



## The effect of electoral outcomes on political trust: A multi-level analysis of 23 countries

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### ABSTRACT

Competing theoretical claims exist in the literature on the effect of proportionality on political trust. To date, empirical studies yielded mixed results. In this paper, we examine a curvilinear effect of the proportionality of election outcomes on political trust using data from the European Social Survey (2006–2009). The findings show that political trust is indeed highest in countries with very proportional as well as in countries with very disproportional election outcomes and lowest in countries that fall in between. Election outcomes that are more fully inclusive and those that provide more accountability can both lead to higher levels of political trust. Next to the proportionality of the translation of votes into seats, this study investigates a broad range of election outcomes that are associated with (dis)proportionality i.e. the effect of the number of parties in elections, parliament and government, voting for the winning or losing party under different levels of proportionality and the clarity of responsibility.

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### 1. Introduction

In the last decades, there has been a renewal of interest in the effect of electoral outcomes on political trust. Widespread dissatisfaction with politics has been interpreted as the result of dissatisfaction with the functioning of the electoral system. Electoral reform is often seen as a way to restore political trust with recent examples of electoral reforms that aimed to do this in New Zealand, Italy and Japan (Dalton, 2004: 177–187; Shugart and Wattenberg, 2001). Also the emergence of new democracies and cases of divided societies has stimulated research interest in the effect of electoral design and its outcomes on political trust (Lijphart, 1999; Farrell and McAllister, 2006). The electoral system links citizens and elites and political trust is considered to be an indication of the quality of this linkage (Aarts and Thomassen, 2008). In effect, through elections citizens can communicate their preferences to

politicians and hold them accountable (Sartori, 1994). Political trust is believed to be affected by electoral outcomes such as the proportionality of the election outcome, the number of political parties participating in elections, in parliament and in office. Also whether the political party one voted for gains office is argued to influence political trust, especially when the election outcome is disproportional the ‘winner’ gains substantial representation and power in relation to the ‘loser’. In addition, clarity of responsibility is also theorized to raise political trust levels. While scholars agree upon the importance of these election outcomes on political trust, the direction of the effects is still debated. For one, proportional as well as disproportional election outcomes, single-party governments as well as coalitions are believed to increase political trust levels. Moreover, despite the substantial literature on the effects of electoral outcomes on the attitudes of citizens toward the political system, empirical studies testing these propositions have been in much shorter supply and evidence emerging from the existing studies is far from conclusive. For example,

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proportional as well as disproportional election outcomes are found to foster political trust or no relation is found at all (Lijphart, 1999; Norris, 2011: 217–235; Wagner et al., 2009). Farrell and McAllister (2006: 724) conclude: "Whether and how electoral systems can affect levels of satisfaction with democracy is therefore unresolved; work is required."

In this article two theoretical approaches are combined, proposing a curvilinear effect of proportionality on political trust: political trust is highest in countries with very proportional and very disproportional election outcomes and it is lowest in countries that fall in between. This theoretical expectation provides a promising way to investigate the effect of proportionality on political trust given the competing theoretical claims and the mixed empirical evidence in the literature. Next to the proportionality of the election outcome, the effect on political trust of a large number of election outcomes is investigated. This study adds to the literature by proposing this curvilinear effect of proportionality on political trust as well as by providing an overview of the relation between a broad range of election outcomes and political trust. First, the importance of political trust is discussed. Subsequently, we provide an overview of the theoretical arguments and previous empirical research on the relationship between electoral outcomes and political trust. Next, we turn to comparative survey data to analyze the relationship between election outcomes and political trust. The main findings are summarized in the conclusion.

## 2. The importance of political trust

Political trust is at the center of democratic theory. "It reflects evaluations of whether or not political authorities and institutions are performing in accordance with the normative expectations held by the public" (Miller and Listhaug, 1990: 358). Political trust operates as a heuristic devise that guides all kinds of behavior such as participation in politics, law abidance or the willingness to contribute to the collective good (Hetherington, 1999; Scholz and Lubell, 1998). Citizens with higher political trust levels are more likely than distrusting citizens to accept and comply with political decisions voluntarily, thereby political trust enables political authorities to collect resources and implement political decisions more effectively (Tyler, 1990; Marien and Hooghe, 2011). As a result, political trust is a key resource for a political system to authoritatively allocate values for society (Easton, 1965). However, some authors have argued that critical citizens can force political systems and political decision makers to react in a more responsive manner to demands from the population (Norris, 1999; Rosanvallon, 2008; Geißel, 2008). By critically examining government's policy and governance, citizens keep government officials accountable on a permanent basis. Nevertheless, most authors agree that some level of political trust is needed for the stability and functioning of democratic societies.

David Easton has made an important distinction between diffuse and specific support. The latter is the

direct result of satisfaction with particular outputs of the system. However, conflicting demands exist and not all demands can be satisfied thereby "outputs cannot help but provide a weak reed upon which a system might rest its full weight" (Easton, 1965: 277). Therefore, Easton (1965: 273) highlights the importance of a second type of support – diffuse support – which serves as "a reservoir of favorable attitudes or good will that helps members to accept or tolerate outputs to which they are opposed or the effect of which they see as damaging to their wants." Political trust is defined as an expression of diffuse rather than specific support and it is attributed specifically to the regime and the political authorities (Easton, 1975). In-line with David Easton, political trust is considered in this study as an expression of diffuse support which is not the mere result of satisfaction of individual demands. The focus of this study is trust in the regime and trust in political institutions in particular. Political institutions play an important role in shaping a democratic society, we can assume that trust in these institutions is strongly related to a more general evaluation of the political system. Theoretically, we can assume that a critical attitude toward the current leaders can be seen as healthy for democracy. Nevertheless, citizens should be able to put trust in the democratic procedures and institutions as such, i.e. the system level. Politicians can be easily replaced through elections but strong distrust in the fundamental institutions of a democracy is less easily restored (Dalton, 2004: 157–159; Klingemann and Fuchs, 1995: 2–5; Anderson et al., 2005).

## 3. Election outcomes and political trust

Scholars have argued that political trust is promoted through the inherent fairness and inclusiveness of proportional election outcomes (Lijphart, 1999). Conversely, political trust is also believed to be fostered by disproportional outcomes as these promote accountability and effectiveness (Aarts and Thomassen, 2008). These different characteristics result from the distinct goals that underlie different electoral systems: "the major difference between the majoritarian and proportional vision is their view on the essence of democratic government and consequently the function of elections" (Aarts and Thomassen, 2008: 6). Proportional election outcomes are generally seen as more fair than the disproportional 'the winner takes it all' outcome (Sartori, 1994). Seats were allocated to parties in proportion to the votes they received at election, as a result voters determine to a great extent which parties obtain seats and only few votes are wasted (Karp and Banducci, 2008). A proportional election outcome is generally characterized by inclusiveness. In effect, proportional electoral rules aim to lower the threshold for parliamentary representation encouraging more parties to enter the electoral contest resulting in the presentation of various alternatives to the electorate, from extreme-right parties to extreme-left parties to pirate-parties or animal parties etc. As party choice can effectively be used to voice (specific) political preferences, citizens' feeling of influence is strengthened. New issues cherished by the public can more easily be put on the

agenda by new minor parties and discontent can be voiced by voting on minor protest parties which can channel this discontent into the parliamentary arena (Miller and Listhaug, 1990). A proportional election outcome signifies more inclusive representation of the whole electorate and its opinions given that more political parties are also passing the threshold to parliamentary representation. As a result, also political minorities are represented in parliament and can influence political decision-making (Lijphart, 1994; Karp and Banducci, 2008). Finally, this inclusiveness also relates to the number of parties in office. Coalitions have the advantage that a broad range of interests find their way to policy and this policy is found to be closer to the median voter than the policy of single-party governments (McDonald and Budge, 2005).

By contrast, disproportional rules are intended to fabricate clear majorities often associated with two-party systems (Sartori, 1994). In effect, disproportional rules "do not seek a parliament that reflects the voting distribution; they seek a clear winner. Their intent is not only to elect a parliament but at the same time elect (if only by implication) a government" (Sartori, 1994: 5). In general two (blocks of) parties are competing in elections, the winner of the election takes over the government and can implement a clear policy (change). The party in government does not have to compromise so much as a coalition government does. When a single party is in office, the policy responsibility is clear whereas responsibility is more diffuse in coalition governments: "usually there is an overlap between the new and the old coalition, blurring the clarity of responsibility and making the sanction of elections as an instrument of accountability into a rather blunt weapon" (Aarts and Thomassen, 2008: 7; See also Powell, 1989). The rotation of parties in power is emphasized rather than inclusiveness. In effect, inclusiveness can signify that a party losing the election returns to power making it difficult to 'vote the rascals out' (Norris, 2011: 217–235; Powell, 1989). As a result voters might incline to think that it does not matter who is in power leading to resignation and alienation. Next to this clarity of responsibility, single-party governments are seen as more effective governments. In the debate on electoral reform in New Zealand one of the main concerns when implementing more proportional electoral rules (and accordingly more proportional outcomes) was a decrease in accountability and the effectiveness of government (Vowles et al., 2006: 268–270). Coalitions, especially with many parties, are argued to be more unstable and more often lead to policy impasse (Weil, 1989).

Finally, citizens voting for the party that won the election gain more in an electoral system producing disproportional outcomes, therefore, they are thought to have higher levels of political trust than winners in a system that produces more proportional outcomes. Voters of parties that have lost the election, on the other hand, are theorized to be better off with proportional election outcomes than disproportional ones (Anderson et al., 2005).

In sum, both proportional and disproportional election outcomes are theorized to foster political trust. While

proportional outcomes are associated with inclusiveness and representativeness, disproportional outcomes are associated with government accountability and effectiveness. Proportional outcomes mean a proportional translation of votes into seats and are generally associated with a large number of political parties in elections, parliament and government. Disproportional outcomes, on the other hand, mean a disproportional translation of votes into seats and are in general associated with fewer political parties in elections, parliament and generally single-party governments.

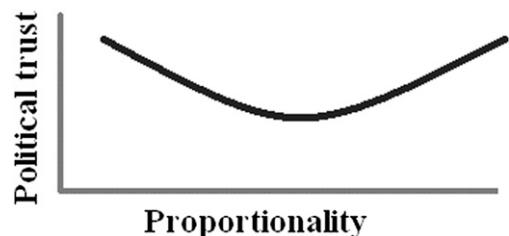
#### 4. Previous empirical research

Following electoral reform toward more proportionality in New Zealand citizens felt significantly more political efficacious and government was perceived as more responsive (Banducci et al., 1999). However, it is possible that these changes are the result of enthusiasm for the reform and not the increased proportionality as such. Given that only few countries changed their electoral system so profoundly in recent years (Farrell, 2001), most research on the relationship between the proportionality of electoral outcomes and political trust is based on cross-national comparisons. These studies yield contradicting results showing higher levels of political trust in proportional systems (Lijphart, 1999: 275–287) and in disproportional systems (Norris, 1999: 217–235) or finding no relationship at all (Listhaug et al., 2009; Norris, 2011; Wagner et al., 2009). Further, empirical studies found higher trust levels in countries with more parties contesting elections (Weil, 1989: 699). Miller and Listhaug (1990) concluded that the varying thresholds for parliamentary representation were crucial in determining the target, level and trends in political distrust. In Norway which had a rather low threshold for parliamentary representation, new parties won seats in elections and disaffected voters were represented, whereas in US and Sweden discontent was accumulated and resulted in higher levels of distrust: "the institution of elections has failed, during the past twenty years, to act as a mechanism for reducing the accumulating dissatisfaction in either Sweden or the United States" (Miller and Listhaug, 1990: 383). However, some evidence suggests that party fragmentation lowers political trust (Norris, 2011: 217–235; Weil, 1989). But in other studies fractionalization indices failed to reach statistical significance (Wagner et al., 2009; Van der Meer, 2010).

Further, political trust was found to be higher in countries with coalition governments, but too much coalition partners diminished political trust levels again (Anderson et al., 2005). It is argued that in such countries elites rather than election outcomes determine the composition of government. Cabinet instability is also found to be related to lower levels of political trust (Weil, 1989). In addition, extensive research effort has been devoted to the effects of winning and losing elections on political trust in different institutional contexts. Anderson and Guillory (1997) demonstrated that losers were more trusting in consensual systems than in majoritarian systems and winners were more trusting in majoritarian than consensual systems. Hence, the gap in political trust is larger in

majoritarian systems than in consensual systems. This finding was confirmed in subsequent research (e.g. Criado and Herreros, 2007). However, these studies make a distinction between two institutional systems based on elements such as the state structure, the number of legislative chambers, judicial reviews, parliamentary or presidential system etc. From these studies, it is unclear which features of these systems are decisive. Later research concluded that proportional systems affected political trust levels of winners and losers (Anderson et al., 2005). However, this conclusion needs to be qualified, while their analyses yielded a positive effect of proportional electoral systems on political trust, the differential effect of these systems on winners and losers was less convincing.<sup>1</sup> Finally in the outline of the theoretical arguments, clarity of responsibility was also stated to have a positive effect on political trust levels. In empirical research, particular attention has been paid to the relationship between economic evaluations and political trust in different institutional settings (Powell and Whitten, 1993; Criado and Herreros, 2007). The study of Anderson (2000) established for example that the relationship between the evaluation of economic performance and political trust is stronger when mechanisms of accountability are simple i.e. when the institutional context clarifies who is in charge of policymaking (based on Powell and Whitten's index of clarity of responsibility), when the target of credit and blame is large (coalitions), and when citizens have fewer viable alternative choices (operationalized as parties in parliament).

In sum, theoretical approaches underlie the argument that both proportional and disproportional outcomes foster political trust. Empirical research yielded evidence supporting both claims or finding no relation between proportionality and political trust (Lijphart, 1999; Norris, 2011: 217–235; Listhaug et al., 2009). One possible explanation is the operationalization of proportionality. Often empirical studies look at the electoral design and divide electoral systems in three or four categories. This is a rather crude measure as it looks at the design rather than the effective electoral outcomes of these systems and ignores the variance in proportionality within these systems. Some empirical studies simplify things even more using only two categories of systems “majoritarian” and “consensual” which are not only based on electoral rules but take also other system properties such as the state structure or the executive into account. Although it is useful to take these features into account, it becomes difficult to disentangle which features affect political trust. Another explanation is that both arguments are valid and the two competing hypotheses can be brought together by proposing



**Fig. 1.** Visualizing hypothesis 1.

a curvilinear relationship between the proportionality of election outcomes and political trust. Inclusiveness and accountability both foster political trust, therefore, political trust is highest in countries with very proportional as well as very disproportional election outcomes and it is lowest in countries that fall in between. This theoretical expectation can be summarized in the following hypothesis which is also visualized in Fig. 1:

**H1.** A curvilinear relationship exists between the degree of proportionality of election outcomes and political trust. Political trust is highest if either election outcomes are very proportional or very disproportional. Conversely, a mixture of both results in lower levels of political trust.

In addition, the effect of a broad range of election outcomes on political trust will be investigated. Firstly, the number of choices that are presented to the electorate. The hypothesis is that the more political parties participate in elections, the higher the level of political trust in a country. Also the inclusiveness of the legislature was argued to increase political trust. Further, we hypothesize that more political parties in office results in lower levels of political trust. Another mechanism includes the difference in winning and losing elections under different electoral outcomes. In this study, we will test whether election losers have higher levels of political trust in countries with more proportional election outcomes than in countries with less proportional election outcomes. A last mechanism relates to the differences in clarity of responsibility under different electoral outcomes. We hypothesize that the more diffuse nature of coalition governments decreases the effect of institutional performance on political trust. Below these five explanations are summarized:

**H2.** Political trust is higher in countries with more political parties participating in elections.

**H3.** Political trust is higher in countries with more political parties in parliament.

**H4.** Political trust is lower in countries with more parties in office.

**H5.** Political trust of election losers is higher in countries with proportional election outcomes than in countries with disproportional election outcomes.

**H6.** The effect of the evaluation of perceived institutional performance on political trust is stronger when a single party is in office than a coalition government.

<sup>1</sup> While there was an interaction term for ‘loser’ and ‘new democracy’ included in the regression explaining political trust, there was no interaction between ‘loser’ and ‘disproportionality’ included. Instead, the file was split in four parts according to electoral systems and separate regressions were run. The different coefficients for the variable ‘loser’ were not substantially different and missed standard levels of statistical significance. In further analyses comparing ‘the losers’ in different systems, the variable ‘disproportionality’ was significant in some cases but most often not.

## 5. Data and methods

### 5.1. Presentation of the data and variables

The third and fourth wave of the European Social Survey (2006–2008) will be used to assess the relationship between proportionality and political trust. The European Social Survey (2006, 2008) provides reliable and up-to-date information on trust in political institutions in 23 European countries with a substantial range of variation in proportionality.<sup>2</sup> This dataset is ideally suited for comparative analysis since particular attention has been paid to ensure comparability with regards to the operationalization and cross-cultural validity of concepts in the participating countries. Data were collected between 2006 and 2009 by means of uniform face-to-face interviews among representative samples of the population of 23 European countries (Jowell et al., 2007, 2009).<sup>3</sup> Given the small time-span between both waves and the rather stable nature of trust in political institutions on the individual level (e.g. Hooghe and Wilkenfeld, 2008), wave 3 and wave 4 of the European social survey were merged into one dataset broadening the number of countries, and in particular the range in the proportionality of election outcomes included in the analyses. Response rates varied by country with a mean of 63% (Jowell et al., 2007, 2009). Given the cross-sectional nature of the data, we cannot directly test the causality of the relationship between election outcomes and political trust.

#### 5.1.1. Dependent variable

The question on political trust in ESS (2006, 2008) was phrased: "please tell me on a score of 0–10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust." The institutions include: the national parliament, politicians and political parties.<sup>4</sup> Principal component analysis indicated that the three items loaded strongly on a single dimension, explaining 84.30% of the total variance with an Eigenvalue of 2.53 (Table 1). This is in-line with previous research which has also found trust in political institutions to be one-dimensional (Zmerli et al., 2007; Hooghe, 2011). Consequently, an index was created as a simple additive

<sup>2</sup> More countries were surveyed but not all data is already released. Moreover, the fieldwork in some countries took place during the elections or government formation making it difficult to calculate winners and losers. Therefore, some respondents were deleted from the data of Estonia, Ireland and Sweden. For this reason, the data of the Netherlands in wave 3 and Ukraine in Wave 4 were also not included.

<sup>3</sup> Countries included are: Austria, Belgium, Bulgaria, Cyprus, Denmark, Estonia, Finland, France, Germany, Hungary, Israel, Ireland, the Netherlands, Norway, Poland, Portugal, the Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

<sup>4</sup> Unfortunately, trust in government was not included in the datasets. But research on political trust shows that trust in political institutions forms one latent concept. From a theoretical perspective, however, we can argue that electoral outcomes can have different effects on different objects of trust. Therefore, all analyses were also performed with as dependent variable respectively trust in the national parliament, trust in politicians and trust in political parties. From these additional analyses, the same conclusions can be drawn.

**Table 1**  
Political trust.

	Political trust
Trust in country's parliament	0.875
Trust in political parties	0.945
Trust in politicians	0.933
Eigenvalue	2.53
Explained variance (%)	84.30

Extraction method: principal component analysis.

summary of the three items which ranges from 0 to 30 with a mean of 11.33 and a standard deviation of 6.65 (Cronbach's  $\alpha$ : 0.90).

#### 5.1.2. Independent variables

In most empirical research, electoral systems are being categorized into three or four groups namely majoritarian systems, mixed (independent or dependent) systems and proportional systems. However, within these systems there is a substantial variation in the proportionality of the election outcomes depending on e.g. district size or legal thresholds. In order to take this variation into account, we will use Gallagher's disproportionality index (1991; Gallagher and Mitchell, 2008) that looks at the degree to which the allocation of seats matches the distribution of the national vote at the parliamentary elections.<sup>5</sup> High values on this index indicate disproportional election outcomes. Given that most authors argue that accumulated experience with the electoral system (and proportional or disproportional election outcomes) influences political trust, the Gallagher's index of disproportionality was calculated for each country based on the election outcomes of the past 10 years.<sup>6</sup> The number of alternatives that is presented to the electorate is measured by looking at the number of effective parties contesting elections during the last election before the survey was administered based upon Laakso and Taagepera (1979).<sup>7</sup> The inclusiveness of

<sup>5</sup> This index is calculated by taking the square root of the sum of the squared differences of each party's relative share of the votes and its relative share of the seats. In theory, this index can range from 0 to 100. A value of 0 indicates that all political parties receive the same percentage of seats than of votes. A value of 100 indicates that Party A e.g. gained all the votes and none of the seats, while Party B did not get any votes but gets all the seats. In practice, distance between the percentage of votes and seats exists, however, it is difficult to justify a large discrepancy as a result high values on this index are less likely and the range of this index is smaller than 0 to 100. In effect, the largest value in the sample is 21.95 (France in 2006). In addition, other indices of (dis)proportionality are also available e.g. Rae index of disproportionality, Loosemore-Hamby index, Sainte-Lague index, Rose-index. All these indices look at the difference between the percentage of votes and the percentage seats parties win at elections. The 'least squares' approach of the Gallagher-index, however, prevents that positive and negative difference cancel each other out. Moreover, this index is often used in research on institutional design.

<sup>6</sup> Indices of disproportionality were obtained from [www.tcd.ie/Political\\_Science/staff/michael\\_gallagher/ElSystems/index.php](http://www.tcd.ie/Political_Science/staff/michael_gallagher/ElSystems/index.php). For every country included in ESS 2006–8 an average value of disproportionality was calculated based on the election outcomes of the past 10 years.

<sup>7</sup> In particular, the number of effective parties participating in the last election before the survey was administered in the country was calculated for the third wave and the fourth wave. When this was not the same election, which was often the case, the mean of these two indices was taken. These indices were retrieved from [http://www.tcd.ie/Political\\_Science/staff/michael\\_gallagher/ElSystems/index.php](http://www.tcd.ie/Political_Science/staff/michael_gallagher/ElSystems/index.php).

the legislature will be operationalized by the *number of effective parties gaining parliamentary representation* as a result of the last election before the survey was administered.<sup>8</sup> Third, the *number of parties in office* at the moment of the fieldwork will be investigated.<sup>9</sup> We also dichotomized this variable, in order to see whether the effect is linear or is mostly due to the occurrence of coalition governments or single-party governments.

In addition, a number of control variables were added on the individual level and country level (See Appendix for the descriptives of all variables). On the individual level, we included some general socio-demographic variables such as age, education level and gender that are assumed to affect political trust (Inglehart, 1999; Schwindt-Bayer and Mishler, 2005). The variable education level includes seven categories with a value 0 indicating "not completed primary education" and a value 6 indicating "second stage of tertiary". Women received a code 0 and men received a code 1. Further, perceptions of institutional performance are also considered to be an important determinant of political trust (Bok, 1997). Institutional performance is measured by an assessment of the state of the economy. In the ESS-datasets this is the best proxy of institutional performance available. However, this is only one of the many indices of government performance. The advantage of using this measure for comparative research is that in all countries political actors are assumed responsibility for their economies. Several studies have shown the important effect of economic performance for citizens evaluation of institutional performance and political trust (Bovens and Wille, 2008; Hetherington and Rudolph, 2008). Therefore, satisfaction with the economy will be used as a proxy for institutional performance. Furthermore, winning or losing elections was also found to influence political trust substantially (Anderson and Guillory, 1997). A variable 'winner/loser' was created: respondents that indicated to have voted during the last parliamentary elections for a political party which was in office at the moment of the fieldwork received value 1, respondents that voted for another party or did not turn out received value 0. These data were gathered from various issues of the Annual Data Yearbook of the *European Journal of Political Research*.

On the country level, three important control variables were added which have been demonstrated to influence political trust: democratic experience, performance and economic situation (Thomassen and Van der Kolk, 2009; Tavits, 2007; Uslaner, 2008). Firstly, a dummy variable

was created measuring the democratic experience of a country based on the Polity IV dataset (Marshall and Jaggers, 2009). Countries that did not experience a regime change within the last 20 years received a value 1. Secondly, a summary indicator for the performance of a country was created by taking the mean of the five World Bank indicators of good governance for 2006–2008 (Kaufmann et al., 2008). Finally, not only citizens subjective evaluation of the economy but also an objective indicator of the economic situation of the country was added namely the average GDP/capita in US dollars for 2006–2008 (WEO, 2008). As these three control variables are also substantially correlated with each other, they will not be included in the same analysis to avoid issues of multicollinearity.

In the literature, also other variables are found to influence political trust such as social trust (Newton and Zmerli, 2011), religious attitudes (Halman, 2007) or the state structure of the country (Elazar, 1997). All analyses were performed including also these variables. Given that the inclusion of these variables did not influence the relationships we are investigating in this study, and for reasons of parsimony, these variables were not included in the final models. Given that we are interested in the effect of country-level variables on individual attitudes, multilevel techniques were used (Hox, 2002).

## 5.2. Description of the data

**Fig. 2** visualizes political trust levels in the 23 countries included in the analyses revealing substantial cross-national differences to explain e.g. in Denmark the average political trust-score was 17.7 on a scale of 30, while the average political trust-score in Bulgaria was only 5.3 on a scale of 30.

Also the proportionality of election outcomes varies substantially between the countries under study (Table 2). In our sample, the Netherlands has the most proportional election outcomes with a mean value of 0.99, while France and the United Kingdom have the most disproportional election outcomes resulting in a mean value of respectively 17.77 and 17.25 on the index. The mean value in our sample is 5.14 with a standard deviation of 4.30. Without France and the United Kingdom, the countries with the most disproportional outcomes in our sample, the mean value is 3.96 with a standard deviation of 1.88.

Further, a descriptive analysis of the data shows that citizens could choose between approximately five effective parties at elections in the 23 countries under study. In Hungary and Spain voters had the least choice with a mean of 2.9 effective parties. Israeli and Belgian voters, on the other hand, had the most choice with 9 effective parties contesting elections. On average, four parties managed to win seats in the sample. In France, UK, Hungary and Spain few parties gained parliamentary representation (about 2.5 effective parties). While Belgium and Israel had the most parties in parliament, more than 7 effective political parties gained seats. While in France quite some parties contested election, only few succeeded to win seats (respectively 4.8 and 2.4 effective parties). During the fieldwork (2006–9), governments were

<sup>8</sup> In particular, the number of effective parties in parliament resulting from the last election before the survey was administered in the country was calculated for the third wave and the fourth wave. When this was not the same election, which was often the case, the mean of these two indices was taken. This measure was also formulated by Laakso and Taagepera (1979). These indices were retrieved from [http://www.tcd.ie/Political\\_Science/staff/michael\\_gallagher/EISystems/index.php](http://www.tcd.ie/Political_Science/staff/michael_gallagher/EISystems/index.php).

<sup>9</sup> This variable includes the number of parties in office during the fieldwork which was not always the same number of parties forming a coalition after the last election. In some countries a political party left or joined the coalition. These changes were taken into account when calculating this variable. These data were gathered from various issues of the Annual Data Yearbook of the *European Journal of Political Research*.

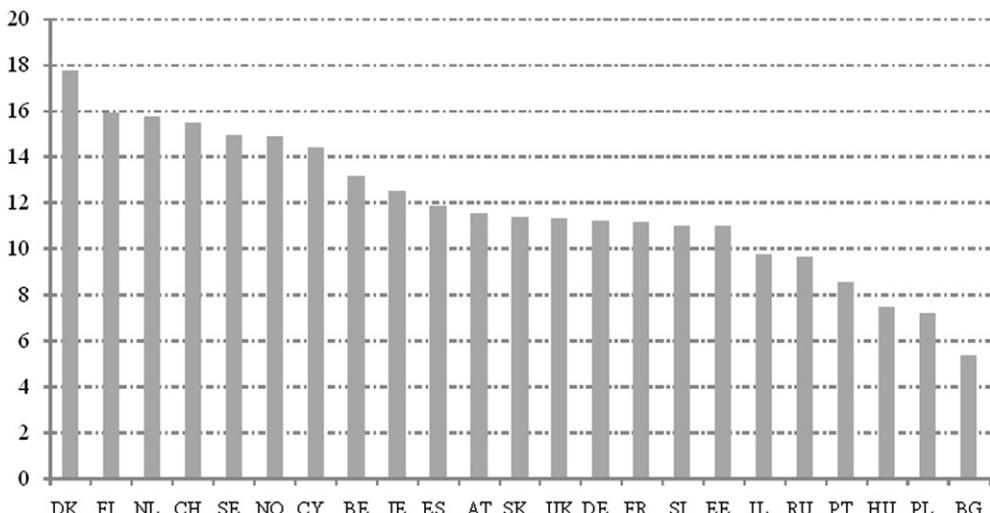


Fig. 2. Political trust cross-nationally (2006–2008).

constituted of one to five political parties. During the third wave (2006–7), four countries were governed by a single party while a coalition government was in office in 17 countries. During the fourth wave (2008–9), six countries were governed by a single party while a coalition government was in office in 15 countries. These different election outcomes are related to each other. The disproportionality index is negatively correlated to the number of political parties in parliament and government (correlations are respectively  $-0.527$  and  $-0.540$  both with a  $p$ -value below 0.01). This is what we would expect: a proportional translation of votes into seats results in more political parties in parliament and consequently in office. However, there is no significant relation with the number of parties contesting elections. Apparently, these disproportional rules do not deter political parties to participate in elections.

## 6. Results

A multilevel analysis was performed in order to explain the cross-national differences in political trust and to tackle the following research question: *What is the relationship*

*between the proportionality of election outcomes in a country and political trust?* In Table 3 the standardized coefficients of the regression are presented, the unstandardized results can be found in Appendix. The null-model confirms the substantial cross-national differences in political trust outlined in Fig. 2. The model indicates that 21.35% of all variance in political trust can be attributed to the country-level. In Model I, the individual-level variables are included. Perceptions of institutional performance are most strongly related to political trust. Incumbents are not only held to account for bad economic performance, the results show that economic performance is also strongly related to more diffuse support such as trust in political institutions. In particular, an increase of one unit on the ‘perceived institutional performance’-scale is associated with an increase of one unit on the ‘political trust’-scale. Therefore, the maximum effect of perceived institutional performance amounts to 10.2 points on the 0–30 ‘political trust’-scale. Having voted for the party in office is also significantly related to political trust. Citizens who voted for the party in office have approximately 1.5 points more on the ‘political trust’-scale. The relations with the socio-demographic variables are rather modest.

In a next step, we add disproportionality to the model. We model the relationship between disproportionality and political trust in a curvilinear way by including the squared term of the disproportionality index too. The results in Model II clearly support the curvilinear hypothesis (H1). Political trust is high both in countries with very proportional election outcomes and in countries with very disproportional election outcomes (Fig. 3). These two ideal-types of electoral outcomes are based on different views on the essence of democratic government and consequently produce substantially different degrees of accountability and inclusiveness. This curvilinear relation shows that institutions fostering inclusiveness or accountability can both increase levels of political trust. In this line of reasoning, it seems that taking a middle position (being

Table 2  
Disproportionality.

	N	Mean	SD	Min	Max
<i>Average level of disproportionality (last 10 years)</i>					
All countries	23	5.14	4.30	0.99	17.77
Index without UK and France	21	3.96	1.88	0.99	7.13
<i>Disproportionality in 2008</i>					
All countries	21	4.53	3.80	0.72	16.73
Index without UK and France	19	3.41	1.39	0.72	5.75
<i>Disproportionality in 2006</i>					
All countries	21	5.85	5.10	1.76	21.95
Index without UK and France	19	4.43	2.40	1.76	12.01

Source: Gallagher (1991), author's calculations.

**Table 3**

Disproportionality and political trust: a multilevel analysis.

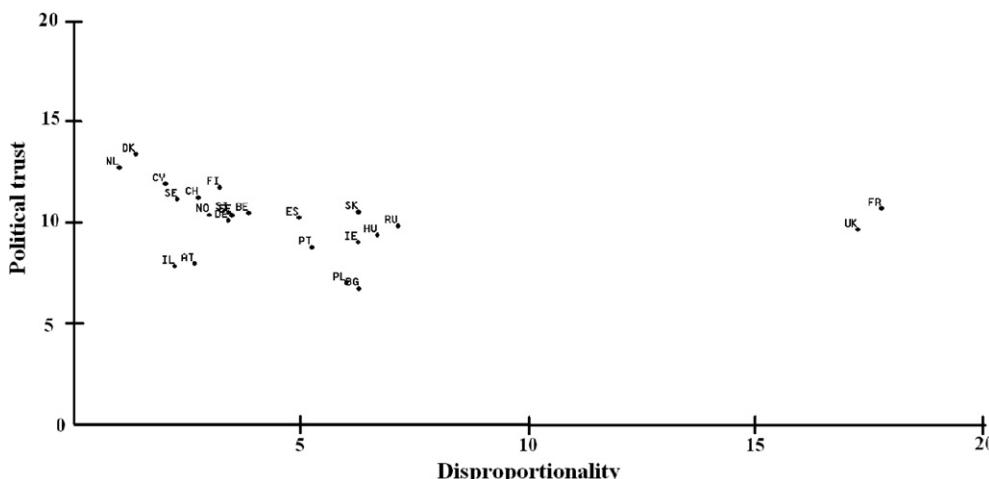
	Political trust					
	Model 0	Model I	Model II	Model III	Model IV	Model V
<i>Individual-level variables</i>						
Gender (male = 1)		-0.020***	-0.020***	-0.020***	-0.020***	-0.020***
Education		0.070***	0.070***	0.070***	0.070***	0.070***
Age		0.027***	0.027***	0.027***	0.027***	0.027***
Age <sup>2</sup>		0.049***	0.049***	0.049***	0.049***	0.049***
Perceived institutional performance		0.383***	0.383***	0.383***	0.383***	0.383***
Winner		0.115***	0.115***	0.115***	0.115***	0.115***
<i>Country-level variables</i>						
Disproportionality			-0.431***	-0.344**	-0.323**	-0.319**
Disproportionality <sup>2</sup>			0.417***	0.332**	0.300*	0.306**
Good governance				0.077		
Old regime (>20 years)					0.101°	
GDP/capita (in US \$)						0.107*
$\sigma^2(e)$	34.46	28.47	28.47	28.47	28.47	28.47
$\sigma^2(u_0)$	9.36***	3.99***	2.03***	1.87***	1.76***	1.69***
Intra-class correlation	21.35%	12.30%	6.66%	6.16%	5.81%	5.61%
Number of cases	59,589	59,589	59,589	59,589	59,589	59,589
IGLS deviance	380,187.521	368,802.412	368,786.93	368,785.04	368,783.64	368,782.77

Note: Dependent variable is political trust. Entries are standardized parameter estimates of a multilevel regression. Sign.:  $p < 0.001:***$ ;  $p < 0.01:**$ ;  $p < 0.05:*$ ;  $p < 0.1°$ . Source: European Social Survey (2006–2008; waves 3–4).

somewhat inclusive and somewhat accountable) is associated with low levels of trust. Moreover, almost half of the remaining variance between countries can be explained by adding disproportionality to the model. This effect remains firmly in place when good governance indicators, democratic experience or GDP/cap are included as controls.

In Fig. 3 the curvilinear relationship between the proportionality of election outcomes and political trust is shown. The graph shows that political trust is highest in countries with the most proportional election outcomes of the sample: the Netherlands and Denmark. Lower levels of proportionality result in lower levels of political trust. For instance Portugal, Ireland, Poland and Bulgaria approach the mean level of proportionality in our sample and have

the lowest levels of political trust in the sample. However, the countries with the least proportional outcomes included in our sample, France and the United Kingdom, are not characterized by the lowest levels of political trust. Rather, the results show a curvilinear relation indicating that very proportional and very disproportional outcomes can both be associated with higher levels of political trust. Fig. 3 also shows that France and the United Kingdom have the most disproportional election outcomes and mainly drive the curvilinear relationship. Indeed without the inclusion of these countries the relationship between proportionality and political trust would be linear. Although there are only two countries with very disproportional election outcomes in the sample, it would be

**Fig. 3.** Disproportionality and political trust.

**Table 4**

Disentangling the relationship between disproportionality and political trust.

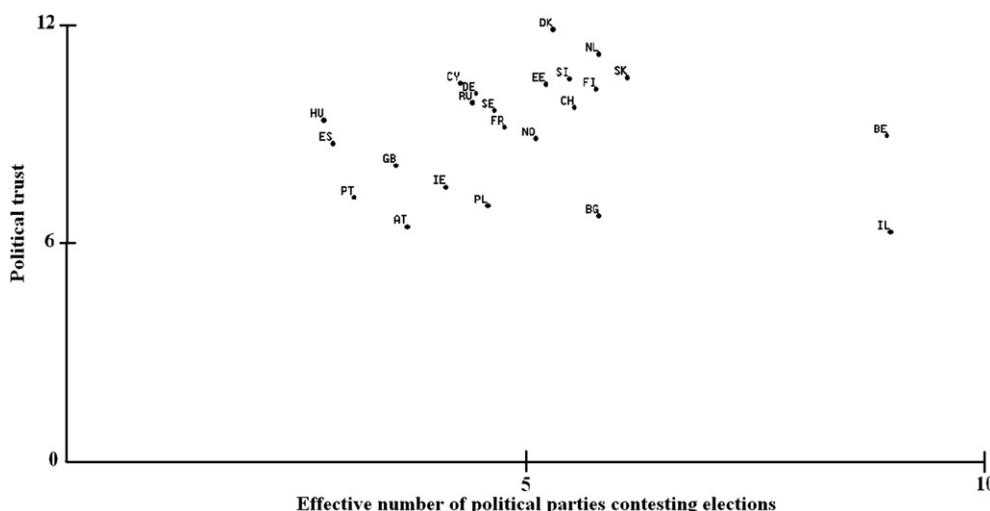
	Political trust			
	Model VI	Model VII	Model VIII	Model IX
<i>Individual-level variables</i>				
Gender (male = 1)	−0.020***	−0.020***	−0.020***	−0.020***
Education	0.070***	0.070***	0.070***	0.070***
Age	0.027***	0.027***	0.027***	0.027***
Age <sup>2</sup>	0.049***	0.049***	0.049***	0.049***
Perceived institutional performance	0.383***	0.383***	0.383***	0.383***
Winning/Losing	0.115***	0.115***	0.115***	0.115***
<i>Country-level variables</i>				
Old regime (>20 years)	0.219***	0.218***	0.189**	0.194**
Effective number of parties: elections	0.095			
Effective number of parties: elections <sup>2</sup>	−0.152*			
Effective number of parties: seats		0.093°		
Effective number of parties: seats <sup>2</sup>		−0.140*		
Parties in government			0.025	
Coalition (1 = yes)				0.043
$\sigma^2(e)$	28.47	28.47	28.47	28.47
$\sigma^2(u_0)$	1.90***	1.90***	2.46***	2.41***
Intra-class correlation	6.27%	6.26%	7.95%	7.79%
Number of cases	59,589	59,589	59,589	59,589
IGLS Deviance	368,785.47	368,785.42	368,791.33	368,790.83

Note: Dependent variable is political trust. Entries are standardized parameter estimates of a multilevel regression. Sign.:  $p < 0.001:***$ ;  $p < 0.01:**$ ;  $p < 0.05:*$ ;  $p < 0.1°$ . Source: European Social Survey (2006–2008; waves 3–4).

misleading to treat France and the UK as outliers and conclude that the relation is linear. If proportionality would increase trust in a completely linear way, political trust should be lowest in countries with the least proportional outcomes. This is not the case. Moreover, the electoral system and outcomes of France and the UK resemble the outcomes of many large countries in the world (e.g. US, Australia). Therefore, these countries are not isolated and cannot be neglected when talking about the relationship between proportionality and political trust. Rather they provide two good examples of the “very disproportional side” of the theoretical framework and strengthen our understanding of the effect of these

outcomes on political trust. We can conclude that this study provides evidence for a curvilinear relationship between proportionality and political trust: political trust is highest in countries with very proportional and very disproportional outcomes. Countries that fall in between have the lowest levels of political trust.

In a next step, the additional hypotheses on election outcomes will be investigated subsequently. We build on the previous models, including the same individual controls but adding additional variables to the analysis. First, we look at the relationship between the (effective) number of parties participating in elections and political trust (Table 4). Model VI shows that political trust is higher

**Fig. 4.** The party system and political trust.

**Table 5**

Disentangling the Effect of disproportionality on political trust.

	Coefficient (S.E)	P-value	Slope "winner/loser" (0.23***)	IGLS deviance
Disproportionality * Winner	0.030 (0.026)	0.268	0.23***	368,695.70
Parties in parliament * Winner	-0.076 (0.077)	0.336	0.24***	368,697.39
Coalition * Winner	-0.387 (0.280)	0.181	0.23***	368,702.23
Old democracy * Winner	-0.644** (0.198)	0.004	0.16***	368,688.25
	Coefficient (S.E)	P-value	Slope "Perceived institutional performance" (0.04***)	IGLS deviance
Coalition * perceived institutional performance	-0.250* (0.102)	0.024	0.03***	368,494.46

Note: Dependent variable is political trust. Every row is the result of a multilevel OLS regression. Only the parameter estimates and standard errors (between brackets) of the interaction terms are presented. The full models can be found in Appendix. Sign.:  $p < 0.001:***$ ;  $p < 0.01:**$ ;  $p < 0.05:*$ ,  $p < 0.1^{\circ}$ .  $N = 59,589$ . Source: European Social Survey (2006–2008; waves 3–4).

in countries in which citizens are offered more (party) choices in-line with Hypothesis 2. However, party fragmentation is associated with lower levels of political trust. The latter can be derived from the negative-squared term of "Effective of parties in elections" in Model VI. In Fig. 4, this relationship is shown and it seems that political trust is higher in countries where more political parties compete in elections, however, in countries with more than six effective parties contesting elections political trust is lower again. In the next model, the number of parties gaining parliamentary representation is included showing a similar relationship: countries with more parties in parliament have higher political trust levels but again there is a cut-off point. It might be that when too many political parties gain seats, it becomes difficult to build majority coalitions in parliament. For instance in Belgium and Israel more than seven effective political parties have gained parliamentary representation. In a last step, we look at the relationship between political trust and the number of political parties in government. Hypotheses H4 cannot be confirmed, no relationship was found between the number of parties in government and political trust nor between countries with a coalition government and countries with single-party governments and political trust.

In sum, political trust was found to be higher when several choices were presented to the electorate, but not too much, and when parliament was more inclusive but not too fragmented. The effect coalition governments has on political trust is less clear, no relationship could be found.

In a last analysis, we will test the two other explanations which are frequently used to explain different levels of political trust namely: (H5) the differential effect of winning and losing under different degrees of proportionality and (H6) the differences in clarity of responsibility. We model this by adding cross-level interactions between several indices of inclusiveness and 'winner' (H5) and adding a cross-level interaction between 'coalition government' and 'perceived institutional performance' (H6). Only the coefficients of the interaction effects are reported below, the full models can be found in Appendix.

First, we tested whether the relationship between voting for a party winning the election and political trust differed between the different countries. This was the case: in some countries winning was more strongly related to

political trust than in others (variance of the slope = 0.23\*\*\*; Table 5, column 4). However, while the slope of losing/winning did vary significantly between the countries, the differences in the proportionality of electoral outcomes could not explain this variance. None of the interaction terms reached conventional levels of statistical significance. The p-values are all considerably larger than 0.05 (namely 0.268; 0.336; 0.181). Therefore, Hypothesis 5 cannot be confirmed: political trust levels of election losers are not higher in countries with proportional outcomes than in countries with disproportional outcomes. An additional test showed that rather than proportionality, democratic experience is important to explain this cross-national variance: the difference in political trust of 'winners' and 'losers' is much larger in newer democracies than in established democracies (row 4 of Table 5).

Second, we expect that the evaluation of institutional performance is more strongly related to political trust when responsibility is clear. Therefore, we expect that this relation is stronger when a single party is in office than a coalition government. The analyses reveal that the subjective assessment of institutional performance positively influences political trust in all countries. Moreover, the size of the relation varies significantly between the countries (Table 5: Slope variance = 0.04\*\*\*). In-line with Hypothesis 6, the last row of Table 5 indicates that the perceptions of performance are indeed more strongly related to political trust in countries in which only one political party is in office than in which different political parties govern together and responsibility is more diffuse.

However, we only focused on perceived economic performance, for other kinds of institutional performance the relationship could be different. Noteworthy, the state of the economy is to a large extent beyond control of political institutions. Nevertheless, perceptions of economic performance strongly determine political trust. From all individual-level explanatory variables, perceived economic performance was even found to be most strongly related to political trust (Table 3, Model I). Other kinds of institutional performance on which political institutions have more influence might be even more strongly related to political trust. For instance, Kumlin (2007) found that dissatisfaction with performance related to the welfare state decreased trust in institutions regardless of the clarity of responsibility, which was derived from the institutional context. On

the other hand, throughout the world political actors are assumed responsibility of their economy. While private companies might be seen responsible for other kinds of performance. Moreover, economic development is routinely considered as one of the core tasks of governments. Other kind of performance might be perceived as less important than economic development. Therefore, the effect of other kinds of performance might be smaller. This question falls beyond the scope of the current article. With regard to economic performance, single-party governments are held more accountable than coalition governments. Moreover, this suggests that different electoral rules lead to different expectations among citizens. While performance is an important determinant of political trust, the emphasis that is placed on effective government and accountability in majoritarian systems seems to increase the importance citizens attach to performance for their political trust in these systems. While the effect of evaluations of performance on political trust is smaller in more inclusive systems.

## 7. Conclusion

In this paper, we have looked at electoral outcomes to explain cross-national differences in levels of political trust. In his book Comparative Constitutional Design, Sartori argued: "Perhaps the advocates of plurality-PR hybrids believe that they are bringing together the best of two worlds; but they are likely to obtain, instead, a bastard-producing hybrid which combines their defects." (Sartori, 1994: 75). The evidence in this case suggests Sartori's claim is correct: political trust is the highest in countries with one of both ideal-types of electoral outcomes: political trust is highest within countries that have very proportional or very disproportional election outcomes. Election outcomes that fall in between are associated with the lowest levels of political trust. This study has brought together two competing hypotheses empirically and provided convincing evidence for a curvilinear relationship. Although proportionality is an age-old issue, there is still no consensus on its effects on the attitudes of citizens. This finding could explain why empirical research has yielded such mixed and weak results on this relationship. In effect, modeling the relationship between proportionality and political trust in a linear way dismisses its effects. Therefore, the study shows a promising way to investigate the effect of proportionality on political trust. Additional evidence needs to be marshalled in order to test whether this relationship can also be found in other datasets, especially with more countries with very disproportional outcomes. Next to the nature of the relationship, also the use of appropriate measurements is crucial. When focusing on electoral design instead of electoral outcomes and dividing electoral systems into three categories, the variation within these systems is completely ignored. Using indices of the proportionality of election outcomes seems a better way to proceed.

Further, we tested the relationship between political trust and several additional election outcomes. First, the number of political parties in elections, parliament and government was examined. When a large number of

political parties participate in elections, citizens can effectively use their party choice to voice their political preferences. Political discontent can be voiced by voting on minor protest parties. In addition, these parties can effectively pass the threshold to parliamentary representation and defend the interests of their voters better than large catch-all parties. The evidence in this case supports these claims: citizens have higher trust levels in countries with more parties contesting elections and more inclusive legislatures. However, party fragmentation does not foster trust as it becomes increasingly difficult to aggregate interests into ideological coalitions. Surprisingly, there is no clear relationship between political trust and coalition governments or single-party governments despite the strong arguments on the effectiveness of single-governments, the instability or inclusiveness of coalition governments. No relation was found between political trust and the number of parties in office nor between political trust and the dummy variable 'coalition government'. However, other empirical studies too failed to find a relationship between the effectiveness of government and electoral design (Armingeon, 2002). Possibly, other important aspects are not captured in this variable. One aspect worth considering might be the 'switches' in coalition composition. While a new coalition or frequent rotations of coalitions parties might foster trust, semi-permanent coalition might result in feelings of resignation and alienation.

The same argument relates to the relationship between (dis)proportionality and winning and losing elections. While winners were significantly more trusting than losers and cross-national differences in this relationship were found, proportionality failed to explain this cross-national variation. Winning was operationalized by voting on one of the parties in office on the national level but in countries with federal state structures there are additional governments which can have a different composition, and different winners. This argument can also be made for presidential systems or other kinds of checks and balances systems. Federal state structures, however, do not seem to influence political trust directly, nor as an intermediary variable between losing and trust. Another explanation could be that the proportionality of electoral outcomes is just not influencing the trust of winners and losers all that much. Democratic experience, on the other hand, seems much more important than the nature of the electoral outcomes. In newer democracies lacking repeated experiences with democratic experiences, election losers are indeed more likely to be distrustful. Lastly, we looked at the accountability argument finding support that responsibility is more clear under single-party governments than under coalition governments. The results showed that the evaluation of institutional performance is more strongly related to political trust under single-party governments than coalition governments. This suggests that while performance is strongly related to political trust, the emphasis that is placed on effective government and accountability in countries with disproportional election outcomes seems to increase the importance citizens attach to performance even more when evaluating the trustworthiness of political institutions in these countries.

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Summerschool on Political Parties in Brussels. I am grateful for the comments of the participants of these meetings and for the comments of Ellen Claes, Sara Vissers and two anonymous referees for *Electoral Studies*.

## Appendix.

### Response rates of the countries included in the analyses.

Participating countries	2006		2008	
	N	Response rates	N	Response rates
Austria	2405	63.96		–
Belgium	1798	61.01	1760	58.86
Bulgaria	1400	64.75	2230	74.98
Cyprus	995	67.32	1215	78.74
Denmark	1505	50.78	1610	53.88
Estonia <sup>a</sup>	1517	64.97	1661	57.37
Finland	1896	64.40	2195	68.44
France	1986	45.97	2073	49.38
Germany	2916	54.47	2751	47.99
Hungary	1518	66.06	1544	61.29
Israel		–	2490	77.69
Ireland <sup>a</sup>	1800	56.76		–
Netherlands <sup>a</sup>		–	1778	49.83
Norway	1750	65.52	1549	60.44
Poland	1721	70.19	1619	71.20
Portugal	2222	72.76	2367	75.74
Russia	2437	69.45	2512	67.93
Slovakia	1766	73.19	1810	72.55
Slovenia	1476	65.05	1286	–
Spain	1876	65.94	2576	66.79
Sweden <sup>a</sup>	1927	65.88	1830	62.16
Switzerland	1804	51.54	1819	49.88
UK	2394	54.57	2352	55.77
		Mean = 62.60		Mean = 63.05

<sup>a</sup>In some countries the fieldwork took place during elections or government formation which made it difficult to calculate election winners and losers. Therefore, a number of respondents were deleted from the dataset of Estonia, Ireland and Sweden (respectively 216, 327 and 677 respondents were deleted). For this reason also the data of wave 3 in the Netherlands and wave 4 in Ukraine was not included in the analyses.

Source: Roger Jowell et al., (2007, 2009).

### Descriptive results of variables.

Variables	N	Min	Max	Mean	SD
<i>Individual-level</i>					
Political trust	59,589	0	30	11.67	6.60
Gender (1 = male)	59,589	0	1	0.47	0.50
Education level	59,589	0	6	3.13	1.43
Age	59,589	15	99	49.09	17.53
Perceived institutional performance	59,589	0	10	4.60	2.51
Winner/loser	59,589	0	1	0.42	0.49
<i>Country-level</i>					
Gallagher's disproportionality index (last 10 years)	23	0.99	17.77	5.14	4.30
Effective parties in elections	23	2.80	8.89	5.02	1.56
Effective parties in parliament	23	2.38	7.84	4.20	1.48
Number of parties in government	23	1	5	2.61	1.19
Coalition government	23	1	2	1.78	0.39
WB indicators good governance	23	28.29	98.53	82.70	16.09
GDP/capita (in US\$)	23	5,808.95	88,571.46	36,570.83	20,729.27
Old/new regime	23	0	1	0.65	0.49

**Disproportionality and political trust: a multilevel analysis (unstandardized).**

	Political trust					
	Model 0	Model I	Model II	Model III	Model IV	Model V
Constant	11.848*** (0.638)	10.991*** (0.419)	9.854*** (0.393)	7.547*** (1.687)	9.294*** (0.472)	8.917*** (0.568)
<i>Individual-level variables</i>						
Gender (male = 1)		−0.261*** (0.044)	−0.261*** (0.044)	−0.261*** (0.044)	−0.261*** (0.044)	−0.261*** (0.044)
Education		0.325 *** (0.017)	0.324*** (0.017)	0.325*** (0.017)	0.309*** (0.017)	0.324*** (0.017)
Age		0.010 *** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)
Age <sup>2</sup>		0.001 *** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Perceived institutional performance		1.006 *** (0.010)	1.006*** (0.010)	1.006*** (0.010)	1.017*** (0.010)	1.006*** (0.010)
Winner		1.551 *** (0.046)	1.551*** (0.046)	1.551*** (0.046)	1.575*** (0.046)	1.551*** (0.046)
<i>Country-level variables</i>						
Disproportionality			−0.662*** (0.144)	−0.528** (0.168)	−0.495** (0.161)	−0.489** (0.155)
Disproportionality <sup>2</sup>			0.064*** (0.014)	0.053** (0.017)	0.046* (0.017)	0.047** (0.015)
Good governance				0.031 (0.022)		
Old regime (>20 years)					1.366° (0.726)	
GDP/capita (in US \$)						0.000* (0.000)
$\sigma^2(e)$	34.46	28.47	28.47	28.47	28.47	28.47
$\sigma^2(u_0)$	9.36***	3.99***	2.03***	1.87***	1.76***	1.69***
Intra-class correlation	21.35%	12.30%	6.66%	6.16%	5.81%	5.61%
Number of cases	59,589	59,589	59,589	59,589	59,589	59,589
IGLS Deviance	380,187.521	368,802.412	368,786.93	368,785.04	368,783.64	368,782.77

Note: Entries are parameter estimates and standard errors (between brackets) of a multilevel regression. The variables were centered around the mean.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ , °  $p < 0.1$ .

**Disentangling the effect of disproportionality on political trust (1) (unstandardized).**

	Political trust			
	Model VI	Model VII	Model VIII	Model IX
Constant	9.598*** (0.503)	9.655*** (0.508)	8.977*** (0.889)	7.996*** (1.625)
<i>Individual-level variables</i>				
Gender (male = 1)	−0.260*** (0.044)	−0.261*** (0.044)	−0.261*** (0.044)	−0.261*** (0.044)
Education	0.325*** (0.017)	0.325*** (0.017)	0.325*** (0.017)	0.325*** (0.017)
Age	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)
Age <sup>2</sup>	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Perceived institutional performance	1.006*** (0.010)	1.005*** (0.010)	1.006*** (0.010)	1.006*** (0.010)
Winner	1.551*** (0.046)	1.551*** (0.046)	1.551*** (0.046)	1.551*** (0.046)
<i>Country-level variables</i>				
Effective number of parties: elections	0.402 (0.238)			
Effective number of parties: elections <sup>2</sup>	−0.228* (0.087)			
Effective number of parties: seats		0.414° (0.233)		
Effective number of parties: seats <sup>2</sup>		−0.276* (0.106)		
Parties in government			0.137 (0.284)	
Coalition (1 = yes)				0.725 (0.843)
Old regime (>20 years)	2.954*** (0.625)	2.938*** (0.631)	2.541** (0.692)	2.611** (0.682)
$\sigma^2(e)$	28.47	28.47	28.47	28.47
$\sigma^2(u_0)$	1.90***	1.90***	2.46***	2.41***
Intra-class correlation	6.27%	6.26%	7.95%	7.79%
Number of cases	59,589	59,589	59,589	59,589
IGLS Deviance	368,785.47	368,785.42	368,791.33	368,790.83

Notes: Entries are parameter estimates and standard errors (between brackets) of a multilevel regression. Dependent variable: Political trust (parliament, parties, politicians). The variables were centered around the mean.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ , °  $p < 0.1$ .

## Disentangling the effect of disproportionality on political trust (2).

Models with interactions (testing H5 and H6)	Political trust				
	Model X	Model XI	Model XII	Model XIII	Model XIV
Constant	9.217*** (0.468)	9.836*** (0.509)	7.859*** (1.658)	9.120*** (0.469)	8.532*** (1.682)
<i>Individual-level variables</i>					
Gender (male = 1)	-0.247*** (0.044)	-0.247*** (0.044)	-0.246*** (0.044)	-0.247*** (0.044)	-0.236*** (0.044)
Education	0.330*** (0.017)	0.330*** (0.017)	0.330*** (0.017)	0.329*** (0.017)	0.326*** (0.017)
Age	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)
Age <sup>2</sup>	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Perceived institutional performance	1.005*** (0.010)	1.004*** (0.010)	1.005*** (0.010)	1.005*** (0.010)	1.436*** (0.186)
Winner	1.498*** (0.112)	1.502*** (0.112)	2.188*** (0.508)	1.917*** (0.158)	1.546*** (0.046)
<i>Country-level variables</i>					
Disproportionality	-0.521** (0.160)			-0.516*** (0.160)	
Disproportionality <sup>2</sup>	0.046* (0.016)			0.047*** (0.017)	
Effective number of parties: seats		0.458° (0.239)			
Effective number of parties: seats <sup>2</sup>		-0.274* (0.105)			
Coalition (1 = yes)			0.890 (0.864)		0.609 (0.876)
Old regime (>20 years)	1.479° (0.720)	2.680*** (0.621)	2.399** (0.676)	1.626* (0.722)	2.361** (0.688)
<b>Disproportionality * Winner</b>	<b>0.030 (0.026)</b>				
<b>Effective parties in parliament * Winner</b>		<b>-0.076 (0.077)</b>			
<b>Coalition * Winner</b>			<b>-0.387 (0.280)</b>		
<b>Old democracy * Winner</b>				<b>-0.644** (0.198)</b>	
<b>Coalition * Perceived institutional performance</b>					<b>-0.250* (0.102)</b>
$\sigma^2(e)$	28.41	28.41	28.41	28.41	28.30
$\sigma^2(u_0)$	1.73***	2.05***	2.53***	1.73***	2.59***
Slope winner ( <i>without interaction</i> 0.23***)	0.23***	0.24***	0.23***	0.16***	0.03***
Slope Institutional Performance ( <i>without interaction</i> 0.04***)					
Number of cases	59,589	59,589	59,589	59,589	59,589
IGLS deviance	368,695.70	368,697.39	368,702.23	368,688.25	368,494.46

Note: Entries are parameter estimates and standard errors (between brackets) of a multilevel regression. Dependent variable: political trust (parliament, parties, politicians).

\*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.05, ° p < 0.1.

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