PARTY COMPETITION AND ELECTORAL TURNOUT: DOWNS’S CALCULUS IN A MULTIPARTY SYSTEM

Juha Helin
Department of Political Science
University of Turku
email: jukrhe@utu.fi

and
Hannu Nurmi
Academy of Finland and Department of Political Science
University of Turku
email: hnurmi@utu.fi

Abstract

Duverger’s Law and Hypothesis establish a connection between the number of parliamentary parties and the electoral system: single-member constituency systems with first-past-the-post criterion of winning are likely to lead to two-party systems, while in proportional representation systems one should expect a multitude of parties being represented in the parliament. With regard to electoral turnout, it seems that FPTP system is in general associated with lower turnout than the PR ones, but there is considerable over time and space variation in these turnout figures. Our focus is on the possible effect that the closeness of the race has on turnout in FPTP and PR systems. One would, a priori, expect that the closer the race, the more interest the voters have in the electoral outcome and, hence, the higher the turnout. Resorting to the Finnish municipal and British parliamentary elections data, we shall assess the tenability of this expectation. We shall divide the municipalities and constituencies, respectively, into clusters representing relatively homogeneous support distributions over the main competing parties and determine whether the turnout values differ essentially in high competition settings from those observed in low
competition ones. We shall also discuss various measures of competition and the robustness of our findings when the measures are varied.

1 Introduction

Democratic form of government presupposes a reasonable consonance between the governmental policies and the opinions of the electorate. In direct democracy the consonance is achieved through public debate and electoral involvement in decision making concerning policies to be adopted. In representative forms of government the electoral input is limited to electing representatives whose task is to make or control the policy decisions. Either way, a link is supposed to exist between popular opinion and government decisions.

In many Western democracies the link has been weakened over the past decades, not because of the governments' unwillingness to respond to popular opinions, but due to the apparent lack of interest of the electorate to express their opinions. The overall trend in electoral turnout has been declining in many countries of Western and Northern Europe. In fact exceptions to this are mainly to be found in countries where voting is compulsory.

In this paper we shall focus on explanations of the act of voting, i.e. answers to the question of why people cast their vote. This question is rather fundamental in understanding politics and collective behavior in general. Indeed, it has often been seen as crucial test of what is known as the rational choice theory (RCT, for brevity); if the theory is incapable of providing a plausible rational explanation for the act of voting, the theory based on rationality assumption has to be abandoned.

The task of explaining the decline in turnout is of course related to that of accounting for the fact that people participate in elections or, in fact, to explaining the decision to contribute to the provision of collective goods in general (Riker and Ordeshook 1973, 72; Uhlaner 1993, 68). If one finds a set of conditions or factors that explains why people vote in general, one might look for the explanation of the lowering turnout in those conditions or factors as well. Perhaps their presence has become less frequent over time or some new conditions have diminished their causal efficacy.

One of the considerations that is sometimes equated with the RCT account of the act of voting is the perceived impact one’s vote would likely have on the electoral outcome. The more likely one’s vote is to change the outcome, the more stronger is the incentive to vote. Consider the well-known expression in voter calculus (Downs 1957; Tullock 1968):
\[ R = PB - C \]  

where \( R \) is the reward from the act of voting, \( P \) is the probability of the vote changing the outcome to the one favored by the voter, \( B \) is the benefit from the favored outcome and \( C \) is the cost of voting. The standard argument is that since \( P \) for any individual voter in any real world election is bound to be minuscule, no matter high much value \( B \) the voter attaches to his/her favored outcome, \( C \) is almost certain to exceed \( PB \). Therefore, the reward is bound to be negative, whence the act of voting is not rational in the expected utility maximization sense. Consequently, the most fundamental political act cannot be explained by the descriptive rational choice theory. By the same token, the normative rational action theory would seem to yield an absurd prescription not to vote for the generic voter.

We shall evaluate this argument more fully in the penultimate section of this paper, but for now we focus on some of its implications. To wit, if the argument is correct, then the following statements would hold:

- By voting the voter increases the probability of his/her favorite outcome from the what it would have been had he/she (hereinafter she) not voted, ceteris paribus.

- The closer the election, the more likely the voter is to vote rather than abstain.

On closer inspection, it turns out that the former statement pertains to properties of voting schemes, while the latter is an empirical claim regarding voter behavior. We shall discuss these statements in turn.

## 2 Voting procedures and incentives

The very rationale of holding an election or “going to the people” as the British are accustomed to saying, is that the more support a party, candidate or alternative receives from the voters, the more likely it or she is to win. From the voter’s point of view, the more she cares about the outcome of the election, the stronger incentive she has to express her views by voting for her favorite. Thus, to the extent that people do not show up at the polls, it can be argued that they are not really interested in the electoral outcomes. Indeed, this explanation has often been heard. It has, however, a hollow ring to it if it turns out that the likelihood of a candidate, party or alternative winning does not always increase with the increase of her or its support among the electorate. Yet, many texts on voting systems reveal that there are systems
in which the rationale of going to the people necessarily holds, and others in which it doesn’t hold.

### 2.1 Systems that encourage voting

Fortunately, many commonly used voting systems are monotonic, i.e. satisfy the condition which says that whenever a candidate or alternative wins in an electorate, it should also win when its support is increased, provided that no other changes occur in the electorate. As an example of monotonic system, consider the first-past-the-post (FPTP) system: every voter has one vote and the candidate who receives the largest amount of votes is the winner. Surely, this system is monotonic.

Another monotonic system is the Borda Count. This system takes individual preference rankings as inputs and turns these into collective preference rankings. Given a profile over \( k \) alternatives \( a_1, \ldots, a_k \), this is done by first encoding the preference ranking of voter \( i \) into vector with \( k \) components \( v_i = (n_{1i}, \ldots, n_{ki}) \) where \( n_{1i} \) denotes the number of alternatives ranked lower than \( a_1 \) in \( i \)'s ranking, \( n_{2i} \) the number of alternatives ranked lower than \( a_2 \) in \( i \)'s ranking etc. Summing over voters gives:

\[
B = \sum_{i \in N} v_i = (B_1, \ldots, B_k)
\]

which is the vector of Borda scores of alternatives.

To see that the Borda Count is monotonic, consider a vector of Borda scores and see what happens to it if any voter or group of voters decides to rank the winner higher than they did originally. This would mean that the winner’s score becomes now larger than it was since some voters now rank more alternatives below it than originally. In particular, no other alternative than the winner gets a higher score than originally. Hence, after the change the original winner remains the winner.

Consider now another theoretical property that is directly pertinent to turnout, viz. the participation axiom. It states that in terms of electoral outcomes no voter group is ever better off by abstaining than by voting according to its preferences, ceteris paribus (i.e. other voters’ behavior remaining the same). It is clear that FPTP system satisfies the axiom since by voting for its first ranked alternative a voter can never bring about a worse outcome (for herself) than by not voting at all. Of course, it may be the case that abstaining or voting is accompanied with no change in the outcome, but the
34% of voters 35% of voters 31% of voters

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
</tr>
<tr>
<td>c</td>
<td>c</td>
<td>b</td>
</tr>
<tr>
<td>b</td>
<td>a</td>
<td>a</td>
</tr>
</tbody>
</table>

Table 1: Non-monotonicity of plurality runoff

point of the axiom is that abstaining not result in a better outcome than voting from the abstainer’s point of view.

Equally obvious is the conclusion with regard to the Borda Count. By voting according to one’s preferences one cannot bring about worse outcome than by abstaining. Thus, both FPTP and Borda Count satisfy the participation axiom and are monotonic. In this sense they both encourage voting.

2.2 Systems that do not encourage voting

There are, however, also systems that may respond in counterintuitive ways to preference modifications. Non-monotonic systems may, by definition, respond to an increased support of a winner by turning it into a non-winner. Consider the widely used plurality runoff system and the following profile over three alternatives \{a, b, c\} (Table 1) (Nurmi 1999, 57).

In plurality runoff system each voter votes for one alternative. If some alternative is voted for by more than 50% of the voters, it is elected. Otherwise, there will be a second round of voting where two front-runners are confronted with each other. Whichever of these two gets more votes, is elected.

In the profile of Table 1 – assuming that voters vote according to their preferences – a second round is needed since none of the alternatives is supported by more than half of the electorate. In the second round a and b are faced with each other, whereupon will be elected since the 31% of the voters whose most preferred alternative is not present will presumably vote for b. Hence, b is elected.

Suppose now that b had somewhat more support to start with so that 4% of voters had the preference bac rather than acb. Hence the largest groups would be bca (35%) and cba (31%). Thus, b and c would be present in the second round, where c would win. This shows that additional support may turn winners into losers in plurality runoff. In other words, plurality runoff is non-monotonic.

It is also vulnerable to the no-show paradox (Fishburn and Brams 1983), i.e. does not satisfy the participation axiom. Table 2 illustrates this (Nurmi 2002, 95). Assuming again that the voters vote according to their preferences,
the second round contestants will be a and b, whereupon a wins. This is the worst outcome for 49% of the voters. By abstaining the group consisting of 47% of the voters may bring about a runoff contest between a and c. This will, then, be won by c. Hence, the outcome is better for the abstainers than the one that results from their voting according to their preferences.

Plurality runoff is by no means the only system that violates monotonicity and participation axiom. Another well-known example is the single transferable vote (STV) which in the context of single-winner elections is known as Hare’s system. When the number of alternatives is three, the behavior of STV is identical with that of plurality runoff. Therefore, the above examples also demonstrate that Hare’s system is nonmonotonic and vulnerable to no-show paradox.

As was just seen, the no-show paradox occurs when a group of voters can improve upon the voting outcome (from their own viewpoint) by abstaining from what it would be if they voted according to their preferences and everything else remained the same. A strong no-show paradox occurs when the abstainers not only improve upon the outcome but achieve their best outcome (i.e. first-ranked alternative) by abstaining (Pérez 2001, Saari 1989, Saari 1995). The strong version of the paradox is obviously more dramatic than the earlier one. Fortunately, none of the systems commonly used in elections is vulnerable to the strong no-show paradox. However, the quite common parliamentary voting procedure known as amendment procedure may lead to a strong version of the paradox.

<table>
<thead>
<tr>
<th>26% of voters</th>
<th>47% of voters</th>
<th>2% of voters</th>
<th>25% of voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>b</td>
<td>c</td>
</tr>
<tr>
<td>b</td>
<td>c</td>
<td>c</td>
<td>a</td>
</tr>
<tr>
<td>c</td>
<td>a</td>
<td>a</td>
<td>b</td>
</tr>
</tbody>
</table>

Table 2: No-show paradox

2.3 Some results

Monotonicity and participation axiom are intuitively compelling requirements of voting systems. Indeed, one could go as far as to maintain that it is to be expected that in systems violating these requirements the turnout is lower than in those satisfying them, ceteris paribus. The problem in ascertaining this expectation is that ceteris are not paribus, i.e. a number of different factors enter into voter calculus the electoral systems type being only one among them. Especially noteworthy is the fact that, in addition
to monotonicity and participation axiom, there are several other intuitively plausible requirements one could impose on a voting system. Unfortunately, some of these are incompatible with the two desiderata just mentioned.

Three incompatibility results are particularly worth mentioning. First one is Moulin’s (1988). It states that all Condorcet completion systems are vulnerable to the no-show paradox whenever the number of alternatives exceeds three. Condorcet completions are systems that result in the choice of the Condorcet winner when one exists in a preference profile. If one deems a Condorcet winner a plausible choice – as many people do – then Moulin’s result is quite unpleasant incompatibility result on two desiderata.¹

More recently, Pérez (2001) has been able to extend Moulin’s incompatibility result to nearly nearly all Condorcet completions and to the strong version of the no show paradox. In other words, almost all Condorcet completions can lead to strong no show paradoxes. The only exception is the maxmin method (Kramer 1977) which is not used in election settings.

Since Condorcet winner is determined on the basis of pairwise comparisons with simple majority rule determining the winner in each comparison, it could be argued that resorting to higher than simple majorities might give a way to escape no show paradoxes. Holzman’s (1988/89) result, however, pretty much eliminates this possibility. It states that in order to avoid the no show paradox one must insist on very high majority threshold.

3 Another puzzle of participation

In principle one could expect that in systems vulnerable to the no show paradox the turnout is lower than in systems satisfying the participation axiom for the nearly tautological reason that the latter provide voters with the assurance that under no circumstances can they do harm to their own interests by voting instead of abstaining. Yet, even a cursory glance at empirical data suggests that systems vulnerable to the no-show paradox do not in general have lower turnout rates than systems invulnerable to it. If one compares, for example, turnout data from the Finnish presidential elections, which since 1994 have been conducted using the plurality runoff system, and from the Finnish parliamentary elections (plurality PR), the former seem to be accompanied with higher rather than lower turnout rates than the latter. In the

¹Dan S. Felsenthal (personal communication) has called our attention to the fact that it seems impossible to construct an example of the no-show paradox without assuming that the underlying profile (either before or after the abstention of a group of voters) contains a Condorcet cycle. In Felsenthal’s opinion this essentially undermines the seriousness of the incompatibility results.
following we present some turnout percentages on recent Finnish elections.

<table>
<thead>
<tr>
<th>year</th>
<th>parliamentary elections</th>
<th>municipal elections</th>
<th>presidential elections</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>69.7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2000</td>
<td>-</td>
<td>55.9</td>
<td>76.9 / 80.2</td>
</tr>
<tr>
<td>1999</td>
<td>68.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1996</td>
<td>-</td>
<td>61.3</td>
<td>-</td>
</tr>
<tr>
<td>1995</td>
<td>68.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1994</td>
<td>-</td>
<td>82.2 / 82.3</td>
<td>-</td>
</tr>
<tr>
<td>1992</td>
<td>-</td>
<td>70.9</td>
<td>-</td>
</tr>
</tbody>
</table>

Clearly, the plurality runoff system seems to activate voters more than the plurality based PR systems of parliamentary and municipal elections. Thus, contrary to what one would expect the system not satisfying the participation axiom is accompanied with higher turnouts than systems satisfying it. In the other hand, the voters seem “rational” in the sense that the turnout on the second round of presidential elections is higher than on the first one. From the point of view of the no-show paradox this makes sense: on the second round there is no chance that the voter might regret voting for her higher ranked candidate, i.e. the second round is invulnerable to the no-show paradox.

Obviously, each electoral system has many other properties than the eventual vulnerability to the no show paradox. FPTP is known to be accompanied with relatively small number of parties or candidates, while the plurality runoff system encourages candidates with relatively small support to enter the race (Wright and Riker 1989). After all, it is easier to be first or second than first in terms of electoral support. If FPTP leads to two-party system, as it according to Duverger’s Law does, then the candidates may be tempted to converge to the median in order to capture as large a share of votes as possible. This may, in turn, lead to a setting where voters have difficulty in finding meaningful differences between them. Consequently, the turnout may get low because of the perceived similarity of the candidates’ policy stands.

The runoff system has been in use in the three most recent Finnish presidential elections. On the basis of this experience, one district-level observations is worth making. To wit, the turnout has been consistently higher in presidential elections than in the parliamentary ones in all electoral districts over the period in which the current plurality runoff system has been in use. This holds for both rounds of the presidential elections (Statistics Finland 2007). Indeed, the difference is typically of the order of 10 percentage points. For example, in the largest district of Uusimaa the difference in the turnout of the 1994 presidential (first round) and the 1995 parliamentary one was 12.3. For the 2000 presidential (first round) and 1999 parliamentary elec-
tions the corresponding difference was 10.2. Between 2006 presidential and 2007 parliamentary elections this difference was 9.3 in Uusimaa district.

As already pointed out, there seems to be a systematic difference between the first and second round turnouts in the Finnish presidential elections. In contrast to what has been observed in the U.S. gubernatorial and senatorial primaries (Bullock et al. 2002), the turnout in the Finnish presidential elections has been consistently higher on the second than in the first round. With the exception of 3 districts out of 15 in one election – 1994 – the second round has attracted more voters to the polls than the first round.

To the extent the Finnish parliamentary elections resemble the FPTP elections, we may thus conclude that the system vulnerable to the no-show paradox attracts more voters than the system where this paradox cannot occur. From the RCT perspective this is certainly puzzling. In the U.S. the lower turnout in the second has been explained by the fact that there are typically far fewer other offices to be voted on in the second round. In the Finnish elections, no other issues or offices are being voted on. Hence, the comparison between the first and second round turnouts is closer to the proverbial *ceteris paribus* condition.

4 Does closeness count?

What about the closeness of the election? In other words, does the difference in the variable $P$ in equation (1) explain turnout differences? Perceived probability of making a difference in outcomes would provide a reasonable RCT explanation for the act of voting. We shall look at evidence from two very different political systems, the British and Finnish ones. The former is based on majoritarian principles, while the latter is a proportional representation system. We start with the latter.

4.1 Finnish municipal elections

In an effort to find out factors accounting for variation in turnout in Finnish parliamentary elections of 2003 and municipal elections of 2000, Bengtsson (2004) compares two explanatory hypotheses, one emphasizing the contextual factors, i.e. the socio-economic circumstances under which the voters live, and the other looking at voting as an act of choice. The following table (Table 3) summarizes the turnout data from municipalities with various levels of support for the largest party (Bengtsson 2004, 9). The last column refers to the number of municipalities that belong to each largest party support category in the municipal elections of 2000.
The share of votes given to the largest party is certainly a fairly good indicator of the lack of political competition prevailing in a municipality. We shall present a somewhat more detailed indicator shortly, but before doing that let us observe that Bengtsson’s table seems to suggest a nearly inverse relationship between the level of competition – as measured by the vote share of the largest party – and the electoral turnout both in parliamentary and municipal elections. Especially marked is the high turnout in municipalities where one party gets more that two thirds of the votes. Rather than competition it seems that the lack thereof explains differences in turnout. This conclusion has also been made – with some qualifications – in Grönlund’s (2004) comprehensive study.

The share of votes to the largest party is, however, somewhat crude measure of political competition. In the following section we shall outline a somewhat more detailed descriptive methodology.

4.2 Clusters of party support

In determining the nature of political competition within a constituency, one crucial piece of information is the distribution of support over the parties within the constituency. It is often intuitively easy to discern similar distribution patterns in various constituencies. Some are characterized by strong and equal support of the main parties with relatively small support for the other parties. In other constituencies, there may be one dominant party with competitors trailing far behind. It would be nice to have a method that would recognize support distribution patterns so that one could classify constituencies into clusters of support distribution so that within each cluster the constituencies would be very similar differing considerably from

<table>
<thead>
<tr>
<th>support for the largest party</th>
<th>parlimentary elections 2003</th>
<th>municipal elections 2000</th>
<th>number of municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25%</td>
<td>69.8%</td>
<td>59.4%</td>
<td>7</td>
</tr>
<tr>
<td>25 – 29.9%</td>
<td>69.9%</td>
<td>58.1%</td>
<td>51</td>
</tr>
<tr>
<td>30 – 39.9%</td>
<td>69.6%</td>
<td>60.9%</td>
<td>121</td>
</tr>
<tr>
<td>40 – 49.9%</td>
<td>69.2%</td>
<td>63.2%</td>
<td>94</td>
</tr>
<tr>
<td>50 – 59.9%</td>
<td>69.7%</td>
<td>63.9%</td>
<td>97</td>
</tr>
<tr>
<td>60 – 69.9%</td>
<td>72.6%</td>
<td>66.8%</td>
<td>33</td>
</tr>
<tr>
<td>70 – 79.9%</td>
<td>75.0%</td>
<td>69.5%</td>
<td>20</td>
</tr>
<tr>
<td>&gt; 80%</td>
<td>77.3%</td>
<td>72.0%</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3: Turnout in Finnish elections. Source: Bengtsson 2004
Table 4: Turnout in Finnish clusters with tough competition

<table>
<thead>
<tr>
<th>cluster no.</th>
<th>average turnout at t</th>
<th>next election turnout (t+1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>72.4</td>
<td>69.8</td>
</tr>
<tr>
<td>10</td>
<td>73.9</td>
<td>73.8</td>
</tr>
</tbody>
</table>

constituencies of other clusters.

Using the clustering methodology applied by Aleskerov and Alper (2000) to analyze the performance of branches of Turkish banks Aleskerov and Nurmi (2003) analyze seven most recent municipal elections in Finland in order to find out distribution patterns that would best describe the competitive situation of each election and of each constituency. Of 400+ municipalities and seven elections, it turns out that 87 patterns are needed to classify the support distributions in clusters that are optimal in the sense of providing best classification of data (the ratio of within cluster variation to between cluster variation is minimal).

For the analysis of turnout data it seems relevant to consider clusters characterized by intensive competition, i.e. relatively small support difference between largest parties, on the one hand, and clusters dominated by one party, on the other. If closeness of competition is to have importance to voting decisions, it makes more sense to consider lagged process so that one looks at how competition at election t affects turnout at election t+1 than to compare closeness of the race and the turnout both at election t.

We singled out two support patterns which we think describe relative tough competition setting. In both clusters of municipalities the average support difference between two largest parties is less than 10%. The clusters differ mainly with regard to which parties are largest: in one of them it is Social Democratic Party (SDP), and in the other it is the Center Party (KESK).

In 10 clusters characterized by small or nearly nonexistent competition, the average difference in support between the dominant party and the runner up is more than 20% units and in each one of them the dominant party’s vote share exceeds 50%. Our preliminary findings are presented in Tables 4 and 5.

These data provide no support for the contention that the toughness of competition at election t would increase the turnout in the following election. Differences are minor in both tables, but the overall turnout seems to suggest that the one party dominance is accompanied with higher turnout level than the level prevailing in clusters of tough competition. In any event, toughness of competition does not seem to increase turnout in the Finnish municipal
Table 5: Turnout in Finnish clusters with one party dominance

<table>
<thead>
<tr>
<th>cluster no.</th>
<th>average turnout at t</th>
<th>next election turnout (t+1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75.8</td>
<td>74.6</td>
</tr>
<tr>
<td>4</td>
<td>74.9</td>
<td>74.7</td>
</tr>
<tr>
<td>9</td>
<td>77.1</td>
<td>75.5</td>
</tr>
<tr>
<td>11</td>
<td>77.2</td>
<td>76.8</td>
</tr>
<tr>
<td>31</td>
<td>77.1</td>
<td>78.9</td>
</tr>
<tr>
<td>32</td>
<td>76.4</td>
<td>76.3</td>
</tr>
<tr>
<td>33</td>
<td>72.7</td>
<td>73.1</td>
</tr>
<tr>
<td>40</td>
<td>77.3</td>
<td>77.4</td>
</tr>
<tr>
<td>58</td>
<td>76.9</td>
<td>78.2</td>
</tr>
</tbody>
</table>

Table 6: Turnout in British clusters with tough competition

<table>
<thead>
<tr>
<th>cluster no.</th>
<th>average turnout at t</th>
<th>next election turnout (t+1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>75.5</td>
<td>72.3</td>
</tr>
<tr>
<td>7</td>
<td>69.0</td>
<td>64.8</td>
</tr>
<tr>
<td>8</td>
<td>68.3</td>
<td>62.5</td>
</tr>
</tbody>
</table>

4.3 British elections

The Finnish evidence of the possible influence of the competition situation on the turnout seems to contradict the Downsian voter calculus. In fact, it appears to support the idea that the larger the relative share of a homogeneous group of voters in a constituency, the larger the turnout among the group members and, ceteris paribus, the turnout in the constituency as a whole. This idea was suggested by Tingsten (1937) and has more recently been elaborated by Karvonen and Grönlund (1995) and Grönlund (1999).

But what about other countries? Does this observation extend to majoritarian systems as well? To provide some insight into the latter question we looked at the clusters of party competition in the three most recent British parliamentary elections preceding (Aleskerov and Nurmi 2003). We analyzed three clusters of tough party competition and compared those clusters with three one party dominant clusters. The results are in Tables 6 and 7.

Three remarks are worth making.

- If the tightness of the electoral competition were to explain voter turnout,
<table>
<thead>
<tr>
<th>cluster no.</th>
<th>average turnout at t</th>
<th>next election turnout (t+1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>62.3</td>
<td>56.3</td>
</tr>
<tr>
<td>2</td>
<td>70.1</td>
<td>65.8</td>
</tr>
<tr>
<td>4</td>
<td>72.8</td>
<td>69.7</td>
</tr>
</tbody>
</table>

Table 7: Turnout in British clusters with one party dominance

Table 6 should show an increase in turnout from 1992 to 1997 and from 1997 to 2001 elections. This is obviously not the case. Rather, the clusters exhibit decreasing turnout from one election to the next.

- On the same grounds one would expect decreasing turnout from one election to the next in one party dominance clusters. This appears to be the case.

- Although high competition constituencies tend to be characterized by higher turnout than the one party dominant ones, this does not hold in general. Especially, clusters 4 (characterized by average support for the Conservatives of more than 50%) and 8 (characterized by a tough contest between the Conservatives and the Liberal Democrats, each receiving more than one third of the votes on the average) contradict the general tendency.

So, the evidence from the three elections seems to partly contradict and partly support the hypothesis that the turnout increases with the probability of making a difference in the outcomes. The picture becomes more nuanced when we observe that the overall trend in the turnout in all constituencies over the span of the three elections is decreasing (Grönlund 2004, 512). In fact, this is not just in terms of overall turnout, but applies to practically all constituencies. The turnout dropped from 78.04% in 1992 to 71.47% in 1997 and from that to 59.12% in 2001. In less than a decade one fifth of the British electorate has lost interest in parliamentary elections, a dramatic trend, indeed.

If we compare the overall turnout rates to those in high competition and one party dominance constituencies we notice that in the former the turnout, although decreasing from one election to the next, actually remained higher than the average. Also the drop in turnout in the high competition constituencies was less than the one in the overall turnout.

Somewhat surprisingly, almost similar observations can be made with regard to the one party dominance constituencies and the overall turnout. Cluster 1 constituencies – the largest group – form an exception: the turnout
is lower than the overall one and decreases from one election to the next. In one party dominance constituencies the average turnout dropped pretty much at the same rate as the overall turnout.

The evidence from the British elections is, thus, ambivalent: the prediction that the prevalence of high competition at the time of an election increases the turnout in the next elections is clearly refuted in the span of the elections we focused upon. This is partly due to the fact that the overall trend in British elections has been one of declining turnout. Once the trend is omitted, the evidence lends some support to the hypothesis that high competition leads to high turnout.

Our results on British elections seem at least partly discordant with those obtained by Abramson et al. (2007) in their analysis of a much larger set of British election data. They found a negative correlation between decisiveness and turnout in constituency level data. The correlation was observed both in simultaneous and lagged measurements of decisiveness data. Moreover, the correlation between decisiveness values in two consecutive elections was observed to be strong and positive. The same is true of participation values in two consecutive elections. Abramson et al. also look at the contribution of participation to the correlation between consecutive decisiveness values. Overall, these results suggest that decisiveness tends to increase turnout. This was also suggested by Grönlund (2004). This is partly in contradistinction with our results.

There are several possible explanations to this discordance. Firstly, we may have an instance of Simpson’s (1951) paradox at hand: an association is observed in all subsets of a population, but it vanishes when the total population is examined (see also Cohen and Nagel 1943, 449). In other words, the heterogeneity of the population under scrutiny may account for the discrepancy in inferences. Tables 6 and 7 above suggest that there is considerable turnout variation among both one party dominance constituencies, but also among tough competition ones. Secondly, the clusters identified take into account not only the share of the largest party in each constituency but also the overall support pattern of all parties. We find this plausible since although in the FPTP elections the second and third largest parties get no representation in a constituency, the competition for the second place may still activate voters more in the constituencies where the support shares are far apart. In PR systems the overall support pattern is the only reasonably reliable indicator of the intensity of competition. Our focus on the “global” pattern of support rather than the share of the winning party may thus explain the difference in results. Thirdly, Abramson et al. resort to correlation analysis of decisiveness and competition, while our focus is in the variation of average support in constituencies belonging to various clusters of support
distribution. This has the advantage of recognizing the dramatic downward trend in turnout over the three elections studied. On the face of it, it cannot be due to changes in the degrees of competition. Fourthly, the data analysis differs: Abramson et al. and Grönlund (2004) analyze a much larger set of British elections than we do. It is, thus, possible that what they have found is a long term invariance which, however, has been changing in the course of those elections we focused upon.

5 Rational choice theory under attack

In the preceding we have implicitly assumed that RCT predicts that tough competition increases turnout. This assumption can, however, be challenged. Grofman (1993) provides several plausible reasons to give a negative answer to this question. Perhaps most important is the following. Suppose that there are two front runners in an election and that they are nearly identical in their policies (e.g. due to the convergence to the median position). Then the probability of each voter casting a decisive vote is relatively high, but the utility difference between the candidates is small. Contrast this with an election where the two front runners are very different and where one is clearly ahead of the other in terms of popular support. Then an individual voter’s $P$-value is small, but $B$ is large. The value of $PB$ in these two types of elections may be be very similar, and yet the elections represent very different competition settings (Glazer and Grofman 1992).

The preceding observations can be viewed as evidence for Tingsten’s hypothesis, i.e. for the contextual theory of voting and against choice theoretic approach. One might even be tempted to say that the data we have discussed constitute a refutation of RCT. But what would be the RCT explanation for voting? Briefly the following: an individual votes if she prefers voting to not voting. Rationality in the thin sense is simply acting in accordance to one’s preferences (Harsanyi 1977; Elster 1983). When certain conditions concerning preference relations are satisfied, the choice of the preferred alternatives can be seen as maximizing individual utility. Utility maximization does, however, not constitute an explanation, i.e. it does not make sense to say that rational people vote in order to maximize their utility. Rather, it can be said that they vote because they prefer voting to not voting and their preference can (under some conditions) be represented in terms of a utility function.

This, of course, begs the question of why people prefer voting to not voting. One possibility is that those who vote do so because they think that by so doing they contribute to the outcome they prefer to the one ensuing from their no voting. This is the common view of what RCT explanation of
the act of voting amounts to. As we just pointed out, the view is incorrect insofar as it equates rationality with an instrumental view of voting.

Our view is that there is no incompatibility between the view that people are rational choosers and the assumption that they deem voting as something inherently valuable regardless of one’s probability of casting a decisive vote. There is also no incompatibility between contextualistic interpretations and choice theoretic view. Even rational choosers may succumb to pressure towards uniformity in strongly homogeneous political environments. Indeed, the act of not voting might be directly utility decreasing because of various social sanctions imposed on non-voters.

In short we do not deem the above observations as tests of RCT. Indeed, its is not even conceptually clear what rationality would dictate in election systems that do not encourage voting. What our empirical observations show, in our opinion conclusively at least in PR systems, is that Downsian voter calculus is misleading: the probability of changing the outcome is not the only consideration in the voter calculus. Nor are the costs related to going to the polls solely relevant. Surely, for a vast majority of voters the costs involved have in relative terms decreased over the past decades. Yet, there is an almost universal downward trend in turnout.

6 Conclusion

The voter calculus attributed to Downs implies that, ceteris paribus, the voters should be voting more actively in closely contested elections than in decisive ones. Although Downs’s interest was focused on FPTP elections, one would intuitively expect that the calculus applies to PR elections as well. In the latter, though, the tightness of competition may be seen not only in the vote share of the largest party but in the distribution of votes over all contestants. Also in single-member constituency systems, one would expect higher turnout in constituencies where the support shares of the second and third largest vote recipients are close to each other, than in those where the vote shares are far apart.

This suggests that in assessing the competitive situation prevailing in a constituency one should look at the overall distribution of support over parties or candidates. Using cluster analysis technique devised by Aleskerov and Alper we have looked at the evidence on turnout in constituencies which belong to distribution clusters characterized by high competition and compared it with data on low competition clusters. In the Finnish PR system the evidence seems to contradict the voter calculus prediction. Here our analysis concurs with the study of Bengtsson. With regard to the British election
data, our conclusions are less clear-cut. On the basis of three parliamentary elections, it seems that a clear downward trend in the overall turnout is prevalent. In general, it seems that the turnout is not in general higher in the high competition constituency clusters. Our evidence does, thus, not support the view that the competition situation would activate voters in the way suggested by the voter calculus.

References


Bengtsson, Å. (2004), Valdeltagande i Finland. Rationalitet eller socialt tryck?, *Politiikka* 46, 3-16.


