requires finding new solutions to problems.

Q_p13 It is enough for me to know that there is a solution to a problem I do not want to know how or why it works.

Q_p14 I prefer to think about small daily projects rather than long-term projects.

1 = "strongly agree" 2 = "somewhat agree", 3 = "somewhat disagree", 4 = "strongly disagree"

Q16 What is the highest diploma you have received?

Brussels

0 = "None"; 1= "Primaire"; 2= "Secondaire général inférieur" ; 3= "Secondaire technique inférieur"; 4= "Secondaire professionnel inférieur"; 5="Secondaire général supérieur"; 6= "Secondaire technique supérieur"; 7= "Secondaire professionnel supérieur"; 8= "Supérieur non-universitaire"; 9= "Universitaire"

Montreal

0 = "None" 11 = "Primary" 12 = "Secondary" 13 = "Technical Secondary" 14 = "College, CEGEP or college classic" 15 = "Bachelor" 16 = "Master" 17 = "professional degree or doctorate"

Q17 -18

Brussels

Q17 B How many experiments at Cevipol (ULB) have you participated in (approximately)?

Q18 B Prior to today's experiment, did you ever participate in a voting experiments outside Cevipol (ULB)? 0 = "No", 1 = "Yes"

Montreal

Q17 M How many experiments at Cirano have you participated in (approximately)?

Q18 M Prior to today's experiment, did you ever participate in a voting experiment outside Cirano? 0 = "No", 1 = "Yes"

Thank you for your collaboration.

Please indicate your zip code.

Your comments are welcome:

References (Appendix)

Bouhon, Frédéric and Reuchamps, Min. 2012. Les systèmes électoraux de la Belgique. Bruylandt, Brussels.

Greiner, Ben. 2004. "An online recruitment system for economic experiments." In K. Kremer, and V. Macho, dir., Forschung und wissenschaftliches Rechnen 2003.