

When Do Voters Act Strategically?

Institutional and Individual Variation in the Incidence of Strategic Voting in Democracies

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The single most obvious observation that flows from the earliest survey research on voting (Berelson, et al., 1954; Lazarsfeld, et al., 1944; Campbell, et al., 1960) is that voters tend to be remarkably ill-informed about the fundamentals of politics, and, as Converse famously showed (1964), they are often perceived to be what has become known as “innocent” of ideology. While there is variation to that, there is little doubt that the basic outlines of these points are invariably true across the decades and among the various nations.

It seems a short step from those observations to the claim that the voter is best understood as making very simple decisions using very simple decision rules (as suggested by Kelley and Mirer, 1974), quite different from the complex reasoning attributed to candidates, party leaders, and the like. One reason, for example, that rational choice models of politics are often thought more appropriate and useful for studying the actions and choices of the political elite is that game theoretic and strategic decision making seem more at home with those whose livelihoods depend upon the outcome than with those who are mostly inattentive to the day to day workings of politics.

And yet, economic theory often treats consumers as strategic actors. Should we expect citizens to act strategically as consumers but to totally disavow acting to advance their interests as voters? Perhaps we should because, after all, livelihoods do depend in part on consumption decisions. Conversely, however, game theoretic models are meant to apply to conventional, regular, small-scale actions such as daily purchases of bread and milk. Is that really all that different from decisions about casting a vote in a media-rich national election?

Indeed, strategic voting (sometimes referred to as “sophisticated voting”) is one such case in which theorists (e.g., Duverger, 1963; Cox, 1997), empiricists (e.g., Black, 1978; Cain, 1978; Abramson, et al., 1992), and non-academic observers (journalists seeing the avoidance of “wasted voting” by the public) find at least relatively rudimentary forms of strategic reasoning in the public’s voting choices. Most of the time, this reasoning is indeed seen in a simple strategic environment. Most of the time, that is, it is seen in the actions of voters in a predominately two-party system embedded (not coincidentally) in first-past-the-post (FPTP) systems. And theory does show that the nature of strategic choices in two-party, FPTP systems, and especially in plurality systems in particular, as we have in the cases we use, is quite straightforward to discover and easy to implement. As Niou (2001) and Kselman and Niou (2010) show, in a plurality system strategic voters always vote for their most preferred party if it is in first or second place and will only defect from their most preferred party if it is in third place or lower,

to avoid wasting their vote where it cannot make a difference in determining who wins or loses. Perhaps, then, voters *can* reason, but only under the highly stylized and simplified setting of two-party elections in plurality systems.

Yet we know that plurality is not the only electoral system vulnerable to strategic reasoning. Theoretically, as Gibbard (1973) and Satterthwaite (1975) have shown, all systems are vulnerable to strategic reasoning. Systems do vary in the ease with which such reasoning can be understood and implemented, with plurality certainly at the easiest end of that continuum. But perhaps voters can figure out (possibly with assistance from parties and candidates) how to do so in other systems. Empirically, the system that seems to stand at the other end of the continuum, PR, appears just about as vulnerable to actual strategic reasoning by voters (see, for example, Abramson, et al., 2010; Blais, et al., 2006).

In this paper, we examine the incidence of strategic voting across nations, and thus across electoral and party systems. We do so using CSES data. In this, we follow in the footsteps of Blais and Gschwend (2011), adding and elaborating on their recent findings. Like them, we find that what appears to be strategic voting is quite widespread. And, like them, we find a mixture of individual and national variables affecting the incidence of strategic voting. Here, we elaborate the effects of institutions. Not only do we find a somewhat richer set of institutional effects, but we also find a somewhat richer set of individual level effects, particularly with a role for political information and similar characteristics. We end with some puzzles that provide avenues for further research.

Our Empirical Measure of Strategic Voting

Blais and Gschwend (2011) study the effects of defecting from one's most preferred party for strategic reasons, by which they mean defecting from one's most preferred choice to win the immediate election for the purpose of seeking to achieve one's ends.¹ Their definition of a "strategic voter" is one in which voters consider both their preferences over parties and their expectations about outcomes. There are, therefore, two other sorts of voters.² One is the voter who votes only based on preferences, known as the "sincere voter." The other bases the vote exclusively on expectations, ignoring their own preferences, which they call the "momentum voter". Their conservative approach is to count only those who defect from their party preference as clearly strategic, because those who vote for their most preferred party when it is

¹ They are clear in saying they mean by "most preferred party" the preference for who should win the current election, and not one's long-standing party loyalties, just as we do here. Note also that they exclude those who might defect from the most preferred party to vote for the leader of some other party who they most prefer to win as PM.

² This categorization thereby excludes those who vote neither on the basis of preferences nor on expectations, whatever that would leave as the basis for choice!

running well in the polls might be either strategic or sincere, as these two are observationally equivalent under those conditions.

Here we begin by examining four sets of voters, using the “rules” for strategic and sincere voting in FPTP found in Niou (2001) and Kselman and Niou (2010). A sincere voter is one who votes for the most preferred party, without considering any other information, including expectations. We categorize these voters as *Purely Sincere*. However, the largest possible set of sincere voters is the set of all of those who voted for their most preferred party, as some may have considered expectations and still (rationally) voted for their most preferred party. We call this the *Total Sincere* set. Conversely, those who “defected” from their most preferred party to support a leading (but lower-ranked) party to defeat an even lower ranked leading party apparently defected so as to avoid wasting their vote. We call these voters – who are included in Blais and Gschwend’s strategic defectors – the *Purely Strategic* set of voters. These voters are most certainly not sincere, because they did not vote for their most preferred party. But many strategic voters also find it strategically wise, that is, rational, to vote for their most preferred party, because it may be the leading or second-leading party and voting for it is not wasting one’s vote. These voters have what is often referred to as a “straightforward decision,” but more to the point, they are observationally indistinguishable from sincere voters. So, if we add the total number who voted for their most preferred party that was in first or second place to the Purely Strategic set of voters, we have the largest number who could have voted strategically. We call this the *Total Strategic* set.³

Like Blais and Gschwend (2011), we use CSES, module II data. We use the “feeling thermometer” evaluation of parties to create measures of preferences. With an 11-point thermometer scale, we face the possibility of a number of ties in rank order, and we considered several procedures to deal with this issue. Here, we report data that excludes all ties for first preferences.⁴

We next turn to three sets of analyses. First, we detail the proportion of respondents in the four categories (Total Sincere, Total Strategic, Purely Sincere and Purely Strategic) and examine how the proportions vary across electoral systems. In particular, we compare Plurality, Majority, PR, and Mixed systems. We then examine who voted for their most preferred party, among those who most preferred the largest, the second largest, and the “third” largest party.⁵

³ We also created a category for “too close to call” voters, who voted sincerely for a party that was not one of the top two but whose vote share was within 3% or less of the second highest ranked party. These individuals are included in both the Total Strategic and Total Sincere numbers as their vote choices were (within a relatively small margin of error of perception) straightforward.

⁴ This generally means simply that the respondent has a party uniquely most highly preferred. We should also note that our specification allows individuals to have a top preference for a party with a feeling thermometer rating of 0 over all the parties. We tried an alternative specification of preferences, restricting the definition of a top preference to 5 or larger on the scale, and found few substantive effects on our analyses. Analyses using this variable are available upon request

⁵ By “third” we mean neither those who most preferred a party that was the largest nor the second largest party, regardless of how large that party was.

We also compare this cross tabulation among our four electoral systems. Finally, we report a multivariate analysis to examine who votes strategically and sincerely considering a range of individual- and institutional-level variables.

Strategic and Sincere Voters

In Table 1 we report the percentage of voters who are Purely Strategic, Purely Sincere, in the Totally Sincere category, and in the Totally Strategic category. Obviously many, those who most prefer one of the two largest parties and vote for that party are in both of the latter two categories.⁶ We report these percentages for voters within each of the electoral system types. Those who believe that voters are not capable of strategic reasoning at all will be disappointed by the observation of a small but significant number of voters who clearly are voting strategically. And, those who believe that voters are capable of limited strategic reasoning and therefore strategic voting is confined to plurality systems will be disappointed to observe that purely strategic reasoning is no more common in plurality than in other electoral systems. Indeed, majority and mixed systems contain significantly more purely strategic voters.

[Table 1 about here]

Table 1 offers two important lessons. The most important is that there is a great deal of potentially sincere voting, but there is nearly as great an amount of potentially strategic voting, because the two “Total” categories are similar in size. The most important action, that is, is in the observationally equivalent portions of the data. Perhaps it is precisely because so many voters face choices that are identical whether they reason sincerely or strategically that this discipline has been able, for over a generation, to have one large stream of research concluding that voters are massively ill informed and another, often using the same data, which concludes that voters cast strategic votes.

The second important finding in Table 1 is that it is not obvious that institutional rules make a great deal of difference. This finding is tentative, and we will be moving to examine this point more carefully and systematically next. It does, however, point to a genuine puzzle for strategic voting theory. The strategic voter appears to reason consistent with how the theory says they should in plurality systems, but they appear to reason just the same in PR and other non-plurality systems, and the theory does not sustain that. This point is assessed more fully in the next section.

Preferences and Choices

⁶ The number of straightforward voters in our dataset is 15,127, or 42.2%. By electoral system, there are 52.4% in plurality systems, 51.5% in majority systems, 40.5% in PR systems, and 38.5% in mixed systems.

The empirical leverage in testing strategic voting theory in plurality systems comes from differentiating between supporters of the two largest parties and those supporting any “third” party. This is so because the first rationally do not differ from sincere voters in that they always should support their most preferred party. Conversely, those who support any “third” party might – but might not – rationally defect from their most preferred party and vote for another. Of course, this is not only the most theoretically interesting observation, it is also the most empirically interesting aspect of strategic voting, and it is therefore what the media focus on –for example, people defecting from supporting the Liberal Democrats in Britain in 2011 or from voting for Ralph Nader for U.S. President in 2000 to avoid casting a “wasted vote.”

In Table 2, we present the relationship between the percentage who reported voting for the party they preferred the most depending upon whether that party was the largest party in that election, the second largest, or stood behind first and second place. Most of the action is along the “main diagonal,” that is most voters who most liked the largest party voted for it, similarly for the second most, and, as well, for those who most liked some other party. Just shy of 9 in 10 who most liked one of the two largest parties voted for it, while about 7 in 10 who most liked some other party were faithful to it on election day. If everyone were purely a sincere voter, then absent measurement or some other random source of variation in voting report, 100% should support their most preferred party. If everyone were a strategic voter, that would be true only for the first two parties. Defections should rationally occur among those who most prefer some other party, at least in plurality electoral systems. Knowing simply preferences and the vote, we cannot say exactly how many should strategically defect, but some fraction will, and the rest will not rationally want to defect.⁷ And, of course, the percentages in Table 2 are perfectly consistent with strategic voting and are not consistent with sincere voting. In fact, the percentage of apparently sincere voting among those preferring a “third” party significantly is both statistically significant and substantively large.

[Table 2 about here]

Of course, this table was designed to test an implication about plurality systems. We present the same data in Table 3, dividing our sample by electoral system. Here, we can see that there is variation. Conveniently, the PR system has the highest proportion of apparently sincere voting among third party supporters. Somewhat inconveniently, the set of nations using a plurality system comes next, while the majority system category is about as close to a perfect illustration of the expected pattern – in plurality systems, at least – as survey data is likely to afford (and it is very similar to that found in studies of strategic voting in U.S. presidential elections, such as in Abramson, et al., 2002 and Abramson, et al., 2010).

⁷ To estimate that, we would need more information, particularly some measure of preference at the interval level (aka a utility score) and some interval measure of expectations about the outcome. While an 11-point thermometer might serve as the basis for a noisy version of a utility index, CSES data, collected only after the election, makes respondent-based measures of expectations about elections outcome impossible to observe. But see, for example, Abramson, et al., 1992, for an example that estimates such a model from survey data.

[Table 3 about here]

This part of the inquiry has shown that voting patterns indeed even more strongly support the notion that voters are often able to reason and act strategically in reaching their voting decisions. It also at most modifies the theoretical challenge of explaining why voters appear to vote just as theory predicts – for plurality systems, whether they are in a plurality voting system or one that uses another method. Of course, there are many reasons that one might choose to cast a vote that appears sincere or one that appears strategic that are not captured in variables so far included in the analysis. So, before turning to consider the theoretical challenges remaining to investigate, we turn now to a multivariate analysis of voting types.

Who and Where are the Sincere and Strategic Voters?

In this section we develop and estimate a statistical model to explain who engages in what appears to be sincere and strategic voting. We have hinted at what are the two most obvious sources of hypotheses – variables that differentiate those most interested and engaged in – or “sophisticated” about – politics, and variables that differentiate nations by virtue of especially their electoral and party systems. The standard voting behavior and public opinion literature suggests that more sophisticated reasoning should be reserved for those with a more sophisticated interest in and understanding of politics. As we have detailed more directly, electoral and party system measures also should be expected to matter, and in particular it is the case that plurality and two-party systems offer the easiest and clearest avenues for strategic voting.

The CSES data are limited (by virtue of the project) in data at the individual level, compared to what those who use such large-scale survey projects as the ANES, BES, or CES are used to. Still, there are a base set of measures that are gathered by all participating nations, and we include as many as could reasonably be considered related to the level of political sophistication as possible. These include the demographic variables of age, sex, income, and urban/rural residence. It also includes partisanship (on the grounds that holding a partisan preference is likely to deter one from defecting from that partisanship to support another party, wasted vote or not). We also include two more direct measures of political engagement: an index of political information; and one of political participation. Finally, we include two attitudinal measures that might prove relevant to willingness to engage in strategic versus sincere behaviour: how much the respondent believes it matters who is in power; and how much the respondent believes that voting matters in affecting politics.

Institutionally, we have emphasized throughout that plurality systems have a simple, easily understood and implemented strategic decision, and that, at least from Duverger (1963) onward, the importance of strategic voting has been theoretically and empirically (and practically) understood. We thus include a plurality dummy variable. Indeed, Duverger is

relevant also for his explanation of the relevance of our next major institutional variable, the effective number of political parties in the electoral system. That is, the electoral system and the number of parties are related, and in particular, plurality induces a tendency toward two party systems, according to his Law. To capture the converse of Duverger's argument, and to consider the more recent work that shows strategic behaviour in PR systems, we also include a PR dummy variable. Finally, we include two other system variables, federalism and presidentialism. We do so because considerations relevant to other offices may affect choices for this office and thus may affect the extent of strategic and sincere voting. We estimated the implied statistical model on the four measures in Table 1, that is, on whether the respondent belongs to the set of Purely Strategic voters, Purely Sincere voters, Total Sincere voters, and/or Total Strategic voters. We used a random effects probit model to account for the multilevel nature of the data.⁸ Our expectations are that, at least purely, any factor that might detract from a voter being affected by and acting upon strategic incentives will decrease strategic voting. Thus, we expect pure strategic voting to increase with political sophistication and political participation, decrease with partisanship, and be negatively related to the effective number of parties and plurality systems. Believing who is in power matters should positively affect strategic behaviour, while believing in the importance of voting should have a negative effect. The results can be found in Table 4.

[Table 4 about here]

At the individual level, the results suggest that age has a negative effect on Purely Sincere voting, as does income. Income also has a positive effect of strategic voting, both the Pure and Total variants, while age only has a positive effect on Total Strategic voting. Partisanship, while significant in each of our models, affects sincere and strategic behaviour in the same way (contrary to our expectations). Partisans are less likely to engage in Purely Strategic or Purely Sincere voting, but they are more likely to be included among the Total sets. Given the way our categories are constructed, this suggests that partisans are more likely to be included in the straightforward voter category. Political information, which was expected to increase one's ability to cast a strategic ballot, is only significant (positively) for Purely Sincere voting and (negatively) for Total Strategic voting. Political participation has similar effects for these models, but it is also significant for the Purely Strategic model (positively) and has an opposite sign (although insignificant) for Total Sincere voting. Finally, attitudes about the importance of who is in power are positively related to Purely Sincere voting and negatively related to both Total Strategic and Total Sincere voting (contrary to expectations).

Among the institutional variables included in the model we see few predicted effects. The plurality variable has similar effects to the PR variable across each of the models, although it is uniquely significant in the Purely Strategic model. The most interesting result is that plurality systems have *less* Purely Strategic voting. This is consistent with our earlier analyses yet still unexpected given the theoretical literature. Although the common understanding is that plurality

⁸ We used the "xtprobit" command in STATA and specified grouping by election.

systems provide the most frequent and easily understood incentives for strategic voting, this appears to be incorrect.

Turning to our remaining institutional variables, the effective number of parties variable is only significant for Total Strategic and Total Sincere voting, and it is similarly signed in both cases. As the variable is not significant in either the Purely Strategic or Purely Sincere vote models, this suggests that a higher number of effective parties has a depressive effect on straightforward voting. Finally, federalism and presidentialism lead to significantly less sincere voting (both Pure and Total), and have positive (although insignificant) effects on strategic behaviour.

All together, these findings suggest that our expectations were misinformed. They are, however, consistent with the patterns that we see in our other analyses and suggest an interesting interpretation. Although the effects of information, participation, electoral systems and party systems on voting behaviour can be easily theorized, our results suggest that the differences between sincere and strategic voting are much fewer than expected. Nonetheless, we do see that both individual- and institutional-level variables are important for understanding voting behaviour.

Conclusion

The results obtained in the analyses in this paper suggest that voters across the world are able to engage in at least a limited amount of strategic politics, at least, that is, with respect to voting in a major national election contest. This is no mean feat, and perhaps especially telling for the newer democracies and those in less developed nations, where it is common to hear politicians claim they cannot implement fully democratic procedures due to the inability of the citizenry to respond to them meaningfully. It is also comforting to know that the public can be active participants in the “game” of politics, so to speak, and thus have credible odds of holding their own against elites seeking to win, hold, and use political power.

The evidence also suggests that the extent to which voters engage in strategic or sincere voting is a function of two types of considerations. One is variation among individuals. In particular, a variety of measures related to political engagement affect sincere or strategic voting. Partisanship appears to be the most important of these.

The second set of considerations is institutional, and in particular the electoral and/or party system variables. That is, the use of a plurality system is strongly related to the incidence of strategic or sincere voting, and PR and the effective number of parties are also related to voting behaviour. Residence in a nation with a federal or presidential system also is relevant, albeit with relatively small but significant effects.

As sanguine as these comments are, they do point to some serious issues needing theoretical attention. The evidence suggests that voters are acting strategically in all kinds of voting systems. However, the theory really is only fully developed for plurality and majority systems in the way estimated here, and difficult questions need to be answered to figure out what strategic voting is, theoretically, in PR systems. In addition, finding that federalism and presidential variables are institutional correlates with sincere voting suggests two avenues needing further research. One is to expand the range of institutional variables investigated empirically. It may well be that we have yet to complete the set of substantively relevant institutional effects. The other follows immediately, which is to conduct the necessary theoretical work to better understand how and why those institutional variables shape choices.

Table 1
Strategic and (Total) Sincere
Voting by Electoral System

Electoral System	% Purely Strategic	N	% Purely Sincere	N	% Total Strategic	N	% Total Sincere	N	Total N (by Electoral System Type)
Plurality	2.9	140	13.7	668	55.3	2688	66.1	3216	4864
Majority	5.3	84	7.0	111	56.7	905	58.4	932	1595
PR	2.7	596	18.8	4162	47.4	10503	63.5	14069	22164
Mixed	5.0	358	14.9	1076	43.4	3135	53.4	3853	7222
Total N	3.3	1178	16.8	6017	48.1	17231	61.6	22070	35845

Note: Some voters (12,597, or 35.1%) did not fit into our classification scheme. “Total N” represents all voters who indicated their vote choice.

Table 2
Preference and Vote Choice

Most Preferred Party	Party Voted For				N
	Largest	Second Largest	Same Other	Different Other	
Largest	86.9	4.3		8.8	10770
Second Largest	4.6	87.6		7.7	6582
Other	9.1	8.8	70.9	11.3	9795

Table 3

**Preference and Vote Choice
by Electoral System**

A. Plurality

			Party Voted	for			
Most Preferred Party		Largest	Second Largest	Same Other	Different Other		N
Largest		83.0	9.2		7.9		1693
Second Largest		7.7	87.3		5.0		1310
Other		10.9	12.9	69.2	7.0		966

B. Majority

			Party Voted	for			
Most Preferred Party		Largest	Second Largest	Same Other	Different Other		N
Largest		93.0	3.5		3.5		513
Second Largest		3.3	94.5		2.2		364
Other		17.8	29.9	48.1	4.3		231

Table 3 Cont'd.

**Preference and Vote Choice
by Electoral System, Continued**

C. Proportional Representation

			Party Voted	for			
Most Preferred Party		Largest	Second Largest	Same Other	Different Other		N
Largest		87.7	3.7		8.6		6382
Second Largest		3.7	89.1		7.2		3798
Other		6.4	6.7	74.0	13.0		6879

D. Mixed

			Party Voted	for			
Most Preferred Party		Largest	Second Largest	Same Other	Different Other		N
Largest		86.2	2.3		11.5		2182
Second Largest		4.6	80.8		14.6		1110
Other		17.5	12.2	62.6	7.7		1719

Table 4
Multivariate Model of Vote Type

Variable	Purely Strategic	Purely Sincere	Total Strategic	Total Sincere
Age	-0.001	-0.005***	0.003***	0.001
	0.002	0.001	0.001	0.001
Female	0.047	-0.002	-0.012	-0.027
	0.046	0.030	0.025	0.026
Income	0.034*	-0.030**	0.023*	-0.009
	0.017	0.011	0.009	0.010
Urbanness	0.036	0.045***	-0.019	0.001
	0.020	0.013	0.011	0.011
Partisanship	-0.166***	-0.100**	0.418***	0.426***
	0.048	0.031	0.026	0.027
Political Information Index	0.054	0.040*	-0.035*	-0.017
	0.030	0.019	0.016	0.017
Political Participation Index	0.038*	0.105***	-0.041***	0.020
	0.018	0.012	0.010	0.011
Who Is In Power Matters	0.024	0.035**	-0.041***	-0.025*
	0.021	0.013	0.011	0.012
Voting Matters	-0.027	-0.011	0.022	0.023
	0.022	0.014	0.012	0.012
Plurality System	-0.522***	0.177	0.361*	0.739***
	0.118	0.350	0.147	0.160
PR System	-0.159	0.073	0.327**	0.469***
	0.092	0.266	0.113	0.123
Effective Number of Parties	-0.017	0.063	-0.188***	-0.120***
	0.026	0.072	0.031	0.033
Federalism	0.150	-0.482*	0.039	-0.221*
	0.077	0.239	0.100	0.109
Presidential System	0.063	-0.659**	0.067	-0.300**
	0.085	0.236	0.099	0.108
Constant	-1.879***	-0.916**	0.182	0.433**
	0.200	0.308	0.153	0.163
Insig2u	-4.519	-1.557	-3.371	-3.186
rho	0.011	0.174	0.033	0.040
N (individual)	11478	11478	11478	11478
N (election)	23	23	23	23

Standard errors are noted underneath coefficients.

* p<0.05; ** p<0.01; *** p<0.001

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